

Name \_\_\_\_\_

Enrollment ID: \_\_\_\_\_

## **INSTRUCTIONS**

- 1. DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO.**
2. Fill in the information required on the answer sheet. Your test may not be evaluated if the required details are not entered on the answer sheet.
- 3. This booklet consists of three sections A, B and C with 38, 35 and 31 questions respectively, i.e. a total 104 questions.** You will be given **two hours** to complete the test. Each question carries 1 mark. If there is a problem with your test booklet, immediately inform the invigilator/supervisor. You will be provided with a replacement.
4. You are required to answer questions from all three sections and expected to maximize scores in each section.
5. Each question has five alternatives. Answer each question by darkening the appropriate alternative letter against the question number on the answer sheet. For example if your answer to question number 1 is 'B', darken fully the circle 'B' against question 1.
6. All answers are to be marked only on the (OMR) answer sheet. Use the margin in the test booklet for rough work. No other piece of paper is permitted to be used for rough work.
7. Use only HB pencil.
- 8. NEGATIVE MARKS (one fourth of a mark) may be deducted for the first six incorrect answers in each section and 0.5 (half a mark) for each incorrect answer thereafter.**
9. Failure to follow instructions and examination norms will lead to disqualification.

***PLEASE WAIT FOR THE SIGNAL TO OPEN THE TEST BOOKLET***

***BEST OF LUCK!***

**C \***

**Space for rough work**

## SECTION A :QUANTITATIVE ABILITY AND DATA INTERPRETATION

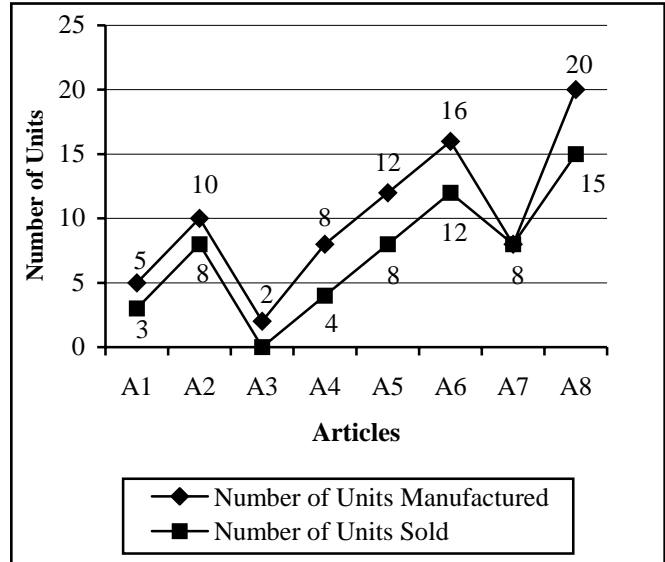
1. A box contains a certain number of red, black and white balls. A ball is randomly taken out of the box. The odds in favor of the ball being red is 3 to 8. The odds against of the ball being black is 9 to 2. What are the odds against of the ball being white?

A. 6 to 5  
B. 4 to 7  
C. 7 to 4  
D. 5 to 6  
E. 3 to 8

2. A rectangle ABCD having AB = 9 cm is divided into 90 squares, each having an area 'A' sq. cm by drawing lines parallel to its sides. Also, the sum of the number of lines drawn parallel to the side AB and drawn parallel to the side BC is 19. If AB > BC, then what is the value of 'A'?

A.  $\frac{2}{3}$   
B.  $\frac{9}{25}$   
C.  $\frac{7}{20}$   
D.  $\frac{8}{25}$   
E.  $\frac{6}{25}$

**Question No. 3-4:** The line chart given below provides information about the number of units manufactured and sold of 8 different articles viz. A1 through A8. The table provides information about the cost price (in Rs.) and the selling price (in Rs.) of each of the given articles. Assume that the articles that are unsold do not contribute in the revenue generated by the company.



	A1	A2	A3	A4	A5	A6	A7	A8
Cost price (in Rs.)	5	8	10	12	8	20	6	10
Selling price (in Rs.)	8	6	7	15	10	15	6	8

Also, Loss = (Number of Units Manufactured × Cost Price) – (Number of Units Sold × Selling Price)

3. Which of the following conclusions can be made?
- A. Loss was incurred on the sale of each of the given articles.  
B. Loss incurred on the sale of all the units of article A2 is more than that of article A4.  
C. Loss incurred on the sale of all the units of article A3 is more than that of article A5.  
D. Loss incurred on the sale of all the units of article A6 is less than that of article A8.  
E. More than one of the above.
4. Which of the following conclusions cannot be made?
- A. The total manufacturing cost of all the units of article A6 is the highest among all the articles.  
B. The revenue generated by the selling of all the units of article A1 is not the least among all the articles.  
C. The revenues generated by the selling of all the units of articles A2 and A7 are not the same.  
D. The total manufacturing cost of all the units of articles A4 and A5 are the same.  
E. None of the above.

**Question No. 5 is followed by two statements labeled as I and II. You have to decide if these statements are sufficient to conclusively answer the question. Choose the appropriate answer from the options given below:**

- A. If Statement I alone is sufficient to answer the question.
- B. If Statement II alone is sufficient to answer the question.
- C. If Statement I and Statement II together are sufficient but neither of the two alone is sufficient to answer the question.
- D. If either Statement I or Statement II alone is sufficient to answer the question.
- E. Both Statement I and Statement II are insufficient to answer the question.

5. Shakuntla Express running at a constant speed of 50 km/hour crosses the Bhatku Bridge in 20 seconds. How long is the Shakuntla Express?

I. Indraprastha Mail is 100 m long and running at a constant speed of 'v' km/hour takes 40 seconds to cross the Bhatku Bridge.

II. Indraprastha Mail running at a constant speed of 'v' km/hour crosses a 30 m long platform in 20 seconds.

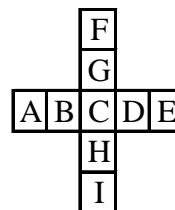
6. The number of 50 paise coins with Eric were 200. When two 50 paise coins are joined, it resembles a Rs.5 coin. Eric decided to create some fake Rs.5 coins in this way. In the end he claimed that the amount with him now was Rs.68 more than what he had earlier. How many 50 paise coins did he use to create fake Rs.5 coins?
- A. 32
  - B. 30
  - C. 26
  - D. 34
  - E. 28

7. Robert had Rs.1000 which was divided into two parts. One of the parts was invested in plan A and the other in plan B. Plan A offered interest of 10% compounded annually for 3 years while plan B offered simple interest at the rate of 10% per annum for 4 years. What was the (approximate) ratio of investments in plan A and plan B, if Robert obtained equal amount from both the plans in the end?

- A. 1.05 : 1
- B. 13 : 11
- C. 2 : 3
- D. 3 : 2
- E. 5 : 2

**Question No. 8-10:** In the diagram given below, the nine letters correspond to the nine distinct digits chosen from 1 to 9. The relationship among the digits is such that:

- 1. Sum of all the digits in the row = Sum of all the digits in the column = 25.
- 2. The sums (A + B), (I + H), (E + D) and (G + F) are all prime numbers.
- 3.  $A < B$ ,  $I < H$ ,  $E < D$  and  $F < G$ .
- 4. Both A and F are even numbers such that  $A > F$ .



8. The value of H is
- A. 4
  - B. 9
  - C. 8
  - D. 6
  - E. Cannot be determined
9. Which of the following is true?
- A.  $B < H < D < G$
  - B.  $D < H < G < B$
  - C.  $D < G < H < B$
  - D.  $B < H < G < D$
  - E. Cannot be determined

10. The average of A, F, E and I is

- A. 4
- B. 4.25
- C. 4.5
- D. 4.75
- E. Cannot be determined

11. Rambali bought 2 cows and 1 buffalo. The ratio of the prices at which he bought a cow and a buffalo is 1: 3. He marked up the price of each cow and the buffalo by 20 % and 40 % respectively. He gave a discount of 40 % and 25 % on the sale of each of the two cows and the buffalo respectively. What is his overall profit/loss on this transaction?

- A. 6.4 % Loss
- B. 2.4 % Profit
- C. 6.4 % Profit
- D. 9.6 % Loss
- E. 8.2 % Loss

**Question No. 12-14 on the basis of the following information.**

Jagdish plans to set-up a Guitar manufacturing company. However, as the music interest of people changes fast, he wanted to carefully understand the demands and the likely profits before investing. Market survey indicated that he would be able to sell 10000 Guitars before customers shifted to a different instrument. Jagdish realized that he had to incur two kinds of costs: Fixed costs (the costs which do not change, irrespective of the number of Guitars manufactured ) and Variable costs (equal to the variable cost per Guitar multiplied by the total number of Guitars manufactured). Jagdish expected the fixed cost to be Rs. 1 crore and the variable cost to be Rs. 500 per unit. He expected that each Guitar would be sold at Rs. 3000.

12. What would be the break-even point (defined as no profit, no loss situation) for Jagdish's company in term of sales?

- A. Rs. 80 lac
- B. Rs. 1.2 crore

- C. Rs. 1 crore
- D. Rs. 1.6 crore
- E. Cannot be determined.

