STATE BANK OF INDIA

PROBATIONARY OFFICERS (PRELIMINARY) – MODEL PAPER

No. of Questions: 100   **Maximum Marks: 100**   **Time: 1 hour**

ENGLISH LANGUAGE

Directions (Q.1 – 5): Rearrange the following sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

A)   In all varieties of humour, especially the subtle ones it is therefore what the reader thinks which gives extra meaning to these verses.

B)   But such a verse may also be enjoyed at the surface level.

C)   Nonsense verse is not of the most sophisticated forms of literature.

D)   This fulfils the author's main intention in such a verse which is to give pleasure.

E)   However the reader who understands the broad implications of the content and allusion finds greater pleasure.

F)   The reason being it requires the reader to supply a meaning beyond the surface meaning.

1.   Which of the following is the **FIFTH** sentence?

1) D   2) E   3) B   4) C

5) A

2.   Which of the following is the **SIXTH (LAST)** sentence?

1) F   2) E   3) D   4) A

5) C

3.   Which of the following is the **FIRST** sentence?

1) E   2) A   3) F   4) D

5) C

4.   Which of the following is the **SECOND** sentence ?

1) A   2) E   3) F   4) B

5) C

5.   Which of the following is the **THIRD** sentence?

1) A   2) B   3) F   4) C

5) D

Directions (Q. 6 – 15): Read the following passage carefully and answer the questions given below it. Certain words/ phrases have been printed in bold to help you locate them while answering some of the questions.

Indians are known for their obsessive and compulsive fascination for gold. India is the largest importer and largest consumer of the yellow metal as Indians buy about 25 percent of the world's gold. In 2008, India imported around 400 tons of it. About 80 percent of the world's extracted gold is fashioned as jewellery. However, most of us don't know or don't think about the environmental cost of the metal. For instance, extracting enough gold to forge a solitary, no-frills wedding band ultimately translates into roughly 20-30 tons

of waste. At some mines in Nevada (USA), 100 tons or more of earth have been excavated for single ounce of gold. The waste is of two forms: redundant rock, which is - typically piled as flat heaps in location near the mining site and the effluent or tailings which are a result of chemical processing of the mined ore. Sulphides in the redundant rock react with oxygen, making sulphuric acid which frees heavy metals like cyanide, cadmium, lead and mercury harmful to people even at minuscule concentrations. The tailings component is typically a thick slurry laced with cyanide, aluminium, copper, lead, and mercury, enough to **decimate** fish populations of water environments it is disposed of into. Disposal of wet tailings into water bodies has been effectively banned in developed countries but it continues to be practiced in most developing nations. There is also a very real danger of surface water and groundwater table contamination on account of these heavy metals. In fact, gold mining generates more waste per ounce than any other metal and the effects are startling. Mining for gold has left huge gorges on the face of the earth, so massive that they can be seen from space. According to a study, respiratory ailments, soil and water contamination, thick blankets of dust, withering of coconut trees and change in land pattern use are some of the common features of the urban area around a particular gold mine in Karnataka. Many area are reported to have become infertile because of soil contamination. They contain a percentage of heavy metals enough to retard plant growth. Similarly, according to another report in 2008. Nearly seven years after the closure of these mines, the people of this region continue to face serious environmental and health problems, particularly in July and August, due to winds in these months that carry with them cyanide particles from the dust piles in the abandoned mines. When the mines were operational, a layer of red soil used to be put over these dust piles before these crucial months to prevent the cyanide particles from being carried away by the heavy winds. Now that the mines have been closed, the mitigative measures have **ceased** as well. People from socially and economically marginalized communities turn to mining to escape acute poverty, unemployment, and landlessness. In some cases, their homes and farms may be 'acquired' for large-scale gold mining. While compensation is promised to them, it may take a year or two to kick in. Till then, forced to eke out a bare livelihood mostly in a kind of lottery system, they resort to crude methods to separate any flacks of gold that may be there in the discarded waste rock using mercury, in the process, destroy themselves slowly as well as their environment. The shanty towns which inevitably come up around the large-scale mining sites only serve to add to the problem. Given their illegal and therefore, unrecognized nature, they lack basic amenities like garbage disposal and water supply and sanitation, becoming another unsightly blot on the landscape. According to the World Gold Council, while estimates of numbers engaged in artisanal mining vary widely, they range between 13 and 20 million men, women and children from over 50 developing counties. Indeed, it is believed that, as much as a quarter of the world's gold is supplied by artisanal mines. Their efforts to earn themselves a daily wage have resulted in huge habitat loss and destruction. For example, huge patches of land, once home to lush trees in the island of Borneo in Indonesia, are being swiftly rendered treeless and lifeless pits of waste. Incidentally, the island is highly famed for its rich biodiversity. Combined with heavy pressures from the logging lobby and need for cheap power through hydroelectricity and relentless mining activity, it is hard to imagine if Borneo will manage to retain its crown. Why should these facts about gold mining bother us? After all, just import the metal; we do not mine it here to the extent other countries do. That's about to change. New Delhi has big plans to fuel growth in the mining sector and is looking to open investment in gold mining in the country - and in a big way. However, India's environmental track record, in mining has been anything but stellar. And this is something that requires close attention in light of the planned increased forays into gold raining. Even with the comparatively minuscule amounts of gold mining done so far, we have tripped up on environmental considerations. Geologically, India's terrain is very similar to those in other parts of the world where there have been huge gold finds. What we need to do is learn from the mistakes committed by certain developed countries in their own backyard. We have a whole series of examples of where things have gone wrong from other developing countries. We need to use these insights to our advantage, and quickly.

