

SBI Clerk Mains 2018

Direction (1-5): Read the following information carefully and answer the questions given below it:

% - Either the hour or minute hand of clock on 4

@ - Either the hour or minute hand of clock on 12

\$ - Either the hour or minute hand of clock on 5

- Either the hour or minute hand of clock on 9

& - Either the hour or minute hand of clock on 6

Note - The first symbol represents the hours and second symbol represents the minutes.

Example: Time "#&" represents 9 hours 30 minutes.

1. A train is scheduled to leave the station at "#&". But due to technical problem train has been late by 3hrs. Then at what time it leaves from the station?
A. "\$%" B. "\$#" C. "@&" D. "&\$" E. None of these
2. A bus is scheduled to arrive at Delhi at "#\$". It takes 2 hour 40 minutes to reach Delhi from Ambala. At what time it should depart from Ambala to arrive Delhi at least 25 minutes before scheduled time?
A. "\$%" B. "&%" C. "&\$" D. "\$@" E. "#@"
3. If a man takes 25 minutes to reach railway station and his train is scheduled at "\$%". Then at what time should he leave to reach the station 10 minutes earlier?
A. "%\$" B. "%&" C. "%@" D. "%#" E. None of these

4. Shatabadi express completes its journey in six hours with usual speed of 80 km/hr without stopping on any of the station but on Friday it has to stop 15 minutes on each of the five stations between Delhi and Muradabad. So at what time the train will reach Delhi with its usual speed every Friday, if it departs at "\$&" every Friday.
A. "@&" B. "@\$" C. "@#" D. "#@" E. "#&"
5. An inauguration ceremony is scheduled at "\$\$" but due to rain there will be a delay of 1 hour 20 minutes. At what time the ceremony will start now?
A. "&\$" B. "&%" C. "#%" D. "\$#" E. "&#"

Direction (6-10): Read the following information carefully and answer the questions given below it.

Ten vehicles viz. Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane are given with their speeds viz. 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575 but not necessarily in the same order. These vehicles are placed in two rows in such a way that five vehicles are in each row and each vehicle from one row is exactly opposite a vehicle from the other row. The above row is facing North direction and the row below is facing south direction. All the vehicles are placed from east to west in the increasing order of their speeds(in km/hr).

The car is sitting third to the extreme end. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Only

one vehicle comes in between Train Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other. The one who faces Train Engine sits third to the right of scooter and both Train Engine and scooter have a speed of multiple of 5. Truck faces car. Aeroplane is sitting at the extreme end and has the highest speed. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Motorcycle and truck has speed more than 50 km/hr. The speed of helicopter and car is 367 km/hr and 45 km respectively. Scooter does not have the least speed.

6. Find the difference between speed of motorcycle and truck?
 A. 170km/hr B. 171km/hr
 C. 169km/hr D. 168km/hr
 E. 165km/hr
7. Find the odd one out?
 A. Cycle B. Aeroplane
 C. Helicopter D. Auto
 E. Scooter
8. What is the speed of auto?
 A. 224km/hr B. 35km/hr
 C. 70km/hr D. 45km/hr
 E. 55Km/hr
9. Who among the following is placed to the immediate left of boat?
 A. Train B. Cycle
 C. Scooter D. Cycle
 E. Truck
10. What is the sum of speeds of car and cycle?
 A. 95km/hr B. 54km/hr
 C. 36km/hr D. 39km/hr
 E. 64km/hr

Direction (11-15): Read the following information carefully and answer the questions given below it.

P, Q, R, S, T, U, V and W are sitting around a square table in such a way that four of them who sits at the corner are facing towards the centre and other four who sits in the middle of the table are facing outside the centre. Each person has different lucky number viz. 1, 2, 3, 4, 5, 6, 7 and 8, but not necessarily in the same order.

S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is an immediate neighbour of Q, who sits at the corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T. P is married to W.

11. How is Q related to U?
 A. Mother B. Sister
 C. Daughter D. Grand Mother
 E. None of these
12. Who is sitting second to the right of P?
 A. U B. Q
 C. W D. V
 E. R
13. What is W's lucky number?
 A. 2 B. 4
 C. 3 D. 7
 E. 8

14. Four of the following are like in a certain way and form a group. Which of the following does not belong to that group?

A. W B. V
C. R D. P
E. S

15. Which of the following statement is true?

A. V's lucky number is 5.
B. U is Q's daughter.
C. P sits to the immediate left of T.
D. R is facing towards the centre.
E. P and T are sitting opposite to each other

Direction (16-20): Read the following information carefully and answer the questions given below it:

In the given questions, two rows are given and to find out the resultant of a particular row following rules are given.

Step 1 – If an odd number is followed by an even number then the resultant comes by multiplying the numbers.

Step 2 – If an even number is followed by an odd non prime number then the resultant will be the subtraction of two numbers.

Step 3 – If an even number is followed by prime number (except 2) then the resultant will be the addition of two numbers.

Step 4 – If an odd number is followed by a perfect cube then the resultant will be the subtraction of two numbers.

Step 5 – If an odd number is followed by another odd number then the resultant will be the addition of both the numbers.

16. Find the difference of the resultant of two rows. If A is the resultant of first row.

9 216 6
A 5 11

A. 15 B. 16
C. 13 D. 14
E. 12

17. Find the addition of the resultant of two rows.

15 08 15
35 45 13

A. 191 B. 195
C. 198 D. 207
E. 205

18. Find the difference of resultant of two rows?

08 11 8
26 21 7

A. 0 B. 1
C. 2 D. 5
E. 6

19. If X is the resultant of second row. Find the multiplication of the resultant of two rows?

X 06 15
45 33 03

A. 38151 B. 38150
C. 37541 D. 38521
E. 38542

20. If the sum of resultant of two rows is 30. Find the value of X?

3 27 15
7 03 X

A. 10 B. 11
C. 12 D. 14
E. 16

Direction (21-25): Read the following information carefully and answer the questions given below it:

6 horses P, Q, R, S, T and U are made to stand in a row facing north and distance between two adjacent horses increases from left to right in consecutive integral multiple of 4. Distance between R and S is 60m and only two horses stand between them. U sits immediate left of R. P sits somewhere to the right of U and distance between them is in multiple of six. Distance between R and Q is 44m. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X. Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.

21. What is the distance between horses S and R?
 A. 50m B. 70m
 C. 40m D. 60m
 E. 30m
22. In which direction horse P is facing now?
 A. North B. South
 C. North-East D. East
 E. West
23. Who among the following is on the immediate right of Q?
 A. S B. R
 C. U D. T
 E. P
24. How many horses are there between S and P?
 A. None B. One
 C. Two D. Three
 E. Four
25. Point Y is in which direction with respect to X?
 A. North B. North-East
 C. North-West D. South-East
 E. West

Direction (26-29): Study the following information carefully to answer the given questions.

Eight persons P, Q, R, S, T, U, V and W lives on ten floors building starting from ground floor number one to top floor number ten. There were two vacant floors in the building. There are eight fruits Apple, Mango, Banana, Papaya, Orange, Cherry, strawberry and Guava in which only one person likes one fruit, but not necessarily in the same order. The one who likes guava lives below the one who likes Papaya but does not lives below the one who likes strawberry. There are three floors between P and Q. The person who likes mango lives below to both P and Q. There are only three floors gap between U and the one who likes Banana. U lives one of the floors below to the one who likes Banana. There are only three floors between U and S. V lives immediately below the one who likes Cherry. The number of

person lives between U and the one who likes Banana is same as the number of floors between U and the person who likes Orange. S does not like Banana. The one who likes Cherry does not lives on the topmost floor. There are two floors between W and R. The one who likes Apple lives immediately between P and W. W likes Mango and lives on bottom most floor. Q lives above P.

26. Who among the following likes Papaya?
 A. P B. V
 C. Q D. S
 E. R
27. Who among the following lives immediately above the vacant floor?
 A. S
 B. T
 C. The one who likes Papaya
 D. R
 E. The one who likes Mango
28. Which of the following is a vacant floor?
 A. 2 B. 7
 C. 6 D. 9
 E. 4
29. How many persons live between T and the one who likes Guava?
 A. Two B. Three
 C. Four D. One
 E. Five

30. Direction : In each below is given a statement followed by three conclusions numbered I, II and III. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement Give answer:

Statement:

For the first time India will invite heads of ten Asian nations for the Republic day 2018 celebrations. ASEAN is the association of south-east Asian nations. Its members are Vietnam, Laos, Philippines, Singapore, Thailand, Indonesia, Cambodia, Brunei, Malaysia and Myanmar.

Which of the following can be inferred from the given statement?

Conclusions:

(i) Republic day 2018 will be the first event ever where so many leaders will together will be the chief guests at the parade which would showcase India's Military might.

(ii) India is the only country among southeast Asian nations which celebrates Republic Day.

(iii) India and ASEAN are actively engaged in a comprehensive economic partnership, which is expected to emerge as the largest regional trading arrangement.

A. If only conclusion II follows

B. If only conclusion I, III follows

C. If only conclusion I follows

D. If only conclusion III follows

E. If neither I nor II follows and III

31. A study published in PLOS Medicine found that obesity was the cause of 1 in 10 deaths in the United States. Also, obesity was the third-leading cause of death in men and women, after high blood pressure and smoking. Hence, many doctors believe that it's high time obesity be placed in the category of serious diseases as it not only decreases life expectancy but also impairs the normal functioning of the body.

Which of the following statements, if true, undermines the given argument?

A. Extreme obesity can shorten a person's life span by 10 years.

B. Obesity is the result of eating of too much and of a sedentary lifestyle and cannot be defined as a disease per se.

C. Obesity can be a genetic disorder such as sickle-cell anemia and Tay-Sachs, which are classified as diseases.

D. The Food and Drug Administration, the American Heart Association, the American College of Cardiology, and the Obesity Society, the National Heart, Lung, and Blood Institute, and the American College of Gastroenterology have identified obesity as a disease.

E. Obesity and obesity-related health conditions cost an estimated 10% of annual medical spending in the United States.

Direction (32-36): Read the following information carefully and answer the questions given below it:

Eight people A, B, C, D, E, F, G and H were born in three different months (of the same year) but not necessarily in the same order, namely March, June and December such that not less than two people and not more than three people were born in a month. Each of them also likes different colours namely Red, Green, Blue, Orange, Pink, White, Black and Grey but not necessarily in the same order. Each belongs to different professions namely Doctor, Engineer, IAS, IPS, Scientist, Professor, Teacher and Fashion designer but not necessarily in the same order.

The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. F was not born in the same month as E. B is a scientist and the one who likes pink colour is a doctor. D likes Orange colour and was born in the same month as F. G does not like Pink. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black, who is an IAS was not born in the same month as H. The one who likes red colour was born in the same

month as A. B does not like green colour and E does not like pink. The one who is a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is IPS was born on one of the months which have less than 31 days and the one who is IAS was born on one of the months which has more than 30 days. C is neither Fashion Designer nor IPS. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer. C was not born in December.

32. Who among the following is IAS?
 A. E B. G
 C. C D. A
 E. F
33. Who among the following likes Orange Colour?
 A. E B. H
 C. D D. F
 E. B
34. Who among the following was born in December?
 A. C B. A
 C. B D. E
 E. None of these
35. Which of the following does not belong to the group?
 A. The one who is IPS
 B. The one who likes Pink colour.
 C. E
 D. The one who was born in June
 E. The one who is an engineer
36. Which colour does C likes?
 A. Blue B. Grey
 C. Pink D. White
 E. Red
37. **Direction :** In the question given below, a statement is given followed by three courses of action. A course of action is taken for improvement, follow up, etc. Read the statement carefully and give your answer.

Statement:

A knife-wielding assailant killed a 29-year-old man and injured four others in a lively neighbourhood near Paris' famed Opera Garnier before he was killed by police on Saturday night.

Courses of Action:

- I. The government should ban the sale of knives in all major cities.
 II. Any person seen carrying a knife should be immediately taken into police custody.
 III. Policemen should be posted near all major tourist spots to avoid such untoward incidents.
 A. Only course of action I follows
 B. Only course of action II follows
 C. Both I and II follow
 D. Both II and III follow
 E. None of them follow

38. **Direction :** A statement is given followed by three inferences numbered I, II, and III. Consider the statement to be true even if it is at variance with commonly known facts. You have to decide which of the inferences, if any, follow from the given statement.

Statement: Donald Trump began the week facing accusations of treason over his embrace of Vladimir Putin and ended it with a middle finger to his many critics by inviting the Russian autocrat to the White House.

Inferences:

- I. America and Russia are not allies.
 II. No prior American President has ever embraced a Russian counterpart.
 III. Russian President, Vladimir Putin, has been a long-time US enemy.
 A. Only I can be inferred
 B. Both I and II can be inferred
 C. Only III can be inferred
 D. Both I and II can be inferred
 E. Both II and III can be inferred

Direction (39-43): Read the following information carefully and answer the questions given below it.

Six subjects Mathematics, Hindi, English, Science, Accounts and Economics are taught at a coaching centre. Each subject was given a definite and continuous time slot. In a day total 14 hours class was scheduled. A subject can start its slot from a whole hour or half hour only (i.e. a subject can start from 2 pm or 2:30 pm but it cannot starts from 2:07). Mathematics class takes place from 11am to 12:30 pm. Only one class took place between Mathematics and Science. Time slot of Science is twice the time slot of mathematics. Accounts classes starts from 5:30 pm. English class took place somewhere in between Mathematics and Accounts but it did not takes place immediately after or before Accounts. Total slot time of Hindi and Economics class is 4.5 hours. Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. Time slot of English is 1 hour less than the time slot of Science.

39. What is the time slot duration of Accounts class?
A. 2 hours B. 1.5 hours
C. 3 hours D. 1 hour
E. Cannot be determined
40. Which of the following class is immediately held after English class?
A. Accounts B. Economics
C. Science D. Hindi
E. Mathematics
41. How many classes took place between Science and Accounts?
A. None B. One
C. Two D. Three
E. Four
42. At what time did Hindi class starts?
A. 2:30pm – 5:30pm
B. 6:30 am – 9:30am
C. 9:30 am – 11:00am
D. 12:30pm – 2:30pm
E. 6:00am – 9:00 am

43. What is the total time slot of English and Hindi class?

A. 2 hours B. 1.5 hours
C. 4 hours D. 3.5 hours
E. 3 hours

44. **Direction:** The question given below consists of a statement, followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Statement: Should women be allowed into combat arms if they meet all standards?

Arguments:

- I. Yes, women have already proven competence in combat – they have already been exposed to combat in Iraq and Afghanistan, so it makes no sense to officially continue excluding them.
II. No, the average female is physically weaker than the average male.
A. Only argument I is strong
B. Only argument II is strong
C. Either I or II is strong
D. Neither I nor II is strong and
E. Both I and II are strong

45. As Washington plans to increase its military footprint in Afghanistan, it is tightening the screws on Pakistan for supporting terrorism as an instrument of state policy. Both Washington and Kabul now view New Delhi as a player with considerable leverage over the evolving regional dynamic. A central feature of the Trump administration's new Afghanistan policy is an outreach to India.

How are relations of Pakistan with other countries?

- A. Relations of Pakistan and US are very cordial
B. Pakistan wants to rule the other countries
C. Relations are getting bitter over terrorism
D. Pakistan does not want to maintain any relation with any country
E. All of the above

Direction (46-50): Study the following information carefully to answer the given questions.

Eight persons - A, B, C, D, E, F, G and H are sitting around a circular table, but not necessarily in the same order. Some of them are facing inside while rest of them are facing outside. Each of them likes different engineering branches viz. Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological.

F does not sit immediately next to A. Only two persons sit between G and H. Immediate left of A likes Mechanical, who faces the opposite to centre. F and E are facing the same side and only two persons are sitting between them. The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. E sits second to the left of A. The one who likes Optical faces the one who likes Geological. D sits diagonally opposite to B who sits to the immediate right of E and both E and B are facing same direction. The one who likes Chemical sits between F and B. F does not like Civil. A and C are facing outward direction but not as F. C sits second to the left of G. The one who likes Geological sits second to the right of the one who likes Chemical. D is facing same direction as F. G does not like chemical.

46. Who among the following likes Electrical?
 A. C B. B
 C. A D. H
 E. F
47. Who among the following sits between A and G?
 A. B B. D
 C. C D. H
 E. F

48. Which of the following is not true regarding the given arrangement?
 A. A sits immediate next to H.
 B. G and C face the same direction.
 C. D faces the person who likes Civil.
 D. E and G sit opposite to each other
 E. All of the above
49. Who among the following person faces the one who sits second to the left of C?
 A. A B. D
 C. E D. G
 E. F
50. Four of the following are alike in a certain way and form a group. Which of the following does not belong to that group?
 A. F B. D
 C. G D. C
 E. B

51. **Direction:** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

On the **occasion** of his golden jubilee, the generous king Maharaja of Bikaner Ganga Singh, participated in the ancient Hindu *TulaDaan* ceremony **whereby** he sat on a large set of scales and was **measured** against gold bars, whose cash **equivalent** was then donated to the charitable Golden Jubilee Fund.

COLUMN A		COLUMN B	
(1)	occasion	(5)	date
(2)	whereby	(6)	wherein
(3)	measured	(7)	weighed
(4)	equivalent	(8)	equity

- A. Both (1)-(5) and (4)-(8)
 B. (4)-(8)
 C. (1)-(5)
 D. (3)-(7)
 E. None of these

52. **Direction:** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

The Bill states that companies with more than 10 employees would periodically **debate** specific terms with their **workers**, publish their own charter, and create an Employee Welfare Committee consisting of **representatives** of the company's **workforce**.

COLUMN A		COLUMN B	
(1)	debate	(5)	negotiate
(2)	workers	(6)	employees
(3)	representatives	(7)	colleagues
(4)	workforce	(8)	capital

- A. Both (1)-(5) and (4)-(8)
 B. (4)-(8)
 C. (1)-(5)
 D. (3)-(7)
 E. None of these

53. **Direction :** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

A warm story of **humility** and forgiveness comes from the US city of Fort Smith where a Masjid not only **forgave** the young man who **vandalised** the mosque but also helped pay his fine so that he doesn't get **charged** to jail and his future is saved.

Column A		Column B	
(1)	scepticism	(5)	humanity
(2)	forgave	(6)	forget
(3)	vandalised	(7)	destroyed
(4)	charged	(8)	sentenced

- A. Both (1)-(5) and (4)-(8)
 B. (2)-(6)
 C. (1)-(5)
 D. (4)-(8)
 E. None of these

54. **Direction:** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

After learning that Ranjhi Rajak, a **pilgrim** from Madhya Pradesh had **collapsed** near Bhairo temple and needed **immediate** medical attention, SI Bahuguna carried Rajak on his back and walked uphill for over 2 kms till they reached the **nearby** hospital.

COLUMN A		COLUMN B	
(1)	pilgrim	(5)	monk
(2)	collapsed	(6)	crumbled
(3)	immediate	(7)	swift
(4)	nearby	(8)	beside

- A. Both (1)-(5) and (4)-(8)
 B. (2)-(6)
 C. (1)-(5)
 D. (3)-(7)
 E. None of these

55. **Direction:** In the following question, a sentence is given with some bold words which may contain errors. Below the sentence, a table is given with two columns in which column 'A' contains the list of bold words, and in column 'B' the suggested corrections are listed. You have to choose the best alternative among the four given options. If no correction is required against the given bold words, mark (E), i.e., "None of the above" as your answer.

The condition of the hospital and its services reflecting on the **inadequacy** of Bihar's healthcare system, with patients usually **increasing** the number of beds available being treated on the floor, **insipid** food and long bill of **medication** and services.

COLUMN A		COLUMN B	
(1)	inadequacy	(5)	inability
(2)	increasing	(6)	exceeding
(3)	insipid	(7)	tasteless
(4)	medication	(8)	medicine

- A. Both (1)-(5) and (4)-(8)
B. (2)-(6)
C. (1)-(5)
D. Both (4)-(8) and (1)-(5)
E. None of these

Directions (56-62): Read the given passage carefully and answer the questions that follow. Certain words/group of words are printed in bold to help you locate them while answering some of these.

Despite the fact that India's rank in the Global Hunger Index has fallen to 103 (ranked out of 119) countries, the issue of hunger is often relegated to the background. In terms of policy, hunger, as an issue, is not dealt with directly, and with urgency. Instead, it is kept under the larger purview of economic development which expects that wealth will **percolate** to solve the problem of hunger. This formulation makes a number of incorrect assumptions about

the relationship between hunger and other social structures. It is, at best, an indirect method that does nothing to immediately address the alarming issue of hunger that India is facing at present.

When the Food Security Bill was being debated in Parliament, there was a need to conceptualise hunger and malnutrition in such a way that would enable the estimation of entitlements that would be made available by the government.

In this context, an article titled Lessons on Food and Hunger in 2013 tried to understand the "unconscionable reality" of those who grapple with critical hunger to fill the gaps in the discourse around hunger. The study found out that natural and intimate narrative of food and hunger, reflecting the lives of a majority of children, are generally absent from the discourse of education. What can be found, instead, are clinical and insensitive descriptions of what constitutes a healthy diet, often illustrated with visuals of food far beyond the reach of most children.

Contrary to the popularly held belief that food insecurity is a symptom of poverty, we have found that there is a growing divergence in the relationship between poverty and hunger in India. According to a study, India is currently experiencing a "food-budget squeeze" owing to shrinking social expenditure by the government. This makes the urban and rural poor dependent on private entities for essential services like education and transportation.

Consequently, the portion of income that can be spent on food also shrinks. Between 2008 and 2014, India's position on the Global Hunger Index (GHI) seemed to have been improving.

Thereafter, India's position began to deteriorate again. Researchers explain that India's rank fell from 2016 because, from 2015, the conception of malnutrition was reformulated. New parameters were introduced to expand

what is understood as hunger to include stunting and wasting in children, because of which a more accurate perception of the extent of the problem could be estimated. The inclusion of stunting ensures consideration of rigid cultural factors, while that of wasting represents aspects of diet quality as well. Also, stunting is an indicator of long-term growth failure, and therefore, must be accounted for in any analysis of potential threat a given level of child malnutrition poses for a country. Despite the fact that the rate of global food production has been consistently higher than the rate of population growth, there is a persistent and pervasive crisis when it comes to food security. It is suggested that hunger can only be dealt with by, "carrying out policies of income redistribution, which respond to objectives of social justice rather than economic efficiency as perceived by neo-liberalism." In most developing countries one of the biggest issues, with respect to public provisioning towards social protection, to address hunger and food insecurity is organically connected with that of adequate "fiscal" or "expenditure" space. Hence, a substantial push in public provisioning towards social protection might go a long way in ensuring food security.

56. Which of the following statements can be inferred from the passage?
- I. The article, Lessons on Food and Hunger, looked at the theme of food and hunger in the lives of young children and how it formed an interface to their understanding their community and place in society.
 - II. Hunger is both a cause and a symptom of poverty.
 - III. A country need not wait to reach relatively high levels of per capita income before it can make adequate progress in public provisioning towards social protection.

- A. Only I
- B. Both I and II
- C. Both II and III
- D. Both I and III
- E. All of the above

57. Which of the following statements is neither an assumption nor an inference from the third paragraph?
- I. Rather than being a matter of choice, the poor have been increasingly forced to spend more on non-food essential items such as education, healthcare, transportation, fuel and lighting.
 - II. Non-food essential items absorb all the increases in household incomes and keep real expenditures on food from rising.
 - III. The food budget squeeze could be driven by both demand and supply-side factors.
 - IV. Private entities are likely to be more expensive than public entities.
- A. Only I
 - B. Both I and II
 - C. Both I and III
 - D. Both I and IV
 - E. Both II and III
58. Which of the following statement cannot be inferred from the passage?
- I. Given that malnutrition is a multidimensional phenomenon, the revised GHI formula is able to depict a relatively truer state of hunger in countries across the globe.
 - II. Wasting and stunting are two forms of malnutrition.
 - III. "Chronic" hunger is the elephant in the room that the neo-liberals prefer to brush off.
 - IV. That hunger exists at all shows the urgency of redistributing income and assets to achieve a fairer world.
- A. Both I and II
 - B. Both II and III
 - C. Only I
 - D. Both II and IV
 - E. Both I and III
59. What does the author mean by the last line of the first paragraph?
- A. The purview of economic development does not address the alarming issue of hunger.
 - B. Economic growth does not necessarily trickle down to the hungry poor.

- C. Economic efficiency is an indirect method to solve the problem of hunger.
D. The relationship between hunger and other social structures is an indirect method that does not immediately address the problem of hunger.
E. Economic growth alone may not necessarily lead to poverty reduction.
60. Which of the following statements can replace the highlighted statement from the passage:

When the Food Security Bill was being debated in Parliament, there was a need to conceptualise hunger and malnutrition in such a way that would enable the estimation of entitlements that would be made available by the government.?

- A. The Food Security Bill failed to ensure the right to food as part of the right to life.
B. The debates on Food Security Bill failed to address the unconscionable reality of the unrelentingly precarious and uncertain existence of those who grapple with critical hunger and starvation as a part of their lived everyday experience.
C. During the debates on Food Security Bill, there was a need to ensure that the rights of children become entitlements through transformative justice.
D. With the unprecedented stocks of food-grains, the paradox of high levels of hunger and malnutrition in times of abundance has raised serious concerns about policy discourse and public perceptions that shape the Food Security Bill.
E. None of these.
61. Which of the following correctly describes the tone of the passage?
- A. Disdainful B. Evocative
C. Partisan D. Pragmatic
E. Peremptory

62. Which of the following expresses a meaning similar to "percolate" as used in the passage?

I. Permeate
II. Filter
III. Spread
A. Only III
B. Both I and III
C. Both II and III
D. Both I and II
E. All of the above

63. **Direction:** Choose the option that best captures the essence of the text.

Issue of money, in the form of banknotes and current accounts subject to cheque or payment at the customer's order. These claims on banks can act as money because they are negotiable and/or repayable on demand, and hence valued at par and effectively transferable by mere delivery in the case of banknotes, or by drawing a cheque that the payee may bank or cash. Banks act as both collection and paying agents for customers, participating in interbank clearing and settlement systems to collect, present, be presented with, and pay payment instruments. This enables banks to economize on reserves held for settlement of payments, since inward and outward payments offset each other. It also enables _____.

- A. The offsetting of payment flows between geographical areas, increasing the cost of settlement between them.
B. The offsetting of payment flows between geographical areas, reducing the cost of settlement between them.
C. The offsetting of payment flows only in urban areas, reducing the cost of settlement between them.
D. The offsetting of payment flows only in rural areas, increasing the cost of settlement between them.
E. None of these

64. **Direction:** Read the following passage and complete the paragraph with the help of correct options given below.
- Working overseas is always a challenge for any professional and if you are an Indian, always strive to give your best as Indians have always been considered intelligent, hardworking, talented and spiritual.
- Working overseas was something many Indians desired but few achieved until the information technology boom opened several white-collar job opportunities for them in global markets. However, securing employment abroad may be an achievement but retaining it is quite a challenge as a professional requires constant demonstration of professionalism and exact the standards of competence.
- A. Indians have always excelled in a competitive working environment.
B. This makes them more enjoyable company.
C. Indians have always tried to bring out their best in competitive working environment.
D. Indians are hard-working, competitive and professional employees.
E. Indians love to work overseas and therefore they come in cheap too.
65. **Direction:** In the following question, a short passage with one of the lines in the passage missing and represented by a blank is given. Select the best out of the five answer choices given, to make the passage complete and coherent (coherent means logically complete and sound).
- There is a fairly universal sentiment that the use of nuclear weapons is clearly contrary to mortality and that its production probably so, does not go far enough. These activities are not only opposed to mortality but also to the law. If the legal objection can be added to the moral, the argument against the use and

manufacture of these weapons will considerably be reinforced. Now the time is ripe to evaluate the responsibility of scientists who knowingly use their expertise for the construction of such weapons, which has a deleterious effect on mankind.

How appropriate it is that all this valuable skill should be devoted to the manufacture of weapons of death in a world of poverty is a question that must touch the scientific conscience.

A. Almost 50% of the skilled scientific manpower in the world is now engaged in the armaments industry.

B. To think that majority of the scientists are promoting the manufacturing of the armaments is hurtful.

C. Scientists should use their conscience before taking up these contracts to manufacture the weapons of mass destruction.

D. Scientific manpower is used to the interests of some selfish and careless people who want to threaten the existence of homo-sapiens.

E. Scientists must take action and follow their conscience to abandon all nuclear related projects.

66. **Direction:** In the question given below, three paragraphs are given, which are jumbled. Find the correct sequence of these paragraphs so that they form a meaningful passage.

A. Climate change is warming the ocean, but it's warming land faster and that's really bad news for air quality all over the world, says a new University of California, Riverside study. The study, published February 4 in Nature Climate Change, shows that the contrast in warming between the continents and sea, called the land-sea warming contrast, drives an increased concentration of aerosols in the atmosphere that cause air

pollution. Aerosols affect the climate system, including disturbances to the water cycle, as well as human health. They also cause smog and other kinds of air pollution that can lead to health problems for people, animals, and plants.

B. To determine this, the researchers ran simulations of climate change under two scenarios. The first assumed a business-as-usual warming model, in which warming proceeds at a constant, upward rate. The second model probed a scenario in which the land warmed less than expected. In the business-as-usual scenario, enhanced land warming increased continental aridity and, subsequently, the concentration of aerosols that leads to more air pollution.

C. A robust response to an increase in greenhouse gases is that the land is going to warm faster than the ocean. This enhanced land warming is also associated with increased continental aridity. The increase in aridity leads to decreased low cloud cover and less rain, which is the main way that aerosols are removed from the atmosphere.

- | | |
|--------|--------|
| A. ACB | B. BCA |
| C. BAC | D. CAB |
| E. CBA | |

67. **Direction:** In the question given below, three paragraphs are given, which are jumbled. Find the correct sequence of these paragraphs so that they form a meaningful passage.