13. Jagdish was skeptical that per Guitar, the variable cost might increase by 5% though the demand of the Guitars might remain the same. What would be the expected changes in the profits in such a case?

- A. Profit would decrease by 1.66%.
- B. Profit would increase will by 6.67%.
- C. Profit would decrease by 6.67%.
- D. Profit would decrease by 2.33%.
- E. Profit would increase by 8.33%.

14. Jagdish sold all his 10000 guitars in 3 months and the number of Guitars sold in the first, second and third months were in the ratio 1:2:1 respectively. What was the ratio of overall profit earned by Jagdish at the end of the second and the third month? Assume that while calculating the profit at the end of any month, the fixed cost is always Rs. 1 crore.

- A. 1:1
- B. 5:7
- C. 7: 12
- D. 7:5
- E. 12:7

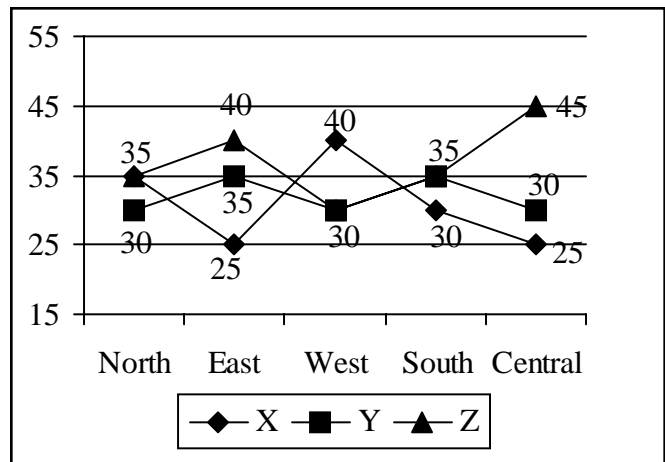
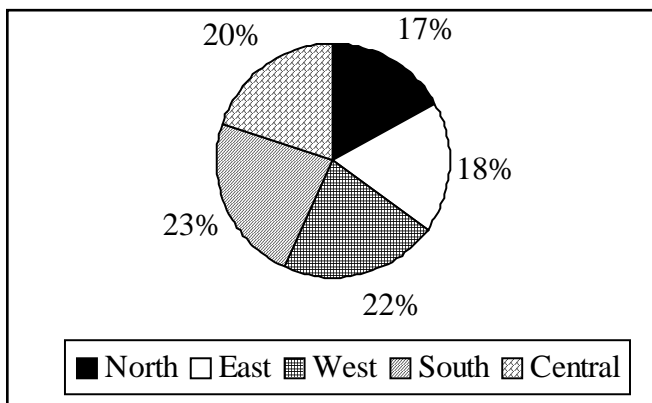
15. Let 'N' be a four-digit number such that all the digits of 'N' are different and the sum of its first two digits is one more than the sum of its last two-digits. 'N' is also a multiple of 9. Find the difference between the maximum and the minimum possible values of 'N'.

- A. 8181
- B. 3636
- C. 3536
- D. 7981
- E. 7272

16. A point 'P' having co-ordinates (a, b) divides a straight line which is formed by joining the two points having co-ordinates K(-2, 3) and L(5, 7) internally in the ratio 1:2. From the mid-point 'M' of the line segment KL, a perpendicular MN of length 5 units is drawn. What is the area (in sq. units) of the triangle MNP?

- A.  $\frac{5}{12} \times \sqrt{65}$   
 B.  $\frac{3}{5} \times \sqrt{65}$   
 C.  $\frac{2}{13} \times \sqrt{63}$   
 D.  $\frac{5}{12} \times \sqrt{63}$   
 E. Cannot be determined

**Question No. 17-19:** ABC, a telecom provider company, plans to launch its mobile handsets in India. Currently, X, Y and Z are the only three companies that sell handsets in India across five different regions viz. North, East, West, South and Central. ABC conducts a detailed study on the sales of the number of mobile handsets sold across these five regions and also the percentage share of the sales of the mobile handsets of all the three companies across these five regions. The pie-chart shows the consolidated number of mobile handsets sold in all these 5 regions in a year as a percentage of the total number of mobile handsets sold in India. The line-graph shows the respective percentage share of the 3 mobile companies X, Y and Z in the various regions. All the data given below are for the year 2003.



17. Which of the following companies sold the maximum number of handsets in the West and Central regions combined?

- A. X  
 B. Z  
 C. Y  
 D. Both (A) and (B)  
 E. Both (B) and (C)

18. A leader in any region is the company that sells the maximum number of mobile handsets across that region. If there are two or more companies selling the same number of handsets, then both the companies will be considered as the leaders. The ratio of the number of regions in which the companies X, Z and Y are the leaders is

- A. 2 : 1 : 4  
 B. 1 : 1 : 4  
 C. 1 : 2 : 4  
 D. 4 : 2 : 1  
 E. 2 : 4 : 1

19. The number of the mobile hand sets sold by X in the South as a percentage (approximate) of the total number of mobile hand sets sold by Y in North and Z in East were

- A. 52%  
 B. 47%  
 C. 59%  
 D. 43%  
 E. 56%

20. If  $x = \frac{2^{\log_2 3 \times \log_3 4 \times \log_4 5}}{5^{\log_5 6 \times \log_6 7 \times \log_7 8}}$ , then the value of  $x$  is

- A. 0.500
- B. 0.400
- C. 0.625
- D. 0.250
- E. None of the above.

21. An 'expert' takes 3 hours to teach 'karate' to a 'novice' in a session. The 'novice' becomes an 'expert' after this session. However an 'expert' teaches only one 'novice' at a time without interruption. Initially, there are 99 'novice' in a school and an 'expert' comes to teach. How many minimum hours would it take so that every 'novice' is an 'expert'?

- A. 16
- B. 15
- C. 18
- D. 24
- E. 21

22. I have 3 sons named A, B and C. The age (in years) of each of my sons is a distinct integer. Six years from now, their aggregate age would be twice of what it is at present. Also, 10 years from now, my eldest son would be twice the age of my youngest son. Which of the following could be the age of one of my sons at present?

- A. 2 years
- B. 5 years
- C. 6 years
- D. 4 years
- E. None of the above

23. In a academy of 80 members, each member plays at least one of the two games viz. tennis and cricket. The number of members who play tennis are 50. The number of members who play cricket are also 50. None of the members who plays only tennis knows French. Members who know French and play both these games are  $\frac{3}{7}$ th of the

number of members who play only cricket and know French. What is the minimum possible number of members who play both tennis and cricket but do not know French?

- A. 6
- B. 4
- C. 2
- D. 8
- E. 5

24. Box 1 contains 2 red and 2 black balls. 2 balls are randomly picked from Box 1 and put into Box 2, which is initially empty. Now, if the number of red balls in Box 2 is 0, 1 or 2, then respectively 1, 2 or 3 new red Balls are added to it. If again 1 ball is picked from Box 2, then what is the probability of this ball being red?

- A.  $\frac{13}{18}$
- B.  $\frac{3}{5}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{2}$
- E.  $\frac{7}{12}$

25. Every day a train runs from A at a constant speed of 'u' km/hr and reaches B after exactly 10 hours. However, on a particular day after exactly 2 hours of travel from A, the train broke down and took exactly 2 hours to repair. In order to reach B at the same time as earlier, the driver then increased the previous constant speed of the train by 30 km/hour. What is the distance between A and B?

- A. 720 km
- B. 600 km
- C. 450 km
- D. 900 km
- E. 1600 km

26. Ten leaders are to speak in an election rally so that a particular leader must definitely speak before two other particular leaders and after another particular leader. In how many possible ways, the ten leaders can speak in the election rally? Assume that no two leaders speak simultaneously.

- A.  $6! 2!$
- B.  $\frac{2 \times 10!}{4!}$
- C.  $\frac{10!}{4!}$
- D.  $4! 6!$
- E. None of the above

**Question No. 27-28:** Given below is a function  $f(a, b)$  which is defined for all real values of  $a$  and  $b$ .

$$f(a, b) = 4a^2 + 9b^2 - 4a - 6b + \frac{21}{2}.$$

27. Find the minimum possible integral value of the function  $f(a, b)$ .

- A. 8.5
- B. 8
- C. 9
- D. 10
- E. 11

28. If the function  $f(a, b)$  attains minimum possible integral value, then the maximum possible value of 'a' could be

- A.  $\frac{1}{\sqrt{2}}$
- B.  $\frac{\sqrt{2}+1}{2}$
- C.  $\frac{\sqrt{2}-1}{2\sqrt{2}}$

D.  $\frac{\sqrt{2}+1}{2\sqrt{2}}$

E. None of the above.

29. ABCD is a cyclic quadrilateral such that  $AB = AD$  and  $BC = CD$ . If the ratio of the diameter of the circle circumscribing the quadrilateral ABCD and BC is  $4 : 1$ , then the ratio of  $AB : BC$  is

- A.  $\sqrt{15} : 1$
- B.  $7\sqrt{3} : 1$
- C.  $3\sqrt{5} : 1$
- D.  $5\sqrt{3} : 1$
- E. None of the above

30. Find the number of positive integral values of 'a' that satisfy the equation  $a^2 + 10a - b^2 = 104$ . Given that 'b' is a positive integer less than 25.

