SBI PO Prelims Memory Based Paper (Held on:24 June 2018 (Previous Year Paper)

SBI Probationary Officer (PO) • 2018 • 100 questions • 60 minutes • Answer key and solutions

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ENGLISH LANGUAGE

Directions

Arrange the sentences in the correct order and answer the following questions.

A. Over the past year, perceptions of relative U.S. economic power have declined in many of America's key trading partners and allies.

B. Following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the U.S., as the world's leading economic power.

C. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot.

D. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the U.S.

E. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years.

Q1. Which of the following is the THIRD statement?

(a) A
(b) B
(c) C
(d) D
(e) E

Q2. Which of the following is the FIRST statement?

(a) A
(b) B
(c) C
(d) D
(e) E

Q3. Which of the following is the SECOND statement?

(a) A
(b) B
(c) C
(d) D
(e) E

Q4. Which of the following is the FIFTH statement?

(a) A
(b) B
(c) C
(d) D
(e) E

Q5. Which of the following is the FOURTH statement?

(a) A
(b) B
(c) C
(d) D
(e) E

Q6. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

Shooting as well as horse riding (1) are taught (2) to cadets at the National Defence (3) Academy every morning. (4)

(a) 1
(b) 2
(c) 3
(d) 4
(e) No error

Q7. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

The President, along with several international guests, (1) are to be present (2) during the swearing-in ceremony (3) of the new government. (4)

(a) 1
(b) 2
(c) 3
(d) 4
(e) No error

Q8. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

India has a long way (1) to go to reach environmental (2) quality similar to that enjoyed (3) in developed economies. (4)

(a) 1
(b) 2
(c) 3
(d) 4
(e) No error

Q9. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

Stories are all about going further reality (1) and it is no wonder that they (2) let you understand big concepts with only (3) a little bit of reading practice. (4)

(a) 1
(b) 2
(c) 3
(d) 4
(e) No error

Q10. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

Who wouldn't love to chat (1)/ about who character is their favorite, (2) or predict what will happen in a (3) suspense story they are reading? (4)

(a) 1
(b) 2
(c) 3
(d) 4

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(e) No error

Q11. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

Over the last few decades, (1) the exploitation of our planet and (2) the degradation of our environment have (3) grown up at an alarming rate. (4)

(a) 1
(b) 2
(c) 3
(d) 4
(e) No error

Q12. Read the sentence to find out whether there is an error in it. The error, if any, will be in one part of the sentence. If there is no error, the answer is option (5). Ignore errors of punctuation, if any.

In June, the Swedish medical company (1) Elekta announced the introduction Watson (2) for Oncology, a medical AI system developed (3) by IBM in the United States. (4)

(a) 1
(b) 2
(c) 3
(d) 4
(e) No error

Directions

Parents prefer private schools. A global survey in 2017 found that they were a lot more likely to give the teaching at their children's school a positive rating if it was private than if it was public; parents in Chile have voted with their children's feet in favour of the private sector. The private sector's efficiency is one reason why it does well at providing access to education. Another is its speed: in fast-growing cities, governments struggle to provide schools, but wherever there are people, schools spring up.

Governments are often less keen on private education. Some of the reasons for their hostility are bad ones: a reluctance to cede power, the opportunity for patronage, the influence of teachers' unions. But some are entirely in order: governments need to promote quality, access to schooling and equity. The private sector is good at some, but not all, of those. Yet well-designed public-private partnerships can work. Two of the world's best education systems—those of the Netherlands and Hong Kong—are based on them.

The main reason for the private sector's superior efficiency seems to be teachers, who are paid less and are more likely to turn up for work than at government schools. Politics has a lot to do with that. Teachers' unions have huge bargaining power and can, therefore, protect their members from being held to account for poor performance. An Indian study found that in 3,000 government schools, only one principal had ever dismissed a teacher; among 600 private schools, 35 had.

Q13. Which of the following is TRUE based on the above passage?

(a) However well-designed the public-private partnerships are, they can never effectively work.
(b) Parents do not prefer public schools as they do not have responsible teachers.
(c) Teachers' unions have very less bargaining power and, therefore, exercise it with accountability.
(d) Well-designed public-private partnerships in the sector of education can be beneficial.
(e) Public schools are more affordable than private schools.

Q14. According to the above passage which of the following is true?

(a) Private schools are failing at meeting the demands of the country's population.
(b) The accountability of teachers is much higher in the private education sector than public.
(c) Teachers' unions don't perform the tasks of saving incompetent teachers from getting fired.
(d) Parents these days are aware of the children and opt accordingly.
(e) Private schools have a more positive rating among parents as compared to public schools.

Q15. What does the author mean by the line 'parents in Chile have voted with their children's feet in favour of the private sector'?

(a) Parents in Chile gave favourable ratings to public schools over private ones.
(b) Parents in Chile gave the best ratings to public schools.

(c) Parents in Chile gave favourable ratings to private schools over public ones.
(d) Parents in Chile gave the worst ratings to public schools.
(e) Parents in Chile gave favourable ratings to public schools over all others.

Q16. Why does the author mention the Netherlands?
(a) As an example of a well-designed public-private partnership in education that can work.
(b) As an example of a well-designed public-private partnership in education that cannot work.
(c) As an example of a debate about the public-private partnership in education.
(d) As an example of a the disadvantages of the public-private partnership in education.
(e) As an example of a the problems of the public-private partnership in education.

Q17. What is the author trying to convey through the passage?
(a) To not compare the public schooling sector with the private one.
(b) To show the disadvantages of the public schooling sector.
(c) To show the disadvantages of the private schooling sector.
(d) To show that a public-private partnership in schools can work.
(e) To show that a public-private partnership in schools cannot work.

Q18. Which of the words can explain the meaning of the word good in the passage?
(a) Advantageous
(b) Efficient
(c) Productive
(d) All of these.
(e) None of these.

Q19. Which of the following words are similar in meaning to cede in the passage?
(a) Relinquish
(b) Yield
(c) Surrender
(d) None of these.
(e) All of these.

Q20. What is the main reason for the private sector's superior efficiency?
(a) The efficiency of the teachers.
(b) The power of the teachers' unions.
(c) The high fees charged by the private schools.
(d) The higher level of education provided by the private schools.
(e) The faith of the parents and the popularity of the private schools.

Q21. In the following sentence, a part of the sentence is emboldened. Below are given alternatives to the emboldened part, which may improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the alternative that indicates 'No improvement.'

Acting in front of the camera is easy acting on the stage, as there is no audience.

(a) Ease than
(b) Is easier than
(c) Are easy
(d) Will be easier
(e) No improvement

Q22. In the following sentence, a part of the sentence is emboldened. Below are given alternatives to the emboldened part, which may improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the alternative that indicates 'No improvement.'

The municipality has decided to collect dry and wet waste separate as every housing society.

(a) Separately from
(b) Separate in

(c) In separation
(d) Separate
(e) No improvement

Q23. In the following sentence, a part of the sentence is emboldened. Below are given alternatives to the emboldened part, which may improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the alternative that indicates 'No improvement.'

Though low inflation helps keep prices of commodities low, it can create unemployment.

(a) Holds to keep
(b) Protects
(c) Does not help
(d) No improvement
(e) Help to keeps

Q24. In the following sentence, a part of the sentence is emboldened. Below are given alternatives to the emboldened part, which may improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the alternative that indicates 'No improvement.'

As an institute, we created qualify professionals for a highly globalized and digital-driven world.

(a) No improvement
(b) We train qualified
(c) Qualified
(d) Creating quality
(e) Qualified training

Q25. In the following sentence, a part of the sentence is emboldened. Below are given alternatives to the emboldened part, which may improve the sentence. Choose the correct alternative. In case no improvement is needed, choose the alternative that indicates 'No improvement.'

Apart from providing "clean" electricity, the nuclear plant will providing clean drinking water to every household in the area

(a) Have provide
(b) Also provides
(c) Provide
(d) No improvement
(e) Had provide

Q26. Fill in the blank with the correct word.

The bulletproof vest _____ the young police officer's life by stopping the bullet from passing through the vest.

(a) Saved
(b) Dignified
(c) Protect
(d) Stopped
(e) None of the above

Q27. Fill in the blank with the appropriate option.

Although the medicine was once thought safe, _____ data has proven it to be harmful to children.

(a) Productive
(b) Procreate
(c) Recent
(d) Individual
(e) None of the above

Q28. Fill in the blank with the appropriate option.

In every workforce, there will be some people more _____ and thus better paid than others.

(a) Capable
(b) Lazy

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(c) Guard
(d) Human
(e) Monetary

Q29. Fill in the blank with the appropriate option.
His competence as an economist had been _____ by his successful fight against inflation.
(a) Capable
(b) Tired
(c) Prejudice
(d) Proved
(e) Disturbed

Q30. Fill in the blank with the appropriate option.
The headhunters faced problems in _____ suitably qualified scientific officers for national laboratories.
(a) Order
(b) Making
(c) Last
(d) Produce
(e) Recruiting

NUMERICAL ABILITY

Q31. The ratio of the A's present age and B's age 4 years ago is 7 : 8. After 8 years, ratio of age of A to that of B is 9 : 11. Find the present age of B.
(a) 36 years
(b) 23 years
(c) 24 years
(d) 25 years
(e) 26 years

Q32. In a 170 lt mixture of milk and water the ratio of milk and water is 12 : 5. If 20% of the mixture was taken out and 10 liters of water is added. Find the quantity of water in the new mixture.
(a) 60 litres
(b) 50 litres
(c) 70 litres
(d) 80 litres
(e) 90 litres

Q33. The cost price of A is double the cost price of B. If the selling price of B is Rs. 3600 and the profit percentage is 20% then find the cost price of A.
(a) 3600
(b) 4200
(c) 6000
(d) 6500
(e) 7500

Q34. 144 added to 40% of a number results in 188. Find the number.
(a) 115
(b) 125
(c) 110
(d) 135
(e) 120

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Q35. A sum of Rs. X was invested in a scheme at the rate of 10% calculated on simple interest for 3 years and the amount received is further invested into another scheme for 2 years at a rate of 20% compounded annually. If the final amount received is Rs. 12168, then find the value of X.

(a) 4500
(b) 6500
(c) 2500
(d) 5500
(e) 3500

Q36. Find out the approximate value which should replace the question mark (?) in the following question.

1/7.99 + 1/11.96 – 1/3.94 + 1/? = 0

(a) 24
(b) 26
(c) 34
(d) 36
(e) 44

Q37. Find out the approximate value which should replace the question mark (?) in the following question.

39.96% of (198.99 + 5.99^2) = ?

(a) 94
(b) 96
(c) 95
(d) 97
(e) 99

Q38. Find out the approximate value which should replace the question mark (?) in the following question.

17.01 + 23.04 – 48.01 ÷ √4.03 = $?^2$

(a) 16
(b) 2
(c) 4
(d) 6
(e) 8

Q39. Find out the approximate value which should replace the question mark (?) in the following question.

23.02 – 13.19 × √9.09 + 200.02 = ?

(a) 230
(b) 184
(c) 260
(d) 360
(e) 300

Q40. Find out the approximate value which should replace the question mark (?) in the following question.

4.03 × $(6.02)^2$ - √120.89 + √144.06 = ?