A. The power of compounding works the way it does because you are reinvesting the interest that you earn back into the instrument, besides giving it time to grow. Let's simplify it further. Say in the first year you invest ₹100 and you get 10% annual return of ₹10. Next year, along with ₹110 (the first year principal amount and the interest amount), you will put another ₹100. The ₹10 you earned as interest gets reinvested, helping you grow your money faster.

B. To get a perspective, let's turn to some numbers. Say you started investing ₹3,000 a month when you were 25, and go on till you are 60. At an average annual rate of 7% returns, your corpus will grow to ₹53.24 lakh. If you decide to start investing at the age of 35 years, even if you put aside double the amount— ₹6,000 per month — till the age of 60, the value of your corpus will be only ₹48.72 lakh. The example shows that you would need half the amount to get more in returns if you start investing early.

C. Adulting can't wait when it comes to savings and investing. Why you may ask? If you delay your investments, how will you see the magic of compounding? When it comes to investing, you need to start early. In fact, you should start saving and investing as soon as you start earning. Compounding allows you to build a bigger corpus with a smaller amount.

- | | |
|--------|--------|
| A. BAC | B. CAB |
| C. BCA | D. ABC |
| E. CBA | |

68. **Direction:** A passage with three blanks, followed by five options, each containing one word, is given. Choose the word that can fill all the three blanks.

An _____ is a process of buying and selling goods or services by offering them up for bid, taking bids, and then selling the item to the highest bidder. Participants bid openly against one another, with each subsequent bid required to be higher than the previous bid. An auctioneer may announce prices, bidders may call out their bids themselves (or have a proxy call out a bid on their behalf), or bids may be submitted electronically with the highest current bid publicly displayed. In a

Dutch _____, the auctioneer begins with a high asking price for some quantity of like items; the price is lowered until a participant is willing to accept the auctioneer's price for some quantity of the goods in the lot or until the seller's reserve price is met. In economic theory, an _____ may refer to any mechanism or set of trading rules for exchange.

- A. Assets
- B. Auction
- C. Autarky
- D. Arbitrage
- E. Amortisation

69. **Direction:** A passage with three blanks, followed by five options, each containing one word, is given. Choose the word that can fill all the three blanks.

In finance, a _____ is an instrument of indebtedness of the issuer to the holders. The _____ is a debt security, under which the issuer owes the holders a debt and is obliged to pay them interest (the coupon) or to repay the principal at a later date, termed the maturity date. Interest is usually payable at fixed intervals (semi-annual, annual, sometimes monthly). Very often it is negotiable, that is, the ownership of the instrument can be transferred in the secondary market. This means that once the transfer agents at the bank medallion stamp the same, it is highly liquid on the secondary market. Thus, a _____ is a form of loan or IOU.

- A. Brand
- B. Stock
- C. Bond
- D. Barter
- E. Bankruptcy

70. **Direction:** A passage with three blanks, followed by five options, each containing one word, is given. Choose the word that can fill all the three blanks.

Emission _____ are the legal requirements governing air pollutants released into the atmosphere. Emission _____ set quantitative limits on

the permissible amount of specific air pollutants that may be released from specific sources over specific timeframes. They are generally designed to achieve air quality standards and to protect human life. Many emissions _____ focus on regulating pollutants released by automobiles (motor cars) and other powered vehicles. Others regulate emissions from industry, power plants, small equipment such as lawn mowers and diesel generators, and other sources of air pollution. While this have been used to dictate limits for conventional pollutants such as oxides of nitrogen and oxides of sulphur (NO_x and SO_x), this regulatory technique may be used to regulate greenhouse gasses, particularly carbon dioxide (CO₂). In the US, this is given in pounds of carbon dioxide per megawatt-hour (lbs. CO₂/MWhr), and kilograms CO₂/MWhr elsewhere.

- A. Norms
- B. Pollutants
- C. Factors
- D. Standards
- E. Limits

71. **Direction:** A passage with three blanks, followed by five options, each containing one word, is given. Choose the word that can fill all the three blanks.

The ability of humans to _____ the landscape and recognize the consequences of doing so puts us in a peculiar position. There are several animals on earth that show this same kind of intelligence. Some animals have extensions to _____ their environment and some do not. As a species we are assigned the duty to provide and proliferate. Our goal is to achieve stability for ourselves and our kin. However, we also have an obligation to maintain the environment, as we depend on the resources and services it provides. The question then becomes: what is our role in nature? Do we have the right to _____ the land, factory

farm animals, and pollute waterways? Or do we have an obligation to reduce our numbers and merely subsist? In order to answer these questions, we must rely on our knowledge of Earth, evolution, and our influence on the environment.

- A. Aspects
- B. Pollutants
- C. Employ
- D. Operate
- E. Manipulate

72. **Direction:** A passage with three blanks, followed by five options, each containing one word, is given. Choose the word that can fill all the three blanks.

Modern public administration has taken a leaf not only from the legislature's book but also from that of the judiciary.

Administrative _____ is the latest addition to the administrative techniques.

_____ Administrative _____ means the determination of questions of a judicial or quasi-judicial nature by an administrative department or agency. Like a regular court, administrative bodies hear the parties, sift evidence, and pronounce a decision in cases where legal rights or duties are involved. The main point of difference between administrative _____ and administration of justice by the courts is that administrative justice is administered by administrative agencies instead of regular courts. The administrative courts follow the principles of natural justice and common good whereas the courts of law follow the settled principles of law and evidence. The administrative courts are manned by officers belonging to the executive branch whereas the judges are the members of the judiciary independent of executive control.

- A. Adjudication
- B. Division
- C. Hearing
- D. Service
- E. Legislation

73. **Direction:** In each of the questions given below, a passage has been given which are either situational based or describes a scenario. Below each passage, a question has been given which is framed to make you to infer something out of it. Mark out the correct inference as your answer.

A former lawmaker, Rewati Raman Bhandari, who drafted the measure that criminalised *chhaupadi*, said the push to eradicate the practice from villagers, the police and local politicians was still far too muted.

Which of the following describes the reaction of the authorities of towards the eradication of *chhaupadi*?

- A. Subdued
- B. Softened
- C. Dampened
- D. Quite
- E. Silenced

74. **Direction:** In each of the questions given below, a passage has been given which are either situational based or describes a scenario. Below each passage, a question has been given which is framed to make you to infer something out of it. Mark out the correct inference as your answer.

India's leading and most popular food delivery start-up, Swiggy landed in a soup on Wednesday, after four people claiming to be current and former employees allegedly revealed fraudulent and unethical means practiced at the company, in a blog post.

Which of the following can be said about the allegations?

- A. Defragmented
- B. Ambiguous
- C. Definitive
- D. Anecdotal
- E. Speculative

75. **Direction:** In each of the questions given below, a passage has been given which are either situational based or describes a scenario. Below each passage, a question has been given which is framed to make you to infer something out of it. Mark out the correct inference as your answer.

Set in the glittering balls of genteel rural society of 18th century England and verdant landscape of the idyllic Pemberley, "Pride and Prejudice" is the story of young Elizabeth Bennett whose property is entailed to the nearest male heir.

What can be said about the position of young Elizabeth Bennett in the rural society of 18th century England?

- A. Marginal
- B. Immaterial
- C. Unrelated
- D. Extraneous
- E. Academic

76. **Direction:** In the following question, a passage is given which describes a situation. From the given options, mark the correct inference that can be drawn from the passage. If none of the inferences follow, mark option E, "None of these" as the answer.

In nearly all human populations a majority of individuals can taste the artificially synthesized chemical phenylthiocarbonide (PTC). However, the percentage varies dramatically--from as low as 60% in India to as high as 95% in Africa. That this polymorphism is observed in non-human primates as well indicates a long evolutionary history which, although obviously not acting on PTC, might reflect evolutionary selection for taste discrimination of other, more significant bitter substances, such as certain toxic plants.

- A. Human beings show the same taste profile as primates.
- B. Humans prefers substances that are naturally sweet.
- C. Only a minority of the human population have an indeterminant taste profile.
- D. A majority of the human population have an indeterminant taste profile.
- E. None of these

77. **Direction:** In the following question, a passage is given which describes a situation. From the given options, mark the correct inference that can be drawn from the passage. If none of the inferences follow, mark option E, "None of these" as the answer.

The philosophy of pragmatism goes something like this. The mind is such that it deals only with ideas. It is not possible for the mind to relate to anything other than ideas. Therefore, it is not correct to think that the mind actually can ponder reality. All that the mind can ponder is its ideas about reality. (Whether or not that is the way reality actually is, is a metaphysical issue). Therefore, whether or not something is true is not a matter of how closely it corresponds to the absolute truth, but of how consistent it is with our experience.

- A. Our experiences define our concept of reality.
- B. Reality is a metaphysical issue.
- C. Pragmatism and reality are two sides of the same coin.
- D. Our experiences enable us to determine the truth.
- E. None of these.

78. **Direction:** In the question below, there is a word given in bold which is followed by five options. In each of the options, a pair of words is given which is either the pair of synonyms or antonyms or synonym & antonym of the word given in bold. Choose that pair as your answer.

Tremulous

- A. Stringent, Garrulous
- B. Quivery, Steady
- C. Conjunctive, Desist
- D. Abstain, Defer
- E. Terse, Abrupt

79. **Direction:** In the question below, there is a word given in bold which is followed by five options. In each of the options, a pair of words is given which is either the pair of synonyms or antonyms or synonym & antonym of the word given in bold. Choose that pair as your answer.

Histrionic

- A. Melodramatic, Theatrical
- B. Conscientious, Diligent
- C. Tenacious, Retentive
- D. Thrive, Tussle
- E. Pertinent, Appropriate

80. **Direction:** In the question below, there is a word given in bold which is followed by five options. In each of the options, a pair of words is given which is either the pair of synonyms or antonyms or synonym & antonym of the word given in bold. Choose that pair as your answer.

Nefarious

- A. Sloppy, Flurry
- B. Unassertive, Ignoble
- C. Modest, Subtle
- D. Gregarious, Magnanimous
- E. Iniquitous, Atrocious

81. **Direction:** In the question below, there is a word given in bold which is followed by five options. In each of the options, a pair of words is given which is either the pair of synonyms or antonyms or synonym & antonym of the word given in bold. Choose that pair as your answer.

Recalcitrant

- A. Peculiar, Convivial
- B. Amenable, Docile
- C. Taciturn, Withering
- D. Voluble, Turgid
- E. Pendulous, Jocular

82. **Direction:** In the question below, there is a word given in bold which is followed by five options. In each of the options, a pair of words is given which is either the pair of synonyms or antonyms or synonym & antonym of the word given in bold. Choose that pair as your answer.

Zealous

- A. Droopy, Gigantic
- B. Tenacity, Assiduity
- C. Fervent, Apathetic
- D. Conceited, Capacious
- E. Hilarity, Livid

83. **Direction:** In the following questions a part of a sentence is given in bold, it is then followed by four sentences which try to explain the meaning of the idiom/phrase given in bold. Choose the alternative from the four given below each question which explains the meaning of the phrase correctly without altering the meaning of the sentence given as question. If none of the sentence explains the meaning of the highlighted phrase, choose option (e) i.e., "None of these" as your answer choice

We are used to **giving benefit of a doubt** to people we are closest to, the ones who we know very well. This comes to us naturally as we know for a fact they are good people; and even more - we know they like/ love us so they wouldn't do anything against us.

- A. Since we love and trust our close ones, we often tend to believe them, even when we are not sure what they are saying is true.
- B. Given that we are very attached to our relatives, we often try to hide their crimes and cover up for their lies.
- C. Since humans are inherently doubting, there is a tendency to be sceptic about anyone.
- D. Humans have nepotism ingrained in them, which means that they would favour only their relatives over and above a fool proof evidence against them.
- E. None of these

84. **Direction:** In the following questions a part of a sentence is given in bold, it is then followed by four sentences which try to explain the meaning of the idiom/phrase given in bold. Choose the alternative from the four given below each question which explains the meaning of the phrase correctly without altering the meaning of the sentence given as question. If none of the sentence explains the meaning of the highlighted phrase, choose option (e) i.e., "None of these" as your answer choice

At the start of his presentation, it seemed that he's out of his mind, but when he finished, we saw that there's **method in his madness**.

A. After the presentation, we realised that he deliberately chose to be vague and absurd.

B. Though his presentation appeared a little absurd in the beginning, we ultimately found out that he had a rational purpose behind it

C. There was a stark difference between what he started with and how he concluded his presentation.

D. Since he was not completely in his senses, he presented in an awkward manner.

E. None of these

85. **Direction:** In the following questions a part of a sentence is given in bold, it is then followed by four sentences which try to explain the meaning of the idiom/phrase given in bold. Choose the alternative from the four given below each question which explains the meaning of the phrase correctly without altering the meaning of the sentence given as question. If none of the sentence explains the meaning of the highlighted phrase, choose option (e) i.e., "None of these" as your answer choice

I **wouldn't be caught dead** wearing an outfit like that – it's like something my grandmother would also not wear!

A. Though the outfit is classy, the speaker does not prefer wearing it.

B. The speaker finds wearing the dress very shameful as people would disapprove of it.

C. The speaker dislikes wearing the particular outfit.

D. Wearing the particular outfit wouldn't be a great deal as it will not kill her.

E. None of these

Directions (86-90): Read the given passage carefully and answer the questions that follow.

Over the past few years, the popularity of online social networks (OSNs) such as Facebook, Twitter, and Orkut have grown tremendously. OSNs are built on real-world social relationships and provide their users with a wide variety of virtual-interaction mechanisms. As OSNs have become critical online communication platforms integrated into society's daily life, the security risks accompanying such developments have raised concerns in industry, academia, and government.

Users provide an astonishing amount of personal information voluntarily, and OSN service providers store this information. Ralph Gross and Alessandro Acquits studied the Facebook users in the Carnegie Mellon University network and discovered that 90.8 percent of users uploaded their images, 87.8 percent revealed their birth dates, 39.9 percent shared their phone numbers, and 50.8 percent listed their current addresses. Such an abundance of readily available personal information makes privacy breach a unique angle of attack in OSNs. Three primary parties interact with one another in an OSN: the service provider, the users, and third-party applications. Because OSNs are formed by real people, they are tempting targets for viral marketing, which has therefore easily invaded them. The

public perception that OSNs encompass friends, family, and acquaintances makes users prone to trust messages they receive in OSNs. In addition, aided with the information extracted from user profiles, spammers can often exploit social-engineering tricks to enhance viral marketing's effectiveness. A phishing attack targets OSN users' confidential information (OSN account credentials, email address, online banking, and so on). If it targets OSN account credentials, such an attack is usually combined with spamming to complete the viral-marketing process. Plausible defence mechanisms for phishing attacks are mostly on the client side, given the voluntary nature of users' sharing their confidential information. Digitally signed emails can prevent spoofed email messages from fooling recipients; browser toolbars can also alert users when they're prompted for usernames and passwords at suspicious sites.

OSNs are playing an increasingly important role in the Internet community today. Their future development hinges on their ability to deliver enjoyable services without undermining users' information security.

86. Which of the following statements can be correctly inferred from the passage?
- I. If you receive friend requests from strangers, it's best to stay away.
 - II. Viruses and malware often find their way onto your computer through those annoying, but sometimes enticing ads.
 - III. Once an account has been compromised, it is best to presume all your passwords are compromised.
- A. Only I
 - B. Only II
 - C. Only III
 - D. Both I and II
 - E. Both II and III

87. Which of the following statements is NOT true with respect to the passage?
- A. The number of users of the online social networks like Facebook, twitter, google, LinkedIn are going on increasing tremendously.
 - B. To become member of the OSN the user has to create his profile by entering information like name, photo, date of birth, Email ID, place of work, home town and so on.
 - C. Spam is abuse of electronic messaging systems to send unsolicited bulk messages indiscriminately.
 - D. To avoid such malicious access, it is necessary to be careful while selecting security settings for various fields in the profile.
 - E. Whenever a user accepts friend request it is assumed that he is having distrust in that user so such access is not provided.
88. On what does the future development of OSNs depend?
- A. The ability to provide enjoyable services without compromising user security.
 - B. The ability to provide cashless entertainment on the go.
 - C. The ability to provide high level security features to those users who can pay for the same.
 - D. The ability to provide free downloadable music as a way to stop music piracy.
 - E. The ability to provide wireless entertainment without comprising the speed and efficiency of the servers.
89. Which of the following options is a good way of preventing spoofed email messages from fooling recipients?
- A. Link to another established account
 - B. Digitally signed emails
 - C. Network rerouting techniques
 - D. Automatic resend to the spam folder
 - E. Digitally verified emails

90. Which of the following would be the most appropriate title of the passage?
 A. Online security breaches
 B. Common security problems
 C. Security issues in online social networks
 D. Connecting with strangers online
 E. Zendesk, Facebook and more
91. Which of the following day National Statistics Day (NSD) has been celebrated in India?
 A. 15th May B. 10th June
 C. 27th June D. 29th June
 E. None of these
92. Which of the following countries have won a united bid to host the 23rd FIFA World Cup 2026?
 A. Brazil, France and Argentina
 B. Brazil, Mexico and Spain
 C. Spain, Portugal and Germany
 D. US, Mexico and Canada
 E. UK, Germany and France
93. Which of the following Indian payment and commerce company has launched the first wealth management product 'Digital Gold'?
 A. DirecPay B. BHIM
 C. PayU India D. Paytm
 E. None of these
94. Veteran journalist Shujaat Bukhari who was shot dead was the editor of which of the following newspaper?
 A. Jehlum Post
 B. Kashmir Observer
 C. Kashmir Life
 D. Rising Kashmir
 E. None of these
95. LRS is a facility provided by the Reserve Bank of India for all the resident individuals to freely remit a certain amount in terms of US dollar every financial year for a permissible set of current or capital account transactions. Here 'LRS' stands for .
 A. Liquidity Remittance Scheme
 B. Liberalised Remittance Scheme
 C. Liberalised Remittance Source
 D. Liberalised Revenue Scheme
 E. Liberalised Revenue Source
96. The Headquarter of The Asian Infrastructure Investment Bank (AIIB) is located in?
 A. Beijing B. Shanghai
 C. Xinjiang D. Hong Kong
 E. Xian
97. The 2018 ASEAN India Film Festival was held in which of the following cities?
 A. Lucknow B. New Delhi
 C. Pune D. Gurugram
 E. Mumbai
98. Which of the following telecommunication will acquire the business of Telenor India for an undisclosed sum in all seven circles?
 A. BSNL B. Tata Docomo
 C. Bharti Airtel D. MTS India
 E. None of these
99. India's first national sports university is to be set in which Indian state?
 A. Bihar B. Punjab
 C. Assam D. Manipur
 E. Uttar Pradesh
100. Which state government along with WWF-India conducted the first organized census for the conservation of Indus dolphins on their population?
 A. Maharashtra B. Kerala
 C. Punjab D. Odisha
 E. Rajasthan
101. Which among the following is an umbrella organization for all retail payments system in India?
 A. RBI B. NPCI
 C. SEBI D. NITI Aayog
 E. None of these
102. Which of the following countries will host the International Conference on Information and Communication Technology (ICT)?
 A. India B. Nepal
 C. Mauritius D. Bangladesh
 E. Maldives
103. The headquarter of Organisation for Economic Cooperation and Development (OECD) is in .
 A. London, UK B. Vienna, Austria
 C. Paris, France D. Beijing, China
 E. Rome, Italy

104. In which one of the following States, Patratu Thermal Power Plant is proposed to be set up?
A. Madhya Pradesh
B. Bihar
C. Jharkhand
D. West Bengal
E. Kerala
105. What is the theme of the International Yoga Day 2018?
A. Yoga for Peace
B. Connect the Youth
C. Yoga For Health
D. Yoga For Environment
E. None of these
106. Hirakud dam is located in which of the following states?
A. Jharkhand B. Chhattisgarh
C. Odisha D. West Bengal
E. Karnataka
107. In which of the following states is the Dudhwa National Park located?
A. Arunachal Pradesh
B. Madhya Pradesh
C. Uttar Pradesh
D. Andhra Pradesh
E. None of these
108. What is the name of country whose capital is Lusaka and currency is Kwacha?
A. Yemen B. Uganda
C. Zambia D. Somalia
E. None of these
109. Which of the following committees has been constituted by Insurance Regulatory and Development Authority (IRDAI) to review regulations governing the Insurance Marketing Firms (IMF)?
A. Balwant Rai Mehta Committee
B. Veerappa Moily Committee
C. Ashok Chavan Committee
D. Sachar Committee
E. Suresh Mathur Committee
110. SKOCH Group has conferred the 'Best performing Social Sector Ministry' award to which of the following ministries?
A. Ministry of Women and Child Development
B. Ministry of Health and Family Welfare
C. Ministry of Environment, Forest and Climate Change
D. Ministry of Social Justice and Empowerment
E. None of the above
111. Which country will host the ICC Women's World T20 tournament 2018?
A. New Zealand B. India
C. Sri Lanka D. England
E. West Indies
112. The Certificate of Deposit (CD) is a negotiable money market instrument and issued in the form of?
A. Derivative Usance Promissory Note
B. Usance Promissory Note
C. Demand Promissory Note
D. Both a & b
E. None of the Above
113. The 105th Indian Science Congress meeting was held in _____.
A. IIM, Ahmadabad
B. Manipur University, Imphal
C. IIT, Bombay
D. Jawahar Lal Nehru University, Delhi
E. None of the Above
114. IRDAI has given its approval to LIC for the stake purchase, that will help get a capital support of Rs 10,000- 13,000 crore in which of the following state-owned banks?
A. Union Bank of India
B. IDBI Bank
C. United Bank of India
D. Indian Bank
E. IDFC Bank
115. SAARC Development Fund Headquarters are located in which country?
A. Kathmandu, Nepal
B. Islamabad, Pakistan
C. Thimpu, Bhutan
D. New Delhi, India
E. Male, Maldives

116. Bhumi Pednekar bagged the best actress at Dada Saheb Phalke award ceremony for which movie?
 A. Toilet Ek Prem Katha
 B. Rustom
 C. Dum Laga ke Haisha
 D. Lust Stories
 E. Shubh Mangal Saavdhan
117. A non-trading company used as a vehicle for various financial manoeuvres or kept dormant for future use in some other capacity?
 A. Chit Funds
 B. Shell companies
 C. Nidhi Companies
 D. Indigenous Bankers
 E. Unstructured NBFC
118. Indira Sagar dam is located in which Indian State/City?
 A. Chhattisgarh B. Gujarat
 C. Maharashtra D. Madhya Pradesh
 E. Andhra Pradesh
119. Assumption island is located in which country?
 A. Seychelles B. Maldives
 C. Mauritius D. Sri Lanka
 E. Monaco
120. The two day 'Kabir Mahotsav' in UP organized by which ministry?
 A. Ministry of Tribal Affairs
 B. Ministry of Culture
 C. Ministry of Human Resource Development
 D. Ministry of Home Affairs
 E. Ministry of Tourism
121. Pilibhit wildlife sanctuary is located in which Indian State?
 A. Uttar Pradesh
 B. Madhya Pradesh
 C. Gujarat
 D. Chhattisgarh
 E. None of the given options
122. Who is the captain of Indian women hockey team?
 A. Sunita Lakra
 B. Gurjit Kaur
 C. Rani Rampal
 D. Deep Grace Ekka
 E. Reena Khokhar
123. The Victorian and Art Deco Ensembles inscribed as UNESCO World Heritage Sites. The Victorian Gothic and Art Deco is situated in which city?
 A. Mumbai B. Pune
 C. Bengaluru D. Hyderabad
 E. Ahmedabad
124. Which institute launches Bharat Inclusive Initiative?
 A. IIT Bombay B. IIM Ahmedabad
 C. IIT Kharagpur D. IIM Calcutta
 E. IIIT Hyderabad
125. Ajay Thakur is associated with which sport?
 A. Hockey B. Cricket
 C. Swimming D. Kabaddi
 E. Volleyball
126. CBLO, a money market instrument that represents an obligation between a borrower and a lender as to the terms and conditions of a loan. What does 'C' stand for in CBLO?
 A. Clearing B. Culminative
 C. Collateralized D. Credit
 E. Call
127. What does "L" stand for in PMLA?
 A. Leverage B. Limit
 C. Lending D. Liberalised
 E. Laundering
128. PMVVY (Pradhan Mantri Vaya Vandana Yojana) pension limit extends to which timeline?
 A. March, 2021 B. March, 2019
 C. March, 2022 D. March, 2020
 E. May, 2019
129. The Communications Compatibility and Security Agreement dialogue between foreign and defence ministers of India and US scheduled to be held in which of the following venues?
 A. New Delhi B. Mumbai
 C. Washington D. Geneva
 E. Paris
130. International Organization for Migration Headquarters is located in which city?
 A. Rome B. London
 C. Washington D. Geneva
 E. Brussels

131. Malabo is the capital of which country?
 A. Rwanda
 B. Zambia
 C. Equatorial Guinea
 D. Panama
 E. Morocco
132. Informal summit held in which city of Russia?
 A. Moscow
 B. Sochi
 C. New Delhi
 D. St. Petersburg
 E. Hyderabad
133. What does 'C' stands for 'CAGR', a business specific term for the geometric progression ratio that provides a constant rate over the specific time period?
 A. Control
 B. Compound
 C. Credit
 D. Call
 E. Culminative
134. Where will be 5th International conference on human excellence on Yoga (2019) was held?
 A. Uttar Pradesh
 B. Chandigarh
 C. New Delhi
 D. Uttarakhand
 E. Madhya Pradesh
135. Kishori amonkar died recently. He was associated with which of the following fields?
 A. Classical Vocalist
 B. Classical Dancer
 C. Sports
 D. Politician
 E. Painter
136. The Union Cabinet Chaired by Prime Minister Shri Narendra Modi has approved the establishment of National Institute of Mental Health Rehabilitation (NIMHR) at which state?
 A. Gwalior
 B. Bhopal
 C. Jammu
 D. New Delhi
 E. Bengaluru
137. What does 'E' stands for in SAWEN?
 A. Economic
 B. Enforcement
 C. Elephant
 D. Enactment
 E. Effective.

138. Which city hosted Pravasi Bharatiya Divas in January 2019?
 A. Varanasi
 B. Kolkata
 C. Chennai
 D. Bengaluru
 E. New Delhi
139. Prime Minister Narendra Modi inaugurated India's longest rail-road bridge Bogibeel Bridge in which state?
 A. Tripura
 B. Sikkim
 C. Assam
 D. Arunachal Pradesh
 E. Manipur
140. Reinsurance is the name given to:
 A. An individual taking insurance for the second time
 B. An insurer placing insurance with another insurer
 C. When government by insurance policies for government employees
 D. All the above
 E. None of these
- Direction (141-145): Solve the given quadratic equations and mark the correct option based on your answer—**
141. **I.** $(x - 2)^2 = 9$
II. $(2y + 8)^2 = 16$
 A. $x < y$
 B. No relation can be established between x and y .
 C. $x > y$
 D. $x \leq y$
 E. $x \geq y$
142. **I.** $x^2 - 16x + 64 = 0$
II. $y^2 - 16y + 63 = 0$
 A. $x > y$
 B. $x \leq y$
 C. $x \geq y$
 D. $x < y$
 E. No relation can be established between x and y .
143. **I.** $25/x^2 - 15/x + 2 = 0$
II. $40/y^2 + 1 = 13/y$
 A. $x < y$
 B. $x \geq y$
 C. No relation can be established between x and y .
 D. $x \leq y$
 E. $x > y$

144. I. $48/x^2 - 14/x + 1 = 0$
 □□. $45/y^2 + 1/y = 2$
 A. No relation can be established between x and y .
 B. $x \leq y$
 C. $x < y$
 D. $x > y$
 E. $x \geq y$
145. I. $x^2 + 3x - 4 = 0$
 II. $y^2 + 10y + 24 = 0$
 A. $x \leq y$
 B. $x < y$
 C. $x > y$
 D. No relation can be established between x and y .
 E. $x \geq y$
146. A container contains 165 litres of milk. Some quantity of milk is taken out and half of that quantity of milk, water is added in the container. Now ratio of milk to water in the container becomes 5:3. What is the quantity of water added in it?
 A. 40 litre B. 45 litre
 C. 60 litre D. 30 litre
 E. 90 litre
147. Two boxes contain 4 and 16 balls respectively. Two balls in the first box and four in the second, are black. If a box is chosen randomly and two balls are drawn at random from it, what is the probability that at least one ball is black if the ball is not replaced?
 A. $11/20$ B. $43/120$
 C. $77/120$ D. $9/20$
 E. None of these
148. Train A, travelling at 84 kmph, overtook train B, traveling in the same direction, in 10 seconds. If train B had been traveling at twice its speed, then train A would have taken 22.5 seconds to overtake it. Find the length of train B, given that it is half the length of train A.
 A. 180 m B. 100 m
 C. 200 m D. 150 m
 E. 50 m

149. A solid sphere of radius 6 cm is melted and re-casted into a hollow cylinder of uniform thickness. If the external radius of the base of the cylinder is 5 cm and its height is 32 cm, find the uniform thickness of the cylinder ?
 A. 3 cm B. 1.5 cm
 C. 1 cm D. 2.5 cm
 E. None of these
150. X and Y entered into partnership with Rs. 700 and Rs. 600 respectively. After another 3 months, X withdrew two-sevenths of his stock but after 3 months, he puts back three-fifths of what he had withdrawn. The total profit at the end of the year is Rs. 726. How much of this should X receive?
 A. Rs. 336 B. Rs. 366
 C. Rs. 633 D. Rs. 663
 E. None of these

Direction (151-155): Table given below shows percentage of men out of total men who worked on odd days in three different months and rest of the men are working on even days of the respective month. Study the table carefully and answer the following questions.