- A. 2
- B. 1
- C. 0
- D. 4
- E. 3

31. M, N and O are real numbers such that  $3 < M < 6$ ,  $9 < N < 15$  and  $11 < O < 19$ . What is the difference between the maximum and the minimum possible integral values of

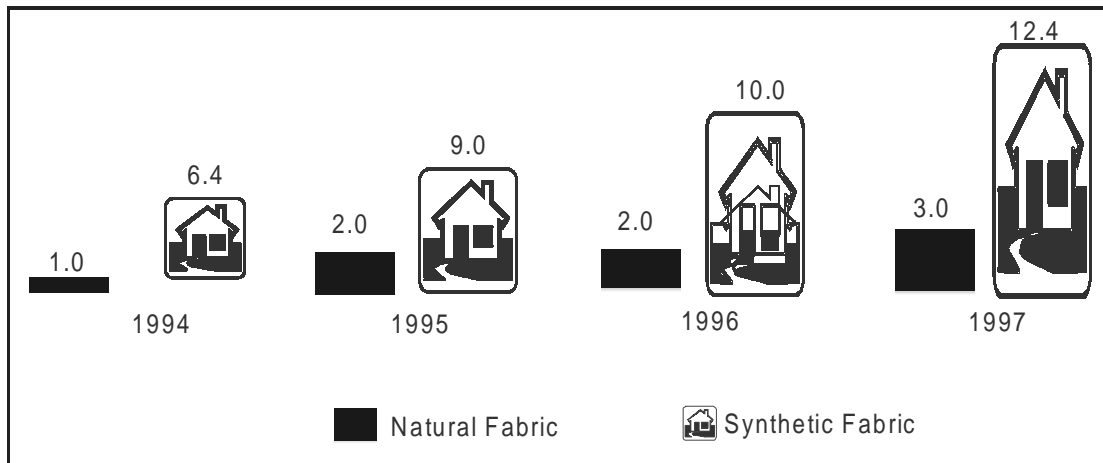
$$\frac{(MN + N^2)}{O}?$$

- A. 20
- B. 19
- C. 23
- D. 21
- E. 22

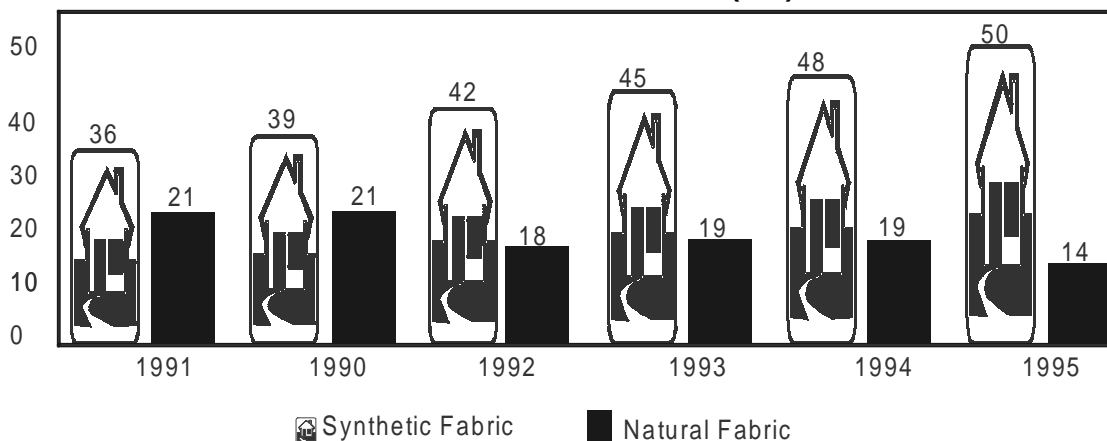


**Question No. 32-36:** The basic requirement of any cloth material is the fabric which is produced all over the world. There are only two types of Fabric-Synthetic and Natural. Till the last century there was an extensive usage of Natural Fabric like cotton etc. However, since the World Wars, the usage of Synthetic Fabric like Nylon, Rayon etc. has increased. Java Suitings was one of the largest producers of fabrics. Given below are two charts - First chart shows production of two types of fabric at Java Suitings. The second chart shows production of the two types of fabric in the world.

**Java Suiting  
Fabric Production (MT)**



**Global Fabric Production (MT)**



32. Which of the following statements is/are true?

1. The absolute percentage change in Global production of Synthetic Fabric between 1991 to 1995 is more than the absolute percentage change in Global production of Natural Fabric between 1991 to 1995.
2. Java Suitings saw a greater percentage change in total Fabric production between 1996 and 1997 than between 1994 and 1995.
3. Between 1991 and 1995 Global production of Fabric was maximum for the year 1993.

- A. Only 1
- B. Only 2
- C. Only 1 and 2
- D. Only 1 and 3
- E. 1, 2 and 3

33. What is the approximate change in the percentage share of Java Suitings in the total production of Fabric between 1994 and 1995?

- A. Increase of 1.4 percentage points.
- B. Increase of 2.8 percentage points.
- C. Decrease of 2.8 percentage points.
- D. Increase of 6.2 percentage points.
- E. None of the above

34. Suppose total Global production of Fabric in 1997 was 60 MT and Java Suitings was second highest producer of Fabric after another company called Viva. Carry Brothers was the third highest producer. Two Indian giants, Java Suitings and Crosslink Fibres have a combined production capacity of 21.4 MT. Which of the following statements are definitely correct?

- 1. Viva's market share was more than 25.66%.
- 2. Viva's market share was more than 32.33%.
- 3. Carry Brothers' market share was less than 25.67%.
- 4. Carry Brothers' market share was less than 15.67%.
- 5. Crosslink Fibres' market share was 10%.

Choose the right option.

- A. 1 and 4
- B. 1 and 3
- C. 2 and 5
- D. 1, 3 and 5
- E. 2, 4 and 5

35. In 1995, two Indian giants, Java Suitings and Amazing Fibres have a combined production capacity of 22.0 MT. In 1995, if the market share (in terms of Global Fabric Production) of Amazing Fibres was 12%, then what percentage of its capacity was Amazing fibre actually using? Given that Java Suitings used 90% of its capacity for production in the year 1995.

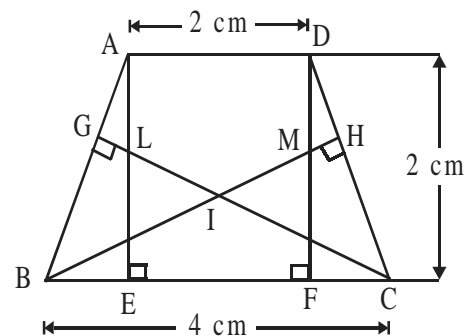
- A. 90%
- B. 78.5%
- C. 62.5%

- D. 30%
- E. 100%

36. If the percentage decrease in Global Production of Natural Fabric was the same between 1995 and 1996 as between 1994 and 1995, then what is the share of Java Suitings in Global Production of Natural Fabric for the year 1996?

- A. 8.8%
- B. 33.1%
- C. 19.4%
- D. 26.3%
- E. 11.1%

**Question No. 37-38:** The figure given below shows a trapezium ABCD with  $\angle ABC = \angle DCB$ . Also, AE, BH, CG and DF are the perpendiculars drawn from the four vertices (see figure).



37. What is the ratio of the lengths of DM to MF?

- A. 1:3
- B. 1:4
- C. 1:2
- D.  $1:\sqrt{2}$
- E. 1:5

38. What is the area of the pentagon ADMIL?

- A.  $2 \text{ cm}^2$
- B.  $2.5 \text{ cm}^2$
- C.  $1.75 \text{ cm}^2$
- D.  $1.5 \text{ cm}^2$
- E. None of the above

## SECTION B : VERBAL AND LOGICAL ABILITY

39. New evidence has emerged to show that an extinct, diminutive people known as “hobbits” from the Indonesian island of Flores belonged to a new species of primitive humans and not modern pygmies. The 1 metre (3ft) tall, 30kg (65lb) people are believed to have roamed the Indonesian island of Flores, perhaps up to 8,000 years ago. The new anatomical evidence, reported in today’s Nature magazine, is based on the examination of lower limbs and especially an almost complete left foot and parts of the right. It shows that the species walked upright, like other known hominids, and there were five toes, as in other primates, but the big toe was stubby, more like a chimp’s.

Which of the following findings would add more strength to the claim in the above paragraph?

- A. A highly bent vertebral column.
- B. Presence of residual bones which are remnants of wings used by ancestors.
- C. Well developed neck bones similar to those of the pygmies.
- D. Presence of five fingers with well developed hand bones similar to those in leopards or lions.
- E. None of the above.