(a) 125
(b) 135
(c) 145
(d) 148
(e) 150

Q41. Find out the approximate value which should replace the question mark (?) in the following question.

8.02 – (? – 9.01) + $(10.92)^2$ = 120

(a) 3
(b) -3
(c) 18

(d) 5
(e) 2

Q42. A started a business with the investment of Rs. 8000. After 4 months, B joins him with the capital of Rs. 10000. After 8 months of starting the business, C also joins him with the capital of Rs. 15000. Find the share of C in the profit of Rs. 118000 after 1 year.

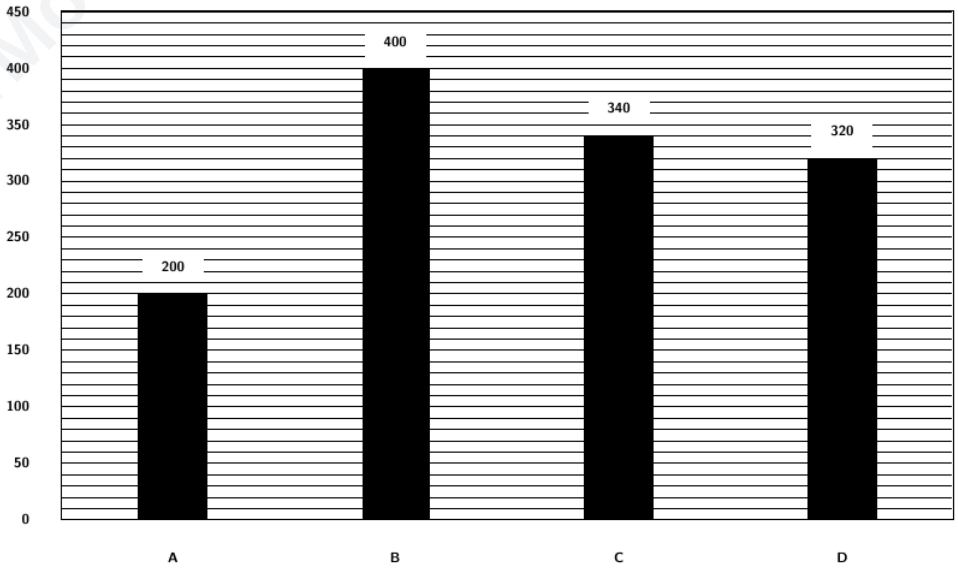
(a) 2000
(b) 15000
(c) 35000
(d) 26000
(e) 30000

Q43. The cost of gardening a circular field C at the rate of 10 Rs./m²is Rs. 3465. The side of square S is equal to the diameter of the circle C. Find the perimeter of the square S.

(a) 76
(b) 92
(c) 84
(d) 68
(e) 65

Directions

Direction: The given bar graph shows the number of workers in a factory.



	Above the age of 40 years
A	50
B	70
C	110
D	120

Q44. If 40% of the total number of workers in a factory A and C together are females and 20% of the number of workers in a factory B are males. Find the total females in factory A, B and C together.

(a) 510
(b) 448
(c) 536
(d) 400
(e) 356

Q45. If the total number of males and females in a new factory E is 20% more than the total number of males and females in factory D and the ratio of the number of males and females in factory E is 7 : 5. Find the number of females in factory E.

(a) 220
(b) 224
(c) 180
(d) 160
(e) 240

Q46. If 60% of the workers above 40 years in factory A and C together and 50% of the workers above 40 years in factory B and D together is females then find the ratio of the number of males in factory A and C to factory B and D together who were above 40 years of age.

(a) 75 : 83
(b) 29 : 55
(c) 64 : 95
(d) 38 : 59
(e) 67 : 85

Q47. In factory C, the number of males above 40 years of age is 30 and in factory A, the number of males above 40 years is 30. Find female workers above the age of 40 in factory C is how much percent more/less than the number of female workers above the age of 40 in factory A?

(a) 300%
(b) 400%
(c) 150%
(d) 200%
(e) 600%

Q48. If the total number of females above 40 years in all the factories is 20% then what will be the average number of female workers above 40 years in all the factories?

(a) 17.1
(b) 17.2
(c) 17.5
(d) 17.8
(e) 17

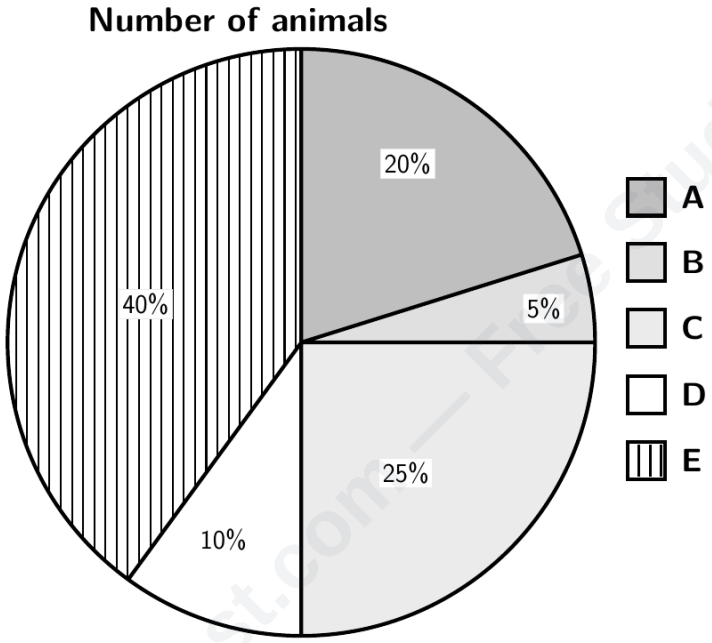
Q49. Find the total number of workers in all the factories whose age is below 40 years.

(a) 840
(b) 860
(c) 910
(d) 915
(e) 925

Directions

Direction: The given pie chart shows the distribution of 5000 animals in 5 different forests.

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Note: The animals are of 3 types: 1. Herbivores 2. Carnivores 3. Omnivores

Q50. Find the ratio of the number of animals in the forest A and B together to the number of animals in the forest D and E together.

(a) 1 : 2
(b) 2 : 3
(c) 3 : 4
(d) 4 : 5
(e) 5 : 6

Q51. If the number of herbivores animals in forest E is half of the carnivores animals in the same forest and equal to the number of omnivores animals in the same forest then find the number of herbivores animals in forest E.

(a) 500
(b) 200
(c) 300
(d) 400
(e) 600

Q52. If total number of carnivores animals in all the forest is 10%. Then find the average number of carnivores animals in all the forest.

(a) 100
(b) 200
(c) 30
(d) 40
(e) 56

Q53. If 25% of the animals in forest A is omnivores. Then the number of omnivores animals in the forest A is what percent of the total number of animals in the forest D?

(a) 16%
(b) 20%
(c) 36%
(d) 40%
(e) 50%

Q54. The total number of animals in the forest A, B and C together is what percent more or less than the total number of animals in the forest D and E together?

(a) 10%
(b) 20%
(c) 32%
(d) 0%
(e) 5%

Q55. What will come in place of question mark (?) in the following series?

18, 26, 53, 117, 242, ?

(a) 458
(b) 216
(c) 518
(d) 468
(e) 478

Q56. Find the missing number in the series

100, 108, 98, 106, 96, ?

(a) 104
(b) 107
(c) 108
(d) 204
(e) 114

Q57. Find the missing number in the series

2, 1, 1, 1.5, 3, ?

(a) 5.5
(b) 6.5
(c) 7.5
(d) 6
(e) 7

Q58. Find the missing number in the series

18, 24, 36, 56, 86, ?

(a) 128
(b) 256
(c) 156
(d) 144
(e) 196

Q59. Find the missing number in the series

1, 11, 99, 693, 3465, ?

(a) 8946
(b) 11296
(c) 10395
(d) 12974
(e) 10296

Directions

Directions: There are 3500 employees in a company working in three departments namely, Production, Marketing and Accounts. The ratio of male to female employees is 13 : 7. 30% of the employees are in the Accounts department. 20% of the males are in the Production department. Number of female employees in the Production department are two third the number of employees in the Accounts department. The ratio of male and female employees in the Marketing department is 5 : 2.

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Q60. What is the ratio of female to male in the Accounts department?

(a) 179 : 31
(b) 31 : 179
(c) 13 : 179
(d) 179 : 13
(e) 1 : 13

Q61. What percentage of male employees work in the Accounts department?

(a) 40
(b) 34.39
(c) 39.34
(d) 49.34
(e) 43.39

Q62. What is the number of female employees in the Production department?

(a) 1050
(b) 700
(c) 350
(d) 530
(e) 735

Q63. What is the difference between the no. males in the Marketing department and the Production department?

(a) 470
(b) 490
(c) 740
(d) 940
(e) 790

Q64. A train crosses a platform having a length of 300 m in 30 seconds and a standing pole in 10 seconds. Calculate the length of the train in meters.

(a) 85 m
(b) 220 m
(c) 150 m
(d) 200 m
(e) 110 m

Q65. In a set of 6 numbers, the average of first four is 10 and that of last four is 8. If the average of all the six numbers is 9, then find the average of the third and fourth number.

(a) 7
(b) 8
(c) 9
(d) 10
(e) 11

REASONING ABILITY

Directions

Direction: Study the information carefully and answer the given questions.

Eight people A, B, C, D, E, F, G and H are sitting around a circular table with equal distance between them. Some of them are facing the centre while others are facing outside (i.e. opposite to the centre).

H is an immediate neighbor of F. F faces the centre. Only three people sit between F and A. C sits third to the left of A. Immediate neighbors of C face the same direction (i.e. if one neighbor faces the centre then the other also faces the centre and vice versa). G sits to the immediate right of B. B is an immediate neighbor of H.D sits second to the left of G. Immediate neighbors of D faces opposite direction (i.e. if one neighbor faces the centre other faces outside the centre and vice-versa). E sits to the immediate left

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of C. Both D and H face a direction opposite to that of E (i.e. if E faces the centre then both D and H face outside the centre and vice versa).

Q66. Who among the following sits second to the left of H?

(a) C
(b) E
(c) G
(d) B
(e) None of these

Q67. Four of the following five pairs are alike in a certain and hence form a group. Which among the following does not belong to that group?

(a) AG.
(b) DB.
(c) CF.
(d) DH.
(e) BE

Q68. If D and B interchange their position, then which among the following sits second to the right of A as per the new arrangement?

(a) D
(b) B
(c) E
(d) C
(e) None of these

Q69. How many persons sit between E and F when counted from the left of E?

(a) One
(b) Four
(c) Three
(d) None of these
(e) Five

Q70. What is the position of A with respect to G?

(a) Immediate Right
(b) Third to the Right
(c) Third to the Left
(d) Immediate Left
(e) Second to the Left

Q71. Direction: In the question below are given two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statement:

No apple is gloves.

All boats are apple.

All radios are boat.

Conclusion:

I. At least some apples are boats.

II. All gloves are radios.

(a) Only I follows
(b) Only II follows
(c) Either I or II follows

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(d) Neither I nor II follows
(e) Both I and II follow

Q72. Direction: In the question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

Only a few wines are cashews.

Few bottles are wines.