6. According to the author, how are gold mines detrimental to the environment as well as public health even after their closure?

1) The layer of red soil used to cover dust piles in these mines seeps into the ground water, thereby making it unfit for consumption.

2) The mines weaken landmass and increase the chances of occurrence of earth quakes, especially after there is no one looking after them.

3) The mitigative measures adopted after the closure of these mines are not supervised adequately hence are highly damaging.

4) The unsupervised mines now become a threat to the environment as inexperienced people carry out unchecked mining activities.

5) Winds in specific months carry harmful heavy metal particles from the dust heaps accumulated in these mines.

7. Which of the following is possibly the most appropriate title for the passage?

1) Gold Mining and India - The Inseparable Duo

2) Artisanal Mining and its Effects

3) Gold Mining Activities in Asia

4) Gold - The Most Expensive Metal in the World

5) Lure for Gold - The Stark Reality

8. Which of the following is/ are ill effects of gold mining as mentioned in the passage?

i) Waste generated while mining for gold is harmful even in small quantities.

ii) Ground water gets polluted due to the release of heavy metals generated from the mining of gold.

iii) Gold mining activities cause respiratory illnesses in people.

1) Only (i)   2) All (i), (ii) and (iii)

3) Only (ii) and (iii)   4) Only (ii)

5) Only (i) and (ii)

9. What is the author's intention behind writing this passage?

1) To discourage the Indian government from investing in gold mining

2) To bring forward the problems associated with gold mining for India's benefit

3) To discourage Indians from buying gold based on its repercussions

4) To advocate the import of gold instead of mining for it

5) To goad the Indian government into bringing the artisanal workers under the purview of the organized sector

10. Which of the following is true about the people who carry out gold mining activities?

i) Their employment is purely legal in nature.

ii) They employ unsophisticated methods of mining.

iii) They do not have essential amenities

1) Only (ii)   2) Only (i) and (ii)

3) Only (iii)   4) Only (ii) and (iii)

5) All (i), (ii), and (iii) are true

11. Which of the following is NOT TRUE about the island of Borneo in Indonesia, as given in the passage?

i) Large pieces of land are being destroyed because of mining.

ii) There is a large amount of mining activity being carried out on this island.

iii) It would be known for its rich biodiversity in the future.

1) Only (i) and (ii)　　　　　　　　　　2) Only (ii)

3) Only (iii)　　　　　　　　　　　　　4) Only (ii) and (iii)

5) All (i), (ii) and (iii) are true

12. Why, according to the author should India worry about gold mining and its effects?

1) As India is planning to increase its investment in gold mining and is looking to increase activities in this sector in the near future

2) As India has been extensively carrying out gold mining in the past and its environmental record is not encouraging

3) As a large number of people in India are employed in this unorganized sector which is detrimental to the country's economy

4) As India's terrain is geologically unstable and is similar to other lands in the world where gold mining is carried out

5) As India is committing the same mistakes committed by other developed nation when it comes to gold mining

13. Why, according to the author, is the environmental cost of gold very high?

1) As gold is the only metal which generates harmful waste on its excavation

2) As excavation of gold releases the highest amount of pollutants into the air as compared to any other metal

3) As gold excavation is a very tedious process and requires usage of a number of environmentally destructive resources

4) As the amount of gold recovered in proportion to the land excavated is negligible

5) As the transformation of raw gold into a piece of jewellery is very expensive and is environmentally harmful

14. Choose the word/ group of words which is most similar in meaning to the word/ group of words printed in bold as used in the passage.