Months	Total Number of Men worked	Percentage of men worked on odd number days
March	1000	30%
April	1500	20%
August	750	60%

Note: Each man works for 8 hours per day

Total man-hours = Total man worked \times Total day of work \times 8 hours

151. Total man-hours on odd days of march is what % of the total man-hours on even days of April?
 A. $26\frac{2}{3}\%$ B. $18\frac{2}{3}\%$
 C. $33\frac{1}{3}\%$ D. $16\frac{2}{3}\%$
 E. $58\frac{1}{3}\%$

152. Total man hour of April is how much more or less than the total man hour of August?
 A. 80,000 B. 83,200
 C. 84,800 D. 86,400
 E. 88,000
153. Find the ratio between man-hour on even days of March to man hour on even days of August?
 A. 6 : 1 B. 7 : 3
 C. 8 : 3 D. 3 : 7
 E. 9 : 2
154. Man-hour on odd days of April is how much % less than the man hour on odd days of August?
 A. $33\frac{1}{3}\%$ B. 40%
 C. 37.5% D. 62.5%
 E. 60%
155. What is the average of man hours on even days of all three months together?
 A. 88,000 B. 66,000
 C. 86,000 D. 78,000
 E. 74,000

Direction (156-160): The following questions are accompanied by three statements (I), (II), and (III). You have to determine which statement(s) is/are sufficient /necessary to answer the questions

156. What is distance between A and B ?
 I. Two persons Amit and Abhi started simultaneously from A to B with their speed in ratio 4 : 5.
 II. Abhi reached B one hour earlier than Amit.
 III. Difference between speed of Amit and Abhi is 20 km/hr.
 A. Only I and II
 B. Only II and III
 C. All I, II and III
 D. Cannot be answered even including all three statement
 E. None of these

157. What is the area of rectangle ?
 I. If ratio of length and breadth of the rectangle is 3 : 2.
 II. Circumference of a circle is 440 m and breadth of rectangle is $\frac{1}{7}$ th of radius of the circle.
 III. If length is 50% more than breadth.
 A. Only III
 B. Only II and either I or III.
 C. Only II
 D. All I, II and III
 E. None of these
158. How many students failed in class 11th?
 I. 400 Students passed in class 11th.
 II. No. of students failed in class 11th is 20% of those failed in class 12th.
 III. Ratio of student appeared to that of failed in class 11th is 5 : 3.
 A. Only I and III
 B. Only II
 C. Only I and II
 D. All I, II and III
 E. Cannot be answered even including all three statements.
159. What is the rate of interest?
 I. S.I. accrued in two years on an amount at same rate of interest is Rs. 44,000.
 II. The amount after some years on S.I. is Rs. 154000.
 III. Difference between the C.I. and S.I. earned in two years on the same amount and at the same rate of interest is Rs. 120.
 A. Only I and III
 B. Only III
 C. Only II and III
 D. Cannot be answered even including all statement
 E. None of these
160. What is the sum of two number?
 I. The bigger no. is 6 more than the smaller no.
 II. 40% of smaller no. is equal to 30% of bigger no.
 III. The ratio b/w half of the bigger no. & one-third of smaller no. is 2 : 1.
 A. Only II & III
 B. Only I & II
 C. Any two of the three statements
 D. All statement is required
 E. None of these

Direction (161-166): Answer the questions based on the information given below:

Rahul goes to gym and runs 40 minutes on treadmill. For starting 15 minutes he runs at a uniform speed of 5 km/hr and after that he runs at a uniform speed of 9km/hr for remaining time. He runs total (A) km on treadmill. After that he comes to his house and get ready for office which is 45km away from his house. He reaches office in 1.5 hours at 9:30 a.m. In office he gives some work to his subordinates P1 and P2 at (B). P1 can complete that work in 6 hours while efficiency of P1 and P2 is in the ratio 5: 4. P1 and P2 together completes 75% of that work at 12:30 p.m. Rahul and P2 together can complete same work in 3 hours. Rahul is (C) % more efficient than P1. After that work he comes back to home in upstream (Speed of stream is 3km/hr and his speed in still water and distance between his house and office are same as earlier). He takes (D) hours to reach home. When he reaches home, two of his friends Aman and Raman come at his house, all three starts to play a game in which 2 dices are used by each person. When only Rahul & Aman are playing, (E) was the number of outcomes in which first Rahul and then Aman throw their respective dices. In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes. Winner is the one who gets highest number as the sum of the square of the number comes in dices. (F) Should be the outcomes of the dices of Raman if Raman is winner of the game.

161. What value will come at the place of 'A'?
- A. 4.25 km B. 3.75 km
C. 5 km D. 5.25 km
E. None of the given options

162. What value will come at the place of 'B'?
- A. 10.45
B. None of the given options
C. 11 am
D. 10.30 am
E. 10 am
163. What value will come at the place of 'C'?
- A. $16\frac{2}{3}\%$ B. 20%
C. 25% D. $33\frac{1}{3}\%$
E. 50%
164. What value will come at the place of 'D'?
- A. 2 hours B. 1.5 hours
C. $1\frac{7}{8}$ hours D. $1\frac{2}{3}$ hours
E. $1\frac{4}{11}$ hours
165. What value will come at the place of 'E'?
- A. 72 B. 42
C. 36 D. 108
E. 54
166. What value will come at the place of 'F'?
- A. None of the given options
B. Cannot be determined
C. 3 and 5
D. 4 and 4
E. 2 and 6

Direction (167-170): Two quantities that is I and II are given in following questions. Students are expected to solve the quantities and answer them according to given options by comparing their numerical values.

167. $\square\square + \square$. $\square\square - \square = \square\square - \square\square$ And, $\square\square - \square\square - \square\square$
= $\square\square - \square\square - \square\square$

Quantity I: Value of 'x'

Quantity II: Value of 'y'

- A. Quantity I > Quantity II
B. Quantity I < Quantity II
C. Quantity I ≥ Quantity II
D. Quantity I ≤ Quantity II
E. Quantity I = Quantity II or No relation

168. **Quantity I:** When an article sold at 28% discount then profit earned is 29.6%. 'x' is the profit % when article sold at 30% discount.

Quantity II: 38

- A. Quantity I = Quantity II or No relation
- B. Quantity I < Quantity II
- C. Quantity I \leq Quantity II
- D. Quantity I \geq Quantity II
- E. Quantity I > Quantity II

169. 12 men can complete a work in 10 days. 18 women can do the same work in 20 days. 27 children can do that work in 20 days. 9 women and 9 children together do that work for 16 days.

Quantity I: No. of men required to complete the remaining work in one day

Quantity II: 36

- A. Quantity I > Quantity II
- B. Quantity I \leq Quantity II
- C. Quantity I = Quantity II or No relation
- D. Quantity I < Quantity II
- E. Quantity I \geq Quantity II

170. **Quantity I:** Time taken to fill the tank when A, B and C are opened in every alternate minute starting with A and ending with C. A, B and C alone takes 20 minutes, 15 minutes and 12 minutes respectively to fill the tank.

Quantity II: Find the time taken by waste pipe to empty the full cistern. Two pipes alone can fill a cistern in 10 minutes and 15 minutes respectively. When these two pipes along with the waste pipe are opened, the cistern gets filled in 18 minutes.

- A. Quantity I > Quantity II
- B. Quantity I < Quantity II
- C. Quantity I \geq Quantity II
- D. Quantity I \leq Quantity II
- E. Quantity I = Quantity II or No relation

Direction (171-175): Data given below shows number of units of electricity consumed by Fans, Lights and Other appliances in three different houses. Study the data carefully and answer the following questions.
House A \rightarrow Total number of units consumed in House 'A' is 250 units out

of which 120 units are consumed by Other appliances. Units consumed by Fans are 30 less than Units consumed by Lights.

House B \rightarrow Units consumed by Lights in House 'A' and House 'B' is same. Units consumed by Fans in House 'B' are 60% more than that of fans in House 'A'.

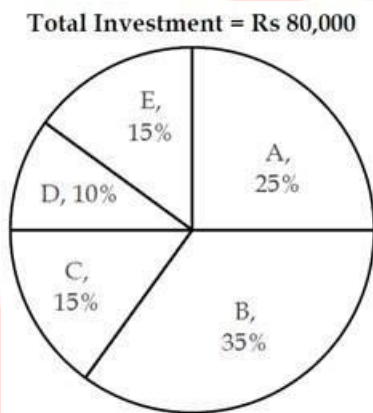
House C \rightarrow Total units consumed by Lights in all three houses is 200 units and units consumed by Fans and Lights is same in House C. Units consumed by Other appliances is 125% more than that by Fans in this House. Total units consumed by other appliances in all three houses are 320 units.

171. Number of units consumed by Lights in House 'B' is what percent more of the units consumed by Lights in house 'C'?
- A. 100%
 - B. 200%
 - C. 120%
 - D. 50%
 - E. 150%
172. Average number of units consumed by Other appliances in House 'B', 'C' and 'D' is 110 units. Find the units consumed by Other appliances in House 'D'?
- A. 110 units
 - B. None of the given options
 - C. 130 units
 - D. 120 units
 - E. 140 units
173. Find total number of units consumed in House 'A' and 'C' together?
- A. None of the given options
 - B. 410 units
 - C. 430 units
 - D. 400 units
 - E. 420 units
174. Find the difference between Units consumed by other appliances in House 'B' and house 'C'?
- A. 10 units
 - B. 20 units
 - C. 30 units
 - D. None of the given options
 - E. 40 units

175. Total units consumed by Fans and Lights together in House 'C' is what percent less than total units consumed by Lights and Other appliances together in House 'A'?

A. 20% B. 40%
C. 50% D. 60%
E. 80%

Direction (176-178): Pie-chart given below shows investment (in terms of percentage) out of total investment of five different persons. Study the questions carefully and answer them.



176. B and E started a business together. B left the business 9 months after starting of business. Find the difference between profit shares of B and E if total annual profit is Rs. 15,400?

A. Rs.2100 B. Rs.4200
C. Rs.1400 D. Rs.2800
E. Rs.3500

177. A and D started a business together after 6 months 'A' is replaced by 'C'. D left the business after 2 months of 'A' while 'C' worked for total 'x' months. Out of total profit of Rs 13,050, 'A' got Rs 6750, then find the value of 'x'.

A. 10 B. 8
C. 6 D. 4
E. 2

178. 'A', 'F' and 'C' started a business together. F invested Rs. 4000 more than amount invested by C. F left the business after 6 months of starting of business. After 2 months more, 'C' left the business. Out of annual profit if A and C together got Rs 8750 then find total annual profit got by all three together?

A. Rs 11,250 B. Rs 10,000
C. Rs 12,500 D. Rs 13,750
E. Rs 15,000

179. Cost price of a pen is 50 Rs. and that of notebook is 140 Rs. If pen is sold at 200% profit, then to purchase 10 such note books how many pens are required to sell if only profit money is used to buy notebooks?

A. 14 B. 18
C. 15 D. 20
E. 16

180. Length of two trains are 150 m and 200 m respectively and the ratio (shorter: longer) of their speed is 2 : 5. If they cross each other in opposite direction in 15 second then in what time faster train will overtake the slower train.

A. 20 seconds B. 25 seconds
C. 32 seconds D. 35 seconds
E. 27 seconds

181. If length of a rectangle is decreased by 6 cm we get a square and the area of square formed is 252 cm² less than the area of square formed when breadth of the original rectangle is increased by 6 cm. Find the perimeter of the rectangle.

A. 66 cm B. 88 cm
C. 80 cm D. 72 cm
E. 84 cm

182. Breadth of a rectangle is equal to the diagonal of the square whose side is $2.5\sqrt{2}$ cm. Ratio between length and breadth of rectangle is 3 : 1. Find the area of the rectangle (in cm²).

A. 75 B. 90
C. 85 D. 80
E. None of these

183. Equal distance is covered by a boat in upstream and in downstream in total 5 hours. Sum of speed of a boat in upstream and downstream is 40 km/hr. Speed of boat in still water is 600% more than the speed of stream. Find the approximate distance covered by boat in downstream (in km).
 A. 45 B. 50
 C. 55 D. 60
 E. None of these
184. A and B entered into a partnership with Rs.800 and Rs.1600 respectively. From 9th months onward they each decided to invest Rs.100 more on starting of each month. If total annual profit is Rs.7700 then find the profit share of A.
 A. Rs.2550 B. Rs.3200
 C. Rs.2650 D. Rs.2450
 E. Rs.2750
185. A starts a business, after 6 months B also join him with Rs.4500 and after 2 months of B's joining C also join them with Rs.4500. If A gets approx. Rs 4900 out of total annual profit of Rs. 10,000 then find the approximate value of initial investment of A.
 A. Rs.4800 B. Rs.4200
 C. Rs.3600 D. Rs.4400
 E. Rs.5200

Direction (186-190): Bar chart given below shows selling price of five articles and profit % earned on selling these articles by Ravi. Study the data carefully & answer the following questions.



186. Ravi sold article 'D' to Shyam who again sold it at 25% profit. Find the difference between profits earned by Ravi to profit earned by Shyam.
 A. Rs. 5 B. Rs. 10
 C. Rs. 15 D. Rs. 20
 E. Rs. 25
187. Cost price of article A is what percent more/less than cost price of article C?
 A. 62.5% B. 37.5%
 C. 25% D. 75%
 E. 50%
188. Ravi marked article B, 50% above its cost price, then what percent discount should be given on marked price to earn the given profit?
 A. 40% B. 30%
 C. 25% D. 20%
 E. 10%
189. Profit earned on selling article 'E' is how much more/less than profit earned on selling article 'C'.
 A. Rs. 40
 B. None of the given options
 C. Rs. 30
 D. Rs. 20
 E. Rs. 10
190. Ravi mark-up article 'A' such that on selling article 'A' at 16% discount he will earn the given profit. Mark up price of article 'A' is what percent more than its cost price?
 A. $33\frac{1}{3}\%$ B. $66\frac{2}{3}\%$
 C. $16\frac{2}{3}\%$ D. $26\frac{2}{3}\%$
 E. $73\frac{1}{3}\%$

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Solutions

1. Ans. C.

Scheduled time for train to leave = "#&" = 9:30

Train late by 3 hrs.

Train leaves from the station = 9 hours 30 minutes + 3 hours = 12:30 = "@&"

2. Ans. B.

Bus to arrive at Delhi = "#\$" = 9:25

Bus to arrive Delhi at least 30 minutes before scheduled time = 9:25 - 25 minutes = 9:00

Bus to depart from Ambala = 8:60 - 2 hours 40 minutes = 6:20 = "&%"

3. Ans. D.

Scheduled time of train = "\$%" = 5:20

To reach station 10 minutes earlier = 5:20 - 10 minutes = 5:10

Man take 25 minutes to reach station = 5:10 - 25 minutes = 4:45 = "%&#"

4. Ans. C.

Depart time of train = "\$&" = 5:30

It usually completes its journey in = 6 hours

On Friday = 15 × 5 = 75 minutes

Train is late by = 6 hours 75 minutes = 7 hours 15 minutes

Train reach Delhi = 5 hours 30 minutes + 7 hours 15 minutes = 12 hours 45 minutes = 12:45 = "@&#"

5. Ans. E.

Scheduled time of the ceremony = "\$\$" = 5:25

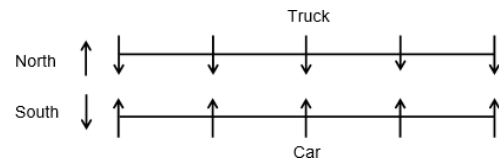
Delay by 1 hour 20 minutes
Ceremony will start on = 5 hour 25 minutes + 1 hour 20 minutes = 6 hour 45 minutes = "&#"

6. Ans. C.

Vehicles - Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane

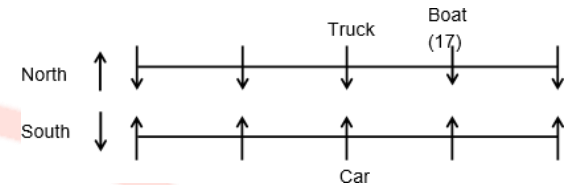
Speed - 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575

1. The car is sitting third to the extreme end.
Truck faces car.

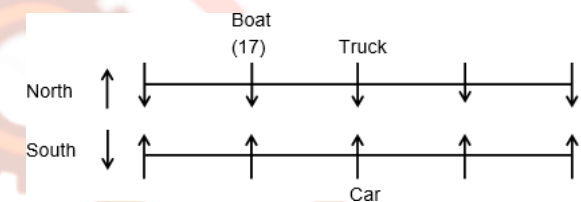


2. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr.

Case 1:

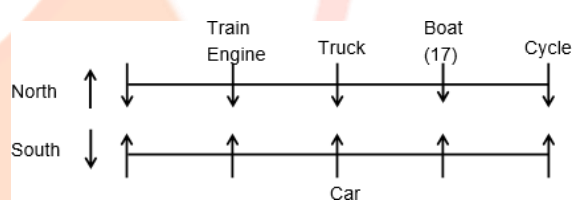


Case 2:

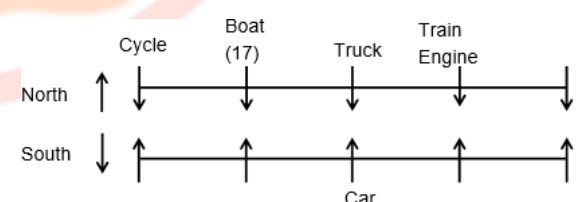


3. Only one vehicle comes in between Train Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other.

Case 1:

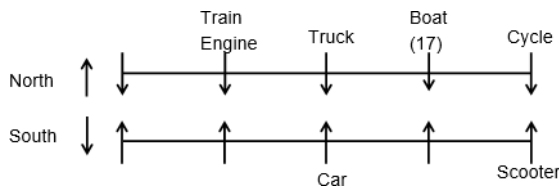


Case 2:

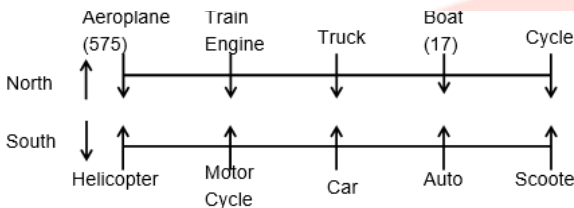


4. The one who faces Train Engine sits third to the right of scooter and both have a speed of multiple of 5.

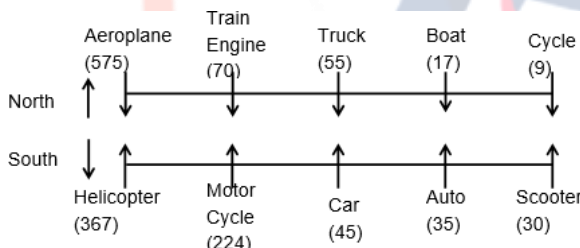
This is not possible in case 2. So, case 1 is correct.



5. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Aeroplane is sitting at the extreme end and has the highest speed.



6. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Truck has speed more than 50 km/hr. All the vehicles are placed from east to west in the increasing order of their speeds.



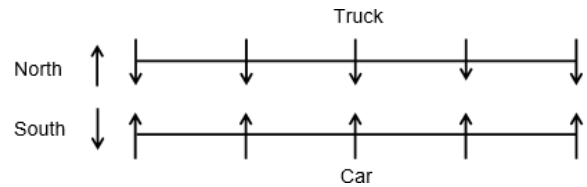
Hence, difference between speed of motorcycle and truck is 169km/hr.

7. Ans. D.

Vehicles - Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane

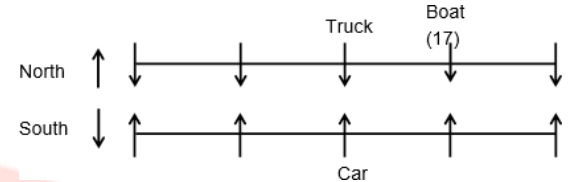
Speed - 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575

1. The car is sitting third to the extreme end. Truck faces car.

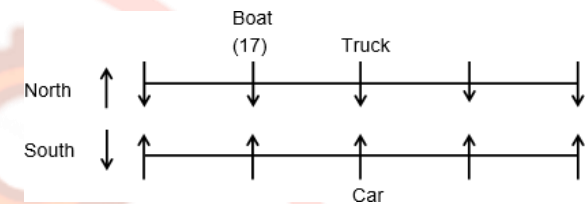


2. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr.

Case 1:

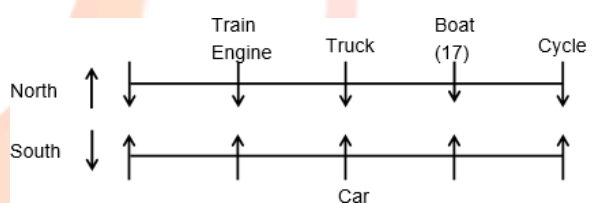


Case 2:

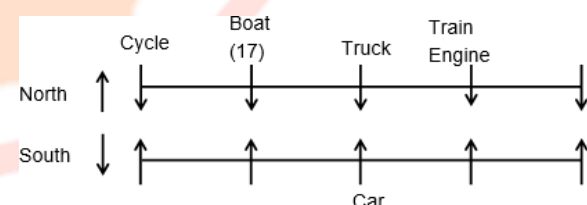


3. Only one vehicle comes in between Train Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other.

Case 1:

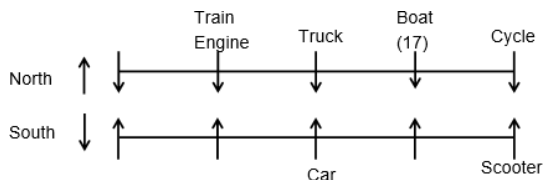


Case 2:

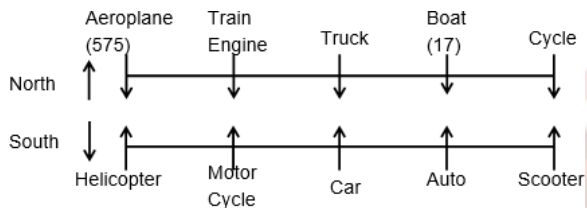


4. The one who faces Train Engine sits third to the right of scooter and both have a speed of multiple of 5.

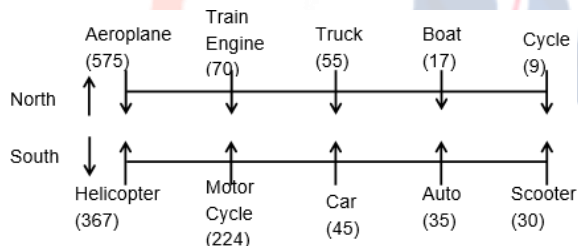
This is not possible in case 2. So, case 1 is correct.



5. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Aeroplane is sitting at the extreme end and has the highest speed.



6. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Truck has speed more than 50 km/hr. All the vehicles are placed from east to west in the increasing order of their speeds.



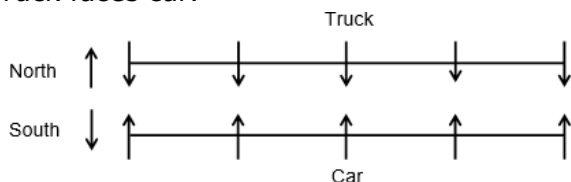
Hence, except auto all other vehicles are placed at extreme end.

8. Ans. B.

Vehicles - Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane

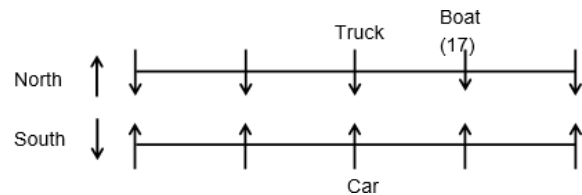
Speed - 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575

1. The car is sitting third to the extreme end. Truck faces car.

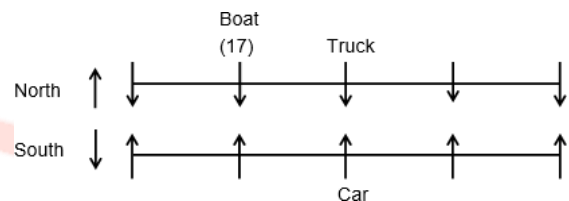


2. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr.

Case 1:

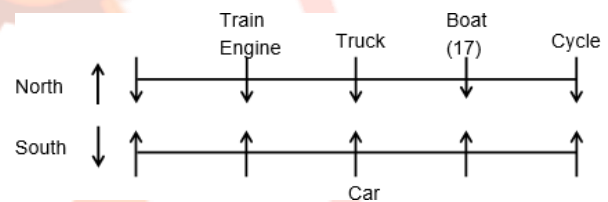


Case 2:

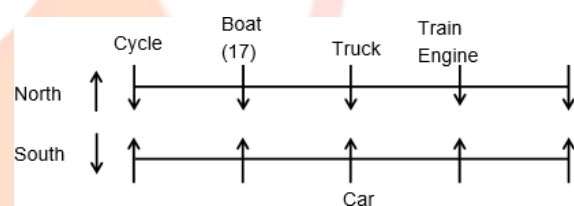


3. Only one vehicle comes in between Train Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other.

Case 1:

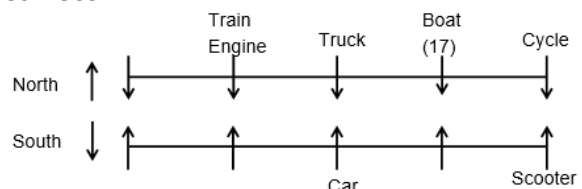


Case 2:

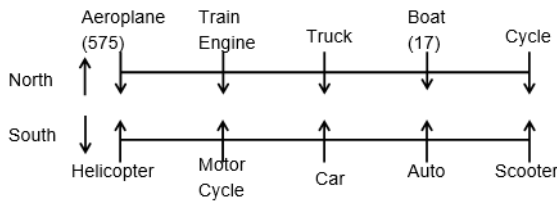


4. The one who faces Train Engine sits third to the right of scooter and both have a speed of multiple of 5.

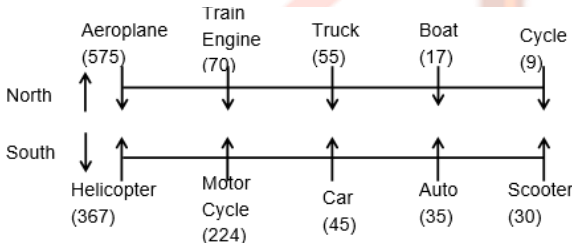
This is not possible in case 2. So, case 1 is correct.



5. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Aeroplane is sitting at the extreme end and has the highest speed.



6. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Truck has speed more than 50 km/hr. All the vehicles are placed from east to west in the increasing order of their speeds.

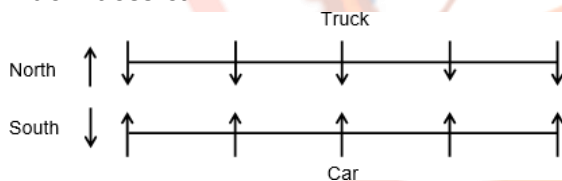


Hence, speed of auto is 35km/hr.

9. Ans. E.

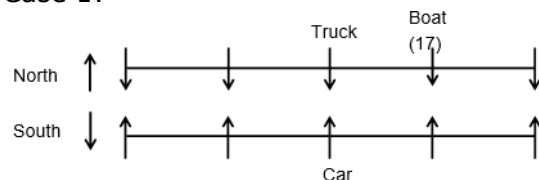
Vehicles - Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane
Speed - 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575

1. The car is sitting third to the extreme end. Truck faces car.

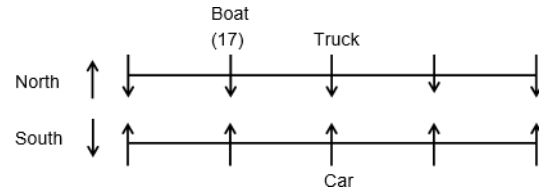


2. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr.

Case 1:

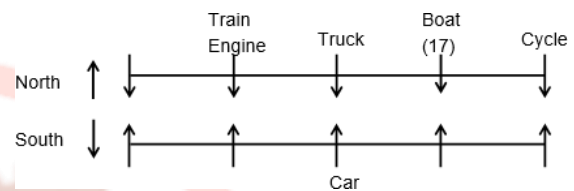


Case 2:

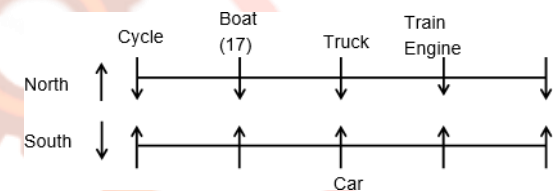


3. Only one vehicle comes in between Train Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other.

Case 1:

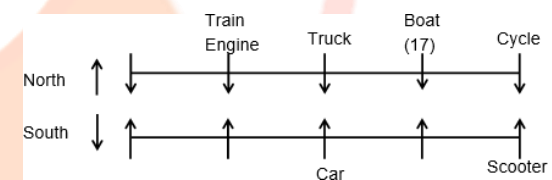


Case 2:

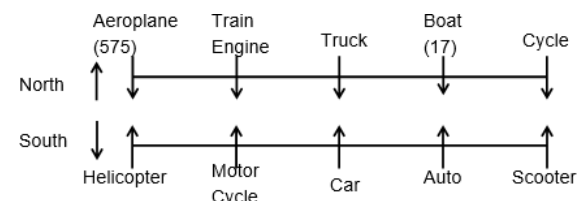


4. The one who faces Train Engine sits third to the right of scooter and both have a speed of multiple of 5.

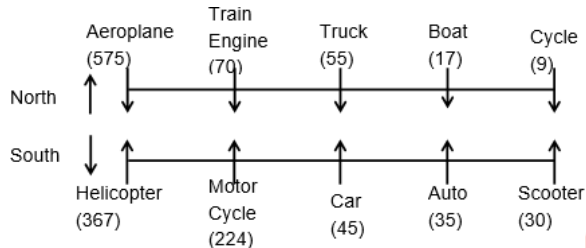
This is not possible in case 2. So, case 1 is correct.



5. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Aeroplane is sitting at the extreme end and has the highest speed.



6. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Truck has speed more than 50 km/hr. All the vehicles are placed from east to west in the increasing order of their speeds.



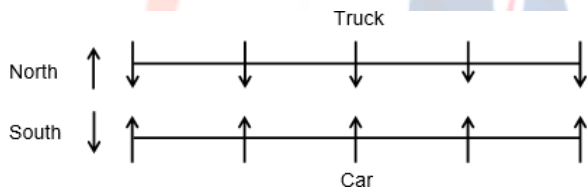
Hence, truck is placed at the immediate left of boat.

10. Ans. B.

Vehicles - Cycle, Scooter, Car, Auto, Train, Boat, Truck, Helicopter, Motorcycle and Aeroplane

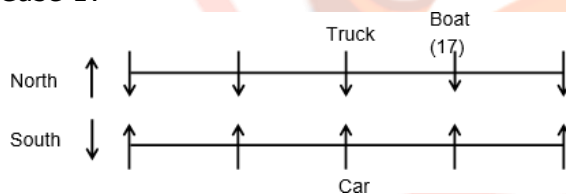
Speed - 9, 17, 30, 35, 45, 55, 70, 224, 367 and 575

1. The car is sitting third to the extreme end. Truck faces car.

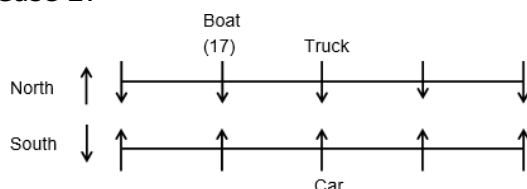


2. The vehicle car is facing immediate neighbour of boat whose speed is 17km/hr.

Case 1:

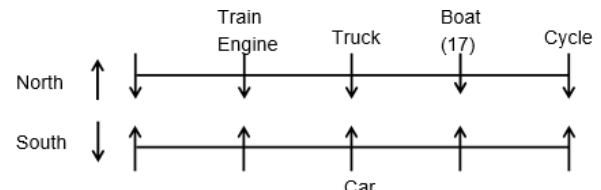


Case 2:

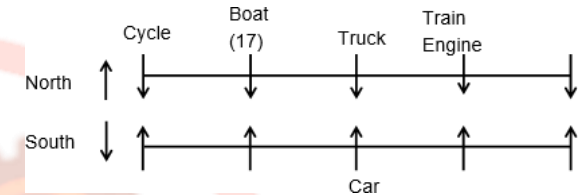


3. Only one vehicle comes in between Train Engine and Boat neither of them has speed of 55 or 35 km/hr. Cycle and boat are immediate neighbours of each other.

Case 1:

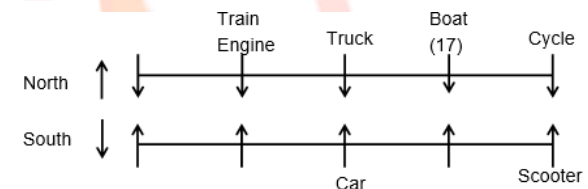


Case 2:

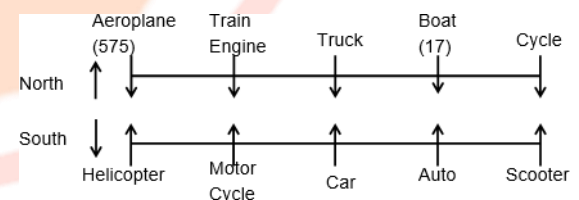


4. The one who faces Train Engine sits third to the right of scooter and both have a speed of multiple of 5.

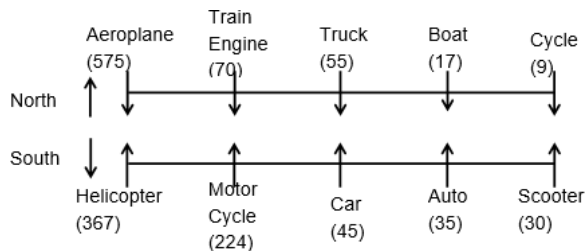
This is not possible in case 2. So, case 1 is correct.



5. Motorcycle and Helicopter are immediate neighbours of each other and one of them has even number speed and the other has odd number of speed. Aeroplane is sitting at the extreme end and has the highest speed.



6. The one who has speed of 35 and 45 km/hr are immediate neighbours of each other. Motorcycle has more speed than Train Engine. Truck has speed more than 50 km/hr. All the vehicles are placed from east to west in the increasing order of their speeds.



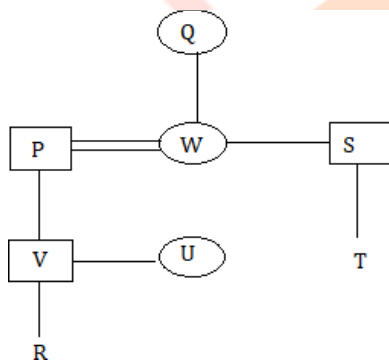
Hence, the sum of speeds of car and cycle is 54km/hr

11. Ans. D.

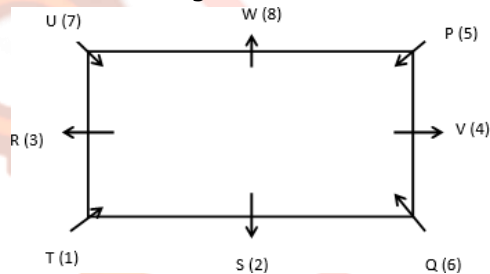
From the given information,

Symbol in Diagram	Meaning
	Female
	Male
	Married Couple
	Siblings
	Difference of a generation

1. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. V is father of R and is not an immediate neighbour of T. P is married to W.



2. S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is an immediate neighbour of Q, who sits at the corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T.



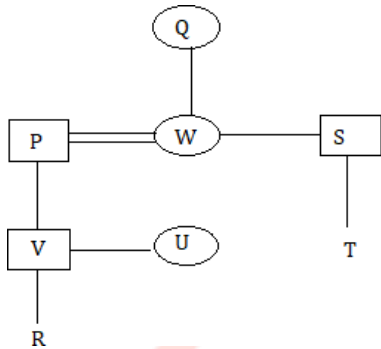
Hence, Q is U's grandmother.

12. Ans. A.

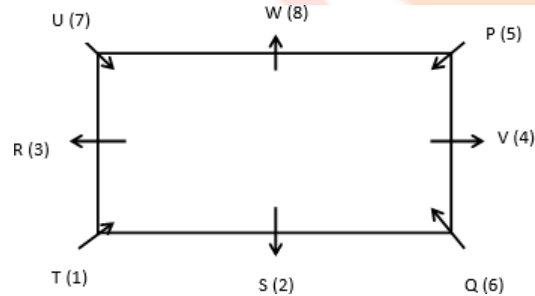
From the given information,

Symbol in Diagram	Meaning
	Female
	Male
	Married Couple
	Siblings
	Difference of a generation

1. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. V is father of R and is not an immediate neighbour of T. P is married to W.



2. S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is an immediate neighbour of Q, who sits at the corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T.

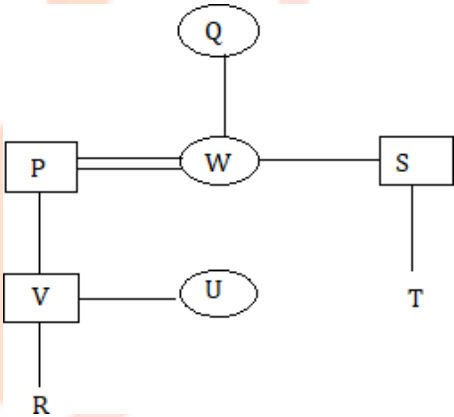


Hence, U sits second to the right of P.

13. Ans. E.
From the given information,

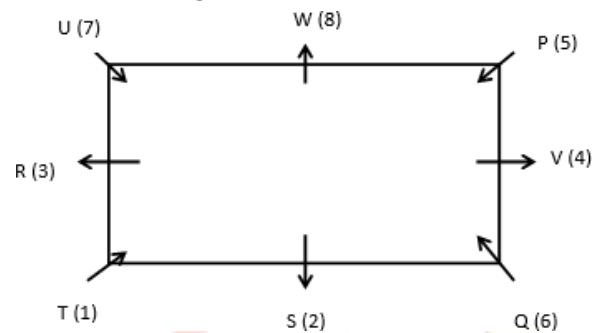
Symbol in Diagram	Meaning
	Female
	Male
	Married Couple
	Siblings
	Difference of a generation

1. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. V is father of R and is not an immediate neighbour of T. P is married to W.



2. S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is an immediate neighbour of Q, who sits at the

corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T.



Hence, W's lucky number is 8.

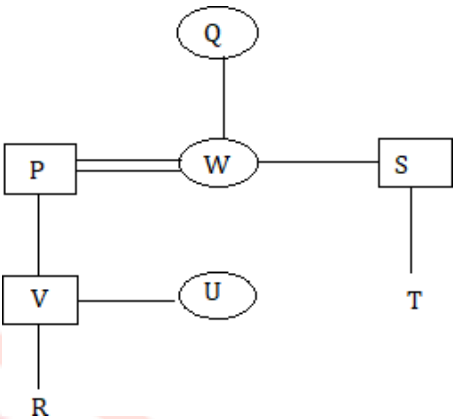
14. Ans. D.

From the given information,

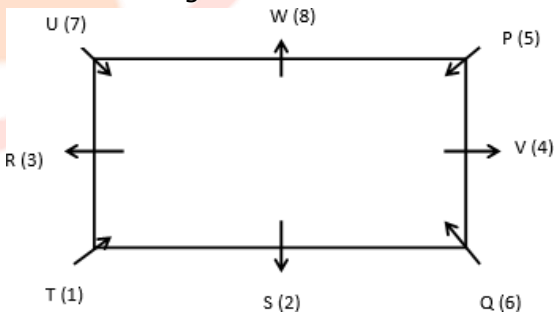
Symbol in Diagram	Meaning
	Female
	Male
	Married Couple
	Siblings
	Difference of a generation

1. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. U, who is sister of V, her

lucky number is 7 and is not an immediate neighbour of W's husband. V is father of R and is not an immediate neighbour of T. P is married to W.






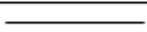

2. S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is an immediate neighbour of Q, who sits at the corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T.



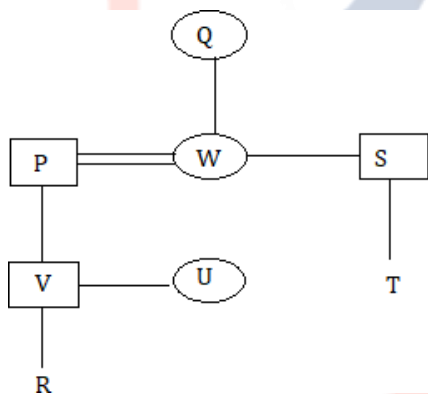
Hence, except P all are facing away from the centre.

15. Ans. E.

From the given information,

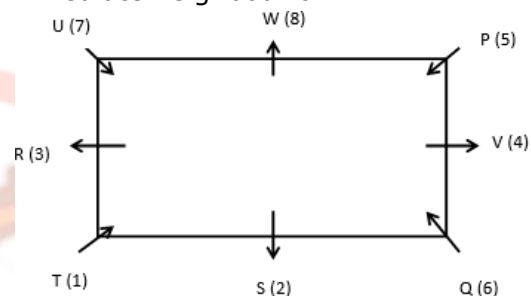
Symbol in Diagram	Meaning
	Female
	Male
	Married Couple
	Siblings
	Difference of a generation

1. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. V is father of R and is not an immediate neighbour of T. P is married to W.



2. S's daughter lucky number is 1. Only one person is sitting between P and U. W's brother S, sits on the immediate left of his mother whose lucky number is 6. P is the father of V and only one person sits between W's mother and T. T sits on the immediate right of the person whose lucky number is 2. No female is

an immediate neighbour of Q, who sits at the corner of the table. S's daughter sits second to the right of U and on the immediate left of that person whose lucky number is 3. Q sits second to the left of W's husband whose lucky number is neither 4 nor 7. U, who is sister of V, her lucky number is 7 and is not an immediate neighbour of W's husband. Only one person sits between W and V. V sits second to the right of the person whose lucky number is 8. V is father of R and is not an immediate neighbour of T.



Hence, P and T are sitting opposite to each other.

16. Ans. B.

First row - 9 216 6

According to step 4: "9 216" = 216 - 9 = 207

According to step 1: "207 × 6" = 1242

1242 is the resultant of first row.

Second row - 1242 5 11

According to step 3: "1242 5" = 1242 + 5 = 1247

According to step 5: "1247 11" = 1247 + 11 = 1258

1258 is the resultant of second row. Difference between the resultant of two rows = 1258 - 1242 = 16

17. Ans. C.

First row - 15 8 15

According to step 1: "15 8" = 15 × 8 = 120

According to step 2: "120 15" = 120 - 15 = 105

105 is the resultant of first row.

Second row - 35 45 13

According to step 5: "35 45" = 35 + 45 = 80

According to step 3: "80 13" = 80 + 13 = 93

93 is the resultant of second row. Addition of resultant of two rows = 105 + 93 = 198

18. Ans. B.

First row – 8 11 8

According to step 3: "8 11" = $11 + 8 = 19$

According to step 4: "19 8" = $19 - 8 = 11$

11 is the resultant of first row.

Second row – 26 21 7

According to step 2: "26 21" = $26 - 21 = 5$

According to step 5: "5 7" = $5 + 7 = 12$

12 is the resultant of second row.

Difference of resultant of two rows = $12 - 11 = 1$

19. Ans. A.

Second row - 45 33 3

According to step 5: "45 33" = $45 + 33 =$

78

According to step 3: "78 3" = $78 + 3 = 81$

81 is the resultant of second row.

First row – 81 6 15

According to step 1: "81 6" = $81 \times 6 = 486$

According to step 2: "486 15" = $486 - 15 =$

471

471 is the resultant of first row.

Multiplication of resultant of two rows = 471

$\times 81 = 38151$

20. Ans. B.

First row – 3 27 15

According to step 4: "3 27" = $27 - 3 = 24$

According to step 2: "24 15" = $24 - 15 = 9$

9 is the resultant of first row.

Sum of resultant of two rows = 30

$9 + \text{Resultant of second row} = 30$

Resultant of second row = $30 - 9 = 21$

Second row – 7 3 X

According to step 5: "7 3" = $7 + 3 = 10$

$10 + X = 21$

$X = 21 - 10 = 11$

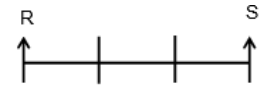
Hence, value of X is 11.

21. Ans. D.

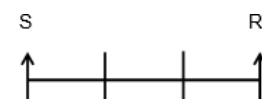
Horses - P, Q, R, S, T and U

1. Distance between R and S is 60m and only two horses stand between them.

Case 1:



Case 2:



Let distance between two horses be $4x$. All the distances are consecutive integral multiple of 4.

$$4x + 4x + 4 + 4x + 8 = 60 \quad 12x + 12 = 60$$

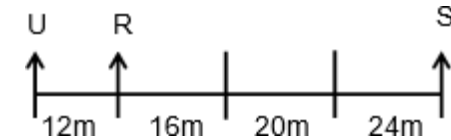
$$12x = 60 - 12$$

$$12x = 48 \quad x = 4$$

Hence, distances are 16, 20, 24.

2. U sits immediate left of R.

Case 1:



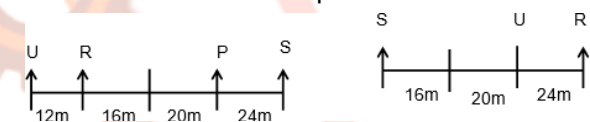
Case 2:

3. P sits somewhere to the right of U and distance between them is in multiple of six.

Distance between R and Q is 44m.

Case 1:

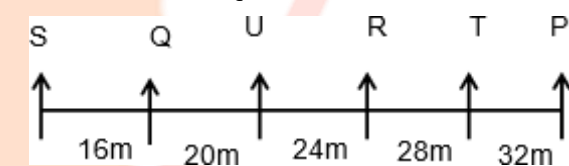
Distance between P and U must be multiple of 6. There is only one possibility as $12 + 16 + 20 = 48$ which is multiple of 6.



Distance between R and Q is 44m which is not possible in this case.

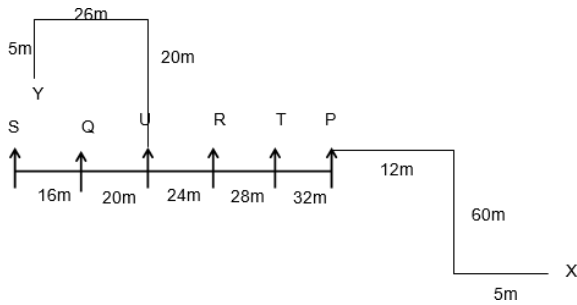
Case 2:

Distance between P and U must be multiple of 6. There is only one possibility as $24 + 28 + 32 = 84$ which is multiple of 6. Distance between R and Q is 44m.



4. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X.

Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.



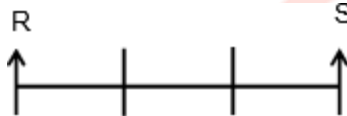
Hence, distance between horses S and R is 60m.

22. Ans. D.

Horses - P, Q, R, S, T and U

1. Distance between R and S is 60m and only two horses stand between them.

Case 1:



Case 2:



Let distance between two horses be $4x$. All the distances are consecutive integral multiple of 4.

$$4x + 4x + 4 + 4x + 8 = 60$$

$$12x + 12 = 60$$

$$12x = 60 - 12$$

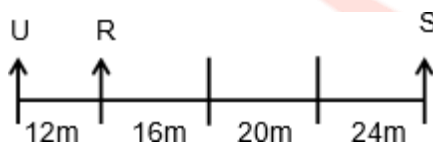
$$12x = 48$$

$$x = 4$$

Hence, distances are 16, 20, 24.

2. U sits immediate left of R.

Case 1:



Case 2:

3. P sits somewhere to the right of U and distance between them is in multiple of six. Distance between R and Q is 44m.

Case 1:

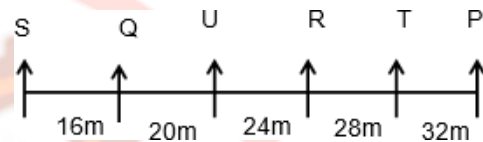
Distance between P and U must be multiple of 6. There is only one possibility as $12 + 16 + 20 = 48$ which is multiple of 6.



Distance between R and Q is 44m which is not possible in this case.

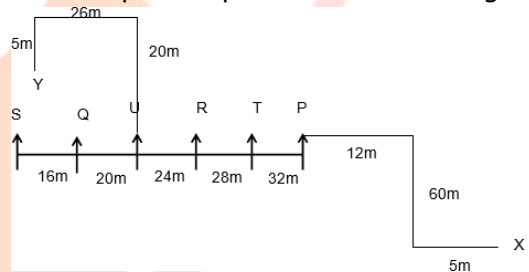
Case 2:

Distance between P and U must be multiple of 6. There is only one possibility as $24 + 28 + 32 = 84$ which is multiple of 6. Distance between R and Q is 44m.



4. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X.

Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.



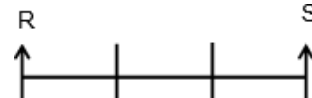
Hence, horse P is now facing east direction.

23. Ans. C.

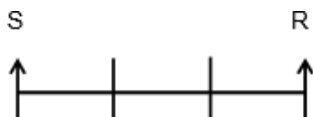
Horses - P, Q, R, S, T and U

1. Distance between R and S is 60m and only two horses stand between them.

Case 1:



Case 2:



Let distance between two horses be $4x$. All the distances are consecutive integral multiple of 4.

$$4x + 4x + 4 + 4x + 8 = 60$$

$$12x + 12 = 60$$

$$12x = 60 - 12$$

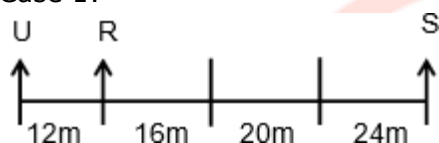
$$12x = 48$$

$$x = 4$$

Hence, distances are 16, 20, 24.

2. U sits immediate left of R.

Case 1:

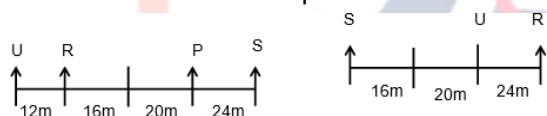


Case 2:

3. P sits somewhere to the right of U and distance between them is in multiple of six. Distance between R and Q is 44m.

Case 1:

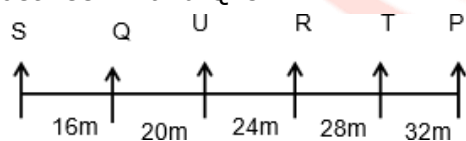
Distance between P and U must be multiple of 6. There is only one possibility as $12 + 16 + 20 = 48$ which is multiple of 6.



Distance between R and Q is 44m which is not possible in this case.

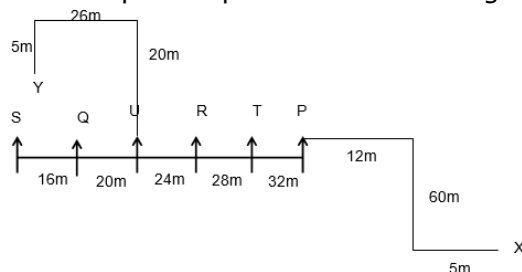
Case 2:

Distance between P and U must be multiple of 6. There is only one possibility as $24 + 28 + 32 = 84$ which is multiple of 6. Distance between R and Q is 44m.



4. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X.

Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.



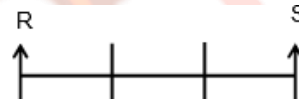
Hence, horse U is on the immediate right of Q.

24. Ans. E.

Horses - P, Q, R, S, T and U

1. Distance between R and S is 60m and only two horses stand between them.

Case 1:



Case 2:



Let distance between two horses be $4x$. All the distances are consecutive integral multiple of 4.

$$4x + 4x + 4 + 4x + 8 = 60$$

$$12x + 12 = 60$$

$$12x = 60 - 12$$

$$12x = 48$$

$$x = 4$$

Hence, distances are 16, 20, 24.

2. U sits immediate left of R.

Case 1:

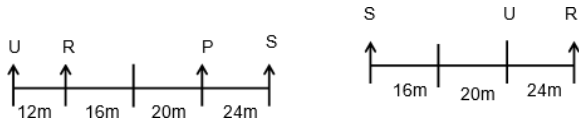


Case 2:

3. P sits somewhere to the right of U and distance between them is in multiple of six. Distance between R and Q is 44m.

Case 1:

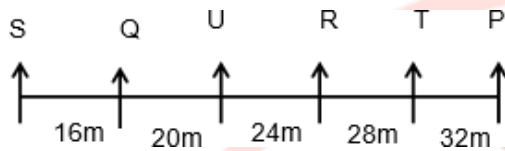
Distance between P and U must be multiple of 6. There is only one possibility as $12 + 16 + 20 = 48$ which is multiple of 6.



Distance between R and Q is 44m which is not possible in this case.

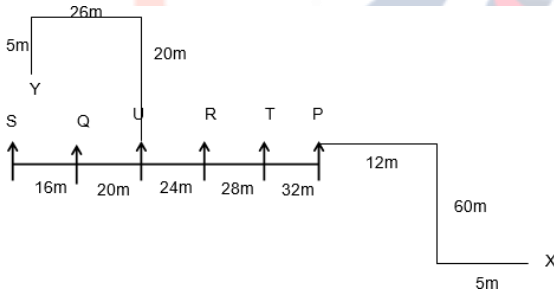
Case 2:

Distance between P and U must be multiple of 6. There is only one possibility as $24 + 28 + 32 = 84$ which is multiple of 6. Distance between R and Q is 44m.



4. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X.

Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.



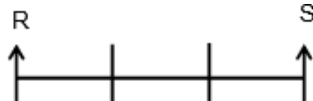
Hence, there are four horses between S and P.

25. Ans. C.

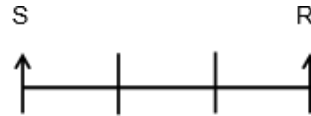
Horses - P, Q, R, S, T and U

1. Distance between R and S is 60m and only two horses stand between them.

Case 1:



Case 2:



Let distance between two horses be $4x$. All the distances are consecutive integral multiple of 4.

$$4x + 4x + 4 + 4x + 8 = 60$$

$$12x + 12 = 60$$

$$12x = 60 - 12$$

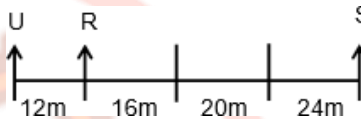
$$12x = 48$$

$$x = 4$$

Hence, distances are 16, 20, 24.

2. U sits immediate left of R.

Case 1:



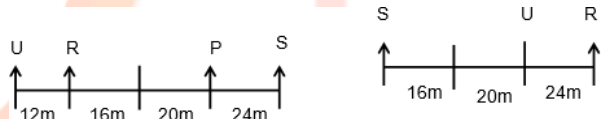
Case 2:

3. P sits somewhere to the right of U and distance between them is in multiple of six.

Distance between R and Q is 44m.

Case 1:

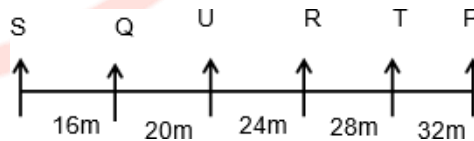
Distance between P and U must be multiple of 6. There is only one possibility as $12 + 16 + 20 = 48$ which is multiple of 6.



Distance between R and Q is 44m which is not possible in this case.

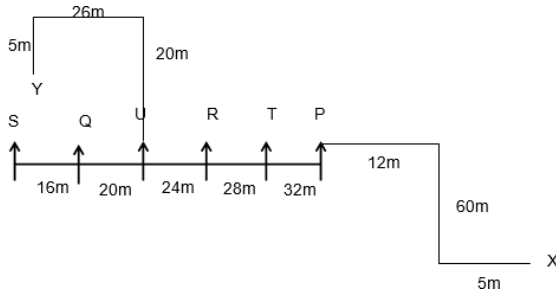
Case 2:

Distance between P and U must be multiple of 6. There is only one possibility as $24 + 28 + 32 = 84$ which is multiple of 6. Distance between R and Q is 44m.



4. Horse P starts moving towards east, after moving 12m, it turns to its right and moves 60m. From there after turning to its left and walking for a distance of 5m, it comes to halt at a point X.

Horse U moves in north direction for a distance of 20m and then turn to its left and moves 26m. After taking one more turn to its left it stops at a point Y after walking 5m.



Hence, point Y is in north-west direction with respect to point X.

26. Ans. C.

Persons - P, Q, R, S, T, U, V and W

Fruits - Apple, Mango, Banana, Papaya, Orange, Cherry, strawberry and Guava

1. There are only three floors gap between U and the one who likes Banana. U lives one of the floors below to the one who likes Banana. There are only three floors between U and S. S does not like Banana.

Case 1:

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.		
6.	U	
5.		
4.		
3.		
2.	S	
1.		

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.		
7.		
6.		
5.	U	
4.		
3.		
2.		
1.	S	

2. There are three floors between P and Q. The person who likes mango lives below to both P and Q. The one who likes Apple lives immediately between P and W. W likes mango.

Case 1:

Floor	Person	Game
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.		
3.	P	
2.	S	Apple
1.	W	Mango

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.	Q	
7.		
6.		
5.	U	
4.	P	
3.		Apple
2.	W	Mango
1.	S	

3. There are two floors between W and R. This is not possible in case 2. So, case 1 is correct.

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

4. V lives immediately below the one who likes Cherry.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	
6.	U	Cherry
5.	V	
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

5. The number of person lives between U and the one who likes Banana is same as the number of floors between U and the person who likes Orange.

Hence, R likes Orange.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	
6.	U	Cherry
5.	V	
4.	R	Orange
3.	P	
2.	S	Apple
1.	W	Mango

6. The one who likes Guava lives below the one who likes Papaya but does not lives below the one who likes Strawberry.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	Papaya
6.	U	Cherry
5.	V	Guava
4.	R	Orange
3.	P	Strawberry
2.	S	Apple
1.	W	Mango

Hence, Q likes Papaya.

27. Ans. B.

Persons - P, Q, R, S, T, U, V and W

Fruits - Apple, Mango, Banana, Papaya, Orange, Cherry, strawberry and Guava

1. There are only three floors gap between U and the one who likes Banana. U lives one of the floors below to the one who likes Banana. There are only three floors between U and S. S does not like Banana.

Case 1:

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.		
6.	U	
5.		
4.		
3.		
2.	S	
1.		

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.		
7.		
6.		
5.	U	
4.		
3.		
2.		
1.	S	

2. There are three floors between P and Q. The person who likes mango lives below to both P and Q. The one who likes Apple lives immediately between P and W. W likes mango.

Case 1:

Floor	Person	Game
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.		
3.	P	
2.	S	Apple
1.	W	Mango

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.	Q	
7.		
6.		
5.	U	
4.	P	
3.		Apple
2.	W	Mango
1.	S	

3. There are two floors between W and R. This is not possible in case 2. So, case 1 is correct.

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

4. V lives immediately below the one who likes Cherry.

Floor	Person	Fruit
10.	T	Banana
9.		Vacant Floor
8.		Vacant Floor
7.	Q	
6.	U	Cherry
5.	V	
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

5. The number of person lives between U and the one who likes Banana is same as the number of floors between U and the person who likes Orange.
Hence, R likes Orange.