No dot is cashew.

Conclusion:

I. At least some wines are dots.

II. All cashews being bottles is a possibility.

(a) Only I follows
(b) Only II follows
(c) Either I or II follows
(d) Neither I nor II follows
(e) Both I and II follow

Q73. Direction: In the question below are given two statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements:

All grains are band.

All poets are band.

No band is a lubricant.

Conclusion:

I. All bands being grain is a possibility.

II. No poet is a lubricant.

(a) Only I follows
(b) Only II follows
(c) Either I or II follows
(d) Neither I nor II follows
(e) Both I and II follow

Q74. Direction: In the question below are given three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statement:

Only a few circles are Dollars.

Some Dollars are Soaps.

No rectangle is a circle.

Conclusion:

I. All circles being rectangles is a possibility.

II. Some rectangles are definitely not soaps.

(a) Only I follows
(b) Only II follows
(c) Either I or II follows
(d) Neither I nor II follows

(e) Both I and II follow

Directions

Direction: Read the information carefully and answer the questions asked below.

Karthik is at point H and is facing towards East. He started walking from point H and walked 60 m to reach a point Z. From Z he has taken a right turn and walked 54 m to reach W, and again taken a left turn and walked 50 m to reach point S. Arjun started from point F and walked 30 m towards West direction to reach point G. From G he takes a left turn and walked 54 m to reach point S.

Q75. What is the distance between H and F?

(a) 118 m
(b) 110 m
(c) 150 m
(d) 140 m
(e) 120 m

Q76. In which direction is point W with respect to point G?

(a) South – West
(b) North – West
(c) North
(d) South – East
(e) South

Q77. Four of the following five are alike in a certain way, which among the following does not belong to the group?

(a) Z
(b) F
(c) W
(d) G
(e) H

Directions

Direction: Study the following information carefully and answer the questions given below.

Ten people are sitting in a straight line facing North with equal distance between each other.

Only 3 people sit to the left of M. Only one person sits between M and R. P sits third to the right of R. As many people sit to the right of P as to the left of Q. Only three people sit between Q and S. U is an immediate neighbor of S. T sits second to the left of W. N sits to the immediate right of V.

Q78. How many people sit between N and R?

(a) Four
(b) Two
(c) Five
(d) One
(e) Three

Q79. Who sits second to the right of Q?

(a) W
(b) R
(c) M
(d) T
(e) N

Q80. Which of the following pairs represents persons seated at the two extreme ends of the line?

(a) QW
(b) ST
(c) TQ

(d) UN
(e) WS

Q81. Four of the following five are alike in a certain way and so form a group. Who among the following does not belong to the group?
(a) SP
(b) UV
(c) WT
(d) MR
(e) VP

Q82. Which of the following statement is definitely true?
(a) Two people sit between V and W
(b) V sits 3rd to the right of S
(c) M sits at extreme left end
(d) None of the given statement is true
(e) P sits immediate left of Q

Q83. How many pairs of letters are there in the word “MERCHANT” which has as many letters between them as in the English alphabetical series? (in both forward and backward direction)
(a) Two
(b) Three
(c) Four
(d) More than four
(e) One

Q84. In a word "MODELLING", if all letters are arranged in the alphabetical order, and then the vowels are changed to the previous letter and the consonants are changed to the next letter as per the English alphabetical series, then how many letters do not repeat more than once?
(a) Three
(b) Four
(c) None
(d) One
(e) Five

Directions

Directions: Study the following information and answer the given questions:

There are six people A, B, C, D, E, and F of different heights. A is taller than D and C. B is taller than A but shorter than E. C is not the shortest person. D is shorter than only three-person. The third tallest person has 115cm height.

Q85. Who is the tallest?
(a) F
(b) E
(c) A
(d) C
(e) D

Q86. If the height of A and E is 235cm and the height of A and D is 220cm, then what is the height of E ?
(a) 80
(b) 120
(c) 85
(d) 95
(e) 100

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Directions

Directions: Read the following information carefully and answer the questions that follow.

A, B, C, D, E, F, G, and H live on 8 different floors of 8 storey building. The lower most floor is numbered 1. The one above it, is numbered 2. Going on like this, the topmost floor is numbered 8. One person lives on each floor.

B lives on an odd-numbered floor above floor 3. Two people live between B and C. Three people live between C and D. The number of people who live below C is equal to the number of people who live above A. F lives on two floors above C. G lives on one of the floors below E and H lives on one of the floors above both G & E. A lives on one of the floors above D.

Q87. Four of the following five are alike in a certain way and hence they form a group, which one of the following does not belong to the group?

(a) GE
(b) DH
(c) EB
(d) CD
(e) FD

Q88. On which of the following floors A lives?

(a) 2nd
(b) 7th
(c) 4th
(d) 1st
(e) None of these

Q89. Which of the following statements is not correct?

(a) H lives on the topmost floor
(b) G lives immediately below C
(c) D lives on the even numbered floor
(d) All of the above are correct
(e) There are three people living between E and H

Q90. Who lives immediately above F?

(a) H
(b) B
(c) C
(d) E
(e) A

Q91. How many people live exactly between C and A?

(a) 1
(b) 3
(c) 5
(d) 4
(e) 2

Q92. Which of the following would replace @ and # in the following expression so that 'N > Y' is definitely true?

S ≥ Z = R @ Y; A = Z # B = N

(a) ≥, ≥
(b) <, >
(c) >, <
(d) ≤, ≥
(e) ≥, >

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Q93. In which of the following expressions will the expression 'H < J' will be definitely true?

(a) G < H = I = J
(b) H > G > I = J
(c) J = I ≥ G > H
(d) H ≥ G > I < J
(e) None of these

Q94. Directions: In the following question, how to place the symbols so that both the conditions, A ≤ T and B < Z, definitely hold true when all the expressions are considered together?

Z __ T ≥ L; B ____ T; P < A ____ L

(a) >, ≤, ≤
(b) >, =, <
(c) ≤, ≤, <
(d) <, =, >
(e) >, =, >

Q95. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?

(a) DGIK
(b) ZWUS
(c) KNPR
(d) QTVX
(e) HKMO

Directions

Study the following information carefully and answer the questions given below.

Six teachers A, B, C, D, E, and F are going to attend the meeting in a famous ground of Delhi, on different months viz. January, April and August but not necessarily in the same order. In each month, they will attend the meeting on dates 5th or 11th of the given month. Only one teacher will attend the meeting on these given dates. B will attend the meeting on 11th of any of the given month but before D. There is no one between C and D attending the meeting. Two teachers will attend the meeting between B and D. Two teachers will attend the meeting between A and F. Only one teacher will attend the meeting between F and C. C will attend the meeting in August.

Q96. Who among the following will attend the meeting on 5th January?

(a) D
(b) E
(c) F
(d) A
(e) None of these

Q97. How many teachers will attend meeting between E and D?

(a) Two
(b) Three
(c) Four
(d) Five
(e) One

Q98. Who among following will attend the meeting on 11^(th) April?

(a) A
(b) E
(c) D
(d) C
(e) F

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Q99. How many teachers will attend the meeting after D?

(a) One
(b) Two
(c) Three
(d) No one
(e) Four

Q100. E attends the meeting on which of the following dates?

(a) 5^(th) April
(b) 5^(th) August
(c) 11^(th) August
(d) 11^(th) January
(e) None of these

ANSWER KEY

1	b	2	a	3	e	4	c	5	d	6	b	7	b	8	e	9	a	10	b
11	d	12	b	13	d	14	e	15	c	16	a	17	d	18	d	19	e	20	a
21	b	22	a	23	d	24	b	25	b	26	a	27	c	28	a	29	d	30	e
31	a	32	b	33	c	34	c	35	b	36	a	37	a	38	c	39	b	40	c
41	c	42	e	43	c	44	c	45	d	46	c	47	a	48	c	49	c	50	a
51	a	52	a	53	e	54	d	55	a	56	a	57	c	58	a	59	c	60	b
61	c	62	b	63	a	64	c	65	c	66	c	67	b	68	a	69	e	70	d
71	a	72	b	73	e	74	d	75	d	76	a	77	c	78	c	79	e	80	b
81	a	82	e	83	d	84	a	85	b	86	b	87	d	88	b	89	e	90	b
91	d	92	c	93	c	94	a	95	b	96	d	97	e	98	e	99	a	100	a

SOLUTIONS

Q1. Answer: (b) B

The correct answer is B

Key Points

• Let's analyze the logical flow of the passage to ascertain the correct order of the sentences:

• A. Over the past year, perceptions of relative U.S. economic power have declined in many of America’s key trading partners and allies: Since this statement talks about the 'past year',

• E. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years: Since this statement talks about the 'trend' mentioned in statement A and also talks about how the perception has 'fluctuated' in European countries,

• B. Following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the U.S., as the world’s leading economic power: Since this statement talks about what happened a decade (ten years) ago.

• D. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the U.S.: This statement not only talks about the 'recent years' but also starts with 'But', thus indicating a contrasting comparison.

• C. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot: Since this statement talks about the most recent time period, that is, 'this year', this should be the concluding sentence.

*Thus the correct order of sentences is: *Over the past year, perceptions of relative US economic power have declined in many of America's key trading partners and allies. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years. following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the US, as the world's leading economic power. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the US. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot.

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Q2. Answer: (a) A

The correct answer is A

Key Points

• Let's analyze the logical flow of the passage to ascertain the correct order of the sentences:

• A. Over the past year, perceptions of relative U.S. economic power have declined in many of America’s key trading partners and allies: Since this statement talks about the 'past year',

• E. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years: Since this statement talks about the 'trend' mentioned in statement A and also talks about how the perception has 'fluctuated' in European countries,

• B. Following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the U.S., as the world’s leading economic power: Since this statement talks about what happened a decade (ten years) ago.

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Q3. Answer: (e) E

The correct answer is E

Key Points

• Let's analyze the logical flow of the passage to ascertain the correct order of the sentences:

• A. Over the past year, perceptions of relative U.S. economic power have declined in many of America’s key trading partners and allies: Since this statement talks about the 'past year',

• E. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years: Since this statement talks about the 'trend' mentioned in statement A and also talks about how the perception has 'fluctuated' in European countries,

• B. Following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the U.S., as the world’s leading economic power: Since this statement talks about what happened a decade (ten years) ago.

• D. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the U.S.: This statement not only talks about the 'recent years' but also starts with 'But', thus indicating a contrasting comparison.

• C. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot: Since this statement talks about the most recent time period, that is, 'this year', this should be the concluding sentence.

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Q4. Answer: (c) C

The correct answer is C

Key Points

• Let's analyze the logical flow of the passage to ascertain the correct order of the sentences:

• A. Over the past year, perceptions of relative U.S. economic power have declined in many of America’s key trading partners and allies: Since this statement talks about the 'past year',

• E. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years: Since this statement talks about the 'trend' mentioned in statement A and also talks about how the perception has 'fluctuated' in European countries,

• B. Following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the U.S., as

the world's leading economic power: Since this statement talks about what happened a decade (ten years) ago.

• D. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the U.S.: This statement not only talks about the 'recent years' but also starts with 'But', thus indicating a contrasting comparison.

• C. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot: Since this statement talks about the most recent time period, that is, 'this year', this should be the concluding sentence.