**Analyse the passage given and provide an appropriate answer for the questions 40 and 41.**

Controversy has been rife. It goes without saying that Richard Dawkins has a talent for causing offence to people of religious persuasion. I’m sure he believes this offence is justified by the noble cause of rooting out dangerous superstition, but a recent comment he left on his own blog RichardDawkins.net, beneath a piece by Jerry Coyne, suggests he is about to take his campaign to a whole new level:

“I suspect that most of our regular readers here would agree that ridicule, of a humorous nature, is likely to be more effective than the sort of snuggling-up and head-patting that Jerry is attacking. I lately started to think that we need to go further: go beyond humorous

ridicule, sharpen our barbs to a point where they really hurt ... I think we should probably abandon the irretrievably religious precisely because that is what they are – irretrievable. I am more interested in the fence-sitters who haven’t really considered the question very long or very carefully. And I think that they are likely to be swayed by a display of naked contempt. Nobody likes to be laughed at. Nobody wants to be the butt of contempt.”

40. Which of the following would be a logical summary to the above paragraph?

- A. Richard Dawkins is becoming more intense in his attack against the fence-sitters who don’t like to be laughed at.
- B. Richard Dawkins finds Jerry’s attacks very soft in their import and feels that Jerry should harden his stand against the religious.
- C. Filled with hatred for the irretrievable religious, Richard advocates people to abandon dangerous superstition.
- D. Richard Dawkins, known for causing offence to people of religious persuasion, is making his attack against the religious more intense which can be gauged from his recent comments on his blog.
- E. Richard Dawkins is making his attack against the religious more intense which can be gauged from his recent comments against Jerry on his blog.

41. At present, which of the following is being advocated the most by Dawkins?

- A. Display of contempt towards the fence-sitters.
- B. Ridiculing priests for head- patting.
- C. Patting the fence sitters.
- D. Asking Jerry to get more virulent.
- E. Educating the religious.

**Analyse the passage given and provide an appropriate answer for the questions 42 and 43.**

Exactly, fifty years ago the scientist and novelist CP Snow gave a lecture that has rung down the decades. Science and the humanities, claimed Snow, have become “two cultures”, deeply divided and alienated. Literary intellectuals sneer at cultureless scientists while scientists look down on the soft humanities. Today, claims the thinktank Civitas in a collection of essays published to mark the 50th anniversary of Snow’s lecture, we face a far worse crisis than the one Snow outlined. In the end, he was talking about a difference in tone and style among groups of highly educated people. Now, say the authors of *From Two Cultures to No Culture*, the very survival of serious education is at stake. English literature students reach university without having read a Shakespeare play and science is being betrayed by the combined science GCSE. The very assumption of an educated elite on which Snow’s argument rested is no longer a given. Scientific understanding, historical memory and literary sophistication are all on the edge of the abyss as education becomes increasingly feeble and surrenders to the tyranny of mass culture.

42. Which of the following would be a logical inference from the above paragraph?
- A. The alienation between the Scientists and Humanitarians has turned into a unified drive against education.
  - B. CP Snow lived in an era where students were extremely sincere towards their subject of interest.
  - C. Mass culture is churning out educated but hollow graduates.
  - D. CP Snow could never have thought even in his wildest dreams that the basis of his “two cultures” would itself become open to question.
  - E. It is actually good to move away from serious education as it results in a culture divide and alienation between professional groups.

43. The conclusion “Mass culture is lowering the possibility of a person becoming highly educated” is
- A. Irrelevant
  - B. Valid
  - C. Far-fetched
  - D. False
  - E. None of these
44. Researchers have found that people who get the choice of early retirement are also more likely to enjoy a longer life.
- “Early retirement is generally good for people’s health and wellbeing unless it has been forced on them. Those forced into early retirement generally have poorer mental health than those who take routine retirement, who in turn have poorer mental health than those who have taken voluntary early retirement,” the study for the Economic and Social Research Council said. The findings were based on a series of surveys of 12,000 older people. The study also suggested that money is the key to a longer and healthier life. People with more wealth and better education are less likely to develop illness and tend to die later than those who are poorer and less well-educated, the findings indicated. On the other hand, individuals with less education and money are more likely to say they are depressed or to suffer from illnesses such as high blood pressure, diabetes or obesity, according to the British study.
- Which of the followings statements would weaken any of the premises of the above argument?
- A. Forcing a person into retirement tends to impact his emotional health severely.
  - B. Poor people generally get involved in a lot of physical activity which reflects positively on their health.
  - C. People who take early voluntary retirement are more self-driven.
  - D. People who are wealthy are also more conscious of exercise and physical fitness.
  - E. Health is dependent to a large extent on material well being of an individual.

45. All the Swine flu patients whom the reporter interviewed told that they had come from Mexico. Therefore, probably all the Swine flu patients come from Mexico. This argument is an example of :

- A. Inductive generalization
- B. Predictive argument
- C. Generalization based on authority
- D. Deduction generalization
- E. Argument from analogy

46. As the internet is found throughout the world but is accessible through points like an internet connection or a café, God is omnipresent but accessible through specific places like temples etc. or a Guru.

Of the following, which one best typifies the argument?

- A. Inductive generalization
- B. Predictive argument
- C. Generalization based on authority
- D. Deduction generalization
- E. Argument from analogy

47. You need to do sadhana for God-realization. In addition to doing sadhana you need to be humble and caring. All this leads to purity of mind. A pure mind is subtle. God realization can happen only when God blesses a subtle mind.

Which of the following arguments is least dissimilar to the argument above?

- A. Concentrated study leads to Clarity of views. Interviewers usually do not pass candidates whose views are unclear.
- B. Concentrated study which is essential to become a manager , leads to Clarity of views. Interviewers usually pass candidates who have clear views as clear views mean a clear future manager.
- C. Mating is essential for procreation. In addition the mates need to be healthy. Healthy mates lead to healthy eggs. The process of procreation can

take place only when the climactic conditions are favourable for the healthy eggs to hatch.  
D. Laziness leads to obesity. Obesity along with hormonal imbalances can cause a variety of health problems. Death can result when the problems become severe.  
E. Laziness leads to hormonal imbalances which leads to obesity. It cannot be cured unless one becomes active. The best solution is to go to a gymnasium.

**Analyse the passage given and provide an appropriate answer for the questions 48 through 51 that follow.**

Models of organizational behaviour are basically the frameworks on which most organizations work. They have been developed through many years of research by experts in the fields of psychology and management and often are based on business management, anthropology, social psychology and the studies of cultures, among other things. Professional managers worldwide realize that the study of organizational behaviour is a fundamental part of their training. It teaches them how to act in an effective manner and how to deal with the people and situations in the organization. It helps them realize their aims of maximizing the gains of their organization, securing the well being of its employees, and of realizing the goals of the management.

Four basic models have been developed on which organizational behaviour is based. At the outset, it should be clear that no organization is based only on one model, most develop a combination of models, depending on the culture of its managements and the type of employees that it has.

Model A - Supportive Model: As is evident from the name, here the emphasis is on support being provided by the managers to the employees. Here the employees are encouraged to improve their performance, and they are awarded recognition for their achievements. This results in an overall improvement, since a good result is praised and rewarded.

**Model B - Custodial Model:** Here the management acts as a custodian of the welfare of its employees. They are provided money and security, and the employees in turn follow the diktats of the organization. The orientation is towards providing security, and less towards providing them an opportunity to be independent and leaders. There is cooperation between the members of the organization, but it is passive rather than active.

**Model C - Autocratic Model :** This is the most common Autocratic Model : This is the most common model on which most organizations are based. Here the managers or the leaders are firmly in control, and obedience is considered to be a virtue. All decisions come from the management and the rest just follow the instructions. This leads to poor performance since there are no incentives to improve yourself and initiative is not encouraged.

**Model D - Collegial Model :** Most organizational behaviour theorists believe that this is the best model for any organization to follow. Here the emphasis is on partnership between all parts of an organization. Self-discipline and responsibility are encouraged and employees are encouraged to achieve the goals that they set for themselves. Teamwork is emphasized and hence the results are also better than those for any of the other models.

48. As the Global Recession reached its peak, Mitsubishi Flankers Pvt Ltd. decided to cut costs in face of losses of over 5 crores. Every day pink slips/firing letters were handed over to atleast 5 employees without any discussion. Employees who had spent more than 5 years in the company would be retained. This continued for atleast a month. There would be no increments or bonuses given for the subsequent 2 years.

Which models were being followed by Mitsubishi at the time of the Recession ?

- A. Model A and B
- B. Model B and C
- C. Model C and D
- D. Model A and D
- E. Model B and D

49. Span Retrofittings has become an organization teeming with MBAs from the IIMs and other Management Institutes. This young breed of MBAs are fiercely independent. The company's 70% workforce is of labourers who are revolutionary and also tend to be belligerent. Which models should be part of the Span management's approach ?

- A. Models A and B
- B. Only Models C
- C. Models B and D
- D. Models A and D
- E. None of the above

50. The Chennai division of MIC Insurance is trying to get some of the best south Indians in the field under its wings and retain them for a lifetime. There are two categories of South Indian workers. One is the highly capable young South Indian straight from a B-school or armed with an MBA from abroad who wants freedom of operation and rewards based on performance. Such people are known for job hopping. The other category is the experienced South Indian worker fondly called as 'Uncle South' who is traditional and has been pampered by Job security and Small but regular increments/ bonuses. 'Uncle South' people are conscientious workers and are highly loyal.

Which combination of models would be sufficient for MIC Insurance?