Floor	Person	Fruit
10.	T	Banana
9.		Vacant Floor
8.		Vacant Floor
7.	Q	
6.	U	Cherry
5.	V	
4.	R	Orange
3.	P	
2.	S	Apple
1.	W	Mango

6. The one who likes Guava lives below the one who likes Papaya but does not lives below the one who likes Strawberry.

Floor	Person	Fruit
10.	T	Banana
9.		Vacant Floor
8.		Vacant Floor
7.	Q	Papaya
6.	U	Cherry
5.	V	Guava
4.	R	Orange
3.	P	Strawberry
2.	S	Apple
1.	W	Mango

Hence, the T lives immediately above the vacant floor.

28. Ans. D.

Persons - P, Q, R, S, T, U, V and W

Fruits - Apple, Mango, Banana, Papaya, Orange, Cherry, strawberry and Guava
1. There are only three floors gap between U and the one who likes Banana. U lives one of the floors below to the one who likes Banana. There are only three floors between U and S. S does not like Banana.

Case 1:

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.		
6.	U	
5.		
4.		
3.		
2.	S	
1.		

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.		
7.		
6.		
5.	U	
4.		
3.		
2.		
1.	S	

2. There are three floors between P and Q. The person who likes mango lives below to both P and Q. The one who likes Apple lives immediately between P and W. W likes mango.

Case 1:

Floor	Person	Game
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.		
3.	P	
2.	S	Apple
1.	W	Mango

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.	Q	
7.		
6.		
5.	U	
4.	P	
3.		Apple
2.	W	Mango
1.	S	

3. There are two floors between W and R. This is not possible in case 2. So, case 1 is correct.

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

4. V lives immediately below the one who likes Cherry.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	
6.	U	Cherry
5.	V	
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

5. The number of person lives between U and the one who likes Banana is same as the number of floors between U and the person who likes Orange. Hence, R likes Orange.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	
6.	U	Cherry
5.	V	
4.	R	Orange
3.	P	
2.	S	Apple
1.	W	Mango

6. The one who likes Guava lives below the one who likes Papaya but does not lives below the one who likes Strawberry.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	Papaya
6.	U	Cherry
5.	V	Guava
4.	R	Orange
3.	P	Strawberry
2.	S	Apple
1.	W	Mango

Hence, 9 is a vacant floor.

29. Ans. A.

Persons - P, Q, R, S, T, U, V and W

Fruits - Apple, Mango, Banana, Papaya, Orange, Cherry, strawberry and Guava

1. There are only three floors gap between U and the one who likes Banana. U lives one of the floors below to the one who likes Banana. There are only three floors between U and S. S does not like Banana.

Case 1:

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.		
6.	U	
5.		
4.		
3.		
2.	S	
1.		

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.		
7.		
6.		
5.	U	
4.		
3.		
2.		
1.	S	

2. There are three floors between P and Q. The person who likes mango lives below to both P and Q. The one who likes Apple lives immediately between P and W. W likes mango.

Case 1:

Floor	Person	Game
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.		
3.	P	
2.	S	Apple
1.	W	Mango

Case 2:

Floor	Person	Fruit
10.		
9.		Banana
8.	Q	
7.		
6.		
5.	U	
4.	P	
3.		Apple
2.	W	Mango
1.	S	

3. There are two floors between W and R. This is not possible in case 2. So, case 1 is correct.

Floor	Person	Fruit
10.		Banana
9.		
8.		
7.	Q	
6.	U	
5.		
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

4. V lives immediately below the one who likes Cherry.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	
6.	U	Cherry
5.	V	
4.	R	
3.	P	
2.	S	Apple
1.	W	Mango

5. The number of person lives between U and the one who likes Banana is same as the number of floors between U and the person who likes Orange.
Hence, R likes Orange.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	
6.	U	Cherry
5.	V	
4.	R	Orange
3.	P	
2.	S	Apple
1.	W	Mango

6. The one who likes Guava lives below the one who likes Papaya but does not lives below the one who likes Strawberry.

Floor	Person	Fruit
10.	T	Banana
9.	Vacant Floor	
8.	Vacant Floor	
7.	Q	Papaya
6.	U	Cherry
5.	V	Guava
4.	R	Orange
3.	P	Strawberry
2.	S	Apple
1.	W	Mango

Hence, two persons lives between T and the one who likes Guava.

30. Ans. C.

(i) The statement can be concluded from the given statement because it describes that Republic day 2018 will witness so many leaders for the first time which is also mentioned in the given statement that for the first time India will invite heads of ten ASEAN nations for Republic day 2018 celebrations.

(ii) This statement cannot be concluded from the given statement as it is not mentioned in the given statements.

(iii) This also cannot be concluded as no information is given about India and Asian's economic partnership.

31. Ans. B.

The given argument states that obesity should be categorized as a serious disease as it is known to decrease life expectancy and to harm the normal functioning of the body just like any other life-threatening disease. Option B undermines the argument by pointing out that obesity is mostly a lifestyle problem and not a disease. Compared to 40 years ago, people today spend more time commuting, sitting in front of a computer, watching television, playing video games, and generally exercising less, and end up burning fewer calories. Hence, option B is the correct answer.

32. Ans. B.

1. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. B is a scientist and the one who likes pink colour works is a doctor. D likes Orange colour and was born in the same month as F. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
D		Orange	Engineer

2. The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. The one who is a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is a IPS was born on one of the months which have less than 31 days and the one who is a IAS was born on one of the months which has more than 30 days.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
	June (30)		Professor
	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

3. C likes grey colour and was born in the same month as E. F was not born in the same month as E. D likes Orange colour and was born in the same month as F. C was not born in December. C is neither Fashion designer nor IPS. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

4. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black was not born in the same month as H. F does not like Black colour and the one who likes orange colour is an engineer. The one who likes red colour was born in the same month as A. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)	White	Scientist
H	March (31)	Green	Fashion Designer
A	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)	Red	IPS
D	December (31)	Orange	Engineer
F	December (31)	Blue	Teacher
G	December (31)	Black	IAS

Hence, G is an IAS.

33. Ans. C.

1. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. B is a scientist and the one who likes pink colour works is a doctor. D likes Orange colour and was born in the same month as F. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
D		Orange	Engineer

2. The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. The one who is a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is a IPS was born on one of the months which have less than 31 days and the one who is a IAS was born on one of the months which has more than 30 days.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
	June (30)		Professor
	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

3. C likes grey colour and was born in the same month as E. F was not born in the same month as E. D likes Orange colour and was born in the same month as F. C was not born in December. C is neither Fashion designer nor IPS. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

4. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black was not born in the same month as H. F does not like Black colour and the one who likes orange colour is an engineer. The one who likes red colour was born in the same month as A. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)	White	Scientist
H	March (31)	Green	Fashion Designer
A	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)	Red	IPS
D	December (31)	Orange	Engineer
F	December (31)	Blue	Teacher
G	December (31)	Black	IAS

Hence, D likes orange colour.

34. Ans. E.

1. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. B is a scientist and the one who likes pink colour works is a doctor. D likes Orange colour and was born in the same month as F. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
D		Orange	Engineer

2. The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. The one who is a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is a IPS was born on one of the months which have less than 31 days and the one who is a IAS was born on one of the months which has more than 30 days.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
	June (30)		Professor
	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

3. C likes grey colour and was born in the same month as E. F was not born in the same month as E. D likes Orange colour and was born in the same month as F. C was not born in December. C is neither Fashion designer nor IPS. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

4. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black was not born in the same month as H. F does not like Black colour and the one who likes orange colour is an engineer. The one who likes red colour was born in the same month as A. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)	White	Scientist
H	March (31)	Green	Fashion Designer
A	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)	Red	IPS
D	December (31)	Orange	Engineer
F	December (31)	Blue	Teacher
G	December (31)	Black	IAS

Hence, D, F and G was born in December.

35. Ans. E.

1. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. B is a scientist and the one who likes pink colour works is a doctor. D likes Orange colour and was born in the same month as F. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
D		Orange	Engineer

2. The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. The one who is a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is a IPS was born on one of the months which have less than 31 days and the one who is a IAS was born on one of the months which has more than 30 days.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
	June (30)		Professor
	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

3. C likes grey colour and was born in the same month as E. F was not born in the same month as E. D likes Orange colour and was born in the same month as F. C was not born in December. C is neither Fashion designer nor IPS. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

4. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black was not born in the same month as H. F does not like Black colour and the one who likes orange colour is an engineer. The one who likes red colour was born in the same month as A. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)	White	Scientist
H	March (31)	Green	Fashion Designer
A	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)	Red	IPS
D	December (31)	Orange	Engineer
F	December (31)	Blue	Teacher
G	December (31)	Black	IAS

Hence, except one who is an engineer all other are born in June.

36. Ans. B.

1. C likes grey colour and was born in the same month as E. Only B and H were born in March. The one who likes Pink colour was born in the month which has 30 days only. B is a scientist and the one who likes pink colour works is a doctor. D likes Orange colour and was born in the same month as F. H is a fashion designer. F does not like Black colour and the one who likes orange colour is an engineer.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
D		Orange	Engineer

2. The one who is a teacher was born on one of the months which have more than 30 days and the one who is an engineer was born on one of the months which have more than 30 days. The one who is a scientist was born on one of the months which have more than 30 days and the one who is a professor was born on one of the months which has less than 31 days. The one who is a IPS was born on one of the months which have less than 31 days and the one who is a IAS was born on one of the months which has more than 30 days.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
	June (30)		Professor
	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

3. C likes grey colour and was born in the same month as E. F was not born in the same month as E. D likes Orange colour and was born in the same month as F. C was not born in December. C is neither Fashion designer nor IPS. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)		Scientist
H	March (31)		Fashion Designer
	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)		IPS
D	December (31)	Orange	Engineer
	December (31)		Teacher
	December (31)		IAS

4. The one who likes Black and the one who likes Blue were born in the same month. The one who likes Black was not born in the same month as H. F does not like Black colour and the one who likes orange colour is an engineer. The one who likes red colour was born in the same month as A. B does not like green colour and E does not like pink.

Person	Month	Colour	Profession
B	March (31)	White	Scientist
H	March (31)	Green	Fashion Designer
A	June (30)	Pink	Doctor
C	June (30)	Grey	Professor
E	June (30)	Red	IPS
D	December (31)	Orange	Engineer
F	December (31)	Blue	Teacher
G	December (31)	Black	IAS

Hence, C likes grey colour.

37. Ans. E.

None of the courses of action follow. Banning the sale of knives just because one particular knife-wielding assailant went on a rampage makes no sense. Similarly, taking into police custody all those who are seen carrying knives is not something practical. Knives can be used for so many other purposes not involving the killing/harming of people. Finally, it is not a realistic expectation that posting policemen in all major tourist spots would reduce or altogether stop instances of such occurrences. Therefore, option E is the correct answer.

38. Ans. C.

Only III can be inferred. We can only deduce from the given statement that Putin and America have not been on good terms because President Trump was accused of treason simply because he embraced his Russian counterpart. We cannot draw any general conclusions about the relationship between both the countries. Also, we cannot infer anything about the prior presidents of America from what is given. Therefore, option C is the correct answer.

39. Ans. C.

Subjects - Mathematics, Hindi, English, Science, Accounts and Economics

1. Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Time slot of English is 1 hour less than the time slot of Science.

Hence, time slot of English class is 2 hours.

Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. English class took place between Mathematics and Accounts but it did not takes place immediately after or before Accounts.

Only one class took place between Mathematics and Science.

Subject	Time
Science	
Hindi	
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	
Accounts	

2. Accounts classes starts from 5:30 pm.

Hence, time slot of Economics class is 3 hours.

Total slot time of Hindi and Economics class is 4.5 hours.

Time slot of Hindi class is = $4.5 - 3 = 1.5$ hours

Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm

Total time for the whole day = 14 hours

3 hours + 1.5 hours + 1.5 hours + 2 hours +

3 hours + Time slot of Accounts = 14 hours

11 hours + Time slot of Accounts = 14 hours

Time slot of Accounts = $14 - 11 = 3$ hours

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm – 8:30 pm

Hence, total time slot of Accounts class is 3 hours.

40. Ans. B.

Subjects - Mathematics, Hindi, English, Science, Accounts and Economics

1. Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Time slot of English is 1 hour less than the time slot of Science.

Hence, time slot of English class is 2 hours.

Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. English class took place between

Mathematics and Accounts but it did not takes place immediately after or before Accounts. Only one class took place between Mathematics and Science.

Subject	Time
Science	
Hindi	
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	
Accounts	

2. Accounts classes starts from 5:30 pm. Hence, time slot of Economics class is 3 hours.

Total slot time of Hindi and Economics class is 4.5 hours.

Time slot of Hindi class is = $4.5 - 3 = 1.5$ hours

Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm

Total time for the whole day = 14 hours

3 hours + 1.5 hours + 1.5 hours + 2 hours +

3 hours + Time slot of Accounts = 14 hours

11 hours + Time slot of Accounts = 14 hours

Time slot of Accounts = $14 - 11 = 3$ hours

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm – 8:30 pm

Hence, Economics class is held after English class.

41. Ans. E.

Subjects - Mathematics, Hindi, English, Science, Accounts and Economics

1. Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Time slot of English is 1 hour less than the time slot of Science.

Hence, time slot of English class is 2 hours.

Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. English class took place between Mathematics and Accounts but it did not takes place immediately after or before Accounts. Only one class took place between Mathematics and Science.

Subject	Time
Science	
Hindi	
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	
Accounts	

2. Accounts classes starts from 5:30 pm.

Hence, time slot of Economics class is 3 hours.

Total slot time of Hindi and Economics class is 4.5 hours.

Time slot of Hindi class is = $4.5 - 3 = 1.5$ hours

Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm

Total time for the whole day = 14 hours

3 hours + 1.5 hours + 1.5 hours + 2 hours +

3 hours + Time slot of Accounts = 14 hours

11 hours + Time slot of Accounts = 14 hours

Time slot of Accounts = $14 - 11 = 3$ hours

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm – 8:30 pm

Hence, five classes took place between Science and Accounts.

42. Ans. C.

Subjects - Mathematics, Hindi, English, Science, Accounts and Economics

1. Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Time slot of English is 1 hour less than the time slot of Science.

Hence, time slot of English class is 2 hours.

Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. English class took place between Mathematics and Accounts but it did not take place immediately after or before Accounts. Only one class took place between Mathematics and Science.

Subject	Time
Science	
Hindi	
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	
Accounts	

2. Accounts classes starts from 5:30 pm.

Hence, time slot of Economics class is 3 hours.

Total slot time of Hindi and Economics class is 4.5 hours.

Time slot of Hindi class is $= 4.5 - 3 = 1.5$ hours

Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm

Total time for the whole day = 14 hours
 $3 \text{ hours} + 1.5 \text{ hours} + 1.5 \text{ hours} + 2 \text{ hours} + 3 \text{ hours} + \text{Time slot of Accounts} = 14 \text{ hours}$
 $11 \text{ hours} + \text{Time slot of Accounts} = 14 \text{ hours}$
Time slot of Accounts = $14 - 11 = 3$ hours

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm – 8:30 pm

Hence, Hindi class starts at 9:30 am – 11:00 am.

43. Ans. D.

Subjects - Mathematics, Hindi, English, Science, Accounts and Economics

1. Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.

Hence, time slot of Science class is 3 hours.

Time slot of English is 1 hour less than the time slot of Science.

Hence, time slot of English class is 2 hours.

Number of classes took place between Economics and Accounts is same as the number of classes between English and Economics. English class took place between Mathematics and Accounts but it did not take place immediately after or before Accounts.

Only one class took place between Mathematics and Science.

Subject	Time
Science	
Hindi	
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	
Accounts	

2. Accounts classes starts from 5:30 pm.
Hence, time slot of Economics class is 3 hours.
Total slot time of Hindi and Economics class is 4.5 hours.
Time slot of Hindi class is = $4.5 - 3 = 1.5$ hours
Mathematics class takes place from 11am to 12:30 pm. Time slot of Science is twice the time slot of mathematics.
Hence, time slot of Science class is 3 hours.

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm

Total time for the whole day = 14 hours
3 hours + 1.5 hours + 1.5 hours + 2 hours + 3 hours + Time slot of Accounts = 14 hours
11 hours + Time slot of Accounts = 14 hours
Time slot of Accounts = $14 - 11 = 3$ hours

Subject	Time
Science	6:30 am – 9:30 am
Hindi	9:30 am – 11 am
Mathematics	11am – 12:30 pm
English	12:30pm – 2:30 pm
Economics	2:30 pm – 5:30 pm
Accounts	5:30pm – 8:30 pm

Hence, total time slot of English and Hindi class is 3.5 hours.

44. Ans. A.

Argument I is strong as it gives a proper reason as to why women should be included in combat arms – because they have already worked in this area in Iraq and other places and so it makes sense to include them officially. Argument II is weak because it talks about a general scenario in comparing an average female with an average male. However, what if a woman with exceptional athletic ability and toughness can meet and even exceed the standards currently set for male troops, on what basis should she be denied entry into combat arms? Therefore, option A is the correct answer.

45. Ans. C.

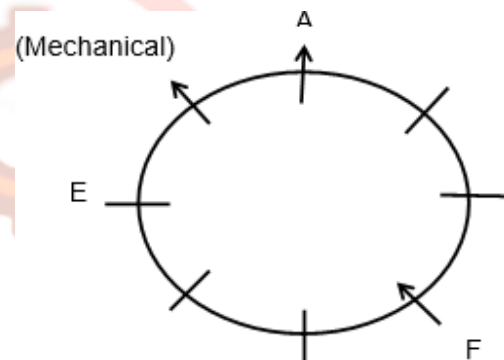
Pakistan is losing its reputation and other countries are planning to take strict action against Pakistan for supporting terrorism as an instrument of state policy. Hence, option C is the correct option.

46. Ans. E.

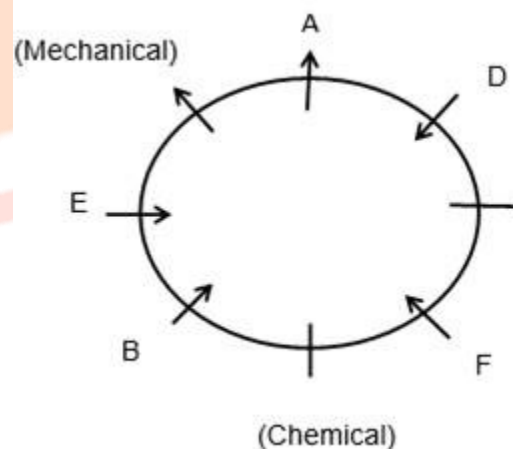
Persons: A, B, C, D, E, F, G and H

Branches: Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological.

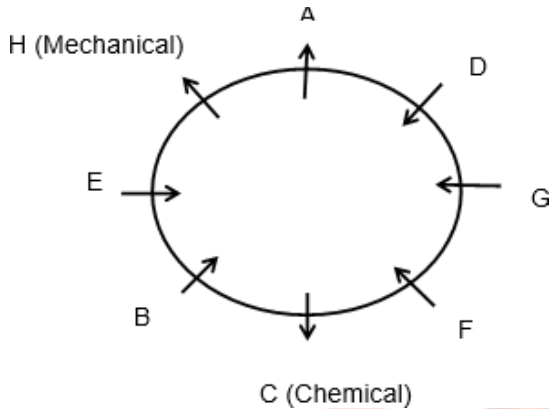
1) Immediate left of A likes Mechanical, who faces opposite the centre. E sits second to the left of A. F and E are facing the same side and only two persons are sitting between them. F does not sit immediately next to A. A and C are facing outward direction but not as F.



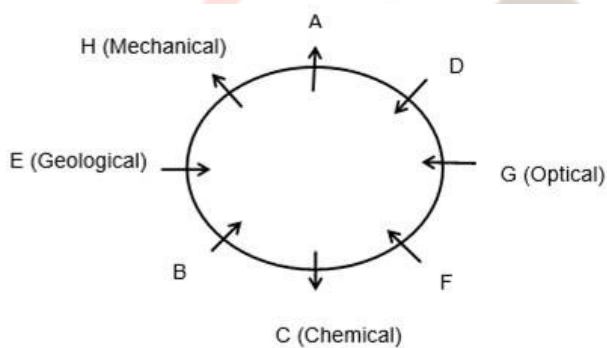
2) D sits diagonally opposite to B who sits to the immediate right of E and both E and B are facing same direction. The one who likes Chemical sits between F and B. D is facing same direction as F.
Hence, E, D and F face the centre.



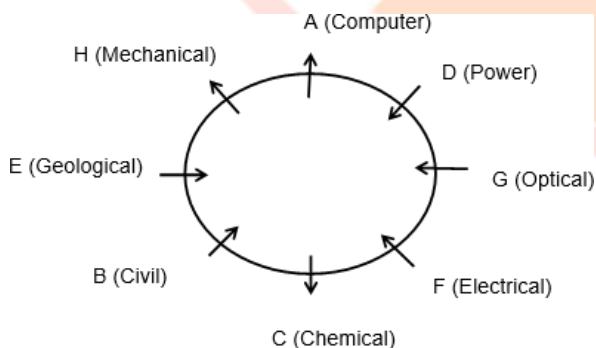
3) Only two persons sit between G and H. C sits second to the left of G. A and C are facing outward direction but not as F. Hence, G faces the centre.



4) The one who likes Geological sits second to the right of the one who likes Chemical. The one who likes Optical faces the one who likes Geological.



5) The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. The one who likes Civil does not sit immediately next to F.



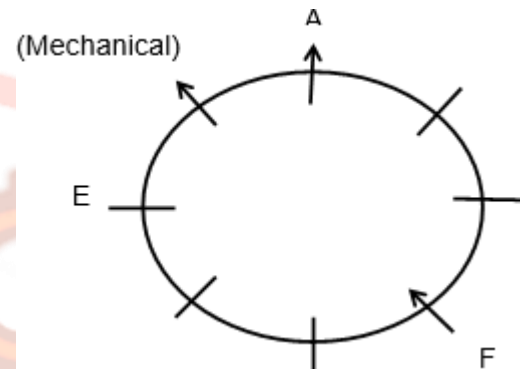
Hence, F likes Electrical.

47. Ans. B.

Persons: A, B, C, D, E, F, G and H

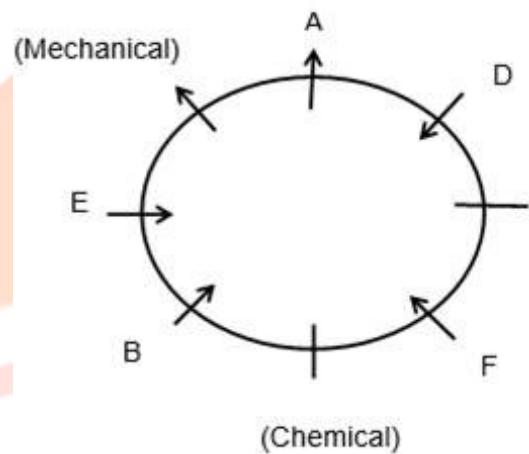
Branches: Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological.

1) Immediate left of A likes Mechanical, who faces opposite the centre. E sits second to the left of A. F and E are facing the same side and only two persons are sitting between them. F does not sit immediately next to A. A and C are facing outward direction but not as F.



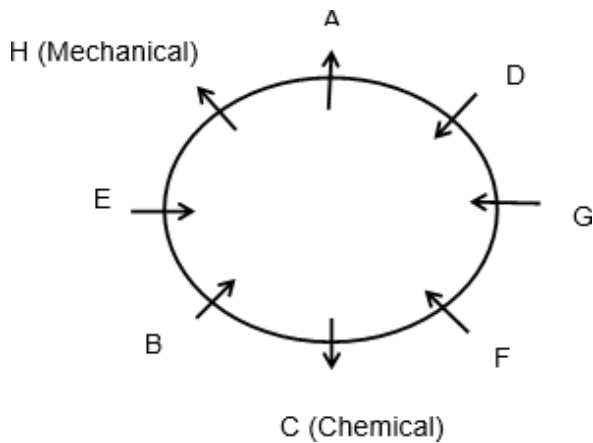
2) D sits diagonally opposite to B who sits to the immediate right of E and both of them are facing each other. The one who likes Chemical sits between F and B.

Hence, E, D and F face the centre.

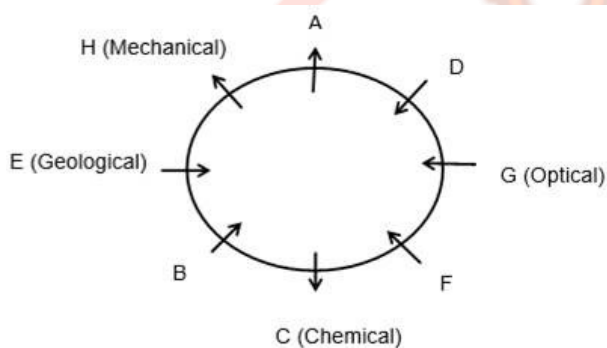


3) Only two persons sit between G and H. C sits second to the left of G. A and C are facing outward direction but not as F.

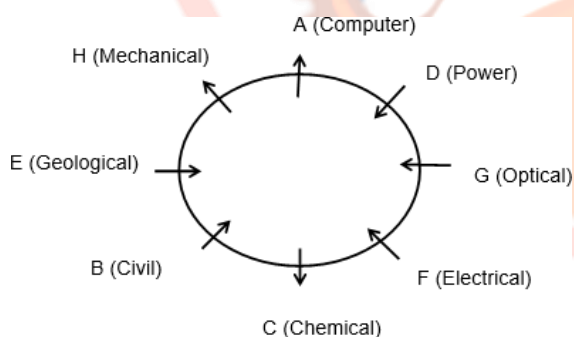
Hence, G faces the centre.



4) The one who likes Geological sits second to the right of the one who likes Chemical. The one who likes Optical faces the one who likes Geological.



5) The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. The one who likes Civil does not sit immediately next to F



Hence, D sits between A and G.

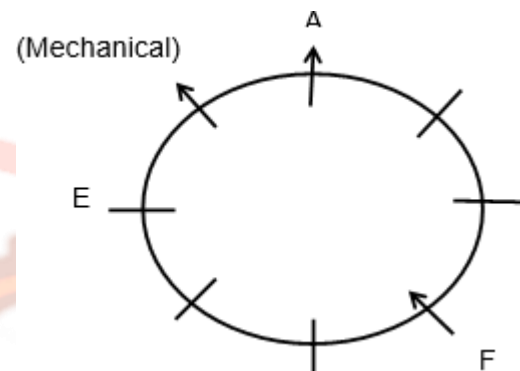
48. Ans. B.

Persons: A, B, C, D, E, F, G and H

Branches: Civil, Mechanical, Chemical,

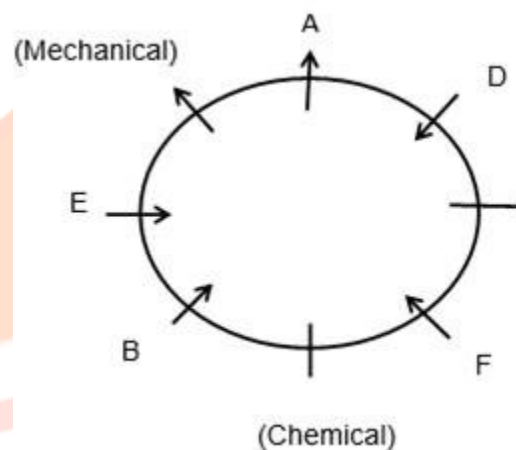
Electrical, Optical, Power, Computer and Geological.

1) Immediate left of A likes Mechanical, who faces opposite the centre. E sits second to the left of A. F and E are facing the same side and only two persons are sitting between them. F does not sit immediately next to A. A and C are facing outward direction but not as F.



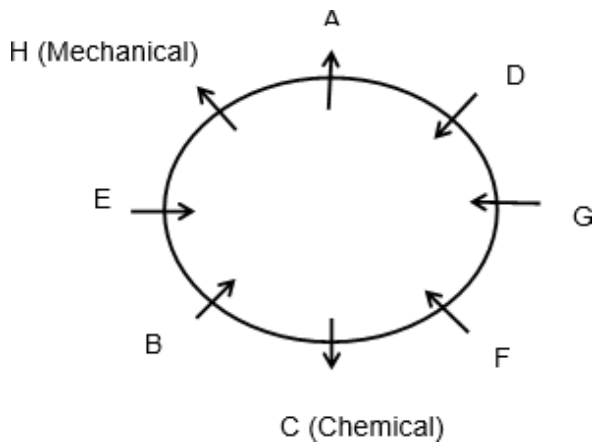
2) D sits diagonally opposite to B who sits to the immediate right of E and both of them are facing each other. The one who likes Chemical sits between F and B.

Hence, E, D and F face the centre.

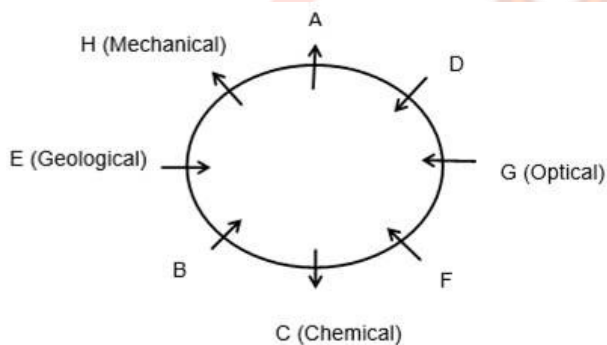


3) Only two persons sit between G and H. C sits second to the left of G. A and C are facing outward direction but not as F.