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Q5. Answer: (d) D

The correct answer is D

Key Points

• Let's analyze the logical flow of the passage to ascertain the correct order of the sentences:

• A. Over the past year, perceptions of relative U.S. economic power have declined in many of America's key trading partners and allies: Since this statement talks about the 'past year',

• E. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years: Since this statement talks about the 'trend' mentioned in statement A and also talks about how the perception has 'fluctuated' in European countries,

• B. Following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the U.S., as the world's leading economic power: Since this statement talks about what happened a decade (ten years) ago.

• D. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the U.S.: This statement not only talks about the 'recent years' but also starts with 'But', thus indicating a contrasting comparison.

• C. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot: Since this statement talks about the most recent time period, that is, 'this year', this should be the concluding sentence.

*Thus the correct order of sentences is: *Over the past year, perceptions of relative US economic power have declined in many of America's key trading partners and allies. The trend can be seen in several European countries, where views about the economic balance of power have fluctuated in recent years. following the onset of the financial crisis nearly a decade ago, Europeans increasingly named China, rather than the US, as the world's leading economic power. But in recent years, as the American economy slowly recovered, the pendulum began to swing back in the direction of the US. This year, however, the pattern has reversed itself again, and in countries such as Germany, the United Kingdom, and Spain, China is once more seen as occupying the top spot.

Q6. Answer: (b) 2

Key Points

• The error is in part 2 of the sentence.

• According to the 'Proximity rule' of Subject-verb agreement, when a compound subject contains both a singular and a plural noun or pronoun joined by "or" or "nor," the verb should agree with the part of the subject that is closest to the verb. This is also called the rule of proximity.

• Also, according to the same rule, Two singular nouns joined by 'with', 'as well as', 'in addition to', 'together' and 'besides' will have a singular verb as the number of verb is always decided on the basis of the primary subject in a sentence.

• In the above question sentence, 'Shooting' is considered to the primary subject that is singular in number. 'Horse riding' is an addition to the 'Primary subject' i.e. 'Shooting'.

• Thus, the error is in part 2 of the sentence as the plural verb form 'are' is incorrect. It should be the singular verb form 'is.'

• For example, Ram, as well as Shyam, was absent during the concert.

Correct sentence: "Shooting as well as horse riding is taught to cadets at the National Defence Academy every morning."

Q7. Answer: (b) 2

The correct option is option 2

Key Points

• The error is in part 2 of the sentence.

• Words joined to a singular subject by 'with', 'as well as', etc., will accommodate the singular verb.

• 'The President' is singular and is joined by 'along with'. Therefore, the verb should be singular.

• Thus, the error is in part 2 of the sentence as the plural verb form ‘are’ is incorrect. It should be ‘is.’

• For example: The newly elected Prime Minister along with his Ministers is keen to reform the economy.

• Hence the correct answer is option 2.

The correct sentence is: "The President, along with several international guests, is to be present during the swearing-in ceremony of the new government."

Q8. Answer: (e) No error

The correct answer is- 'error lies in the part-5'

Key Points

• There is no error in the given question. It is structured correctly.

• The correct adjective 'environmental' has been used here which qualifies the noun 'quality'

The correct sentence is- India has a long way to go to reach environmental quality similar to that enjoyed in developed economies

Q9. Answer: (a) 1

The error lies in 1 as the word 'further' means 'more' and it makes no sense here.

The correct word here is the preposition 'beyond' which means that stories take us far away from reality.

The correct sentence is:-

Stories are all about going beyond reality and it is no wonder that they let you understand big concepts with only a little bit of reading practice.

Hence the correct answer is option 1.

Q10. Answer: (b) 2

The error lies in 2 as the word 'who' is incorrect here. It is used to introduce a clause giving further information about a person or people previously mentioned. The correct word here is 'which' which goes with the word 'character'.

The correct sentence:

Who wouldn’t love to chat about which character is their favorite, or predict what will happen in a suspense story they are reading?

Hence the correct answer is option 2.

Q11. Answer: (d) 4

The error lies in 4 as the word 'grown' is incorrect here.

'Grown up' means 'a person who is an adult.' The correct word here should be 'gone' which means 'increase.'

The correct sentence is:-

Over the last few decades, the exploitation of our planet and the degradation of our environment have gone up at an alarming rate.

Hence option 4 is the correct answer.

Q12. Answer: (b) 2

The error lies in part 2 as the preposition 'of' is missing after the word 'introduction'. The preposition is mandatory here as it means 'the action of introducing something.'

Correct sentence:

In June the Swedish medical company Elekta announced the introduction of Watson for Oncology, a medical AI system developed by IBM in the United States.

Option 2 is the correct answer.

Q13. Answer: (d) Well-designed public-private partnerships in the sector of education can be beneficial.

The author, through the passage, is trying to explain the problems that exist in the public schooling system as compared to the private sector. According to the passage, the public-private partnerships in education can be really fruitful. The example of public-private partnerships in the Netherlands and Hong Kong has been provided to support this argument.

Hence, the correct answer is option 4.

Q14. Answer: (e) Private schools have a more positive rating among parents as compared to public schools.

The answer to this question is provided in the lines: Parents prefer private schools. A global survey in 2017 found that they were a lot more likely to give the teaching at their children’s school a positive rating if it was private than if it was public; parents in Chile have voted with their children’s feet in favour of the private sector.

Therefore, private schools have a more positive rating among parents as compared to public schools.

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Hence option 5 is the correct answer.

Q15. Answer: (c) Parents in Chile gave favourable ratings to private schools over public ones.

The line ‘parents in Chile have voted with their children’s feet in favour of the private sector’ means that 'Parents in Chile gave favourable ratings to private schools over public ones.'

Hence option 3 is the correct answer.

Q16. Answer: (a) As an example of a well-designed public-private partnership in education that can work.

The answer to this question is in the in the lines: Yet well-designed public-private partnerships can work. Two of the world’s best education systems—those of the Netherlands and Hong Kong—are based on them.

Hence the correct answer is option 1.

Q17. Answer: (d) To show that a public-private partnership in schools can work.

From a close reading of the passage, it becomes clear that the main objective of the author in the passage is to show that a public-private partnership in schools can work.

Hence the correct answer is option 4.

Q18. Answer: (d) All of these.

The lines in which the word good appears are: But some are entirely in order: governments need to promote quality, access to schooling and equity. The private sector is good at some, but not all, of those.

Here, good refers to the private sector being advantageous, efficient, and productive in some of the things (out of providing quality, access to schooling and equity), but not all.

Therefore, the correct answer is option 4.

Q19. Answer: (e) All of these.

Relinquish, Yield, and Surrender all mean the same as cede, which is to voluntarily cease to keep or claim; give up.

Hence the correct answer is option 5.

Q20. Answer: (a) The efficiency of the teachers.

The answer to this questions is given in the following lines of the passage: The main reason for the private sector’s superior efficiency seems to be teachers, who are paid less and are more likely to turn up for work than at government schools.

Hence the correct answer is option 1.

Q21. Answer: (b) Is easier than

Correct option: 2.

The sentence requires a comparative formation because it compares two things.

Hence, correct answer: Is easier than.

Option 1 does not make any sense grammatically.

Option 4 uses the wrong tense form (future).

Option 3 is wrong because of 'are'.

Q22. Answer: (a) Separately from

Correct answer: Option 1.

The sentence means that the municipality will collect both type of waste(dry and wet) separately from every housing society.

Hence the correct answer is option 1.

Q23. Answer: (d) No improvement

The correct answer is No improvement.

Key Points

• 'Help' is one of the verbs which can take the bare infinitive.

• Ex. Please help me move this table.

• Ex. This can help keep you thin.

• In the simple present, most regular verbs use the root form, except in the third-person singular (which ends in -s).

• Hence, the main verb 'help' should become 'helps'.

• Therefore, the statement doesn't need any improvements.

Additional Information

• Help can be followed by either a gerund or a to-infinitive but with different meanings:
• I can't help thinking that you are hiding something. (only in the negative: I have to think that you are hiding something.)
• Could you help me (to) undo my shoelaces? My fingers are frozen. (Could you undo my shoelaces?)
• Help can be followed by a bare infinitive or a to-infinitive.
• 'Help to keeps' is grammatically wrong.

Q24. Answer: (b) We train qualified

The correct answer is option (2)

Key Points

• The sentence essentially means that the institute trains qualified professionals for specialized jobs.
• Hence the correct answer is "we train qualified."

Correct sentence: "As an institute, we train qualified professionals for a highly globalized and digital-driven world."

Q25. Answer: (b) Also provides

The correct answer is option 2 i.e. 'Also provides'

Explanation: In a sentence, the phrase 'will providing' is incorrect it should be replaced with 'Also provides'.

Let's look at the options:

'Will providing' is grammatically incorrect because with the modal verbs we use 'base form of the verbs.'

'Have provide' is grammatically incorrect because with 'have' we use the third form of the verb i.e. 'Have provided' also here we can't use a perfect tense because it shows the completion of the action in the given sentence it is incorrect to say that clean drinking water has already supply.

'Provide' is also grammatically incorrect because we have to write the singular verb with the singular subject i.e. 'the nuclear plant.'

Similarly, 'had provide' is also incorrect.

The suitable option is 2 i.e. 'Also provides' 'also' here is an adverb that means 'in addition to'

So the correct sentence is:

Apart from providing 'clean' electricity, the nuclear plant also provides clean drinking water to every household in the area.

Q26. Answer: (a) Saved

The correct answer is option 1 i.e. saved.

Key Points

• The sentence suggests that the bulletproof vest has somehow protected the life of the police officer.
• Let's see the meaning of the given words:
• Saved: keep safe or rescue (someone or something) from harm or danger.
• For example, They brought him in to help save the club from bankruptcy.
• Dignified: having or showing a composed or serious manner that is worthy of respect.
• For example, She maintained a dignified silence in front of the police.
• Protect: keep safe from harm or injury.
• For example, He tried to protect Kelly from the attack.
• Stopped: (of an event, action, or process) come to an end; cease to happen.
• For example, His laughter stopped as quickly as it had begun.
• Hence, option 1 is the correct answer.
• Other options cannot be placed here.

Confusion Points

• 'Protected' could have been the correct answer. But the option has the base form of the verb protect. Hence it is the wrong answer.

Q27. Answer: (c) Recent

Correct answer: Option 3.

Key Points

• The blank requires a word that can quantify the noun 'data'.
• Productive can be a close option, but it cannot be contextually correct.
• Therefore, recent is the correct answer.
• Procreate means to reproduce.
• Individual means single, separate; of a particular person.

Q28. Answer: (a) Capable

Correct option: Option 1.

The sentence suggests that the blank should contain a positive word. Hence, 'lazy' is out.

Option 1 is the correct answer.

Options 3, 4 and 5 are contextually inappropriate.

Q29. Answer: (d) Proved

Correct option: Option 4.

The trick to solving this question lies in the adjective 'successful'. The blank thus requires something which is positive. Hence, options 2, 3 and 5 are not applicable.

Option 1 is not correct because it is inappropriate.

Q30. Answer: (e) Recruiting

The correct option is option 5 i.e. Recruiting

Key Points

• The sentence requires a word which means acquisition.