- A. Models A and B
- B. Models B and C
- C. Only Models C
- D. Models C and D
- E. None of the above

51. The conclusion “Models of Organizational Behaviour” are useful only in the sense that they teach incompetent managers how to behave in critical situations.

Is

I. Valid

II. Invalid

III. Probably true

A. Only I

B. Only II

C. II and III

D. I and III

E. I and II

52. **Identify the correct sentence.**

A. The lady asked the tailor who was looking shabby to clean himself thoroughly before he stitched her clothes with his machine.

B. The lady asked the tailor, who was looking shabby, to clean himself thoroughly before he stitched her clothes with his machine

C. The lady asked the tailor who was looking shabby, to clean himself thoroughly before he stitched her clothes with his machine

D. The lady asked the tailor who was looking shabby to clean himself thoroughly, before he stitched her clothes with his machine

E. The lady asked the tailor who was looking shabby to clean himself thoroughly before he stitched her clothes, with his machine

**Analyse the following passage and provide an appropriate answer for the questions 53 and 54.**

According to Sri Aurobindo, ‘the task of religion and spirituality is to mediate between God and man, between the Eternal and Infinite and this transient, yet persistent finite, between a luminous Truth-consciousness not expressed or not yet expressed here and the Mind’s ignorance. But nothing is more difficult than to bring home the greatness and uplifting power of the spiritual consciousness to the natural man forming the vast majority of the race; for his mind and senses are turned outward towards the external calls

of life and its objects and never inwards to the Truth which lies behind them’.

53. Which one of the following statements, if true, most significantly strengthens the idea presented in the passage?

A. The greater the ignorance in most men the lesser the need for spiritual upliftment.

B. The higher the spiritual enrichment the more the need to attend to the external calls of life and to the objects of the world.

C. The greater the mind’s ignorance the lesser the need for mediation of religion and spirituality between God and man.

D. The more the mind and senses are tuned to cater to the worldly calls the greater the movement towards spiritual consciousness.

E. The more the interaction with religion and spirituality, the less is the divide between spiritual consciousness and the natural man.

54. Which of the following statements best reflects the views of Sri Aurobindo?

A. Spirituality is not for those who are ignorant and involved in worldly pleasures.

B. The most tedious task is to make the ignorant man admit his ignorance.

C. Ignorance in men cannot be wiped out with spirituality and enlightenment alone.

D. The minds of the ignorant are hardly ever tuned to the Truth.

E. Bringing spiritual consciousness closer to the man is equal to making him part of the majority of the race.

**Analyse the following passage and provide an appropriate answer for the questions 55 and 56.**

Western philosophy has become a great, complex edifice of boxes, where innovative thinking is most often used to define, defend, and extend *territory*, making already huge, ponderous intellectual contraptions merely larger, more rigid, and more complex. At the core of this approach is a familiar and prevalent collection of concepts (boxes) that extend rationally created and defended *disconnections* (delusion, illusion), and enabled, as early European thinkers like Rene Descartes intended, a “*Self* as opposed to *Other*” mode of existence, a mode that has since come to dominate the whole world.

55. According to the author, one of the problems with Western Philosophy is that:
- A. it dominates the entire world with its ‘self’ and ‘other’ mode of existence.
  - B. it is just a collection of concepts that are far away from human understanding.
  - C. its non-supporters are extremely defensive about the theories propounded by western philosophers.
  - D. its collection of concepts is complex and fixed from the outset
  - E. it uses innovative thinking only to explain and justify its complicated concepts
56. According to the author, the key characteristic of Western Philosophy is:
- A. its approach that defines and sublimates complex issues prevailing in the system.
  - B. its approach that uses innovative thinking to dissect and contravene prevailing complex issues.
  - C. its approach that creates more complexity than what is already prevalent in the system
  - D. its approach that explains and justifies the importance of the ‘self’ over the ‘other’
  - E. its approach that defends already existing ideas with the aid of primitive thinking.

57. Identify the correct sentence from the options given below.
- A. Although recent studies unlocked the mystery of the human genetic code, the practical use of the research are fraught in many medical and social complications.
  - B. Although recent studies have been unlocking the mystery of the human genetic code, the practical use of the research is fraught by many medical and social complications.
  - C. Although recent studies have unlocked the mystery of the human genetic code, the practical use of the research is fraught with many medical and social complications.
  - D. Although recently studies have unlocked the mystery for the human genetic code, the practical use of the research is fraught into many medical and social complications.
  - E. Although recent studies have unlocked the mystery of the human genetic code, the practical use of the research is fraught with many medical and social complication.
58. Identify the correct sentence from the options given below.
- A. Since she could not avoid succumbing to her fears and hopelessness, the jury members understand the murder’s case and invoke some compassion and sympathy.
  - B. The murderer admitted her faults in the hope of invoking some compassion and sympathy for her case along with the jury members understand her case and that she could not avoid succumbing to her fears and hopelessness.
  - C. She could not avoid succumbing to her fears and hopelessness and in the hope of invoking some compassion and sympathy for her case she requests the jury members.
  - D. In the hope to invoking some compassion and sympathy for her case, while admitting her faults and requesting the jury members to understand her case, she could not avoid succumbing to her fears and hopelessness.
  - E. In the hope of invoking some compassion and sympathy for her case, the murderer admitted her faults and requested the jury members to understand that she could not avoid succumbing to her fears and hopelessness.



**From question 59, read the sentences and choose the option that best arranges them in a logical order.**

59. 1. And this we recognize imperfectly when we talk of a genius being “inspired.”  
 2. Modern Psychology has proved that a vast portion of all our thinking goes on unconsciously and that the results may arise into consciousness piecemeal and gradually.  
 3. The former is the case with the critical, and the latter with the artistic intellect.  
 4. Checking each other as they come or that they may come all at once, with all the completeness and definiteness of perceptions presented from without.

- A. 4, 3, 1, 2  
 B. 2, 4, 3, 1  
 C. 4, 1, 2, 3  
 D. 2, 3, 4, 1  
 E. 1, 4, 3, 2

**Analyse the following passage and provide an appropriate answer for the questions 60 and 61.**

Uncluttering of houses is analogous to untangling of our most innate thoughts. A cleaning drive of the external environment causes tidying up of our emotional jumbles. Even then, it is quite possible to be enslaved by our thoughts. Disorderly thoughts signify a habitual acceptance of old ways and reveal our resolution to not try anything new or unfamiliar. This reinforces the will to not untangle prevailing views and thoughts. Thus, most of us live the same life, as soon as we cease to unclutter, and start believing that only this way of life is the best version of our survival.

60. Which combination of the following statements best summarizes the idea expressed in the passage?  
 1. Clean houses contribute to a clean and wholesome family environment.  
 2. Uncluttered thoughts enable the thinking of possible ways of living rather than merely surviving.

3. Well-kept houses engender a clean and open mind.  
 4. Cluttered thoughts symbolize disorganized houses that eventually form the basis of an uneventful life.

- A. 1, 3  
 B. 2, 3, 4  
 C. 1, 4  
 D. 3, 2  
 E. 1, 2, 3

61. Which of the following statements is similar to the ideas expressed in the passage?

- A. Eventful lives are a result of untamed habits, indecisive minds and wavering temperaments.  
 B. Complete control over thoughts is possible with an unshakable control over habits.  
 C. Cleanliness in general challenges old resolutions and habitual ways of living.  
 D. Lack of consideration of possibilities is a result of open mindedness that is instigated by a clean environment.  
 E. Conventional ways of living are the most suitable lifestyles if they are the only ways of life one is aware of.

**Analyse the passage given and provide an appropriate answer for the questions nos. 62 through 64 that follow.**

During infancy, each of us emerges from a delightful but largely incoherent babble of syllables and learns to speak – normally, in the language of those who care for us. But imagine what would happen if we were somehow raised in utter isolation from other people, not only our parents but also from surrogates such as nurses and nannies. What sort of culture might we evolve if reared in isolation and what would we learn to speak? Would such a language evolve over multiple generations, if so, would it eventually resemble existing ones?

Such an experiment is not practical to conduct in humans, but an analog has been performed among a species of songbirds called zebra finches. The study, in the journal *Nature*, provides new insights into how genetic background, learning abilities and environmental variation might influence how birds evolve “song culture” -and provides some pointers to how languages may evolve. The study confirms that zebra finches raised in complete isolation do not sing the same song as they would if raised normally, i.e., among other members of their species. It breaks new ground in showing that progeny of these “odd birds,” within several generations, will introduce improvisations that bring their song into conformity with those of “wild-type” zebra finches, i.e., those raised under normal cultural conditions. Young zebra finches learn to sing by imitating adult male songbirds. But when raised in isolation, the young sing a raspy, arrhythmic song that’s different from the song heard in the wild. To find out what happens to this “isolate song” over generations, the scientists designed experiments in which these isolated singers passed on their song to their progeny, which in turn tutored the next generation, and so on. The tutors were either paired one-on-one with their progeny, or to mimic a more natural social setting, introduced into a colony of females (who, as it happens, do not sing) and allowed to breed for a few generations.