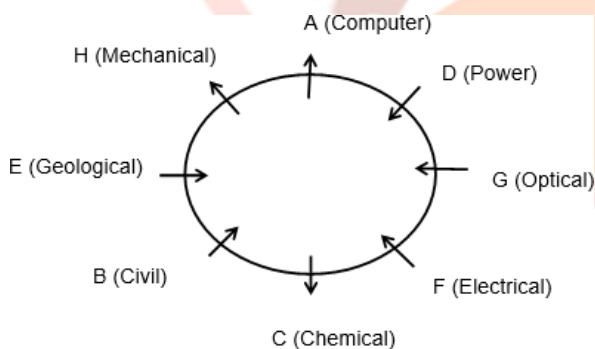
Hence, G faces the centre.



4) The one who likes Geological sits second to the right of the one who likes Chemical. The one who likes Optical faces the one who likes Geological.



5) The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. The one who likes Civil does not sit immediately next to F.

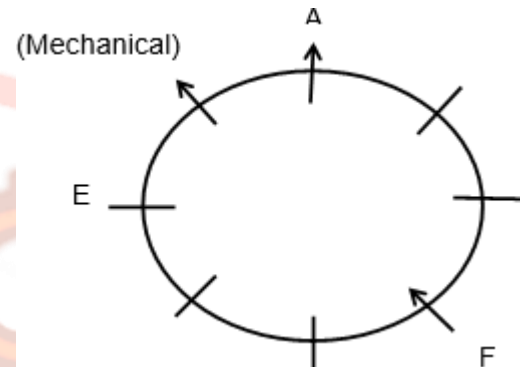


Hence, G and C do not face the same direction.

49. Ans. C.

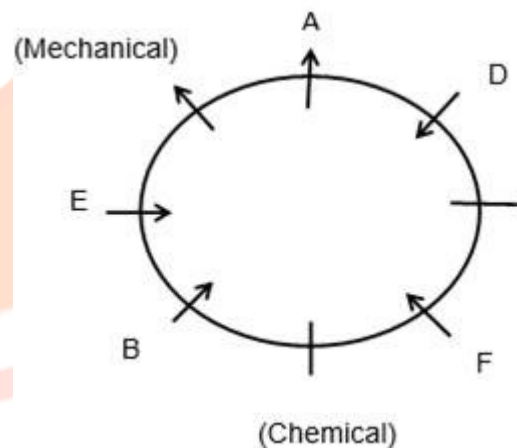
Persons: A, B, C, D, E, F, G and H
Branches: Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological.

1) Immediate left of A likes Mechanical, who faces opposite the centre. E sits second to the left of A. F and E are facing the same side and only two persons are sitting between them. F does not sit immediately next to A. A and C are facing outward direction but not as F.

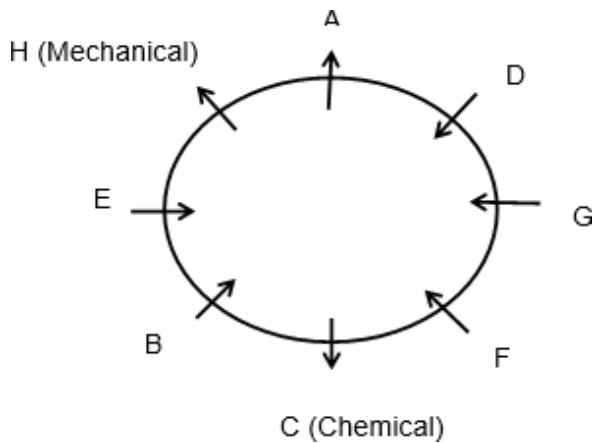


2) D sits diagonally opposite to B who sits to the immediate right of E and both of them are facing each other. The one who likes Chemical sits between F and B.

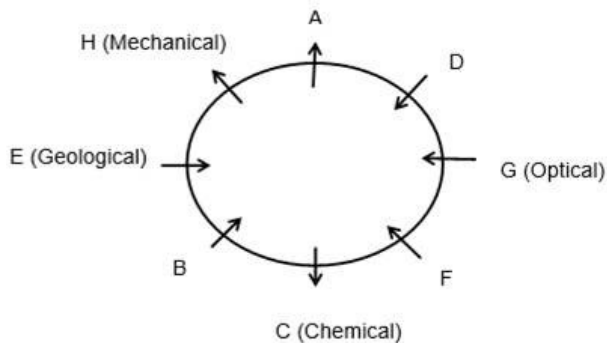
Hence, E, D and F face the centre.



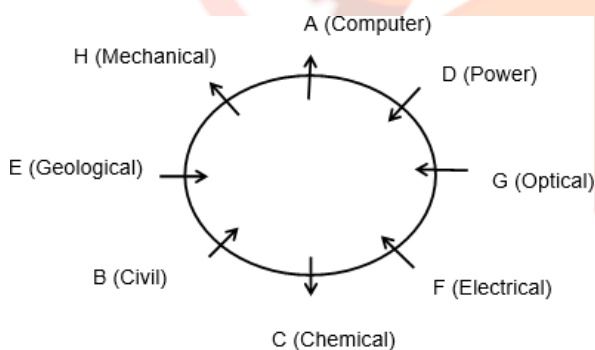
3) Only two persons sit between G and H. C sits second to the left of G. A and C are facing outward direction but not as F. Hence, G faces the centre.



4) The one who likes Geological sits second to the right of the one who likes Chemical. The one who likes Optical faces the one who likes Geological.



5) The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. The one who likes Civil does not sit immediately next to F.



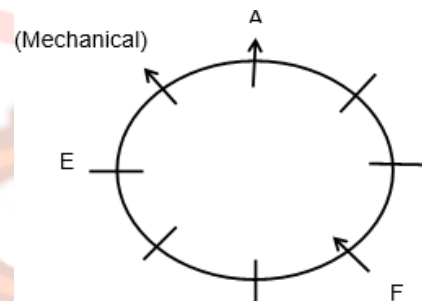
Hence, E faces the one who sits second to the left of C.

50. Ans. D.

Persons: A, B, C, D, E, F, G and H

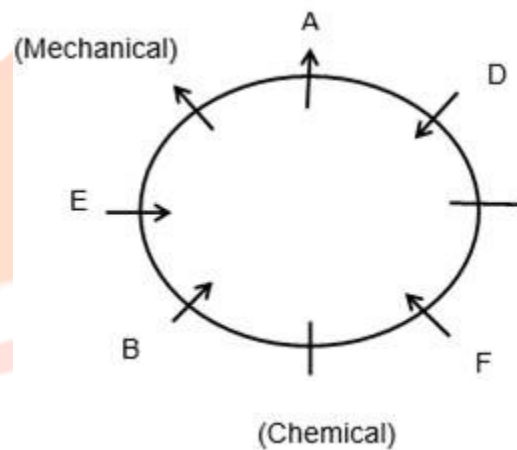
Branches: Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological.

1) Immediate left of A likes Mechanical, who faces opposite the centre. E sits second to the left of A. F and E are facing the same side and only two persons are sitting between them. F does not sit immediately next to A. A and C are facing outward direction but not as F.

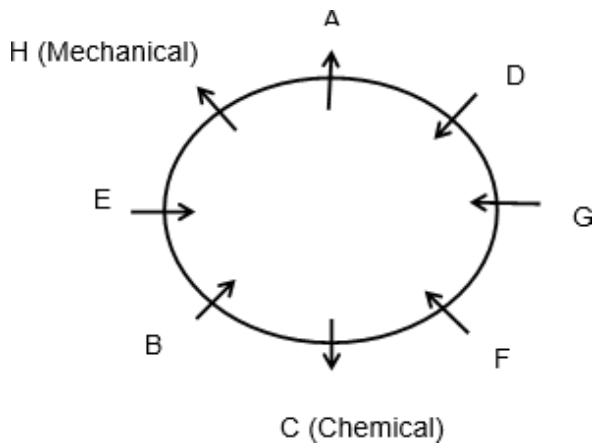


2) D sits diagonally opposite to B who sits to the immediate right of E and both of them are facing each other. The one who likes Chemical sits between F and B.

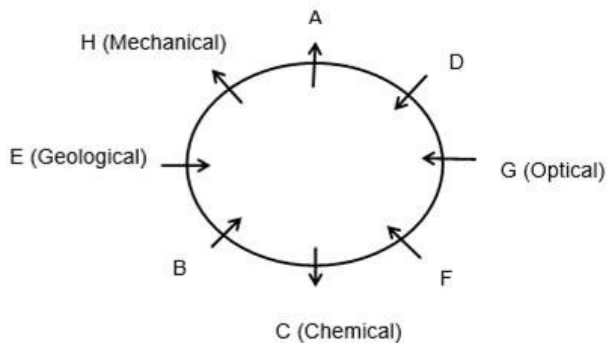
Hence, E, D and F face the centre.



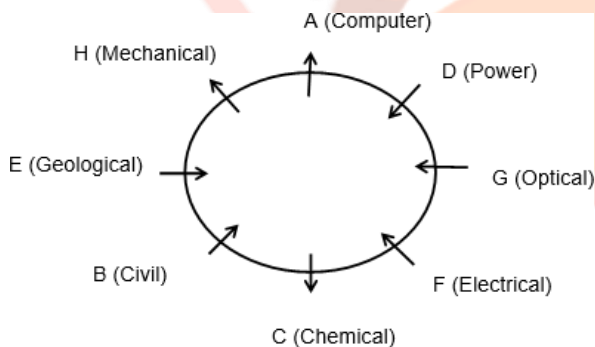
3) Only two persons sit between G and H. C sits second to the left of G. A and C are facing outward direction but not as F. Hence, G faces the centre.



4) The one who likes Geological sits second to the right of the one who likes Chemical. The one who likes Optical faces the one who likes Geological.



5) The one who likes Power sits immediately next to the one who likes Computer but not faces the one who likes Chemical. The one who likes Civil does not sit immediately next to F.



Hence, C faces away from the centre while rest faces the centre.

51. Ans. D.

When a person sits on a scale, it is his *weight* against which the gold bars are measured. Also, we measure something *with* a scale, not *against* it.

'Occasion' is a particular event or the time at which it takes place. 'Date' is the number of a day along with the month of the year specified by a number. Since no number is present, 'occasion' is correct. Wherein and whereby have the same meaning in the sentence and since none of the options mention the combination, it can be ignored. 'Equity' is the quality of being fair and impartial, which will not suit the sentence. Hence, the correct answer is D.

52. Ans. C.

'Debate' results in only one of the parties involved in the argument to win. But, when employees and employers discuss the terms of working, the end results must satisfy both and not just one of them. This is called 'negotiation', not a debate. Also, employees are the same as that of workers. So, no change is required here. A committee is formed by '*representatives*' from various factions. 'Capital' doesn't require representation.

53. Ans. A.

Scepticism refers to doubt. The incident that is discussed in the sentence shows love and the positive side of a human being. Thus 'humanity' is the appropriate word. Hence (1) should be replaced by (5). When a person is charged with a crime, a formal allegation (a statement not yet proven) of an offence is made. But the sentence says he was going to jail, which means the allegations have been proved to be true. He has already been *sentenced*. Thus, (4) must be replaced by (8).

Vandalised and destroyed are synonyms. Also, if the Masjid forgot about the boys, they wouldn't have bothered to pay his fine. So, no changes in these two options. Hence, the correct answer is A.

54. Ans. E.

All the words in the sentence are correct and require no changes. Hence, the correct answer is option E.

55. Ans. B.

Abilities belong to humans, not of institutions. The number of beds in a hospital are fixed. They cannot be increased beyond a certain limit. So, if the number of beds is less, the number of patients often *exceed* the number of beds. *Inspid* and *tasteless* are synonymous, so no change there. Both *medication* and *medicine* have bills, so, changing hem wouldn't make a difference. Hence, the correct answer is B.

56. Ans. D.

To infer means to deduce or conclude something from evidence and reasoning rather than from explicit statements.

Option I: It can be inferred from the following lines, 'In this context, an article titled Lessons on Food and Hunger in 2013... found out that natural and intimate narratives of food and hunger, reflecting the lives of a majority of children, are generally absent from the discourse of education. What can be found, instead, are clinical and insensitive descriptions of what constitutes a healthy diet, often illustrated with visuals of food far beyond the reach of most children.'

Option II: It can't be inferred from the passage.

Option III: It can be inferred from the following lines, 'It is suggested that hunger can only be dealt with by, "carrying out policies of income redistribution,.....In most developing countries one of the biggest issues, with respect to public provisioning towards social protection, to address hunger and food insecurity is organically connected with that of adequate "fiscal" or "expenditure" space.'

Therefore, option E is the apt answer.

57. Ans. B.

An assumption is something supposed or taken for granted. An inference is a piece of information which can be logically deduced from the given statement.

Option I: There is no such mention that 'poor have been increasingly forced to spend more.' Thereby, this statement is incorrect.

Option II: Again, there is no such mention of 'increases in household incomes.' Thereby, this statement is incorrect.

Option III: The statement can be inferred from the paragraph. Increased dependence on private entities for essential services like education and transportation on the demand side, and a retreat of government provisioning of education, health, nutrition and transportation on the supply side, could interact to effect a squeeze on the food budget.

Option IV: The statement is an assumption. The passage says that "shrinking social expenditure by the government" makes "poor dependent on private entities for essential services" as a result "the portion of income that can be spent on food" shrinks. This means that private entities are expensive, thereby absorbing a larger portion of income and a small portion of income is left to spend on food.

Therefore, option B is the apt answer.

58. Ans. E.

To infer means to deduce or conclude something from evidence and reasoning rather than from explicit statements.

Option I: It is stated in the last paragraph.

Option II: It can be inferred from the following lines, 'Researchers explain that India's rank fell from 2016 because, from 2015, the conception of malnutrition was reformulated. New parameters were introduced to expand what is understood as hunger to include stunting and wasting in children,... The inclusion of stunting ensures consideration of rigid cultural factors, while that of wasting represents aspects of diet quality as well. Also, stunting is an indicator of long-term growth failure, and therefore, must be accounted for in any analysis of potential threat a given level of child malnutrition poses for a country.'

Option III: The passage states, 'It is suggested that hunger can only be dealt with by, "carrying out policies of income

redistribution, which respond to objectives of social justice rather than economic efficiency as perceived by neo-liberalism.”..’ This statement does not say that the neo-liberals prefer to brush off the issue of “chronic” hunger. Thereby, this option is incorrect. Option IV: This statement can be inferred from the first and the last paragraph. Therefore, option E is the apt answer. 59. Ans. C.

To understand the last line of the first paragraph, it is important to understand the following lines first, ‘Instead, it is kept under the larger purview of economic development which expects that wealth will percolate to solve the problem of hunger. This formulation makes a number of incorrect assumptions about the relationship between hunger and other social structures. It is, at best, an indirect method that does nothing to immediately address the alarming issue of hunger that India is facing at present.’ The author says that the issue of hunger is always kept under the idea that with economic development, i.e. with more wealth or money flowing in the country, the problem of hunger will be solved. Fast and good economic growth/development will eliminate hunger. The author says that this relationship between hunger and economic development is an indirect method for solving the issue of hunger. This method is good for the long run, but it does nothing to immediately address the problem. This is best described in option C. Therefore, option C is the apt answer.

60. Ans. A.

The National Food Security Act, 2013 (also Right to Food Act) is an Act of the Parliament of India, which aims to provide subsidized food grains to approximately two-thirds of India's 1.2 billion people. The highlighted statement states that during the Food Security Bill debate in Parliament, the concept of hunger and malnutrition must have presented in a way that would allow one to see how the government presents access to food as a right. The law failed to present that the right to food is one of the most basic human rights, closely linked to the right to life. So,

option A comes out as most logical. The other options either do not speak of this point or give extraneous information, which cannot be deciphered from the highlighted part. Therefore, option A is the apt answer.

61. Ans. D.

Disdainful refers to a piece of writing that shows contempt or lack of respect. Evocative refers to a piece of writing that brings strong images, memories, or feelings to mind.

Partisan refers to a piece of writing that shows prejudice in favour of a particular cause. Pragmatic refers to a piece of writing that deals with things sensibly and realistically in a way that is based on practical rather than theoretical considerations.

Peremptory refers to a piece of writing that insists on immediate attention or obedience, especially in a brusquely imperious way. Among all the options, ‘pragmatic’ can be used as the tone of the passage. The passage is about the social issue of hunger. The author is trying to rethink our understanding of hunger and how we address it. He deals the issue with sensibility and reality. Therefore, option D is the apt answer.

62. Ans. E.

Percolate is a verb which means to spread gradually through an area or a group of people. It also refers to a liquid or gas that filter gradually through a porous surface or substance. We prepare coffee in a percolator. Permeate means to spread throughout something. Hence, all three options are synonymous to ‘percolate.’

Therefore, option E is the apt answer.

63. Ans. B.

The passage is based on economic development of the bank. It says that the economic growth of the bank in terms of the money is based on the cost of settlement. If this cost is reduced amongst the countries then the flow of payment will be maintained or vice versa. It is nowhere mentioned in the passage about rural or urban areas so we will take a general context. Hence option B is the correct option.

64. Ans. A.

Choice A is correct as it matches with the flow after a statement praising the professionalism of Indians, it is only logical to mention their excellence of working in a competitive environment. It also keeps up with the tone and general subject of the passage. Option B is a bad choice as it talks about being in their company which is not relevant in the context of the paragraph and therefore is incorrect as it is beyond the general theme. Option C is overall correct but we as we have to choose the best option so we have to cancel out on C. Option D is obviously a lengthy reproduction of the sentence preceding the blank. As for option E, it is incorrect as the statement does not keep up with the flow of the paragraph. Neither does it logically follow the previous sentence nor is it related to the next sentence.

65. Ans. A.

Choice A is correct as it matches with the flow of the passage. The whole paragraph is about the devastating effects that nuclear weapons have due to certain curtailments on part of the scientists in the moral and the conscience aspect. It is only logical to mention an argument to support the next statement. It also keeps up with the tone and general subject of the passage.

Option B is a bad choice as it talks about absolutely nothing and is too naïve. Therefore is incorrect as it is beyond the general theme. Option C is incorrect as it obviously does not go with the flow of the Para. As for option D, it is incorrect as the statement is illogical.

As for E, neither does it logically follow the previous sentence nor is it related to the anything in the next sentence.

66. Ans. A.

The correct sequence is ACB.

67. Ans. E.

The correct sequence is CBA.

68. Ans. B.

'Assets' mean things that have earning power or some other value to their owner. 'Auction' means a public sale in which goods or property are sold to the highest bidder. 'Autarky' refers to the idea that a country

should be self-sufficient and not take part in international trade. 'Arbitrage' means the simultaneous buying and selling of securities, currency, or commodities in different markets or in derivative forms in order to take advantage of differing prices for the same asset. 'Amortisation' means the running down or payment of a loan by instalments. The given passage includes the presence of an 'auctioneer' who is defined as a person who conducts auctions by accepting bids and declaring goods sold. Thus, option B is the correct fit for all three blanks.

69. Ans. C.

'Brand' refers to a particular identity or image regarded as an asset. 'Stock' refers to the capital raised by a company or corporation through the issue and subscription of shares. 'Bond' is an interest-bearing security issued by governments, companies and some other organisations. 'Barter' refers to exchange (goods or services) for other goods or services without using money. 'Bankruptcy' means the state of being bankrupt. The given blanks can either use 'bond' or 'stock' as both are similar in meaning. Bonds and stocks are both securities, but the major difference between the two is that (capital) stockholders have an equity stake in a company (that is, they are owners), whereas bondholders have a creditor stake in the company (that is, they are lenders). Being a creditor, bondholders have priority over stockholders. Thus, 'bond' is the best fit word for the given blanks as it is clearly stated that it is a form of loan. This makes option C the correct answer.

70. Ans. D.

From the given passage it is evident that we have to take the word filling the blanks in relation to the word 'emission' which means the production and discharge of something, especially gas or radiation. 'Norms' refer to a standard or pattern, especially of social behaviour, that is typical or expected. Thus 'emission norms' cannot be a correct term as it is not related social behaviour. 'Pollutants' mean a substance that pollutes something, especially water or the atmosphere. If this word is used in the given

first blank it does not provide the correct term being defined. 'Factors' refer to a circumstance, fact, or influence that contributes to a result. 'Standards' refer to a required or agreed level of quality or attainment. 'Limits' means a restriction on the size or amount of something permissible or possible. Of all the given options 'factors' and 'standards' can be seen as the most appropriate words for the given blanks. But an emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. Thus, option D is the best fit answer for the given blanks.

71. Ans. E.

'Aspects' mean a particular part or feature of something. 'Pollutants' mean a substance that pollutes something, especially water or the atmosphere. 'Employ' means give work to (someone) and pay them for it. 'Operate' means (of a person) control the functioning of (a machine, process, or system). 'Manipulate' means control or influence (a person or situation) cleverly or unscrupulously. The passage hints towards unscrupulous usage of the environment for our own betterment. Thus, option E is the best fit answer for the given blanks.

72. Ans. E.

The given blank is to be taken in consideration with the word 'administrative'. 'Administrative Adjudication' means a decision or sentence imposed by a judge. 'Administrative Division' refers to is a portion of a country or other region delineated for the purpose of administration. 'Administrative hearing' refers to an informal way of resolving disputes between agencies and citizens without the strict procedural rules of a court. 'Administrative Service' refer to managing, planning, directing, and coordinating supportive services of an organization. 'Administrative legislation' is the body of law and legal work that deals with government agencies. Thus, option A fits all three blanks correctly.

73. Ans. A.

Subdued means restrained in style or quality. Softened means being or made softer or less loud or clear.

Dampened means to suppress or constrain so as to lessen in intensity.

Quite means to a degree (not used with a negative).

Silenced means reduced to silence.

The reaction of the authorities is already mentioned, i.e. muted. All the options, except 'quite', are synonymous with 'muted'. But the reaction was toned-down. Hence, the correct answer is (A).

74. Ans. E.

Defragmented means to run a process that collects fragments of files and sorts them into contiguous sections on one or more hard disks or hard disk partitions, thus speeding up file management.

Ambiguous means to be of uncertain nature or significance.

Definitive means clearly defined or formulated.

Anecdotal means to have the character of an anecdote.

Speculative means not based on fact or investigation.

Hence, the correct answer is (E).

75. Ans. B.

Marginal means to be of questionable or minimal quality.

Immaterial means to be of no importance or relevance especially to a law case.

Unrelated means lacking a logical or causal relation.

Extraneous means something that is not pertinent to the matter under consideration.

Academic means marked by a narrow focus on or display of learning especially its trivial aspects.

Despite being young, Bennett's property was already entailed to the male heir. This means that she did not have a significant place in the rural society of 18th century England. Hence, the correct answer is (B).

76. Ans. C.

The passage clearly states that several characteristics are shared between humans and primates with respect to their taste profiles. It also states that it is because of evolution. But to infer that both species share the same profile would be incorrect making option a incorrect. The passage is all about the human ability to discern different tastes. One cannot infer about the likability of certain tastes from the given passage making option b incorrect. In the first sentence itself the passage talks about how majority of the human population can taste a certain artificial flavour. Thus, it can be inferred that majority of the human population have a determinant taste profile making the opposite as stated in option c also correct. This also makes option d incorrect.

77. Ans. A.

The passage states that reality is not an absolute truth, but a result of our consistent experiences. This makes option a is a correct inference made from the passage. Option b is a direct statement already made in the given passage. Option c cannot be inferred from the passage as 'pragmatism' is considered as a philosophy while 'reality' is considered as an amalgamation of our experiences. According to the given passage our experiences enables us to determine what is the reality which may or may not be the truth. This makes option d incorrect.

78. Ans. B.

The meanings of the given words are as follows:

Tremulous: shaking or quivering slightly

Stringent: (of regulations, requirements, or conditions) strict, precise, and exacting

Garrulous: excessively talkative, especially on trivial matters

Quivery: shaking or trembling slightly

Steady: firmly fixed, supported, or balanced; not shaking or moving

Conjunctive: relating to or forming a connection or combination of things

Desist: stop doing something; cease or abstain

Abstain: restrain oneself from doing or enjoying something

Defer: put off (an action or event) to a later time; postpone

Terse: sparing in the use of words; abrupt

Abrupt: sudden and unexpected

Therefore, it can be observed that option B i.e. 'quivery, steady' forms a synonym-antonym pair of 'tremulous'.

79. Ans. A.

The meanings of the given words are as follows:

Histrionic: excessively theatrical or dramatic in character or style

Melodramatic: characteristic of melodrama, especially in being exaggerated or overemotional

Theatrical: exaggerated and excessively dramatic

Conscientious: wishing to do one's work or duty well and thoroughly

Diligent: having or showing care and conscientiousness in one's work or duties

Tenacious: tending to keep a firm hold of something; clinging or adhering closely

Retentive: (of a person's memory) effective in retaining facts and impressions

Thrive: (of a child, animal, or plant) grow or develop well or vigorously

Tussle: a vigorous struggle or scuffle, typically in order to obtain or achieve something

Pertinent: relevant or applicable to a particular matter; apposite

Appropriate: suitable or proper in the circumstances

Therefore, it can be observed that option A i.e. 'melodramatic, theatrical' forms a synonym-synonym pair of 'histrionic'.

80. Ans. E.

The meanings of the given words are as follows:

Nefarious: (typically of an action or activity) wicked or criminal

Sloppy: careless and unsystematic; excessively casual

Flurry: a small swirling mass of something, especially snow or leaves, moved by sudden gusts of wind

Unassertive: (of a person) not having or showing a confident and forceful personality
 Ignoble: not honourable in character or purpose
 Modest: unassuming in the estimation of one's abilities or achievements
 Subtle: (especially of a change or distinction) so delicate or precise as to be difficult to analyse or describe
 Gregarious: (of a person) fond of company; sociable
 Magnanimous: generous or forgiving, especially towards a rival or less powerful person
Iniquitous: grossly unfair and morally wrong
Atrocious: horrifyingly wicked
 Therefore, it can be observed that option E i.e. 'iniquitous, atrocious' forms a synonym-synonym pair of 'nefarious'.

81. Ans. B.
 The meanings of the given words are as follows:
Recalcitrant: having an obstinately uncooperative attitude towards authority or discipline
 Peculiar: different to what is normal or expected; strange
 Convivial: (of an atmosphere or event) friendly, lively, and enjoyable
Amenable: open and responsive to suggestion; easily persuaded or controlled
Docile: ready to accept control or instruction; submissive
 Taciturn: (of a person) reserved or uncommunicative in speech; saying little
 Withering: intended to make someone feel humiliated; scornful
 Voluble: (of a person) talking fluently, readily, or incessantly
 Turgid: swollen and distended or congested
 Pendulous: hanging down loosely
 Jocular: fond of or characterized by joking; humorous or playful
 Therefore, it can be observed that option B i.e. 'amenable, docile' forms an antonym-antonym pair of 'recalcitrant'.

82. Ans. C.
 The meanings of the given words are as follows:
Zealous: having or showing zeal
 Droopy: hanging down limply
 Gigantic: of very great size or extent; huge or enormous
 Tenacity: the quality or fact of being able to grip something firmly; grip
 Assiduity: constant or close attention to what one is doing
Fervent: having or displaying a passionate intensity
Apathetic: showing or feeling no interest, enthusiasm, or concern
 Conceited: excessively proud of oneself; vain
 Capacious: having a lot of space inside; roomy
 Hilarity: extreme amusement, especially when expressed by laughter
 Livid: furiously angry
 Therefore, it can be observed that option C i.e. 'fervent, apathetic' forms a synonym-antonym pair of 'zealous'.

83. Ans. A.
 To give a benefit of doubt means to decide that you will believe someone, even though you are not sure that what the person is saying is true.

84. Ans. B.
 The phrase refers to a specific, rational purpose in what one is doing or planning, even though it may appear crazy or absurd to another person.

85. Ans. C.
 If you say that you wouldn't be seen dead or be caught dead in particular clothes, places, or situations, you are expressing strong dislike or disapproval of them.

86. Ans. D.
 According to the passage, some of the defence mechanisms against phishing attacks lie with the clients as users often share confidential information voluntarily. Thus, unknown people on friend lists can endanger the user. Hence statement I is an inference. Again, since spammers can often exploit social-engineering tricks to enhance viral marketing's effectiveness it is evident that viruses and malware can find their way into

our computers via the advertisements. This suggests that statement II can also be inferred. But the passage does not explicitly state the various consequences of a cyber-attack on an individual. Though statement III is true, it cannot be said that it can be inferred from the passage. Hence option D is the correct answer.

87. Ans. E.

All the given statements except for E are true with respect to the given passage. Statement A is proven by the first sentence of the passage. The passage also states that users often share confidential information voluntarily which makes statement B true. The passage states that 'spamming' enhances viral marketing's effectiveness. Thus, statement C is also true. Statement D is also true as it falls under the various steps a user can take to protect themselves. But statement E is not true as OSNs often assume that anybody accepted as a friend online is trustworthy, thereby revealing sensitive information to them.

88. Ans. A.

The last sentence of the given passage states that – 'Their future development hinges on their ability to deliver enjoyable services without undermining users' information security.' From this it is evident that option A is the correct answer.

89. Ans. B.

The passage categorically states that, 'Digitally signed emails can prevent spoofed email messages from fooling recipients...'. Thus, option B is the correct answer.

90. Ans. C.

The passage is about the prevalence of online social networks (OSNs) in modern life and the security risks accompanying the same. Option A is very specific in its terminology, whereas the passage goes beyond the scope of the heading. Option B is extremely wide as common security problems can range from thievery to threats to national security. Option E can refer to an introduction to various OSNs. Option D mentions a very specific problem with online users. Only option C encompasses

what has been described in the passage making it the ideal title for the passage.

91. Ans. D.

The National Statistics Day (NSD) is celebrated every year in India on 29th June to create public awareness about importance of statistics in socio-economic planning and policy formulation.

Note: The 2017 theme is "Administrative Statistics"

92. Ans. D.

The United States of America, Mexico and Canada have won the right to host the 23rd FIFA 2026 World Cup after beating Morocco in a vote by FIFA member nations in Moscow. The North American bid received 134 of the 203 votes, while Morocco polled 65 in the ballot at a FIFA Congress held in Moscow.