• Let's see the meaning of given words:

• Order means the arrangement of a group of people or things in a list from first to last:

• For example: We ranked the tasks in order of importance.

• Making means the process of making or producing something:

• For example: There's an article on the making of a television series.

• Produce means to make or grow something:

• For example: The factory produces about 900 cars a year.

• Recruiting means to try to persuade someone to work for a company or to join an organization

• Hence, the correct answer is recruiting.

• Other options do not fit here.

Q31. Answer: (a) 36 years

Shortcut Trick

Let A's present age be 7x and B's age 4 years ago be 8x.

Current ages: A = 7x, B = 8x + 4.

Ages after 8 years: (7x + 8) / (8x + 4 + 8) = 9 / 11.

Solving for x: 77x + 88 = 72x + 108 → 5x = 20 → x = 4.

B's present age = 8(4) + 4 = 32 + 4 = 36 years.

Therefore The correct answer is 36 years.

Alternate Method

Given: Ratio of A : (B − 4) = 7 : 8 and (A + 8) : (B + 8) = 9 : 11.

Calculations:

=> Let A = 7x and B − 4 = 8x → B = 8x + 4.

=> After 8 years, A's age = 7x + 8.

=> After 8 years, B's age = (8x + 4) + 8 = 8x + 12.

=> (7x + 8) / (8x + 12) = 9 / 11

=> 11(7x + 8) = 9(8x + 12)

=> 77x + 88 = 72x + 108

=> 5x = 20

=> x = 4

=> B's present age = 8x + 4 = 8(4) + 4 = 36 years.

Therefore The correct answer is 36 years.

Additional Information

Ratio Method for Ages

When comparing ages at different points in time, ensure all parts of the ratio refer to the same timeframe or define variables clearly relative to the present age.

Age Difference Constant

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The difference between the ages of two people remains constant throughout their lives, which can often be used to balance ratios quickly.

Q32. Answer: (b) 50 litres

Shortcut Trick

Remaining mixture after 20% removal = 80% of 170 = 136 liters.

Water quantity in remaining mixture = (5/17) × 136 = 5 × 8 = 40 liters.

New water quantity = 40 + 10 (added water) = 50 liters.

Therefore The correct answer is 50 litres.

Alternate Method

Given: Initial Total Mixture = 170 liters, Ratio (M:W) = 12 : 5, Removed = 20%, Added Water = 10 liters.

Formula Used: Quantity of component = (Ratio Part / Total Ratio) × Total Quantity

=> Total Ratio Parts = 12 + 5 = 17 units.

=> Quantity after removal = 170 − (20% of 170) = 170 − 34 = 136 liters.

=> In a mixture, when a part is removed, the ratio remains constant in the remaining part.

=> Water in 136 liters = (5 / 17) × 136

=> Water = 5 × 8 = 40 liters.

=> New quantity of water = 40 + 10 = 50 liters.

Therefore The correct answer is 50 litres.

Additional Information

Mixture Removal Property

When a portion of a mixture is removed, the ratio of ingredients in the remaining mixture and the removed portion remains the same as the original ratio.

Alligation Rule

It is used to find the ratio in which two or more ingredients at their respective prices/concentrations must be mixed to produce a mixture at a given price/concentration.

Successive Replacement

Final Quantity = Initial Quantity × $(1 - x/V)^n$, where x is quantity replaced, V is total volume, and n is number of operations.

Q33. Answer: (c) 6000

Shortcut Trick

For Article B: Profit is 20%, so CP × 1.2 = SP.

CP of B = 3600 ÷ 1.2 = 3000.

Given: CP of A = 2 × CP of B.

CP of A = 2 × 3000 = 6000.

Therefore The correct answer is 6000.

Alternate Method

Given: Selling Price of B (SP_B) = 3600, Profit% on B = 20%, CP_A = 2 × CP_B.

Formulas: CP = SP × 100 ÷ (100 + Profit%).

=> Step 1: Calculate CP of B = 3600 × (100 ÷ 120) = 3600 ÷ 1.2 = 3000.

=> Step 2: Calculate CP of A = 2 × CP of B = 2 × 3000 = 6000.

Therefore The correct answer is 6000.

Additional Information

Cost Price (CP)

The price at which an article is purchased. CP = SP − Profit or CP = SP + Loss.

Profit Percentage

Profit% = (Profit ÷ CP) × 100. It is always calculated on the Cost Price unless stated otherwise.

Q34. Answer: (c) 110

Shortcut Trick

Difference in values → 188 − 144 = 44

This difference represents 40% of the number.

40% → 44

100% → (44 ÷ 40) × 100 = 1.1 × 100 = 110
Therefore The correct answer is 110.
Alternate Method
Given:
Let the number be x.
Equation: 40% of x + 144 = 188
Calculations:
=> 0.40 × x + 144 = 188
=> 0.40x = 188 − 144
=> 0.40x = 44
=> x = 44 ÷ 0.40
=> x = 440 ÷ 4
=> x = 110
Therefore The correct answer is 110.
Additional Information
Percentage to Fraction Conversion
To simplify calculations, convert percentages to fractions: 40% = 40/100 = 2/5.
Percentage Change Formula
Percentage Change = [(New Value − Original Value) ÷ Original Value] × 100.
Base Change Rule
If a value is increased by r%, it must be decreased by [r/(100+r)] × 100% to return to the original value.

Q35. Answer: (b) 6500

Shortcut Trick
Effective Simple Interest for 3 years at 10% = 30%.
Amount after 3 years = 130% of X = 1.3X.
Effective Compound Interest for 2 years at 20% = 20 + 20 + (20 × 20)/100 = 44%.
Final Amount = 1.3X × 144% = 12168.
X = 12168 ÷ (1.3 × 1.44) = 12168 ÷ 1.872 = 6500.
Therefore The correct answer is Rs. 6500.
Alternate Method
Given: Rate1 = 10% (SI), Time1 = 3 yrs, Rate2 = 20% (CI), Time2 = 2 yrs, Final Amount = Rs. 12168.
Formula: Amount(SI) = P(1 + RT/100) and Amount(CI) = P(1 + R/100)^T.
=> Amount after Scheme 1 (A1) = X × [1 + (10 × 3)/100]
=> A1 = X × (130/100) = 1.3X
=> Final Amount = A1 × [1 + 20/100]²
=> 12168 = 1.3X × (1.2)²
=> 12168 = 1.3X × 1.44
=> 12168 = 1.872X
=> X = 12168 ÷ 1.872 = 6500
Therefore The correct answer is Rs. 6500.
Additional Information
Simple Interest (SI) Property
Simple interest is calculated only on the principal amount. Total Interest = (P × R × T) ÷ 100.
Successive Percentage for CI
For 2 years, the effective compound interest rate can be calculated using the formula: a + b + (a × b) ÷ 100.
SI vs CI Difference
For 2 years, the difference between CI and SI is P × (R ÷ 100)².

Q36. Answer: (a) 24

Concept Used:
To Follow BODMAS Rule

Step-1- Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,
Step-2- Any mathematical 'Of' or 'Exponent' must be solved next,
Step-3-Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,
Step-4-Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.
Calculation:
Given expression is,
1/7.99 + 1/11.96 – 1/3.94 + 1/? = 0
1/8 + 1/12 – 1/4 + 1/? = 0
1/? = 1/4 – 1/8 – 1/12
1/? = (6 – 3 – 2) / 24
? = 24

Q37. Answer: (a) 94

Concept Used:
To Follow BODMAS Rule
Step-1- Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,
Step-2- Any mathematical 'Of' or 'Exponent' must be solved next,
Step-3-Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,
Step-4-Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.
Calculation:
Given expression is,
39.96% of (198.99 + 5.99^2) = ?
40% of (199 + 6^2) = ?
40/100 × (199 + 36) = ?
40/100 × 235 = ?
? = 94

Q38. Answer: (c) 4

Concept Used:
To Follow BODMAS Rule
Step-1- Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,
Step-2- Any mathematical 'Of' or 'Exponent' must be solved next,
Step-3-Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,
Step-4-Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.
Calculation:
Given expression is,
17.01 + 23.04 – 48.01 ÷ √4.03 = $?^2$
17 + 23 – 48 ÷ 2 = $?^2$
16 = $?^2$
4^2 = $?^2$
? = 4

Q39. Answer: (b) 184

Concept Used:
To Follow BODMAS Rule
Step-1- Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,
Step-2- Any mathematical 'Of' or 'Exponent' must be solved next,
Step-3-Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,
Step-4-Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.
Calculation:
Given expression is,
23.02 – 13.19 × √9.09 + 200.02 = ?
23 – 13 × √9 + 200 = ?

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23 – 13 × 3 + 200 = ?

23 – 39 + 200 = ?

? = 184

Q40. Answer: (c) 145

Concept Used:

To Follow BODMAS Rule

Step-1- Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,

Step-2- Any mathematical 'Of' or 'Exponent' must be solved next,

Step-3-Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,

Step-4-Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

Calculation:

Given expression is,

$4.03 \times (6.02)^2 - \sqrt{120.89} + \sqrt{144.06} = ?$

$4 \times 6^2 - \sqrt{121} + \sqrt{144} = ?$

4 × 36 – 11 + 12 = ?

? = 145

Q41. Answer: (c) 18

Concept Used:

To Follow BODMAS Rule

Step-1- Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket, the BODMAS rule must be followed,

Step-2- Any mathematical 'Of' or 'Exponent' must be solved next,

Step-3- Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,

Step-4- Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

Calculation:

Given expression is,

$8.02 – (? – 9.01) + (10.92)^2 = 120$

$8 – (? – 9) + (11)^2 = 120$

8 – ? + 9 + 121 = 120

? = 18

Q42. Answer: (e) 30000

Shortcut Trick

Investment Ratio = (8000 × 12) : (10000 × 8) : (15000 × 4)

Simplify ratios: (8 × 12) : (10 × 8) : (15 × 4) => 96 : 80 : 60.

Dividing by 4: 24 : 20 : 15.

Total units = 24 + 20 + 15 = 59 units.

59 units = Rs. 118000 => 1 unit = Rs. 2000.

Share of C = 15 units × 2000 = Rs. 30000.

Therefore The correct answer is Rs. 30000.

Alternate Method

Given: Capital of A = Rs. 8000, B = Rs. 10000, C = Rs. 15000. Time periods: A = 12 months, B = 8 months, C = 4 months. Total Profit = Rs. 118000.

Formula: Profit Share Ratio = (Capital1 × Time1) : (Capital2 × Time2) : (Capital3 × Time3)

=> Profit share of A = 8000 × 12 = 96000

=> Profit share of B = 10000 × 8 = 80000

=> Profit share of C = 15000 × 4 = 60000

=> Ratio A:B:C = 96000 : 80000 : 60000 = 24 : 20 : 15

=> C share = (15 ÷ 59) × 118000 = 15 × 2000 = 30000

Therefore The correct answer is Rs. 30000.

Additional Information

Partnership Basics

In a partnership, the profit is distributed among partners in the ratio of the product of their investment and time duration.

Compound Partnership

When partners invest capital for different time periods, it is called a compound partnership. Profit Ratio = (C1 × T1) : (C2 × T2).

Q43. Answer: (c) 84

Shortcut Trick

Area of Circular Field C = Total Cost ÷ Rate = 3465 ÷ 10 = 346.5 m².