The team found that in either social setting, birds of every successive generation imitated their tutor’s song but also modified it with small, systematic variations. These improvisations weren’t random, however. Accumulating over generations, the introduced changes began to bring the innate, “isolate” song into approximate conformity with the song learned within normal zebra finch “society.” (This “cultured” song has been labeled “wild-type” by the scientists.) By the 4th or 5th generation, birds that were descendents of the experimental “isolates” were singing songs that very closely resembled the song sung by birds raised under social conditions in the wild.

62. Which of the following conclusions can be derived based on the songbird theory?
- The cultured song that’s heard in the wild is the product of imitation.
  - The “learned” song of a songbird was tutored by an adult.
  - The cultured song was already there in the genome of the bird.
  - People have theorized hard about how the evolutionary process applies to culture.
  - The innate song of an isolated songbird is different from the learned song of a songbird.
63. If the songbird theory were to be true, which of the following conclusions would logically follow?
- If the song of an isolated songbird was transmitted over multiple generations, the normal wild-type song would somehow spontaneously emerge.
  - The evolutionary process applies completely to culture.
  - All the songbirds know how to communicate.
- 1 only
  - 2 only
  - 3 only
  - 1 and 2
  - 2 and 3
64. Which of the following proverbs may be false, if above passage were to be right?
- Birds of a feather flock together.
  - Blood is thicker than water.
  - A bird in the hand is worth two in the bush.
- 1 and 2
  - 2 and 3
  - 3 only
  - 1 only
  - None of the above

**Analyse the passage given and provide an appropriate answer for the questions 65 through 67 that follow.**

Species that humans intentionally transport to new regions can subsequently become successfully established in two ways. In the first case, organisms are purposely released for establishment in the wild. It is sometimes difficult to predict whether a species will become established upon release, and if not initially successful, humans have made repeated introductions to improve the probability that the species will survive and eventually reproduce in the wild. In these cases it is clear that the introduction is directly facilitated by human desires. In the second case, species intentionally transported into a new region may escape from captive or cultivated populations and subsequently establish independent breeding populations. Escaped organisms are included in this category because their initial transport to a new region is human motivated.

Perhaps the most common motivation for introducing a species into a new place is that of economic gain. Examples of species introduced for the purposes of benefiting agriculture, aquaculture or other economic activities are widespread. Eurasian carp was first introduced to the United States as a potential food source. The apple snail was released in Southeast Asia with the intent that it be used as a protein source, and subsequently to places like Hawaii to establish a food industry. In Alaska, foxes were introduced to many islands to create new populations for the fur trade. The timber industry promoted the introduction of Monterey Pine (*Pinus radiata*) from California to Australia and New Zealand as a commercial timber crop. These examples represent only a small subsample of species that have been moved by humans for economic interests.

Introductions have also been important in supporting recreation activities or otherwise increasing human enjoyment. Numerous fish and game animals have been introduced for the purposes of sport fishing and hunting. The introduced amphibian that threatens the endemic California salamander was introduced to

California as a source of bait for fishermen. Pet animals have also been frequently transported into new areas by humans, and their escapes have resulted in several successful introductions, such as those of feral cats and parrots.

Many plants have been introduced with the intent of aesthetically improving public recreation areas or private properties. The introduced Norway maple for example occupies a prominent status in many of Canada's parks. The transport of ornamental plants for landscaping use has and continues to be a source of many introductions. Some of these species have escaped horticultural control and become invasive resulting in heavy expenditure. Notable examples include water hyacinth, salt cedar, and purple loosestrife.

In other cases, species have been translocated for reasons of "cultural nostalgia," which refers to instances in which humans who have migrated to new regions have intentionally brought with them familiar organisms. Famous examples include the introduction of starlings to North America by Englishman Eugene Schieffelin, a lover of the works of Shakespeare, who, it is rumoured, wanted to introduce all of the birds mentioned in Shakespeare's plays into the United States. He deliberately released eighty starlings into Central Park in New York City in 1890, and another forty in 1891.

65. Which of the following is similar to ideas expressed in the paragraph?

- A. The introduction of the wall lizard to North America by a Cincinnati boy, George Rau.
- B. Garlic Mustard and kudzu have been introduced as a means of erosion control.
- C. Three species of the rat have spread to most of the world as hitchhikers on ships
- D. A British landowner who had wild rabbits released on his estate in Victoria because he missed hunting them.
- E. Numerous organisms have been transported in ballast water, one being the zebra mussel.

66. Which of the following statements best summarises the idea expressed in the paragraph?
- A purposeful introduction of a natural enemy of the target species
  - The human intent to introduce species as a means of some benefit.
  - Accelerating opportunities for species to be accidentally transported into new areas.
  - Translocation of species in the interest of genetic conservation.
  - Introduction of new species and their effects on natural environments.
67. Which of the following cannot be inferred from the passage?
- Introductions result in unforeseen costs, particularly when introduced species take on characteristics of invasive species.
  - Introduced species impact on the health of animals and humans.
  - Reintroductions help species that have become locally endangered or extinct.
  - Unintentional introductions occur when species are transported by human vectors.
  - Both (B) and (D).
68. Which of the following sentences includes a pun?
- Online courses keep learners very occupied at all hours of the day.
  - People are left guessing why the climate has become so erratic.
  - Many advertisers are being provocative to reach consumers hit hard by the recession.
  - Credit-card companies are becoming interested in their customers' lives and psyches.
  - No matter how much you push the envelope, it'll still be stationery.
69. Which of the following sentences includes a hyperbole?
- Good looks with dash of smartness can help people score the job.
  - He was so helpless that we were forced to take pity on him.
  - I am so tired I could sleep for a year.
  - The sea was a calm and soothing influence.
  - I can feel the breeze on my face.
70. Abbreviate is to elongate as: bowdlerize is to:
- censor
  - castigate
  - discordant
  - approve
  - impetuous
71. Which of the following sentences draws a metaphor?
- Infectious disease experts consider fever an important sign of influenza.
  - New books are like new babies especially for the author.
  - A projection halves the sea levels that could rise if Antarctica's ice fully disintegrated.
  - Half of all engineers working in Silicon Valley were born overseas.
  - The committee has developed into a battleground for stem cell lobbyists.
72. Which of the following contains a non-sequitur?
- Shilpa lives in a huge building, so her residence must be outsized.
  - No one knows how old the Pyramids of Egypt are.
  - When boating, keep one life preserver for each person in the boat.
  - War atrocities and terrorism are often defended in the wrong way.
  - Ambulances are allowed to break speed laws when on duty.

73. Which sentence includes an example of personification?

- A. Sophisticated virtual reality simulators can provide anatomically realistic recreations of operations.
- B. The sun smiled down on the playground at the Kangaroos XI team even though the weather was not too good.
- C. Games developers predict the new technology that will be in place when the game is actually finished.
- D. Gayatri's politeness never hurt anyone and it was true for online conversations too, she never left a conversation abruptly.
- E. When the economy rebounds, companies that have downsized will be faced with robust challenges to scale back up on their hiring.

## SECTION C : ANALYTICAL REASONING & DECISION MAKING

**Question No. 74-78:** Each of the six persons Samar (male), Shweta (female), Ryan (male), Rohan (male), Preeti (female) and Raju (male) bought a different car. The cars bought by them were Spark, Swift, A-star, i10, i20 and Fabia. Except for one person who was 22 years old and one person who was 28 years old all other four persons were 25 years. Each of the six persons have a different weight and their weights (in kgs) were 56, 48, 62, 67, 72 and 75.

The person who bought 'Spark' was of the same age as Preeti. The person who bought 'A – star' was not 25 years old. Ryan bought 'i20'. Samar weighed less than Rohan. Raju as well as the female who bought 'Swift' were 25 years old. The female who bought 'i10' weighed more than 67 kgs. The person who weighs 72 kgs was 28 years old. The person who bought 'Fabia' was three years younger to the person who weighed 75 kgs. The youngest person weighed more than Shweta but less than exactly two males. Raju weighed more than Ryan.

74. Rohan weighed

- A. 67 kgs and had bought 'Spark'.
- B. 72 kgs and had bought 'Fabia'.
- C. 75 kgs and had bought 'Fabia'.
- D. 72 kgs and had bought 'A – star'.
- E. 75 kgs and had bought 'A – star'.

75. Which car was bought by Raju?

- A. Spark
- B. Fabia
- C. A – star
- D. Either (A) or (B)
- E. Cannot be determined

76. The person who weighs 62 kgs was

- A. Shweta and was 25 years old.
- B. Ryan and was 25 years old.
- C. Samar and was 22 years old.
- D. Raju and was 25 years old.
- E. Cannot be determined.

77. What was the weight (in kgs) of Shweta?

- A. 75
- B. 56
- C. 48
- D. 62
- E. Cannot be determined

78. Which of the following statements is possible?

- A. The person who bought 'Spark' was 22 years old and weighed 62 kgs.
- B. The person who bought 'Swift' was 25 years old and weighed 48 kgs.
- C. The person who bought 'i20' was 25 years old and weighed 75 kgs.
- D. The person who bought 'Fabia' was 22 years old and weighed 67 kgs.
- E. The person who bought 'A – star' was 25 years old and weighed 72 kgs.