93. Ans. D.

'Paytm' has launched the first wealth management product 'Digital Gold' on its platform to allow customers to buy and sell gold through electronic platform.

Note: Consumers can purchase 24K 999.9 purity gold online and store it in MMTC—PAMP's secure vaults free of charge.

94. Ans. D.

Veteran journalist and editor of Srinagar based 'Rising Kashmir' newspaper was shot dead by unidentified gunmen outside his office in the Press Enclave area of Srinagar in Jammu & Kashmir.

Bukhari was instrumental in organising several conferences for peace in the Kashmir Valley.

95. Ans. B.

LRS stands for - Liberalised Remittance Scheme.

LRS is a facility provided by the Reserve Bank of India for all resident individuals to freely remit certain amount in terms of US dollar every financial year for a permissible set of current or capital account transactions.

Note:

* **In April 2018**, the Reserve Bank of India (RBI) has tightened reporting norms for the Liberalised Remittance Scheme (LRS) under which individual can transfer up to **US \$2,50,000 abroad in a year.**

* The purpose of tightening of norms is to improve monitoring and to ensure compliance with LRS limits.

* The scheme was introduced in February 2004 and its regulations are provided under **Foreign Exchange Management Act (FEMA), 1999.**

96. Ans. A.

Explanation: The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank (MDB) conceived for the 21st century. The Bank's foundation is built on the lessons of experience of existing MDBs and the private sector. Its modus operandi will be lean, clean and green: it is situated in Beijing, China.

97. Ans. B.

The ASEAN India Film Festival 2018 was held in **New Delhi**. It was inaugurated by **Information and Broadcasting Minister Col. (Retd) Rajyavardhan Singh Rathore.**

98. Ans. C.

Bharti Airtel will acquire the business of Telenor India for an undisclosed sum in all seven circles Andhra Pradesh, Bihar, Maharashtra, Gujarat, UP (East), UP (West) and Assam.

Note: Telenor India (formerly known as Uninor) was an Indian mobile network operator based in Gurgaon, Haryana, India. The company is a wholly owned subsidiary of Telenor Group, a telecommunications company headquartered in Oslo, Norway.

99. Ans. D.

The Union Cabinet has approved an ordinance to set up India's first national sports university in Imphal, Manipur. The proposed university will be spread over 325 acres and cost Rs 524 crore.

100. Ans. C.

Punjab state government along with World Wildlife Fund (WWF) India conducted the first organized census for the conservation of Indus dolphins on their population.

101. Ans. B.

National Payments Corporation of India is the umbrella organisation for all retail payment systems in India, which aims to allow all

Indian citizens to have unrestricted access to e-payment services

102. Ans. B.

International Conference on Information and Communication Technology (ICT) will be held in Kathmandu, Nepal (from 17th June).

The Theme of the two-day conference is "Sustainable Development Goals for Smart Society".

The objective of the conference is to bring government and private sector together for developing a plan of action using sustainable ICT applications.

103. Ans. C.

The headquarter of Organisation for Economic Cooperation and Development (OECD) is in Paris, France.

104. Ans. C.

Patratu Thermal Power Station is a coal-based thermal power plant located near Patratu town in Ramgarh district in the Indian state of Jharkhand. The power plant is operated by the Jharkhand State Electricity Board.

It has an installed capacity of 840 MW. The generating units of the power plant are very old and are operating at around 10% PLF, generating about 110 MW per day.

105. Ans. A.

The 2018 theme of the International Yoga Day is "Yoga for Peace".

International Yoga Day (4th) is being celebrated worldwide on 21st June to promote yoga and make it a part of people's daily routine.

106. Ans. C.

Hirakud dam is located in Odisha on Mahanadi.

107. Ans. C.

The Dudhwa National Park is a national park in the Terai of **Uttar Pradesh**, India. It is part of the Dudhwa Tiger Reserve.

108. Ans. C.

The Republic of **Zambia** is a landlocked country in **Southern Africa**. The capital city is **Lusaka** and currency is **Kwacha**.

109. Ans. E.

The Insurance Regulatory and Development Authority (IRDAI) has set up a 10-member committee headed by Suresh Mathur (ED-IMF,

IRDAI) to review norms related to Insurance Marketing Firms (IMF) with an aim to increase insurance penetration in the country.

110. Ans. A.

The SKOCH has conferred the 'Best performing Social Sector Ministry' award to "Ministry of Women and Child Development" as it has delivered the promises made and for its significant achievements and initiatives from the last 4 years. Smt. Maneka Sanjay Gandhi has received the award on behalf of the Ministry.

111. Ans. E.

The ICC Women's World T20 championship 2018 will be held in the West Indies from 9 – 24th November this year.

112. Ans. B.

The Certificate of Deposit (CD) is a negotiable money market instrument and issued in dematerialised form or as a Usance Promissory Note against funds deposited at a bank or other eligible financial institution for a specified time period. (Usance Promissory Note has to be paid after certain time period).

113. Ans. B.

The Indian Science Congress – the largest gathering of Indian scientists – was scheduled to be held at Osmania University in Hyderabad from January 3 to 7. For the first time in its history, it was rescheduled to March 16-March 20 and its venue was moved to the Manipur University, Imphal after the Osmania University administration said it would not be able to host the event fearing agitations on campus.

114. Ans. B.

Life Insurance Corporation of India is all set to become a knight in shining armour for the ailing IDBI Bank. In a first-of-its-kind transaction, the Insurance Regulatory and Development Authority of India (IRDAI) has approved a proposal allowing the former to acquire a majority stake in the bank.

115. Ans. C.

SAARC Development Fund Headquarters are located in Thimpu, Bhutan. SAARC Development Fund (SDF), the umbrella financial institution for projects in SAARC member countries.

SDF has been established

(i) to promote the welfare of the people of SAARC region,

(ii) to improve their quality of life and (iii) to accelerate economic growth, social progress and poverty alleviation in the region. The Fund is to serve as the umbrella financial institution for SAARC projects and programmes and is aimed to contribute to regional cooperation and integration through project collaboration.

116. Ans. A.

Bhumi Pednekar bagged the best actress at Dada Saheb Phalke award ceremony for Toilet Ek Prem Katha.

117. Ans. B.

A non-trading company used as a vehicle for various financial manoeuvres or kept dormant for future use in some other capacity is known as shell companies.

118. Ans. D.

Indira Sagar dam is located in Madhya Pradesh.

119. Ans. A.

Assumption Island is located in Seychelles. Assumption Island is a small island situated southwest of Seychelles main and largest island of Mahe. It is situated very close to the Mozambique Channel from where much Indian Ocean maritime routes pass. Its location lends its strategic importance for monitoring shipping in the Mozambique Channel.

120. Ans. B.

The two day 'Kabir Mahotsav' in UP organized by Ministry of Culture.

121. Ans. A.

Pilibhit wildlife sanctuary is located in Uttar Pradesh.

122. Ans. C.

Rani Rampal is the captain of Indian women hockey team.

123. Ans. A.

The Victorian Gothic and Art Deco is situated in Mumbai.

India gets its 37th WORLD UNESCO World HERITAGE SITE.

Victorian Gothic and Art Deco Ensemble of Mumbai declared as a World Heritage Property by UNESCO. This **makes Mumbai city the**

second city in India after Ahmedabad to be inscribed on the World Heritage List.

In the past 5 years alone, India has managed to get inscribed seven of its properties/sites on the World Heritage List of UNESCO. India now has overall 37 World Heritage Inscriptions with 29 Cultural, 07 Natural and 01 Mixed sites. While India stands second largest in number after China

124. Ans. B.

IIM Ahmedabad launches Bharat Inclusive Initiative.

IIM-Ahmedabad's Centre for Innovation, Incubation and Entrepreneurship (CIIE) has launched a Bharat Inclusion Initiative to build knowledge and foster innovation and entrepreneurial activity across areas such as financial inclusion, livelihood, education and health.

Centre for Innovation Incubation and Entrepreneurship (CIIE) at IIM Ahmedabad helps entrepreneurs turn ideas into viable businesses.

125. Ans. D.

Ajay Thakur is associated with Kabaddi.

126. Ans. C.

CBLO stands for Collateralized Borrowing and Lending Obligation. CBLO is a money market instrument that represents an obligation between a borrower and a lender as to the terms and conditions of a loan. So, C stands for Collateralized.

127. Ans. E.

PMLA stands for Prevention of Money Laundering Act, 2002. So, L stands for **Laundering**. Prevention of Money Laundering Act, 2002 is an Act of the Parliament of India enacted by the NDA government to prevent money-laundering and to provide for confiscation of property derived from money-laundering.

128. Ans. D.

PMVVY (Pradhan Mantri Vaya Vandana Yojana) pension limit extends to March, 2020.

The Union Cabinet, chaired by Prime Minister Narendra Modi approved extending the investment limit from Rs 7.5 lakh to Rs 15 lakh

under the Pradhan Mantri Vaya Vandana Yojana (PMVVY).

It also extended the last date for a subscription to the scheme till March 31, 2020. The time limit was earlier supposed to end on May 4, 2018.

The PMVVY is being implemented through **Life Insurance Corp (LIC)** to provide social security during old age and protect the elderly aged 60 years and above against a future fall in their interest income due to uncertain market conditions.

The scheme provides an assured pension based on a guaranteed rate of return of 8 percent per annum for 10 years.

129. Ans. C.

The Communications Compatibility and Security Agreement dialogue between foreign and defence ministers of India and US scheduled to be held in Washington.

130. Ans. D.

International Organization for Migration Headquarters is located in Geneva, Switzerland.

The International Organization for Migration (IOM) is an intergovernmental organization that provides services and advice concerning migration to governments and migrants, including internally displaced persons, refugees, and migrant workers.

In September 2016, it became a related organization of the United Nations. It was initially established in 1951 as the Intergovernmental Committee for European Migration (ICEM) to help resettle people displaced by World War II. As of June 2018, the International Organization for Migration had 172 member states & eight observer states.

131. Ans. C.

Malabo is the capital of Equatorial Guinea.

132. Ans. B.

Informal summit held in Sochi, Russia.

133. Ans. B.

CAGR stands for Compound Annual Growth Rate. So, C stands for Compound.

Compound annual growth rate (CAGR) is a business and investing specific term for the geometric progression ratio that provides a constant rate of return over the time period.

134. Ans. D.

5th International conference on human excellence on Yoga (2019) was held in Uttarakhand.

135. Ans. A.

Kishori amonkar died recently. He was associated with Classical Vocalist.

136. Ans. B.

The Union Cabinet Chaired by Prime Minister Shri Narendra Modi has approved the establishment of National Institute of Mental Health Rehabilitation (NIMHR) at Bhopal.

137. Ans. B.

•SAWEN stands for South Asia Wildlife Enforcement Network. So, E stands for Enforcement.

•The South Asia Wildlife Enforcement Network (SAWEN), an inter-governmental wildlife law enforcement agency, in its first ever meeting in India, adopted many resolutions to curb wildlife crime in the region.

138. Ans. A.

Prime minister Narendra Modi has inaugurated the 15th Pravasi Bharatiya Divas at Varanasi in Uttar Pradesh in January 2019. The theme this year is, 'Role of Indian Diaspora in building New India'.

139. Ans. C.

* Prime Minister Narendra Modi on 25th Dec 2018 inaugurated the 4.94 km long **Bogibeel Bridge** in Assam.

* It is India's longest rail-cum-road road bridge, on the river **Bramhaputra**.

* The bridge is constructed at an estimated cost of 5,800 crore rupees.

* It is situated 17 km downstream of Dibrugarh city in Assam.

140. Ans. B.

Reinsurance is insurance that is purchased by an insurance company from one or more insurance companies (the "reinsurer") directly or through a broker as a means of risk management.

141. Ans. C.

$$\square. (x - 2)^2 = 9$$

$$\Rightarrow (x - 2) = \pm 3$$

$$\Rightarrow x = 5, -1$$

$$\square\square. (2y + 8)^2 =$$

$$16 (2y + 8) = \pm$$

$$4 \Rightarrow y = -2, -6$$

so, $x > y$

142. Ans. E.

$$\square. x^2 - 16x + 64 = 0$$

$$x^2 - 8x - 8x + 64 = 0$$

$$x(x - 8) - 8(x - 8) = 0$$

$$(x - 8)(x - 8) = 0$$

$$x = 8, 8$$

$$\square\square. y^2 - 16y + 63 = 0$$

$$y^2 - 7y - 9y + 63 = 0$$

$$y(y - 7) - 9(y - 7) = 0$$

$$(y - 9)(y - 7) = 0$$

$$y = 9, 7$$

so, No relation can be established between x and y .

143. Ans. D.

$$\square. 25/x^2 - 15/x + 2 = 0$$

$$\Rightarrow 2x^2 - 15x + 25 = 0$$

$$\Rightarrow 2x^2 - 10x - 5x + 25 = 0$$

$$2x(x - 5) - 5(x - 5) = 0$$

$$(2x - 5)(x - 5) = 0$$

$$x = 5/2, 5$$

$$\square\square. 40/y^2 + 1 = 13/y$$

$$\Rightarrow y^2 - 13y + 40 = 0$$

$$\Rightarrow y^2 - 8y - 5y + 40 = 0$$

$$\Rightarrow y(y - 8) - 5(y - 8) = 0$$

$$(y - 5)(y - 8) = 0$$

$$y = 5, 8$$

so, $x \leq y$

144. Ans. D.

$$\square. 48/x^2 - 14/x + 1 = 0$$

$$\Rightarrow x^2 - 14x + 48 = 0$$

$$\Rightarrow x^2 - 8x - 6x + 48 = 0$$

$$\Rightarrow x(x - 8) - 6(x - 8) = 0$$

$$\Rightarrow (x - 8)(x - 6) = 0$$

$$x = 8, 6$$

$$\square\square\square. 45/y^2 + 1/y = 2$$

$$\Rightarrow 2y^2 - y - 45 = 0$$

$$\Rightarrow 2y^2 - 10y + 9y - 45 = 0$$

$$\Rightarrow 2y(y - 5) + 9(y - 5) = 0$$

$$\Rightarrow (2y + 9)(y - 5) = 0$$

$$y = 5, -9/2$$

so, $x > y$

145. Ans. E.

$$\square. x^2 + 3x - 4 = 0$$

$$x^2 + 4x - x - 4 = 0$$

$$x(x + 4) - 1(x + 4) = 0$$

$$(x - 1)(x + 4) = 0$$

$$x = 1, -4$$

$$\text{II. } y^2 + 10y + 24 = 0$$

$$y^2 + 4y + 6y + 24 = 0$$

$$y(y + 4) + 6(y + 4) = 0$$

$$(y + 6)(y + 4) = 0$$

$$y = -4, -6$$

so, $x \geq y$

146. Ans. B.

Let amount of milk removed = $2x$ litre

So, amount of water added = x litre

Now $\rightarrow (165 - 2x)/x = 5/3$

$x = 45$ lit

147. Ans. C.

At least one black can be chosen in two ways from each box:

Now, probability of choosing at least one black ball from first box

$$= 1/2 \times [({}^2C_1 \times {}^2C_1)/{}^4C_2 + {}^2C_2/{}^4C_2] = 5/12$$

Probability of choosing at least one black ball from 2nd box

$$= 1/2 \times [({}^4C_1 \times {}^{12}C_1)/{}^{16}C_2 + {}^4C_2/{}^{16}C_2] = 9/40$$

Final probability

$$= 5/12 + 9/40 = (50 + 27)/120 = 77/120$$

148. Ans. E.

Let speed of train B be x m/s And length of train B be y m

Then length of train A is $2y$ m

Speed of train A = $84 \times 5/18 = 210/9$ m/s = $70/3$ m/s

$$\text{A.T.Q, } (2y + y)/10 = 70/3 - x \dots\dots\dots (i)$$

$$\text{and } (2y + y)/22.5 = 70/3 - 2x \dots\dots\dots (ii)$$

solving (i) and (ii), $x = 50$ m

149. Ans. C.

Let, inner radius of cylinder be ' x ' cm.

$$4/3 \pi (6)^3 = \pi \times 32 (5^2 - x^2)$$

$$\text{or, } (4 \times 6 \times 6 \times 6) / (3 \times 32) = 25 - x^2$$

$$\text{or, } x^2 = 25 - 9$$

$$\text{or, } x = 4 \text{ cm}$$

Hence, thickness = $5 - 4 = 1$ cm.

150. Ans. B.

$$\text{Profit ratio X \& Y} = (700 \times 3) + (700 \times 5/7 \times 3) + (700 \times 5/7 + 200 \times 3/5) \times 6 : 600 \times 12$$

$$X:Y = 7320 : 7200 = 183:180$$

$$\therefore X's \text{ share from profit} = 183 \times 726 / (183 + 180) = \square \square. 366.$$

151. Ans. A.

Months	Total number of Men worked	Number of men worked on odd number days	Number of men worked on even number days	No. of odd days	No. of even days	Total man-hours (odd days)	Total man-hours (even days)
March	1000	300	700	16	15	300x16x8	700x15x8
April	1500	300	1200	15	15	300x15x8	1200x15x8
August	750	450	300	16	15	450x16x8	300x15x8

Total man-hours on odd days of March = $300 \times 16 \times 8$

And, the total man-hours on even days of April = $1200 \times 15 \times 8$

So,

$$300 \times 16 \times 8 = \frac{x}{100} \times 1200 \times 15 \times 8$$

So,

$$x = \frac{300 \times 16 \times 8 \times 100}{1200 \times 15 \times 8} = 26.667 = 26\frac{2}{3}\%$$

So option (a) is the correct answer.

152. Ans. D.

Months	Total number of Men worked	Number of men worked on odd number days	Number of men worked on even number days	No. of odd days	No. of even days	Total man-hours (odd days)	Total man-hours (even days)
March	1000	300	700	16	15	300x16x8	700x15x8
April	1500	300	1200	15	15	300x15x8	1200x15x8
August	750	450	300	16	15	450x16x8	300x15x8

Total man-hours of April = $1500 \times 15 \times 8 = 180000$

Total man-hours of August = $57600 + 36000 = 93600$

So, required difference = 86400

So option (d) is the correct answer.

153. Ans. B.

Months	Total number of Men worked	Number of men worked on odd number days	Number of men worked on even number days	No. of odd days	No. of even days	Total man-hours (odd days)	Total man-hours (even days)
March	1000	300	700	16	15	300x16x8	700x15x8
April	1500	300	1200	15	15	300x15x8	1200x15x8
August	750	450	300	16	15	450x16x8	300x15x8

Total man-hours on even days of March = $700 \times 15 \times 8$

And, the total man-hours on even days of August = $300 \times 15 \times 8$

So, **required ratio = 7:3**

So option (b) is the correct answer.

154. Ans. C.

Months	Total number of Men worked	Number of men worked on odd number days	Number of men worked on even number days	No. of odd days	No. of even days	Total man-hours (odd days)	Total man-hours (even days)
March	1000	300	700	16	15	300x16x8	700x15x8
April	1500	300	1200	15	15	300x15x8	1200x15x8
August	750	450	300	16	15	450x16x8	300x15x8

Total man-hours on odd days of April = $300 \times 15 \times 8 = 36000$

And, the total man-hours on odd days of August = $450 \times 16 \times 8 = 57600$

So,

$$\text{required percentage} = \frac{57600 - 36000}{57600} \times 100 = 37.5\%$$

So option (c) is the correct answer.

155. Ans. A.

Months	Total man-hours (even days)
March	700x15x8
April	1200x15x8
August	300x15x8

$$\text{So, required average} = 15 \times 8 \times \frac{700+1200+300}{3} = 15 \times 8 \times \frac{2200}{3} = 88000$$

So option (a) is the correct answer.

156. Ans. C.

From I, II & III

Let speed of Amit and Abhi be $4x$ and $5x$ km/hr respectively.

$$5x - 4x = 20$$

$$\therefore x = 20 \text{ km/hr}$$

$$\text{So speed of Abhi} = 20 \times 5 = 100 \text{ km/hr}$$

$$\text{Speed of Amit} = 20 \times 4 = 80 \text{ km/hr}$$

Let distance be D km

$$D/80 - D/100 = 1$$

$$\therefore D = 80 \times 100/20 = 400 \text{ km}$$

All I, II and III required to answer.

157. Ans. B.

From I and II, Let length and breadth be $3x$ m and $2x$ m respectively

$$2\pi r = 440 \text{ [} r \rightarrow \text{radius of circle]}$$

$$r = 70 \text{ m}$$

$$\therefore \text{breadth} = 70 \times 1/7 = 10 \text{ m}$$

$$\& \text{ length} = 15 \text{ m}$$

$$\therefore \text{Area} = 10 \times 15 = 150 \text{ m}^2$$

$$\text{From statement III, length : breadth} = 150 : 100 = 3:2$$

So Statement I and III are same.

Only II and either I or III required to answer.

158. Ans. A.

$$\text{From statement I, Passed} = 400$$

From statement III, Let number of appeared & Failed students be $5x$ and $3x$ respectively

$$2x = 400$$

$$\Rightarrow x = 200$$

$$\therefore \text{failed} = \text{appeared} - \text{passed} = 1000 - 400 = 600$$

So, Only I and III required to answer.

159. Ans. A.

$$\text{From statement I, } PR \times 2/100 = 44000$$

$$PR = 2200000 \dots\dots(i)$$

$$\text{From statement II, } P + PRT/100 = 154000 \dots\dots(ii)$$

$$\text{From statement III, Difference} = PR^2/100^2$$

$$PR^2/100^2 = 120 \dots\dots(iii)$$

by solving (i)&(iii) R can be found.

Only I and III required to answer

160. Ans. E.

Let the smaller no. is x & bigger no. is y .

$$\text{From statement I, } y = x + 6$$

$$\text{From statement II, } (40/100) \times \square = (30/100) \times \square$$

$$\text{From statement III, } \square/2 : \square/3 = 2 : 1$$

$$\Rightarrow 3y = 4x$$

statement II & From statement III give only ratio between the numbers, so we statement I also along one of II or III.

\therefore from I and II or I and III we can find the Answer.

161. Ans. C.

Rahul runs 40 minutes.

For starting 15 minutes

$$\text{Speed} = 5 \text{ km/hr}$$

$$\text{Distance} = \frac{15}{60} \times 5 = \frac{5}{4} \text{ km}$$

For next 25 minutes

$$\text{Speed} = 9 \text{ km/hr}$$

$$\text{Distance} = \frac{25}{60} \times 9 = \frac{15}{4} \text{ km}$$

$$\text{Total distance} = \frac{5}{4} + \frac{15}{4} = \frac{20}{4} = 5 \text{ km}$$

So, he runs total 5 km on treadmill.

P1 can complete that work in 6 hours

Efficiency of P1 and P2 = 5: 4.

So, P2 can complete the work in

$$6 \times \frac{5}{4} = 7.5 \text{ hours}$$

So, the number of units of work done by them

$$\text{in one hours} = \frac{1}{6} + \frac{1}{7.5} = \frac{3}{10}$$

So, they together can complete the work in $10/3$ hours

P1 and P2 together complete 75% of that work at 12:30 p.m.

100% of the work is completed in $10/3$ hours

So, 75% of the work will be completed

$$\text{in } \frac{10}{300} \times 75 = 2.5 \text{ hours}$$

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

Rahul and P2 together can complete same work in 3 hours.

$$\frac{1}{\text{Rahul}} + \frac{1}{7.5} = \frac{1}{3}$$

$$\frac{1}{\text{Rahul}} = \frac{1}{3} - \frac{1}{7.5} = \frac{1}{3} - \frac{2}{15} = \frac{5-2}{15} = \frac{3}{15} = \frac{1}{5}$$

So, Rahul can complete the whole work in 5 hours

Also, P1 can complete that work in 6 hours

So, ratio of the efficiency of P1 and Rahul = 6:5

So, required percentage

$$= \frac{6-5}{5} \times 100 = 20\%$$

So, Rahul is 20 % more efficient than P1.

Distance between house and office = 45km.

Time taken to reach office = 1.5 hours at 9:30 a.m.

$$\text{Speed} = \frac{45}{1.5} = 30 \text{ km/hr}$$

Speed of stream = 3km/hr

Therefore, required time

$$= \frac{45}{30-3} = \frac{45}{27} = \frac{5}{3} \text{ hours}$$

So, he takes $1\frac{2}{3}$ hours to reach home.

Total outcomes in a single throw of 2 dice =

(1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (1, 6)
 (2, 1) (2, 2) (2, 3) (2, 4) (2, 5) (2, 6)
 (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6)
 (4, 1) (4, 2) (4, 3) (4, 4) (4, 5) (4, 6)
 (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (5, 6)
 (6, 1) (6, 2) (6, 3) (6, 4) (6, 5) (6, 6)

So, total number of outcomes in a single throw of two dice = 36

When first Rahul and then Aman throw their respective dices, total number of outcomes = 36 + 36 = 72

In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes.

So, the required possibility = (2, 6) (3, 5) (4, 4) (5, 3) (6, 2)

Winner is the one who gets highest number as the sum of the square of the number comes in dices.

$$(2, 6) = 2^2 + 6^2 = 40$$

$$(3, 5) = 3^2 + 5^2 = 34$$

$$(4, 4) = 4^2 + 4^2 = 32$$

$$(5, 3) = 5^2 + 3^2 = 34$$

$$(6, 2) = 6^2 + 2^2 = 40$$

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

So, he runs total 5 km on treadmill.

So option (c) is the correct answer.

162. Ans. E.

Rahul runs 40 minutes.

For starting 15 minutes

Speed = 5 km/hr

$$\text{Distance} = \frac{15}{60} \times 5 = \frac{5}{4} \text{ km}$$

For next 25 minutes

Speed = 9 km/hr

$$\text{Distance} = \frac{25}{60} \times 9 = \frac{15}{4} \text{ km}$$

$$\text{Total distance} = \frac{5}{4} + \frac{15}{4} = \frac{20}{4} = 5 \text{ km}$$

So, he runs total 5 km on treadmill.

P1 can complete that work in 6 hours

Efficiency of P1 and P2 = 5: 4.

So, P2 can complete the work in $6 \times \frac{5}{4} = 7.5$ hours

So, the number of units of work done by them

$$\text{in one hours} = \frac{1}{6} + \frac{1}{7.5} = \frac{3}{10}$$

So, they together can complete the work in $10/3$ hours

P1 and P2 together complete 75% of that work at 12:30 p.m.

100% of the work is completed in $10/3$ hours

So, 75% of the work will be completed in

$$\frac{10}{300} \times 75 = 2.5 \text{ hours}$$

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

Rahul and P2 together can complete same work in 3 hours.

$$\frac{1}{\text{Rahul}} + \frac{1}{7.5} = \frac{1}{3}$$

$$\frac{1}{\text{Rahul}} = \frac{1}{3} - \frac{1}{7.5} = \frac{1}{3} - \frac{2}{15} = \frac{5-2}{15} = \frac{3}{15} = \frac{1}{5}$$

So, Rahul can complete the whole work in 5 hours

Also, P1 can complete that work in 6 hours

So, ratio of the efficiency of P1 & Rahul = 6: 5

So, required percentage

$$= \frac{6-5}{5} \times 100 = 20\%$$

So, Rahul is 20 % more efficient than P1.

Distance between house and office = 45km.

Time taken to reach office = 1.5 hours at 9:30 a.m.

$$\text{Speed} = \frac{45}{1.5} = 30 \text{ km/hr}$$

Speed of stream = 3km/hr

Therefore, required time

$$= \frac{45}{30-3} = \frac{45}{27} = \frac{5}{3} \text{ hours}$$

So, he takes $1\frac{2}{3}$ hours to reach home.

Total outcomes in a single throw of 2 dice =

(1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (1, 6)
 (2, 1) (2, 2) (2, 3) (2, 4) (2, 5) (2, 6)
 (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6)
 (4, 1) (4, 2) (4, 3) (4, 4) (4, 5) (4, 6)
 (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (5, 6)
 (6, 1) (6, 2) (6, 3) (6, 4) (6, 5) (6, 6)

So, total number of outcomes in a single throw of two dice = 36

When first Rahul and then Aman throw their respective dices, total number of outcomes = 36 + 36 = 72

In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes.

So, the required possibility = (2, 6) (3, 5) (4, 4) (5, 3) (6, 2)

Winner is the one who gets highest number as the sum of the square of the number comes in dices.

$$(2, 6) = 2^2 + 6^2 = 40$$

$$(3, 5) = 3^2 + 5^2 = 34$$

$$(4, 4) = 4^2 + 4^2 = 32$$

$$(5, 3) = 5^2 + 3^2 = 34$$

$$(6, 2) = 6^2 + 2^2 = 40$$

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

So option (e) is the correct answer.

163. Ans. B.

Rahul runs 40 minutes.

For starting 15 minutes

Speed = 5 km/hr

$$\text{Distance} = \frac{15}{60} \times 5 = \frac{5}{4} \text{ km}$$

For next 25 minutes

Speed = 9 km/hr

$$\text{Distance} = \frac{25}{60} \times 9 = \frac{15}{4} \text{ km}$$

$$\text{Total distance} = \frac{5}{4} + \frac{15}{4} = \frac{20}{4} = 5 \text{ km}$$

So, he runs total 5 km on treadmill.

P1 can complete that work in 6 hours

Efficiency of P1 and P2 = 5: 4.

So, P2 can complete the work in $6 \times \frac{5}{4} = 7.5$ hours

So, the number of units of work done by them in one hours = $\frac{1}{6} + \frac{1}{7.5} = \frac{3}{10}$

So, they together can complete the work in $\frac{10}{3}$ hours

P1 and P2 together complete 75% of that work at 12:30 p.m.