Using $\pi r^2 = 346.5 \Rightarrow (22/7) \times r^2 = 346.5 \Rightarrow r^2 = 110.25 \Rightarrow$ radius (r) = 10.5 m.

Diameter of circle = 2 × 10.5 = 21 m = Side of Square S.

Perimeter of Square S = 4 × Side = 4 × 21 = 84 m.

Therefore The correct answer is 84 m.

Alternate Method

Given: Rate = Rs. 10/m², Total Cost = Rs. 3465, Side of Square S = Diameter of Circle C.

Formula Used: Area of Circle = πr^2; Perimeter of Square = 4 × side.

$\Rightarrow$ Area of Circle C = 3465 ÷ 10 = 346.5 m²

$\Rightarrow (22/7) \times r^2 = 346.5$

$\Rightarrow r^2 = (346.5 \times 7) \div 22 = 15.75 \times 7 = 110.25$

$\Rightarrow r = \sqrt{110.25} = 10.5$ m

$\Rightarrow$ Diameter (D) = 2 × 10.5 = 21 m

$\Rightarrow$ Side of Square (a) = 21 m

$\Rightarrow$ Perimeter = 4 × a = 4 × 21 = 84 m

Therefore The correct answer is 84 m.

Additional Information

Circle Mensuration

Area = πr^2 and Circumference = $2\pi r$. The diameter (D) is twice the radius (2r).

Square Properties

Area = side² and Perimeter = 4 × side. Diagonal of a square = side × √2.

Costing Rule

Total cost of gardening/fencing = Rate per unit × Total Area/Perimeter.

Q44. Answer: (c) 536

Percentage of females in factory A and C together = 40%

Number of females in factory A and C together = 40% of (200 + 340) = 216

Percentage of males in factory B = 20%

Percentage of females in factory B = 100 – 20 = 80%

Number of females in factory B = 80% of 400 = 320

Therefore Required number = 216 + 320 = 536

Q45. Answer: (d) 160

Number of workers in factory D = 320

Number of workers in factory E = 320 + 20% of 320 = 384

Ratio of the number of males and females in factory E = 7 : 5

Therefore required number of females = 5/12 × 384 = 160

Q46. Answer: (c) 64 : 95

Percentage of females in factory A and C together (above 40 years) = 60%

Percentage of males in factory A and C together (above 40 years) = 40%

Number of males in factory A and C together (above 40 years) = 40/100 × (50 + 110) = 64

Percentage of females in factory B and D together (above 40 years) = 50%

Percentage of males in factory B and D together (above 40 years) = 50%

Number of males in factory B and D together (above 40 years) = 50/100 × (70 + 120) = 95

Therefore required ratio = 64 : 95

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Q47. Answer: (a) 300%

Number of males in factory C (above 40 years) = 30
Number of females in factory C (above 40 years) = 110 – 30 = 80
Number of males in factory A (above 40 years) = 30
Number of females in factory A (above 40 years) = 50 – 30 = 20
Therefore required percentage = [(80 – 20) / 20] × 100 = 300%

Q48. Answer: (c) 17.5

Total number of workers above 40 years in all the factories = 50 + 70 + 110 + 120 = 350
Number of females above 40 years in all the factories = 20% of 350 = 70
Therefore required average = 70/4 = 17.5

Q49. Answer: (c) 910

Total number of workers in all the factories = 200 + 400 + 340 + 320 = 1260
Total number of workers above 40 years of age = 50 + 70 + 110 + 120 = 350
Therefore total number of workers in all the factories whose age is below 40 years = 1260 – 350 = 910

Q50. Answer: (a) 1 : 2

Calculation:
Percentage of animals in the forest A and B together = (20% + 5%) = 25%
Number of animals in the forest A and B together = 25% of 5000 = 1250
Percentage of animals in the forest D and E together = (10% + 40%) = 50%
Number of animals in the forest D and E together = 50% of 5000 = 2500
Therefore Required ratio = 1250 : 2500 = 1 : 2
The ratio = (20 + 5)% : (40 + 10)%
The ratio = 25 : 50 = 1 : 2
Therefore Required ratio is 1 : 2

Q51. Answer: (a) 500

Calculation:
Let the number of herbivores animals in forest E = x
Number of carnivores' animals in forest E = 2x
Number of omnivores animals in forest E = x
x + 2x + x = 40% of 5000
=> x = 500
Therefore The number of herbivores animals in the forest E is 500

Q52. Answer: (a) 100

Calculation:
Number of animals in all the forest = 5000
Percentage of carnivores animals in all the forest = 10%
Number of carnivores animals in all the forest = 10% of 5000 = 500
Therefore Required average = 500/5 = 100

Q53. Answer: (e) 50%

Calculation:
Number of animals in forest A = 20% of 5000 = 1000
Percentage of omnivores animals in forest A = 25%
Number of omnivores animals in forest A = 25% of 1000 = 250
Number of animals in the forest D = 10% of 5000 = 500
Therefore Required ratio = (250/500) × 100 = 50%

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Q54. Answer: (d) 0%

Calculation:

The total percentage of animals in the forest A, B and C together = (20% + 5% + 25%) = 50%

The total number of animals in the forest A, B and C together = 50% of 5000 = 2500

The total percentage of animals in the forest D and E together = (10% + 40%) = 50%

The total number of animals in the forest D and E together = 50% of 5000 = 2500

Therefore Required percentage = [(2500 – 2500) / 2500] × 100 = 0%

The total percentage of animals in the forest A, B and C together = (20% + 5% + 25%) = 50%

The total percentage of animals in the forest D and E together = (10% + 40%) = 50%

Required percentage = [(50 – 50) / 50] × 100 = 0%

Therefore Required percentage is 0%

Q55. Answer: (a) 458

$18 + 2^3 = 26$

$26 + 3^3 = 53$

$53 + 4^3 = 117$

$117 + 5^3 = 242$

$242 + 6^3 = 458$

Q56. Answer: (a) 104

The given series is followed by +8, -10

100 + 8 = 108

108 - 10 = 98

98 + 8 = 106

106 - 10 = 96

96 + 8 = 104

Q57. Answer: (c) 7.5

2 × 1/2 = 1

1 × 2/2 = 1

1 × 3/2 = 1.5

1.5 × 4/2 = 3

3 × 5/2 = 7.5

Q58. Answer: (a) 128

The given sequence is +6, +12 (6+6), +20 (12+8), +30 (20+10)

18 + 6 = 24

24 + 12 = 36

36 + 20 = 56

56 + 30 = 86

86 + 42 = 128

Q59. Answer: (c) 10395

1 × 11 = 11

11 × 9 = 99

99 × 7 = 693

693 × 5 = 3465

3465 × 3 = 10395

Q60. Answer: (b) 31 : 179

Let the no. male employees in the company be 13x and the female employees be 7x.

Therefore 13x + 7x = 3500

=> 20x = 3500

=> x = 3500/20

=> x = 175
Therefore No. of male employees = 13 × 175 = 2275
No. of employees in the accounts department = 30% of 3500
=> 30/100 × 3500
=> 35 × 30 = 1050
No. of males in the production department = 20% of 2275
=> 20/100 × 2275; => 1/5 × 2275 = 455
No. of females in the production department = 2/3 × 1050 = 700
Therefore Total employees in production department = 700 + 455 = 1155
Therefore Total employees in marketing department = 3500 – (1155 + 1050) = 1295
Let the no. male employees in the marketing department be 5x and the female employees be 2x.
Therefore 5x + 2x = 1295
=> 7x = 1295
=> x = 185
=> Male employees in marketing department = 5 × 185 = 925
Therefore No. of males in the Accounts department = 2275 – (455 + 925) = 895
=> No. of females in the Accounts department = 1050 – 895 = 155
Therefore Ratio of females to males in the Accounts department = 155/895 = 31/179 = 31 : 179

Q61. Answer: (c) 39.34

Let the no. male employees in the company be 13x and the female employees be 7x.
Therefore 13x + 7x = 3500
=> 20x = 3500
=> x = 3500/20
=> x = 175
Therefore No. of male employees = 13 × 175 = 2275
No. of employees in the accounts department = 30% of 3500
=> 30/100 × 3500
=> 35 × 30 = 1050
No. of males in the production department = 20% of 2275
=> 20/100 × 2275; => 1/5 × 2275 = 455
No. of females in the production department = 2/3 × 1050 = 700
Therefore Total employees in production department = 700 + 455 = 1155
Therefore Total employees in marketing department = 3500 – (1155 + 1050) = 1295
Let the no. male employees in the marketing department be 5x and the female employees be 2x.
Therefore 5x + 2x = 1295
=> 7x = 1295
=> x = 185
=> Male employees in marketing department = 5 × 185
= 925
Therefore No. of males in the Accounts department = 2275 – (455 + 925) = 895
Therefore % of male employees in Accounts department = 895/2275 × 100 = 39.34

Q62. Answer: (b) 700

No. of employees in the accounts department = 30% of 3500
=> 30/100 × 3500
=> 35 × 30 = 1050
No. of females in the production department = 2/3 × 1050 = 700

Q63. Answer: (a) 470

Let the no. male employees in the company be 13x and the female employees be 7x.
Therefore 13x + 7x = 3500
=> 20x = 3500

=> x = 3500/20

=> x = 175

Therefore No. of male employees = 13 × 175 = 2275

No. of employees in the accounts department = 30% of 3500

=> 30/100 × 3500

=> 35 × 30 = 1050

No. of males in the production department = 20% of 2275

=> 20/100 × 2275 = 455

No. of females in the production department = 2/3 × 1050 = 700

Therefore Total employees in production department = 700 + 455 = 1155

Therefore Total employees in marketing department = 3500 – (1155 + 1050) = 1295

Let the no. male employees in the marketing department be 5x and the female employees be 2x.

Therefore 5x + 2x = 1295

=> 7x = 1295

=> x = 185

=> Male employees in marketing department = 5 × 185 = 925

Therefore The difference between the no. males in the Marketing department and the Production department = 925 – 455 = 470

Q64. Answer: (c) 150 m

Shortcut Trick

Time to cross platform (Train + Platform) = 30 seconds

Time to cross standing pole (Train only) = 10 seconds

Time taken to cover platform length alone = 30 − 10 = 20 seconds

Ratio of Train length to Platform length = 10 : 20 = 1 : 2

If 2 units = 300 m, then 1 unit = 150 m

Therefore The correct answer is 150 m.

Alternate Method

Given: Length of platform = 300 m, Time to cross pole = 10 s, Time to cross platform = 30 s.

Formula Used: Speed = Distance ÷ Time

=> Speed of train (v) = Train Length (L) ÷ 10

=> Speed of train (v) = (L + 300) ÷ 30

=> L ÷ 10 = (L + 300) ÷ 30

=> 3 × L = L + 300

=> 2 × L = 300

=> L = 150 m

Therefore The correct answer is 150 m.

Additional Information

Relative Speed

When two objects move in the same direction, relative speed = S1 − S2. In opposite directions, relative speed = S1 + S2.

Train Crossing Objects

To cross a point object (pole, man), distance = length of train. To cross a stationary object with length (bridge, tunnel, platform), distance = length of train + length of object.