**Question No. 79-82:** Four families namely the Sharma's, the Khanna's, the Sinha's and the Ahuja's are disguised differently as A, B, C and D not necessarily in that order. Each of the given families have exactly two children. Two out of the four families have a boy and a girl each, one family has two girls and the Ahuja's have two boys. Jatin (boy) belongs to family A. Family B and the Sharma's have at least one girl. Kamini (girl) does not belong to the Khanna's. Rahul (boy) belongs to family C. Preeti (girl) and Akash (boy) do not belong to the same family. Amit (boy) does not have a sister. Jyoti (girl) belongs to one of the given families. Sarika (girl) does not belong to the Sinha's and belongs to the same family as Kamini. The Sinha's are not disguised as B. Rahul does not belong to the Ahuja's.

79. To which of the following families does Preeti belong?

- A. Family B
- B. Khanna's
- C. Sharma's
- D. Family C
- E. None of the above

80. Jyoti's sibling and the family to which she belongs were:

- A. Rahul and the Sinha's
- B. Jatin and the Khanna's
- C. Akash and the Khanna's
- D. Preeti and the Sinha's
- E. Preeti and the Sharma's

81. Which of the following list of families are disguised as B, A, D and C in that order?

- A. the Ahuja's, the Khanna's, the Sinha's and the Sharma's
- B. the Sharma's, the Sinha's, the Khanna's and the Ahuja's
- C. the Sharma's, the Ahuja's, the Khanna's and the Sinha's
- D. the Khanna's, the Ahuja's, the Sinha's and the Sharma's
- E. the Khanna's, the Ahuja's, the Sharma's and the Sinha's.

82. The pair which has the two children belonging to the same family is

- A. Rahul and Amit
- B. Rahul and Preeti
- C. Preeti and Jatin
- D. Amit and Jyoti
- E. Jatin and Akash

**Question No. 83-85:** The number of pencils with Suresh, Somesh, Rajesh, Ramesh and Rakesh were 1, 2, 3, 4 and 5 not necessarily in the given order. The number of pencils with Rakesh were 1 less than that with Somesh. If the number of pencils with Suresh had been two more, then he would have had the same number of pencils as there were with Rajesh.

83. If the number of pencils with Ramesh were three less than that with Somesh, then the number of pencils with Rakesh were

- A. 3
- B. 4
- C. 2
- D. Either (A) or (B)
- E. Cannot be determined.

84. If the number of pencils with Rajesh were less than that with Rakesh, then which of the following statements is/are definitely false?

Statement I: The number of pencils with Rajesh were more than that with Ramesh.

Statement II: The number of pencils with Suresh were four less than that with Somesh.

Statement III: The number of pencils with Ramesh were one more than with Suresh.

- A. Only (I)
- B. Only (II)
- C. Only (III)
- D. (II) and (III)
- E. None

85. Which of the following cannot be true?

- A. The number of pencils with Rajesh were one more than that with Ramesh.
- B. The number of pencils with Rakesh were 1.
- C. The number of pencils with Ramesh were four more than that with Suresh.
- D. The number of pencils with Rakesh were 4.
- E. None of the above.

**Question No. 86-90:** Four persons named Aditya, Ashish, Kriti and Ritika visited a luxury shopping mall in South Delhi to buy denims. The mall had several designer outlets, which were either national or international.

Further, it is known that:

- 1. Each of these persons bought denims from 2 designer outlets, exactly one of which was national.
- 2. No two persons bought denims from the same designer outlet.
- 3. The number of denims bought by these four persons from any designer outlet were all different and prime.
- 4. The total number of denims bought by Ashish from a national designer outlet were less than that bought from an international designer outlet. This was true for the other three persons as well.

5. The total number of denims bought by Aditya, Ashish, Kriti and Ritika were 36, 25, 32 and 28 respectively.
86. For which of the following persons, the number of denims bought from a national designer outlet by him/her can be exactly determined?
- Aditya
  - Kriti
  - Ritika
  - Both Kriti and Ritika
  - None of the given above.
87. If the number of denims bought by Aditya from a national designer outlet were more than that bought by Kriti, then the number of denims bought by Aditya from a international designer outlet were
- 31
  - 29
  - 23
  - 19
  - Cannot be determined.
88. Which of the following cannot be false?
- The number of denims bought by Kriti from a national designer outlet were 13.
  - The number of denims bought by Ritika from a national designer outlet were more than that bought by Kriti.
  - The number of denims bought by Aditya from a national designer outlet were six less than that bought by Ritika.
  - The number of denims bought by Aditya from an international designer outlet were more than that bought by Kriti.
  - The number of denims bought by Ashish from an international designer outlet were less than that bought by Kriti.
89. If the number of denims bought by Kriti from an international designer outlet were 19, then the number of denims bought by Aditya from an international designer outlet were
- 5
  - 7
  - 13
  - 17
  - Cannot be determined.
90. Maximum possible difference between the total number of denims bought from all the national and all the international designer outlets by all these four persons could be
- 83
  - 69
  - 59
  - 55
  - None of the above.
- Question No. 91-94:** Ajay, Aman, Aakash, Arjun, Arun and Amit are six of the many employees in a company ABC Ltd. All of the mentioned persons were born in the year 1975 but in different months viz. January, March, April, October, November and December. Each of the mentioned persons were awarded with the title “Star of the Month” by the mentioned company in six different months viz. January, March, April, October, November and December of the year 2008. These 6 persons joined the mentioned company in the six different months viz. January, March, April, October, November and December of the year 2005.
- Further it is known that:
- None of the mentioned persons was born in the same month as the month in which he was awarded with the title “Star of the Month”.
  - None of the mentioned persons was born in the same month as the month in which he joined the company.
  - Aakash is the oldest among all and Arjun is older than exactly three of the mentioned persons.



4. Arun joined the company earlier but was awarded with the title “Star of the Month” later than Amit.
5. The month in which Ajay was born, the month in which Aman joined the company and the month in which Aman was awarded the title “Star of the Month” are same.
6. Aman was awarded with the title “Star of the Month” earlier than Arun and Arjun but later than Amit and Aakash.
7. Arun and Aman were born in consecutive months of the year and also joined the company in consecutive months of the year.

91. For how many of the mentioned persons, the month of their birth can be exactly determined?

- A. 6
- B. 5
- C. 4
- D. 3
- E. 2

92. If Aakash was awarded the title “Star of the Month” in April, then which of the following is definitely false?

- A. The month in which Amit was born and the month in which Ajay was awarded the mentioned title are the same.
- B. The month in which Aakash was born and the month in which Amit was awarded the mentioned title are not same.
- C. The month in which Arun was born and the month in which Ajay was awarded the mentioned title are not same.
- D. Both (A) and (B)
- E. Both (B) and (C)

93. Which of the following cannot be true?

- A. Arjun joined the company in January.
- B. Aakash joined the company in March.
- C. Ajay joined the company in January.
- D. Amit joined the company in March.
- E. None of the above.

94. If Ajay joined the company earlier than exactly three of these six persons, then which of the following is/are definitely false?

- A. Ajay was awarded the title “Star of the Month” in January.
- B. Aakash joined the company in March.
- C. Arjun joined the company in January.
- D. Both (A) and (B)
- E. Neither (A) nor (B) nor (C)

**Question No 95-97:** The caselets given below are followed by a set of question/s. Choose the most appropriate answer to each question.

In December 2008, Research in Motion Ltd. (RIM) sued Motorola Inc. (Motorola) for, what it called, illegally preventing it from hiring employees that Motorola had laid off. According to RIM, the two companies had entered into an agreement in February 2008 on not hiring each other’s employees or the newly separated ex-employees. When Motorola announced lay offs in large numbers, RIM, attempted to hire and gain some engineers at a lower cost. RIM considered that the agreement had expired in August 2008 and prayed to the Chicago court for damages.

RIM contended that despite the agreement having expired, Motorola had unlawfully extended the contract and prevented RIM from offering jobs to the fired Motorola employees.

RIM, well-known as the BlackBerry mobile phone maker, was established in Ontario, Canada, in 1984. With offices throughout North America, Europe, and the Asia Pacific, it is one of the leading wireless manufacturers, designing, manufacturing, and marketing its products worldwide.

Motorola is headquartered in Schaumburg, Illinois, USA, and has been in the communication inventions and innovations business for almost 80 years as of 2008.

Motorola's range of products and services include wireless handsets and accessories, digital equipment for entertainment purposes, voice and data communication systems, wireless access systems, and enterprise mobility solutions.

Motorola and RIM had always been adversaries in selling high end mobile phone handsets which contained features like e-mail and internet access, music players, or cameras. While RIM continued to expand, developing compact and slender handsets, Motorola had been facing hard times since the mid-2000s.

Its market position fell to number 3 behind Samsung at number 2 and Nokia at number 1 in 2008. In February 2008, RIM and Motorola entered into a mutual agreement wherein they agreed to exchange confidential information and to avoid poaching each other's employees. Experts felt that the agreement was mainly aimed at ensuring that employees did not move away to a competitor carrying with them vital information and trade secrets.

However, in September 2008, Motorola sued RIM on the grounds of poaching 40 of its employees in Florida since the beginning of the year and claimed US\$50,000 as compensation.

In December 2008, RIM sued Motorola for preventing it from hiring employees fired by Motorola. RIM claimed that the agreement that the two companies, inked in early 2008, had expired in August 2008 and requested the court to nullify the agreement. The company also claimed damages from Motorola for adopting what it called, unethical ways.