100% of the work is completed in $\frac{10}{3}$ hours

So, 75% of the work will be completed

$$\text{in } \frac{10}{300} \times 75 = 2.5 \text{ hours}$$

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

Rahul and P2 together can complete same work in 3 hours.

$$\frac{1}{\text{Rahul}} + \frac{1}{7.5} = \frac{1}{3}$$

$$\frac{1}{\text{Rahul}} = \frac{1}{3} - \frac{1}{7.5} = \frac{1}{3} - \frac{2}{15} = \frac{5-2}{15} = \frac{3}{15} = \frac{1}{5}$$

So, Rahul can complete the whole work in 5 hours

Also, P1 can complete that work in 6 hours

So, ratio of the efficiency of P1 and Rahul = 6:5

So, required percentage

$$= \frac{6-5}{5} \times 100 = 20\%$$

So, Rahul is 20 % more efficient than P1.

Distance between house and office = 45km.

Time taken to reach office = 1.5 hours at 9:30 a.m.

$$\text{Speed} = \frac{45}{1.5} = 30 \text{ km/hr}$$

Speed of stream = 3km/hr

Therefore, required time

$$= \frac{45}{30-3} = \frac{45}{27} = \frac{5}{3} \text{ hours}$$

So, he takes $1\frac{2}{3}$ hours to reach home.

Total outcomes in a single throw of 2 dice =

(1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (1, 6)
 (2, 1) (2, 2) (2, 3) (2, 4) (2, 5) (2, 6)
 (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6)
 (4, 1) (4, 2) (4, 3) (4, 4) (4, 5) (4, 6)
 (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (5, 6)
 (6, 1) (6, 2) (6, 3) (6, 4) (6, 5) (6, 6)

So, total number of outcomes in a single throw of two dice = 36

When first Rahul and then Aman throw their respective dices, total number of outcomes = 36 + 36 = 72

In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes.

So, the required possibility = (2, 6) (3, 5) (4, 4) (5, 3) (6, 2)

Winner is the one who gets highest number as the sum of the square of the number comes in dices.

$$(2, 6) = 2^2 + 6^2 = 40$$

$$(3, 5) = 3^2 + 5^2 = 34$$

$$(4, 4) = 4^2 + 4^2 = 32$$

$$(5, 3) = 5^2 + 3^2 = 34$$

$$(6, 2) = 6^2 + 2^2 = 40$$

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

So, Rahul is 20 % more efficient than P1.

So option (b) is the correct answer.

164. Ans. D.

Rahul runs 40 minutes.

For starting 15 minutes

Speed = 5 km/hr

$$\text{Distance} = \frac{15}{60} \times 5 = \frac{5}{4} \text{ km}$$

For next 25 minutes

Speed = 9 km/hr

$$\text{Distance} = \frac{25}{60} \times 9 = \frac{15}{4} \text{ km}$$

$$\text{Total distance} = \frac{5}{4} + \frac{15}{4} = \frac{20}{4} = 5 \text{ km}$$

So, he runs total 5 km on treadmill.

P1 can complete that work in 6 hours

Efficiency of P1 and P2 = 5: 4.

So, P2 can complete the work

$$\text{in } 6 \times \frac{5}{4} = 7.5 \text{ hours}$$

So, the number of units of work done by

$$\text{them in one hours} = \frac{1}{6} + \frac{1}{7.5} = \frac{3}{10}$$

So, they together can complete the work

$$\text{in } \frac{10}{3} \text{ hours}$$

P1 and P2 together complete 75% of that work at 12:30 p.m.

$$100\% \text{ of the work is completed in } \frac{10}{3} \text{ hours}$$

So, 75% of the work will be completed

$$\text{in } \frac{10}{3} \times 75 = 2.5 \text{ hours}$$

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

Rahul and P2 together can complete same work in 3 hours.

$$\frac{1}{\text{Rahul}} + \frac{1}{7.5} = \frac{1}{3}$$

$$\frac{1}{\text{Rahul}} = \frac{1}{3} - \frac{1}{7.5} = \frac{1}{3} - \frac{2}{15} = \frac{5-2}{15} = \frac{3}{15} = \frac{1}{5}$$

So, Rahul can complete the whole work in 5 hours

Also, P1 can complete that work in 6 hours

So, ratio of the efficiency of P1 and Rahul = 6:5

So, required percentage

$$= \frac{6-5}{5} \times 100 = 20\%$$

So, Rahul is 20 % more efficient than P1.

Distance between house and office = 45km.

Time taken to reach office = 1.5 hours at 9:30 a.m.

$$\text{Speed} = \frac{45}{1.5} = 30 \text{ km/hr}$$

Speed of stream = 3km/hr

Therefore, required time

$$= \frac{45}{30-3} = \frac{45}{27} = \frac{5}{3} \text{ hours}$$

So, he takes $1\frac{2}{3}$ hours to reach home.

Total outcomes in a single throw of 2 dice =

(1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (1, 6)
 (2, 1) (2, 2) (2, 3) (2, 4) (2, 5) (2, 6)
 (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6)
 (4, 1) (4, 2) (4, 3) (4, 4) (4, 5) (4, 6)
 (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (5, 6)
 (6, 1) (6, 2) (6, 3) (6, 4) (6, 5) (6, 6)

So, total number of outcomes in a single throw of two dice = 36

When first Rahul and then Aman throw their respective dices, total number of outcomes = 36 + 36 = 72

In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes.

So, the required possibility = (2, 6) (3, 5) (4, 4) (5, 3) (6, 2)

Winner is the one who gets highest number as the sum of the square of the number comes in dices.

$$(2, 6) = 2^2 + 6^2 = 40$$

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$$(4, 4) = 4^2 + 4^2 = 32$$

$$(5, 3) = 5^2 + 3^2 = 34$$

$$(6, 2) = 6^2 + 2^2 = 40$$

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

So, he takes $1\frac{2}{3}$ hours to reach home.

So option (d) is the correct answer.

165. Ans. A.

Rahul runs 40 minutes.

For starting 15 minutes

Speed = 5 km/hr

$$\text{Distance} = \frac{15}{60} \times 5 = \frac{5}{4} \text{ km}$$

For next 25 minutes

Speed = 9 km/hr

$$\text{Distance} = \frac{25}{60} \times 9 = \frac{15}{4} \text{ km}$$

$$\text{Total distance} = \frac{5}{4} + \frac{15}{4} = \frac{20}{4} = 5 \text{ km}$$

So, he runs total 5 km on treadmill.

P1 can complete that work in 6 hours

Efficiency of P1 and P2 = 5: 4.

So, P2 can complete the work in $6 \times \frac{5}{4} = 7.5$ hours

So, the number of units of work done by them

$$\text{in one hours} = \frac{1}{6} + \frac{1}{7.5} = \frac{3}{10}$$

So, they together can complete the work in $\frac{10}{3}$ hours

P1 and P2 together complete 75% of that work at 12:30 p.m.

100% of the work is completed in $\frac{10}{3}$ hours

So, 75% of the work will be completed in $\frac{10}{300} \times 75 = 2.5$ hours

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

Rahul and P2 together can complete same work in 3 hours.

$$\frac{1}{\text{Rahul}} + \frac{1}{7.5} = \frac{1}{3}$$

$$\frac{1}{\text{Rahul}} = \frac{1}{3} - \frac{1}{7.5} = \frac{1}{3} - \frac{2}{15} = \frac{5-2}{15} = \frac{3}{15} = \frac{1}{5}$$

So, Rahul can complete the whole work in 5 hours

Also, P1 can complete that work in 6 hours

So, ratio of the efficiency of P1 and Rahul = 6:5

So, required percentage

$$= \frac{6-5}{5} \times 100 = 20\%$$

So, Rahul is 20 % more efficient than P1.

Distance between house and office = 45km.

Time taken to reach office = 1.5 hours at 9:30 a.m.

$$\text{Speed} = \frac{45}{1.5} = 30 \text{ km/hr}$$

Speed of stream = 3km/hr

Therefore, required time

$$= \frac{45}{30-3} = \frac{45}{27} = \frac{5}{3} \text{ hours}$$

So, he takes $1\frac{2}{3}$ hours to reach home.

Total outcomes in a single throw of 2 dice =

(1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (1, 6)
 (2, 1) (2, 2) (2, 3) (2, 4) (2, 5) (2, 6)
 (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6)
 (4, 1) (4, 2) (4, 3) (4, 4) (4, 5) (4, 6)
 (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (5, 6)
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So, total number of outcomes in a single throw of two dice = 36

When first Rahul and then Aman throw their respective dices, total number of outcomes = 36 + 36 = 72

In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes.

So, the required possibility = (2, 6) (3, 5) (4, 4) (5, 3) (6, 2)

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$$(5, 3) = 5^2 + 3^2 = 34$$

$$(6, 2) = 6^2 + 2^2 = 40$$

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

When first Rahul and then Aman throw their respective dices, total number of outcomes = 36 + 36 = 72

So option (a) is the correct answer.

166. Ans. E.

Rahul runs 40 minutes.

For starting 15 minutes

Speed = 5 km/hr

$$\text{Distance} = \frac{15}{60} \times 5 = \frac{5}{4} \text{ km}$$

For next 25 minutes

Speed = 9 km/hr

$$\text{Distance} = \frac{25}{60} \times 9 = \frac{15}{4} \text{ km}$$

$$\text{Total distance} = \frac{5}{4} + \frac{15}{4} = \frac{20}{4} = 5 \text{ km}$$

So, he runs total 5 km on treadmill.

P1 can complete that work in 6 hours

Efficiency of P1 and P2 = 5: 4.

So, P2 can complete the work in

$$6 \times \frac{5}{4} = 7.5 \text{ hours}$$

So, the number of units of work done by them

$$\text{in one hours} = \frac{1}{6} + \frac{1}{7.5} = \frac{3}{10}$$

So, they together can complete the work

$$\text{in } \frac{10}{3} \text{ hours}$$

P1 and P2 together complete 75% of that work at 12:30 p.m.

100% of the work is completed in $\frac{10}{3}$ hours

So, 75% of the work will be completed

$$\text{in } \frac{10}{300} \times 75 = 2.5 \text{ hours}$$

So, in office Rahul gives some work to his subordinates P1 and P2 at 12.30 – 2.5 hours = 10 am.

Rahul and P2 together can complete same work in 3 hours.

$$\frac{1}{\text{Rahul}} + \frac{1}{7.5} = \frac{1}{3}$$

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So, Rahul can complete the whole work in 5 hours

Also, P1 can complete that work in 6 hours

So, ratio of the efficiency of P1 & Rahul = 6: 5

So, required percentage

$$= \frac{6-5}{5} \times 100 = 20\%$$

So, Rahul is 20 % more efficient than P1.

Distance between house and office = 45km.

Time taken to reach office = 1.5 hours at 9:30 a.m.

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Speed of stream = 3km/hr

Therefore, required time

$$= \frac{45}{30-3} = \frac{45}{27} = \frac{5}{3} \text{ hours}$$

So, he takes $1\frac{2}{3}$ hours to reach home.

Total outcomes in a single throw of 2 dice =

(1, 1) (1, 2) (1, 3) (1, 4) (1, 5) (1, 6)
 (2, 1) (2, 2) (2, 3) (2, 4) (2, 5) (2, 6)
 (3, 1) (3, 2) (3, 3) (3, 4) (3, 5) (3, 6)
 (4, 1) (4, 2) (4, 3) (4, 4) (4, 5) (4, 6)
 (5, 1) (5, 2) (5, 3) (5, 4) (5, 5) (5, 6)
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So, total number of outcomes in a single throw of two dice = 36

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In a game, all three throw their dices and each one of them get 8 as the sum of numbers in their dices and any one of two not get same outcomes.

So, the required possibility = (2, 6) (3, 5) (4, 4) (5, 3) (6, 2)

Winner is the one who gets highest number as the sum of the square of the number comes in dices.

$$(2, 6) = 2^2 + 6^2 = 40$$

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$$(4, 4) = 4^2 + 4^2 = 32$$

$$(5, 3) = 5^2 + 3^2 = 34$$

$$(6, 2) = 6^2 + 2^2 = 40$$

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

So, Raman will get (2, 6) and the other two will get (3, 5) and (4, 4)

So option (e) is the correct answer.

167. Ans. C.

$$3^{x+5} \cdot 9^{2x-4} = 9^{5x-14}$$

$$9^{(x+5)/2} \cdot 9^{2x-4} = 9^{5x-14}$$

Comparing powers,

$$(x+5)/2 + 2x-4 = 5x-14$$

$$x = 5$$

$$\text{And, } 2y^2 - 15y - 28 = 3y^2 - 23y - 13$$

$$\Rightarrow y^2 - 8y + 15 = 0$$

$$\Rightarrow y^2 - 3y - 5y + 15 = 0$$

$$\Rightarrow y(y-3) - 5(y-3) = 0$$

$$\Rightarrow (y-5)(y-3) = 0 \Rightarrow y = 5, 3$$

Quantity I: - Value of x = 5

Quantity II: - Value of y = 5, 3

So option C Quantity I \geq Quantity II

168. Ans. B.

Quantity I: Let C.P. \rightarrow Rs 100

So, S.P. $\rightarrow (100 + 29.6) = \text{Rs } 129.6$

ATQ, M.P. $\rightarrow 129.6/72 \times 100 \Rightarrow \text{Rs } 180$

$$'x' \Rightarrow [180 \times (100 - 30)/100] - 100 \Rightarrow 26\%$$

Quantity I: 26%

Quantity II: 38

So Quantity I < Quantity II

169. Ans. A.

Let efficiency of 1 man, 1 woman and 1 child is m, w and c respectively

$$\text{ATQ, } 10 \times 12m = 18w \times 20 = 27c \times 20$$

$$2m = 6w = 9c$$

$$\text{So, } 9w = 3m \text{ \& } 9c = 2m$$

Let total work = 120 m

$$\text{Quantity I: } (9w + 9c) \times 16 = (3m + 2m) \times 16 = 80 \text{ m}$$

$$\text{Remaining work} = 120 \text{ m} - 80 \text{ m} = 40 \text{ m}$$

Number of men required to complete remaining work in one day = 40

Quantity I = 40

Quantity II = 36

Quantity I > Quantity II

170. Ans. A.

Quantity I:-

Let total capacity of tank be 60 unit.

A capacity= $60/20 = 3$ unit/min

B capacity= $60/15 = 4$ unit/min

C capacity= $60/12 = 5$ unit/min

Units filled in first three minutes = $3 + 4 + 5$
= 12 unit

12 unit filled time= 3 min

60 unit filled time= $3 \times 60/12 = 15$ min

Hence, total time taken= 15 minutes

Quantity II:- Let waste pipe can empty the cistern in x min

$$1/10 + 1/15 - 1/x = 1/18$$

$$\Rightarrow 1/x = (9+6-5)/90 = 10/90$$

$$\Rightarrow x = 9 \text{ minutes}$$

Quantity I= 15

Quantity II=9

Quantity I > Quantity II

171. Ans. A.

Total units consumed by House A: 250

Units consumed by Fans in House A: 50

Units consumed by Lights in House A: 80

Units consumed by Other Appliances in House A: 120

Total units consumed by House B: 270

Units consumed by Fans in House B: 80

Units consumed by Lights in House B: 80

Units consumed by Other Appliances in House B: 110

Total units consumed by House C: 170

Units consumed by Fans in House C: 40

Units consumed by Lights in House C: 40

Units consumed by Other Appliances in House C: 90

Units consumed by Lights in House B: 80

Units consumed by Lights in House C: 40

Therefore, required percentage

$$= \frac{80-40}{40} \times 100 = 100\%$$

So option (a) is the correct answer.

172. Ans. C.

Total units consumed by House A: 250

Units consumed by Fans in House A: 50

Units consumed by Lights in House A: 80

Units consumed by Other Appliances in House A: 120

Total units consumed by House B: 270

Units consumed by Fans in House B: 80

Units consumed by Lights in House B: 80

Units consumed by Other Appliances in House B: 110

Total units consumed by House C: 170

Units consumed by Fans in House C: 40

Units consumed by Lights in House C: 40

Units consumed by Other Appliances in House C: 90

Units consumed by Other Appliances in House B: 110

Units consumed by Other Appliances in House C: 90

Units consumed by Other Appliances in House D: x

Given,

$$\frac{110+90+x}{3} = 110$$

$$200 + x = 330$$

$$x = 330 - 200 = 130$$

So option (c) is the correct answer.

173. Ans. E.

Total units consumed by House A: 250

Units consumed by Fans in House A: 50

Units consumed by Lights in House A: 80

Units consumed by Other Appliances in House A: 120

Total units consumed by House B: 270

Units consumed by Fans in House B: 80

Units consumed by Lights in House B: 80

Units consumed by Other Appliances in House B: 110

Total units consumed by House C: 170

Units consumed by Fans in House C: 40

Units consumed by Lights in House C: 40

Units consumed by Other Appliances in House C: 90

Total units consumed by House A: 250

Total units consumed by House C: 170

So, required sum = $250 + 170 = 420$ units

So option (e) is the correct answer.

174. Ans. B.

Total units consumed by House A: 250

Units consumed by Fans in House A: 50

Units consumed by Lights in House A: 80

Units consumed by Other Appliances in House A: 120

Total units consumed by House B: 270
 Units consumed by Fans in House B: 80
 Units consumed by Lights in House B: 80
 Units consumed by Other Appliances in House B: 110

Total units consumed by House C: 170
 Units consumed by Fans in House C: 40
 Units consumed by Lights in House C: 40
 Units consumed by Other Appliances in House C: 90

Units consumed by Other Appliances in House B: 110

Units consumed by Other Appliances in House C: 90

So, required difference = $110 - 90 = 20$ units

So option (b) is the correct answer.

175. Ans. D.

Total units consumed by House A: 250
 Units consumed by Fans in House A: 50
 Units consumed by Lights in House A: 80
 Units consumed by Other Appliances in House A: 120

Total units consumed by House B: 270
 Units consumed by Fans in House B: 80
 Units consumed by Lights in House B: 80
 Units consumed by Other Appliances in House B: 110

Total units consumed by House C: 170
 Units consumed by Fans in House C: 40
 Units consumed by Lights in House C: 40
 Units consumed by Other Appliances in House C: 90

Units consumed by Lights in House A: 80
 Units consumed by Other Appliances in House A: 120

So, total units consumed by Lights and Other appliances together in House 'A' = 200

Units consumed by Fans in House C: 40

Units consumed by Lights in House C: 40

So, total units consumed by Fans and Lights together in House 'C' = 80

So, required percentage

$$= \frac{200-80}{200} \times 100 = \frac{120}{200} \times 100 = 60\%$$

So option (d) is the correct answer.

176. Ans. B.

Total investment = 80000

Investment of A

$$= 80000 \times \frac{25}{100} = 20000$$

Investment of B

$$= 80000 \times \frac{35}{100} = 28000$$

$$\text{Investment of C} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of D} = 80000 \times \frac{10}{100} = 8000$$

$$\text{Investment of E} = 80000 \times \frac{15}{100} = 12000$$

Investment of B

$$= 80000 \times \frac{35}{100} = 28000$$

$$\text{Investment of E} = 80000 \times \frac{15}{100} = 12000$$

Total investment of B = 28000×9

Total investment of E = 12000×12

Ratio of profit of B and E

$$= 28 \times 9 : 12 \times 12 = 7 : 4$$

$$\text{Profit of B} = \frac{7}{11} \times 15400$$

$$\text{Profit of E} = \frac{4}{11} \times 15400$$

So, required difference

$$= \frac{3}{11} \times 15400 = 4200$$

So option (b) is the correct answer.

177. Ans. D.

Total investment = 80000

$$\text{Investment of A} = 80000 \times \frac{25}{100} = 20000$$

$$\text{Investment of B} = 80000 \times \frac{35}{100} = 28000$$

$$\text{Investment of C} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of D} = 80000 \times \frac{10}{100} = 8000$$

$$\text{Investment of E} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of A} = 80000 \times \frac{25}{100} = 20000$$

$$\text{Investment of C} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of D} = 80000 \times \frac{10}{100} = 8000$$

$$\text{Total investment of A} = 20000 \times 6$$

Total investment of D = 8000×8
 Total investment of C = $12000 \times x$
 Ratio of profit of A, D and C = 120: 64: 12x
 = 30: 16: 3x

Total profit = 13050

$$\text{Share of A} = \frac{30}{46+3x} \times 13050 = 6750$$

$$\text{So, } 391500 = 310500 + 20250x$$

$$\text{So, } 81000 = 20250x$$

$$\text{So, } x = 4$$

So option (d) is the correct answer.

178. Ans. A.

Total investment = 80000

$$\text{Investment of A} = 80000 \times \frac{25}{100} = 20000$$

$$\text{Investment of B} = 80000 \times \frac{35}{100} = 28000$$

$$\text{Investment of C} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of D} = 80000 \times \frac{10}{100} = 8000$$

$$\text{Investment of E} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of A} = 80000 \times \frac{25}{100} = 20000$$

$$\text{Investment of C} = 80000 \times \frac{15}{100} = 12000$$

$$\text{Investment of F} = 12000 + 4000 = 16000$$

$$\text{Total investment of A} = 20000 \times 12$$

$$\text{Total investment of C} = 12000 \times 8$$

$$\text{Total investment of F} = 16000 \times 6$$

$$\text{Ratio of profit} = 20 \times 12 : 12 \times 8 : 16 \times 6 = 20 : 8 : 8 = 5 : 2 : 2$$

$$\text{Profit of A and C} = \frac{7}{9} \times x = 8750$$

$$\text{So, total profits} = 8750 \times \frac{9}{7} = 11250$$

So option (a) is the correct answer.

179. Ans. A.

$$\text{C.P. of 10 note books} \Rightarrow 140 \times 10 = 1400 \text{ Rs.}$$

$$\text{Profit on selling one pen} \Rightarrow 50 \times 200 / 100 = \text{Rs } 100$$

$$\text{Number of pen required} \Rightarrow 1400 / 100 = 14$$

180. Ans. D.

Let speed of slower train = $2x$

\Rightarrow speed of faster train = $5x$

$$\text{ATQ, } (150 + 200) / (2x + 5x) = 15$$

$$x = 10/3$$

$$\text{Time required} = 350 / [50/3 - 20/3] = 35 \text{ seconds}$$

181. Ans. E.

Let length and breadth of rectangle be L cm

and B cm respectively So, ATQ

$$\text{Area}_1 = (L-6) \times B$$

But this is square, so $L-6=B$

$$\text{Area}_1 = (L-6) \times (L-6)$$

$$\text{Case 2, Area}_2 = L \times (B+6),$$

$$L=B+6$$

$$\text{So, Area}_2 = L \times L,$$

$$\text{Given, Area}_2 - \text{Area}_1 = 252$$

$$(L)^2 - (L-6)^2 = 252$$

$$\text{Solving this, } L = 24$$

$$B = 18$$

$$\text{Perimeter} = 2(L+B) = 2(24+18) = 84 \text{ cm}$$

182. Ans. A.

$$\text{Diagonal of Square} = \text{Side } \sqrt{2} = 2.5\sqrt{2} \times \sqrt{2} = 5 \text{ cm}$$

$$\text{Breadth} = 5 \text{ cm}$$

$$\text{Length of rectangle} = 5 \times 3 = 15 \text{ cm}$$

$$\text{Area of rectangle} = 15 \times 5 = 75 \text{ cm}^2$$

183. Ans. B.

let speed of boat = X , speed of stream = Y

Upstream speed = $X-Y$

Downstream speed = $X+Y$

$$\text{Sum of upstream \& downstream} = (X-Y) + (X+Y) = 2X$$

$$\text{So, } 2X = 40$$

$$X = 20 \text{ km/hr}$$

$$\text{Speed of boat : speed of stream} = 600+100 : 100 = 7:1$$

$$\text{So speed of Stream} = 20/7 \text{ km/hr}$$

$$\text{ATQ, } D/(X-Y) + D/(X+Y) = 5$$

$$D/(120/7) + D/(160/7) = 5$$

$$D = 480 \times 5 / 49 = 48.97 \text{ km} = 50 \text{ Km (approx)}$$

184. Ans. C.

Ratio of profit,

$$A : B = (800 \times 8 + 900 + 1000 + 1100 + 1200) : (1600 \times 8 + 1700 + 1800 + 1900 + 2000)$$

$$A : B = 53 : 101$$

$$\text{Profit of A} \Rightarrow 7700 \times 53 / 154 = 2650 \text{ Rs.}$$

185. Ans. C.

Let initial investment of A = x

Ratio of profit A : B : C = $12 \times x : 6 \times 4500 : 4 \times 4500$

A : B : C = x : 2250 : 1500

Now ATQ

$x/(x+2250+1500) = 4900/10000$

solving this we get,

$x \approx \text{Rs } 3600$

186. Ans. C.

$$CP = \frac{SP \times 100}{100 + \text{Profit Percentage}}$$

Selling price of A = 105

Profit Percentage = 40%

$$CP = \frac{105 \times 100}{140} = 75$$

Selling price of B = 60

Profit Percentage = 20%

$$CP = \frac{60 \times 100}{120} = 50$$

Selling price of C = 150

Profit Percentage = 25%

$$CP = \frac{150 \times 100}{125} = 120$$

Selling price of D = 120

$$\text{Profit Percentage} = 60\% \quad CP = \frac{120 \times 100}{160} = 75$$

Selling price of E = 90

Profit Percentage = 80%

$$CP = \frac{90 \times 100}{180} = 50$$

Selling price of D = 120

Profit Percentage = 60%

$$CP = \frac{120 \times 100}{160} = 75$$

For Ravi,

Profit = $120 - 75 = 45$

CP of Shyam = 120

Profit = 25%

$$SP = 120 \times \frac{125}{100} = 150$$

For Shyam,

Profit = $150 - 120 = 30$

So, required difference = $45 - 30 = 15$

So option (c) is the correct answer.

187. Ans. B.

$$CP = \frac{SP \times 100}{100 + \text{Profit Percentage}}$$

Selling price of A = 105

Profit Percentage = 40%

$$CP = \frac{105 \times 100}{140} = 75$$

Selling price of B = 60

Profit Percentage = 20%

$$CP = \frac{60 \times 100}{120} = 50$$

Selling price of C = 150

Profit Percentage = 25%

$$CP = \frac{150 \times 100}{125} = 120$$

Selling price of D = 120

Profit Percentage = 60%

$$CP = \frac{120 \times 100}{160} = 75$$

Selling price of E = 90

Profit Percentage = 80%

$$CP = \frac{90 \times 100}{180} = 50$$

$$CP \text{ of article A} = \frac{105 \times 100}{140} = 75$$

$$CP \text{ of article C} = \frac{150 \times 100}{125} = 120$$

Required percentage

$$= \frac{120 - 75}{120} \times 100 = 37.5\%$$

So option (b) is the correct answer.

188. Ans. D.

$$CP = \frac{SP \times 100}{100 + \text{Profit Percentage}}$$

Selling price of A = 105

Profit Percentage = 40%

$$CP = \frac{105 \times 100}{140} = 75$$

Selling price of B = 60

Profit Percentage = 20%

$$CP = \frac{60 \times 100}{120} = 50$$

Selling price of C = 150

Profit Percentage = 25%

$$CP = \frac{150 \times 100}{125} = 120$$

Selling price of D = 120

Profit Percentage = 60%

$$CP = \frac{120 \times 100}{160} = 75$$

Selling price of E = 90

Profit Percentage = 80%

$$CP = \frac{90 \times 100}{180} = 50$$

Selling price of B = 60

Profit Percentage = 20%

$$CP = \frac{60 \times 100}{120} = 50$$

Profit = 60 - 50 = 10

$$\text{Marked price} = 50 \times \frac{150}{100} = 75$$

Let, the percentage discount given = x

$$75 \times \frac{x}{100} = 75 - 60 = 15$$

$$x = 15 \times \frac{100}{75} = 20\%$$

So option (d) is the correct answer.

189. Ans. E.

$$CP = \frac{SP \times 100}{100 + \text{Profit Percentage}}$$

Selling price of A = 105

$$\text{Profit Percentage} = 40\% \quad CP = \frac{105 \times 100}{140} = 75$$

Selling price of B = 60

Profit Percentage = 20%

$$CP = \frac{60 \times 100}{120} = 50$$

Selling price of C = 150

Profit Percentage = 25%

$$CP = \frac{150 \times 100}{125} = 120$$

Selling price of D = 120

Profit Percentage = 60%

$$CP = \frac{120 \times 100}{160} = 75$$

Selling price of E = 90

Profit Percentage = 80%

$$CP = \frac{90 \times 100}{180} = 50$$

Selling price of C = 150

Profit Percentage = 25%

$$CP = \frac{150 \times 100}{125} = 120$$

Profit = 150 - 120 = 30

Selling price of E = 90

Profit Percentage = 80%

$$CP = \frac{90 \times 100}{180} = 50$$

Profit = 90 - 50 = 40

Required difference = 40 - 30 = 10

So option (e) is the correct answer.

190. Ans. B.

$$CP = \frac{SP \times 100}{100 + \text{Profit Percentage}}$$

Selling price of A = 105

Profit Percentage = 40%

$$CP = \frac{105 \times 100}{140} = 75$$

Selling price of B = 60

Profit Percentage = 20%

$$CP = \frac{60 \times 100}{120} = 50$$

Selling price of C = 150

Profit Percentage = 25%

$$CP = \frac{150 \times 100}{125} = 120$$

Selling price of D = 120

Profit Percentage = 60%

$$CP = \frac{120 \times 100}{160} = 75$$

Selling price of E = 90

Profit Percentage = 80%

$$CP = \frac{90 \times 100}{180} = 50$$

Selling price of A = 105

Profit Percentage = 40%

$$CP = \frac{105 \times 100}{140} = 75$$

Let marked price = x

$$\text{So, } x \times \frac{100 - 16}{100} = 105$$

$$\text{So, } x = 105 \times \frac{100}{84} = 125$$

Required percentage

$$= \frac{125 - 75}{75} \times 100 = 66\frac{2}{3}\%$$

So option (b) is the correct answer