Unit Conversion

To convert km/hr to m/s, multiply by 5/18. To convert m/s to km/hr, multiply by 18/5.

Q65. Answer: (c) 9

Shortcut Trick

Sum of first four numbers = 4 × 10 = 40

Sum of last four numbers = 4 × 8 = 32

Total Sum of all six numbers = 6 × 9 = 54

Sum of 3^(rd) and 4^(th) numbers = (Sum of 1-4) + (Sum of 3-6) − (Sum of 1-6)

Sum of 3^(rd) and 4^(th) = 40 + 32 − 54 = 18

Average of 3^(rd) and 4^(th) = 18 ÷ 2 = 9
Therefore The correct answer is 9.
Alternate Method
Let the 6 numbers be x1, x2, x3, x4, x5, x6.
Given: Average of 6 numbers = 9; Average of first four = 10; Average of last four = 8.
Formula Used: Sum = Average × Number of terms
=> Sum of all numbers (S6) = 6 × 9 = 54
=> Sum of first 4 (S_(first4)) = 4 × 10 = 40
=> Sum of last 4 (S_(last4)) = 4 × 8 = 32
=> (x1 + x2 + x3 + x4) + (x3 + x4 + x5 + x6) = 40 + 32 = 72
=> (x1 + x2 + x3 + x4 + x5 + x6) + (x3 + x4) = 72
=> 54 + (x3 + x4) = 72
=> x3 + x4 = 72 − 54 = 18
=> Average of x3 and x4 = 18 ÷ 2 = 9
Therefore The correct answer is 9.
Additional Information
Overlap Concept in Averages
When groups overlap, the sum of individual groups minus the total sum gives the sum of the overlapping elements.
Weighted Average
The combined average of two groups is given by (n1a1 + n2a2) ÷ (n1 + n2), where n is the count and a is the average.

Q66. Answer: (c) G

Eight people: A, B, C, D, E, F, G, and H sitting around a table.
Some of them are facing the centre while others are facing outside (i.e. opposite to the centre)
1) F faces the centre.
2) Only three people sit between F and A.
3) C sits third to the left of A.
4) Immediate neighbors of C face the same direction
5) H is an immediate neighbor of F.
6) B is an immediate neighbor of H.
7) G sits to the immediate right of B.
8) D sits second to the left of G.
9) Immediate neighbors of D faces the opposite direction.
(As in the case ii, Immediate neighbors of D faces the same direction, case ii gets eliminated).
10) E sits to the immediate left of C.
11) Both D and H face a direction opposite to that of E.
Hence, G sits second to the left of H.

Q67. Answer: (b) DB.

Eight people: A, B, C, D, E, F, G, and H sitting around a table.
Some of them are facing the centre while others are facing outside (i.e. opposite to the centre)
1) F faces the centre.
2) Only three people sit between F and A.
3) C sits third to the left of A.
4) Immediate neighbors of C face the same direction
5) H is an immediate neighbor of F.
6) B is an immediate neighbor of H.
7) G sits to the immediate right of B.
8) D sits second to the left of G.
9) Immediate neighbors of D faces the opposite direction.
(As in the case ii, Immediate neighbors of D faces the same direction, case ii gets eliminated).
10) E sits to the immediate left of C.

11) Both D and H face a direction opposite to that of E.

Here except DB, all other pairs are facing in the same directions of each other.

Hence, DB is the odd one out.

Q68. Answer: (a) D

Eight people: A, B, C, D, E, F, G, and H sitting around a table.

Some of them are facing the centre while others are facing outside (i.e. opposite to the centre)

1) F faces the centre.

2) Only three people sit between F and A.

3) C sits third to the left of A.

4) Immediate neighbors of C face the same direction

5) H is an immediate neighbor of F.

6) B is an immediate neighbor of H.

7) G sits to the immediate right of B.

8) D sits second to the left of G.

9) Immediate neighbors of D faces the opposite direction.

(As in the case ii, Immediate neighbors of D faces the same direction, case ii gets eliminated).

10) E sits to the immediate left of C.

11) Both D and H face a direction opposite to that of E.

Hence, if D and B interchange their positions, then D sits second to the right of A.

Q69. Answer: (e) Five

Eight people: A, B, C, D, E, F, G, and H sitting around a table.

Some of them are facing the centre while others are facing outside (i.e. opposite to the centre)

1) F faces the centre.

2) Only three people sit between F and A.

3) C sits third to the left of A.

4) Immediate neighbors of C face the same direction

5) H is an immediate neighbor of F.

6) B is an immediate neighbor of H.

7) G sits to the immediate right of B.

8) D sits second to the left of G.

9) Immediate neighbors of D faces the opposite direction.

(As in the case ii, Immediate neighbors of D faces the same direction, case ii gets eliminated).

10) E sits to the immediate left of C.

11) Both D and H face a direction opposite to that of E.

Hence, five-persons sit between E and F when counted from the left of E.

Q70. Answer: (d) Immediate Left

Eight people: A, B, C, D, E, F, G, and H sitting around a table.

Some of them are facing the centre while others are facing outside (i.e. opposite to the centre)

1) F faces the centre.

2) Only three people sit between F and A.

3) C sits third to the left of A.

4) Immediate neighbors of C face the same direction

5) H is an immediate neighbor of F.

6) B is an immediate neighbor of H.

7) G sits to the immediate right of B.

8) D sits second to the left of G.

9) Immediate neighbors of D faces the opposite direction.

(As in the case ii, Immediate neighbors of D faces the same direction, case ii gets eliminated).

10) E sits to the immediate left of C.

11) Both D and H face a direction opposite to that of E.

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Hence, A sits to the immediate left of G.

Q71. Answer: (a) Only I follows

The least possible Venn diagram is as follows:

Conclusions:

I. At least some apples are boats → True

II. All gloves are radios → False.

Hence, only conclusion I follow.

Q72. Answer: (b) Only II follows

The least possible diagram for the given statements is as follows

Conclusion:

I. At least some wines are dots → False.

II. All cashews being bottles is a possibility → Possibility is true.

Hence, only II follows.

Q73. Answer: (e) Both I and II follow

The least possible diagram for the given statements is as follows

Conclusion:

I. All bands being grain is a possibility → Possibility is true.

II. No poet is a lubricant → True.

Hence, both I and II follow.

Q74. Answer: (d) Neither I nor II follows

The least possible diagram for the given statements is as follows

Conclusion:

I. All circles being rectangle is a possibility → False (as no rectangle is a circle means no circle is a rectangle)

II. Some rectangles are definitely not soaps → False.

Hence, neither I nor II follows.

Q75. Answer: (d) 140 m

Hence, the distance between H and F is 140m.

Hence, 140m is the correct answer.

Q76. Answer: (a) South – West

Point W is in South-West direction with respect to point G.

Hence, South-West is the correct answer.

Q77. Answer: (c) W

W is not in the straight line as H, Z, G, F.

Hence, W is the correct answer.

Q78. Answer: (c) Five

Ten people are sitting in a straight line facing North with equal distance between each other.

1) Only 3 people sit to the left of M.

2) Only one person sits between M and R.

3) P sits third to the right of R.

4) As many people sit to the right of P as to the left of Q.

5) Only three people sit between Q and S. (Here case ii gets eliminated).

6) U is an immediate neighbor of S.

7) T sits second to the left of W.

8) N sits to the immediate right of V.

Hence, there are five people sit between N and R.

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Q79. Answer: (e) N

Ten people are sitting in a straight line facing North with equal distance between each other.
1) Only 3 people sit to the left of M.
2) Only one person sits between M and R.
3) P sits third to the right of R.
4) As many people sit to the right of P as to the left of Q.
5) Only three people sit between Q and S. (Here case ii gets eliminated).
6) U is an immediate neighbor of S.
7) T sits second to the left of W.
8) N sits to the immediate right of V.
Hence, N sits 2nd to the right of Q.

Q80. Answer: (b) ST

Ten people are sitting in a straight line facing North with equal distance between each other.
1) Only 3 people sit to the left of M.
2) Only one person sits between M and R.
3) P sits third to the right of R.
4) As many people sit to the right of P as to the left of Q.
5) Only three people sit between Q and S. (Here case ii gets eliminated).
6) U is an immediate neighbor of S.
7) T sits second to the left of W.
8) N sits to the immediate right of V.
Hence, "ST" represents persons seated at the two extreme ends of the line

Q81. Answer: (a) SP

Ten people are sitting in a straight line facing North with equal distance between each other.
1) Only 3 people sit to the left of M.
2) Only one person sits between M and R.
3) P sits third to the right of R.
4) As many people sit to the right of P as to the left of Q.
5) Only three people sit between Q and S. (Here case ii gets eliminated).
6) U is an immediate neighbor of S.
7) T sits second to the left of W.
8) N sits to the immediate right of V.
Here except 'SP', other pairs have one people between them.
Hence, "SP" is the odd one out.

Q82. Answer: (e) P sits immediate left of Q

Ten people are sitting in a straight line facing North with equal distance between each other.
1) Only 3 people sit to the left of M.
2) Only one person sits between M and R.
3) P sits third to the right of R.
4) As many people sit to the right of P as to the left of Q.
5) Only three people sit between Q and S. (Here case ii gets eliminated).
6) U is an immediate neighbor of S.
7) T sits second to the left of W.
8) N sits to the immediate right of V.
Hence, 'P sits immediate left of Q' is the true statement.

Q83. Answer: (d) More than four

Given word: MERCHANT
Hence, there are more than four pairs → Forward: EH,MT; Backward: AC, CE, AE, NR.

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Q84. Answer: (a) Three

Given Word: MODELLING

After arranging all letters of the given word in alphabetical order:

D E G I L L M N O

After changing all vowels to the previous letter and all consonants to the next letter as per the English alphabetical series:

E D H H M M N O N

Hence, only three letters E, D, and O are not repeating more than once in the above arrangement.

Q85. Answer: (b) E

Six people A, B, C, D, E, and F.

A is taller than D and C.

B is taller than A but shorter than E.

C is not the shortest person.

D is shorter than only three person. The third tallest person has 115cm height.

E > B > A > D > C > F

Therefore, E is the tallest.

Q86. Answer: (b) 120

Six people A, B, C, D, E, and F.

A is taller than D and C.

B is taller than A but shorter than E.

C is not the shortest person.

D is shorter than only three-person. The third tallest person has 170 cm in height.

E > B > A > D > C > F

Now, A + E = 235------- (i)

and A + D = 220--------(ii)

A is the third tallest person = 115 cm

E = 235 - 115 = 120 cm

Hence, the height of E is 120 cm.

Q87. Answer: (d) CD

Given,

i) B lives on an odd-numbered floor above floor 3.

From the above statement, we get two cases, i.e. Case-1 & Case-2

Floor	Case-1	Case-2
8		
7		B
6		
5	B	
4		
3		
2		
1		

ii) Two people live between B and C.

From the above statement, we get two sub cases of Case-1, i.e. Case-1(a) & Case-1(b)

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		
7			B

6			
5	B	B	
4			C
3			
2		C	
1			

iii) Three people live between C and D.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7			B
6		D	
5	B	B	
4	D		C
3			
2		C	
1			

iv) The number of people who live below C is equal to the number of people who live above A.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7		A	B
6		D	
5	B	B	A
4	D		C
3			
2		C	
1	A		

v) A lives on one of the floors above D.