RIM mentioned in the lawsuit that while it continued to grow and hire new employees both in the US and worldwide, Motorola had publicly announced its intentions to lay off in large numbers.

By the end of 2008, Motorola had fired over 3,000 employees and these employees were reportedly having a tough time finding a new job because of the company's nondisclosure agreements with its competitors.

95. Which one of the following is the most plausible ground on which RIM's lawsuit could rest?

- A. Poaching employees is not illegal because employees are not 'owned' to begin with
- B. Poaching employees leads to a company getting well-trained and high-caliber people as opposed to hiring those with little or no experience of the industry
- C. Poaching does not necessarily lead to leakage of confidential information and trade secrets
- D. Since the non-compete agreement had expired and Motorola had already failed to protect the jobs of the 40 employees it was not ethical on its part to prevent them from seeking alternative employment with competitors
- E. While RIM had been performing steadily Motorola's position in the market had started deteriorating.

96. Motorola is considering the following options in order to resolve the present crisis.

- 1. Recall the 40 laid-off employees in order to reduce the controversy even though it may not make much sense from a business point of view
- 2. Withdraw the lawsuit against RIM and come to an understanding with RIM that reduces the quantum of damages that have to be paid
- 3. Take RIM to court on the grounds of poaching its ex-employees and fight a costly legal battle
- 4. Explain to RIM the grounds on which it feels that the ex-employees should not be poached and ink a fresh agreement with RIM

The options in ascending order of ease of implementation are as follows:

- A. 3142
- B. 1324
- C. 4213
- D. 3214
- E. 2413

97. Which of the following could be used as a strong reason by the lawyers of Motorola for it to prevent “laid off employees seeking immediate alternative employment with RIM”?

- A. Business losses of Motorola in the recent years.
- B. RIM’s intent to get trained labour.
- C. Protection of trade secrets.
- D. Fickle- mindedness of employees.
- E. RIM’s tendency to poach and not independently recruit.

**Question No 98-101:** Sushma Gupta worked as the Assistant Manager (AM) of Operations for Mega Shopping Arena (MSA). MSA, a popular store, sold everything from food, clothes, and shoes to stationery, furniture, household items, electronics, and toys. Sushma loved her job and had worked hard to get to the position of AM.

Her life revolved around her work, so much so that she had to be forced to take leave or a vacation. Her seniors were happy with her work, and Sushma was looking forward to the performance appraisals in March.

She was sure that she would be promoted. She had excelled at her work in the four years she had been at the store, and she felt that she definitely deserved to become Manager.

In March, as she had expected, Sushma was promoted and made Manager. Her job profile now was different - she was no longer required to do the day-to-day administrative tasks that she had been doing till then.

Neither was she required to deal with customers. Her new role involved managing the supply chain, and taking care of the advertising and marketing plans of the store.

In her new role, Sushma had a team of four AMs, who were each required to present a daily report to her at the end of each day. The AMs were required to

handle the administrative duties, including dealing with counter staff, as well as to handle customer complaints.

However, Sushma being the perfectionist that she was, insisted on taking all the decisions herself, even when they had to be made at the AM level. Because of this, the AMs did not have a sense of ownership. They shied away from taking decisions, leaving them to Sushma, besides asking for her guidance even on small issues.

So in actual fact, only her title had changed - her attitude and focus had not. She was still doing the same work that she had been doing before her promotion! All this additional work, however, left her with very little time to attend to her own responsibilities.

On one occasion, when Sushma heard a customer complaining about the quality of fruit and vegetables at the store, she immediately went to the woman to sort out the issue, forgetting that she had an appointment with a senior official from Techtron Electronics who wanted to discuss his company’s plans of running a promotional event in association with MSA.

It was a great opportunity for Sushma to get additional business. The marketing manager of Techtron, Vishal Anand, waited about 45 minutes for Sushma, but she was busy pacifying the woman who had come to complain. Anand ultimately grew tired of waiting and left; he then went to Stop & Shop, MSA’s prime competitor.

In the evening, Aravind Sinha, Director, MSA, came to know that Techtron had gone to their rivals. So he called up Anand to know why he had changed his mind and tied up with MSA’s rival.

Anand then told him, “Your store was our first choice, but it seems your Manager was too busy to see me. I thought I should go elsewhere where they would appreciate my time.” Sinha was taken aback.

On learning what had happened, Sushma was worried that she had disappointed Sinha. From being a star performer and everyone's favourite employee, Sushma had suddenly become the one person no one wanted to work with.

Her juniors thought she interfered too much, while her seniors thought that she was not focused enough. Sushma was confused. She liked to think of herself as indispensable, and thought she was working her way toward becoming exactly that for her organization.

98. What in your opinion was Sushma doing wrong?

- A. She was suffering from an exaggerated sense of ownership about her new job
- B. She was failing to delegate enough to her juniors because of a lack of trust in them
- C. She was mixing up her priorities and thereby failing to do justice to her new position
- D. She was not involving herself too much with day-to-day administrative work and interactions with customers
- E. She was becoming unpopular in the organization because of her poor people skills

99. What is the best course of action that Sushma can follow in order to rectify the situation?

- A. Request to be relieved of her present duties and revert back to her old job
- B. Appoint a capable person from among her AMs to delegate the administrative duties of the store so that she can focus on her role as a manager looking after supply chain and advertising & promotions
- C. Try to divide her time equally between her administrative duties and her new responsibilities
- D. Look for a new assignment which does not create a confusion with responsibilities
- E. None of the above

100. Sushma's boss Sinha is debating on how to deal with the problem about Sushma. Which of the following would be most relevant to his deciding whether to keep Sushma in the present job or not?

- A. Sushma's willingness and capability to perform her responsibilities in the current role.
- B. The number of years Sushma has served with the company
- C. The availability of a suitable replacement for Sushma in the position of Manager – Supply Chain & Promotions
- D. The capability of the AMs under Sushma to do full justice to the administrative duties she is currently overseeing.
- E. The effect on customer service in the store were Sushma to be relieved of her administrative duties.

101. Which of the following in your opinion was the prime reason for Sushma being ineffective in the new position?

- A. Sushma's attachment to her old position.
- B. Sushma being a perfectionist by nature.
- C. Sushma not having enough faith in her reportees.
- D. Sushma being overly ambitious.
- E. Sushma not thinking through on her new role.

**Question No. 102-104:**

**PART - A**

The manager of a firm is considering the possibility of entering a new market, where there is only one other firm operating. The manager's decision will be based on the profitability of the market, which in turn heavily depends on how the incumbent firm will react to the entry. The incumbent firm could be accommodating and let the entrant grab his share of the market or she could respond aggressively, meeting the entrant with a cut-throat price war. Another factor that affects the revenue stream is the investment level of the entering firm. The manager of the firm may invest to the latest technology and lower his operating costs (low cost

case) or he may go ahead with the existing technology and have higher operating costs (high cost case). The manager estimates that if his firm enters the market and the incumbent reacts aggressively, the total losses will be \$7 million in low cost case and \$10 million in high cost case. If the incumbent accommodates, however, the firm will enjoy a profit of \$6 million in low cost case and \$4 million in high cost case.

One possible approach for studying this problem is “decision analysis,” which requires us to assess the probabilities for the incumbent being aggressive and accommodating. Assume that in this case, the manager thinks there is an equal chance of facing an aggressive and an accommodating rival both in the low cost case and in the high cost case.

102. Does it make sense for the manager to enter the market at all?
- A. Yes , in the low cost case, because then the firm does not make a loss
  - B. Yes because if the incumbent accommodates then the manager makes a profit in either case
  - C. No because if the incumbent reacts aggressively then the manager makes a loss in either case
  - D. No because in overall expectation the company makes a loss
  - E. Cannot be determined

## PART - B

As an alternative approach, we can use game theory. The best outcome for the incumbent is when she is the only one in the market. In this case, she would make a profit of, \$15 million. If she chooses to be accommodating, her profits would be \$10million if the entrant enters with the existing technology, i.e., high cost case, and \$8 million if he enters with the latest technology, i.e., low cost case. If she chooses to be aggressive, her profits would be \$3 million and \$1 million, respectively.

103. In this scenario, given the expected payoffs mentioned earlier what would be the best strategy for the manager of the firm planning to enter the market?
- A. To enter the market investing in the low cost technology
  - B. To decide whether to enter the market depending on the incumbent's response.
  - C. To enter the market investing in the high cost technology
  - D. Not to enter the market because it is not clear what the incumbent would do
  - E. Cannot be determined
104. Which of the cases represents the optimum situation for both the entrant and incumbent firms ?
- A. The entrant does not enter the market.
  - B. Entrant enters with the high cost case and incumbent reacts aggressively.
  - C. Entrant enters with the high cost case and incumbent is accommodating.
  - D. Entrant enters with the low cost case and incumbent reacts aggressively
  - E. Entrant enters with the low cost case and incumbent is accommodating.

You have to write an essay (length - one side of the page) on the following topic:

**Essay Topic:** *If we choose, we can live in a world of comforting illusion.* Comment on the quote.

[illegible]