From the above statement, this condition is violated. So, Case-2 is eliminated.

Floor	Case-1(a)	Case-1(b)
8	C	
7		A
6		D
5	B	B
4	D	
3		
2		C
1	A	

vi) F lives on two floors above C.

From the above statement, there is no place for F in Case-1(a). So, Case-1(a) is eliminated.

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Floor	Case-1(b)
8	
7	A
6	D
5	B
4	F
3	
2	C
1	

vii) G lives on one of the floors below E and H lives on one of the floors above G & E.

Floor	Case-1(b)
8	H
7	A
6	D
5	B
4	F
3	E
2	C
1	G

All of have 1 person sitting in between them except CD.

Hence, CD is the correct answer.

Q88. Answer: (b) 7th

Given,

i) B lives on an odd-numbered floor above floor 3.

From the above statement, we get two cases, i.e. Case-1 & Case-2

Floor	Case-1	Case-2
8		
7		B
6		
5	B	
4		
3		
2		
1		

ii) Two people live between B and C.

From the above statement, we get two sub cases of Case-1, i.e. Case-1(a) & Case-1(b)

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		
7			B
6			

5	B	B	
4			C
3			
2		C	
1			

iii) Three people live between C and D.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7			B
6		D	
5	B	B	
4	D		C
3			
2		C	
1			

iv) The number of people who live below C is equal to the number of people who live above A.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7		A	B
6		D	
5	B	B	A
4	D		C
3			
2		C	
1	A		

v) A lives on one of the floors above D.

From the above statement, this condition is violated. So, Case-2 is eliminated.

Floor	Case-1(a)	Case-1(b)
8	C	
7		A
6		D
5	B	B
4	D	
3		
2		C
1	A	

vi) F lives on two floors above C.

From the above statement, there is no place for F in Case-1(a). So, Case-1(a) is eliminated.

Floor	Case-1(b)

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8	
7	A
6	D
5	B
4	F
3	
2	C
1	

vii) G lives on one of the floors below E and H lives on one of the floors above G.

Floor	Case-1(b)
8	H
7	A
6	D
5	B
4	F
3	E
2	C
1	G

Hence, A lives in 7th floor.

Q89. Answer: (e) There are three people living between E and H

Given,

i) B lives on an odd-numbered floor above floor 3.

From the above statement, we get two cases, i.e. Case-1 & Case-2

Floor	Case-1	Case-2
8		
7		B
6		
5	B	
4		
3		
2		
1		

ii) Two people live between B and C.

From the above statement, we get two sub cases of Case-1, i.e. Case-1(a) & Case-1(b)

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		
7			B
6			
5	B	B	

4			C
3			
2		C	
1			

iii) Three people live between C and D.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7			B
6		D	
5	B	B	
4	D		C
3			
2		C	
1			

iv) The number of people who live below C is equal to the number of people who live above A.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7		A	B
6		D	
5	B	B	A
4	D		C
3			
2		C	
1	A		

v) A lives on one of the floors above D.

From the above statement, this condition is violated. So, Case-2 is eliminated.

Floor	Case-1(a)	Case-1(b)
8	C	
7		A
6		D
5	B	B
4	D	
3		
2		C
1	A	

vi) F lives on two floors above C.

From the above statement, there is no place for F in Case-1(a). So, Case-1(a) is eliminated.

Floor	Case-1(b)
8	

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7	A
6	D
5	B
4	F
3	
2	C
1	

vii) G lives on one of the floors below E and H lives on one of the floors above G & E.

Floor	Case-1(b)
8	H
7	A
6	D
5	B
4	F
3	E
2	C
1	G

There are four people living between E and H.

Hence, There are three people living between E and H is the correct answer according to the question.

Q90. Answer: (b) B

Given,

i) B lives on an odd-numbered floor above floor 3.

From the above statement, we get two cases, i.e. Case-1 & Case-2

Floor	Case-1	Case-2
8		
7		B
6		
5	B	
4		
3		
2		
1		

ii) Two people live between B and C.

From the above statement, we get two sub cases of Case-1, i.e. Case-1(a) & Case-1(b)

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		
7			B
6			
5	B	B	
4			C

3			
2		C	
1			

iii) Three people live between C and D.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7			B
6		D	
5	B	B	
4	D		C
3			
2		C	
1			

iv) The number of people who live below C is equal to the number of people who live above A.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7		A	B
6		D	
5	B	B	A
4	D		C
3			
2		C	
1	A		

v) A lives on one of the floors above D.

From the above statement, this condition is violated. So, Case-2 is eliminated.

Floor	Case-1(a)	Case-1(b)
8	C	
7		A
6		D
5	B	B
4	D	
3		
2		C
1	A	

vi) F lives on two floors above C.

From the above statement, there is no place for F in Case-1(a). So, Case-1(a) is eliminated.

Floor	Case-1(b)
8	
7	A

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6	D
5	B
4	F
3	
2	C
1	

vii) G lives on one of the floors below E and H lives on one of the floors above G & E.

Floor	Case-1(b)
8	H
7	A
6	D
5	B
4	F
3	E
2	C
1	G

B lives immediately above F.

Hence, B is the correct answer.

Q91. Answer: (d) 4

Given,

i) B lives on an odd-numbered floor above floor 3.

From the above statement, we get two cases, i.e. Case-1 & Case-2

Floor	Case-1	Case-2
8		
7		B
6		
5	B	
4		
3		
2		
1		

ii) Two people live between B and C.

From the above statement, we get two sub cases of Case-1, i.e. Case-1(a) & Case-1(b)

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		
7			B
6			
5	B	B	
4			C
3			

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2		C	
1			

iii) Three people live between C and D.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7			B
6		D	
5	B	B	
4	D		C
3			
2		C	
1			

iv) The number of people who live below C is equal to the number of people who live above A.

Floor	Case-1(a)	Case-1(b)	Case-2
8	C		D
7		A	B
6		D	
5	B	B	A
4	D		C
3			
2		C	
1	A		

v) A lives on one of the floors above D.

From the above statement, this condition is violated. So, Case-2 is eliminated.

Floor	Case-1(a)	Case-1(b)
8	C	
7		A
6		D
5	B	B
4	D	
3		
2		C
1	A	

vi) F lives on two floors above C.

From the above statement, there is no place for F in Case-1(a). So, Case-1(a) is eliminated.

Floor	Case-1(b)
8	
7	A
6	D

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5	B
4	F
3	
2	C
1	

vii) G lives on one of the floors below E and H lives on one of the floors above G & E.

Floor	Case-1(b)
8	H
7	A
6	D
5	B
4	F
3	E
2	C
1	G

Four people live exactly between C and A.

Hence, 4 is the correct answer.

Q92. Answer: (c) >, <

Putting all the signs step by step in place of @ and # we get:

S ≥ Z = R ≥ Y; A = Z ≥ B = N; N > Y is False

S ≥ Z = R < Y; A = Z > B = N; N > Y is False

S ≥ Z = R > Y; A = Z < B = N; N > Y is True

S ≥ Z = R ≤ Y; A = Z ≥ B = N; N > Y is Flase

S ≥ Z = R ≥ Y; A = Z > B = N; N > Y is False

Hence, the correct answer is '>, <'

Q93. Answer: (c) J = I ≥ G > H

In G < H = I = J → J = H

In H > G > I = J → H > J → so in this statement H < J is definitely false.

In J = I ≥ G > H → J > H → so in this statement H < J is definitely true.

In H ≥ G > I < J → we can't say whether H > J or H < J.

Hence in expression J = I ≥ G > H, H < J is definitely true.

Q94. Answer: (a) >, ≤, ≤

Let us check each option:

1) Z > T ≥ L and P < A ≤ L → A ≤ T; B ≤ T and Z > T ≥ L → B < Z as required

2) Z > T ≥ L and P < A < L → A < T

3) Z ≤ T and B ≤ T → relation between B and Z can't be determined.

4) Z < T and B = T → B > Z

Hence,>, ≤, ≤ are to be placed so that both A ≤ T and B < Z hold definitely true.

Q95. Answer: (b) ZWUS

The pattern followed here is;

As per the English alphabetical series,

D + 3 = G; G + 2 = I; I + 2 = K,

Z - 3 = W; W - 2 = U; U - 2 = S,

K + 3 = N; N + 2 = P; P + 2 = R,

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Q + 3 = T; T + 2 = V; V + 2 = X,
H + 3 = K; K + 2 = M; M + 2 = O
Hence, 'ZWUS' is the odd one out.

Q96. Answer: (d) A

Six teachers: A, B, C, D, E, and F
1) Two teachers will attend the meeting between B and D.
2) B will attend the meeting on 11th of any of the given month but before D.
3) There is no one between C and D attending the meeting.
4) Two teachers will attend the meeting between A and F.
5) Only one teacher will attend the meeting between F and C.
6) C will attend the meeting in August.

Month	Person	
January	5th	A
11th	B	
April	5th	E
11th	F	
August	5th	D
11th	C	

Thus, A will attend the meeting on 5th January.

Q97. Answer: (e) One

Six teachers: A, B, C, D, E, and F
1) Two teachers will attend the meeting between B and D.
2) B will attend the meeting on 11th of any of the given month but before D.
3) There is no one between C and D attending the meeting.
4) Two teachers will attend the meeting between A and F.
5) Only one teacher will attend the meeting between F and C.
6) C will attend the meeting in August.

Month	Person	
January	5th	A
11th	B	
April	5th	E
11th	F	
August	5th	D
11th	C	

So, there is only one teacher who attends the meeting between E and G.

Q98. Answer: (e) F

Six teachers: A, B, C, D, E, and F
1) Two teachers will attend the meeting between B and D.
2) B will attend the meeting on 11th of any of the given month but before D.
3) There is no one between C and D attending the meeting.
4) Two teachers will attend the meeting between A and F.
5) Only one teacher will attend the meeting between F and C.
6) C will attend the meeting in August.

Month	Person	

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January	5th	A
11th	B	
April	5th	E
11th	F	
August	5th	D
11th	C	

Hence, F will attend the meeting on 11^(th) April.

Q99. Answer: (a) One

Six teachers: A, B, C, D, E, and F

1) Two teachers will attend the meeting between B and D.

2) B will attend the meeting on 11th of any of the given month but before D.

3) There is no one between C and D attending the meeting.

4) Two teachers will attend the meeting between A and F.

5) Only one teacher will attend the meeting between F and C.

6) C will attend the meeting in August.

Month	Person	
January	5th	A
11th	B	
April	5th	E
11th	F	
August	5th	D
11th	C	

Hence, only one teacher will attend the meeting after D.

Q100. Answer: (a) 5^(th) April

Six teachers: A, B, C, D, E, and F

1) Two teachers will attend the meeting between B and D.

2) B will attend the meeting on 11th of any of the given month but before D.

3) There is no one between C and D attending the meeting.

4) Two teachers will attend the meeting between A and F.

5) Only one teacher will attend the meeting between F and C.

6) C will attend the meeting in August.

Month	Person	
January	5th	A
11th	B	
April	5th	E
11th	F	
August	5th	D
11th	C	

E attends the meeting on 5^(th) April.

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