Decimate

1) destroy　　　　2) divide　　　　3) augment　　　　4) vacate

5) equalize

15. Choose the word/group of words which is most opposite in meaning to the word/ group of words printed in bold as used in the passage.

Ceased

1) released　　　　2) embarked　　　　3) started　　　　4) ended se

5) measured

Directions (Q. 16 – 20): In the following passage there are blanks each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

People are as much attuned to fairness as they are to individual self-interest. Therefore, any institution regulating human behaviour will have to **..(16)..** that the compromise between individual self-interest, collective interest and fairness are all within tolerable limits. These trade-offs are as important for larger institutions, including the largest of them all, i.e., the state, as they are for the smallest ones like the family **..(17)..** as parents should not repeatedly favour one child over another, the state cannot repeatedly favour one community or class over another. The **..(18)..** of fairness is ingrained in our psyches. Since human beings often grab what they can, we need institutions to ensure fair outcomes. Of these institutions, the state is the most important, since it is designed to ensure that basic human needs are ensured with minimal standards of fairness. A state **..(19)..** of or uninterested in ensuring equity in security, education, food, health and shelter is a state whose legitimacy will be questioned. Further, the legitimacy of the state is dependent on its being as close to a neutral umpire as possible. When the state **..(20)..** partisan, its legitimacy can be questioned, when the state sheds the umpire's clothes and becomes one of the players, the rules of fair play are so badly broken that we can only call such an event intolerable injustice.

16.   1) demand   2) ensure   3) consider   4) regulate
      5) encompass

17.   1) presently   2) same   3) so   4) like
      5) just

18.   1) opinion   2) judgement   3) end   4) drama
      5) conclusion

19.   1) qualified   2) riddled   3) powerful   4) incapable
      5) shortening

20.   1) appears   2) allow   3) become   4) recommends
      5) visualizes

Directions (21 – 25): Read each sentence to find out whether there is any grammatical error or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (5). (Ignore errors of punctuation, if any).

21. Technology is changing (1)/ every facets of work (2)/ including how companies (3)/ select their employees. (4)/ No error (5).

22. Over a period of time we learn (1)/ to identify whether (2) / our colleagues are truly interesting in a project (3)/ or are just giving it up service. (4)/ No error (5).

23. Public internet access usually (1)/ comes at a steep price as (2)/ a person may have to (3)/ use a week's salary to spend just an hour emailing his family overseas. (4)/ No error (5).

24. Most leaders now (1)/ recognize that the best (2)/ teams leveraging diversity (3)/ to achieve long term success. (4)/ No error (5).

25. It is no secret that (1) / family businesses can (2)/ struggle with governance, (3)/ leadership transitions and even survival. (4)/ No error (5).

Directions (Q. 26 – 30): In each of the following sentences there are two blank spaces. Below each sentence there are five pairs of words denoted by numbers (1), (2), (3), (4) and (5). Find out which pair of words can be filled up in the blanks in the sentence in the same sequence to make the sentence grammatically correct and meaningfully complete.

26. The actress's ....from a chilled-out girl off screen to an intense actor on screen in just, a few minutes is .... amazing.

    1) change, improperly   2) revolution, just

    3) transformation, simply   4) adjustment, really

    5) renovation, truthfully

27. Considering the .... of the city to chemical and industrial disasters, the State disaster management authority has decided to constitute an expert study group to analyze all possible threats and suggest .... to make the city 'disaster-resilient'.

1) vulnerability, measures   2) propensity, sketches

3) volatility, plans   4) regularity, preparations

5) instability, maps

28. Despite the collapse of efforts to legislate a climate bill, the country has .... international negotiators, it remains .... to reducing carbon emissions over the next ten years.

1) entrusted, obligated   2) promised, averse

3) declared, ignorant   4) assured, committed

5) pledged, attentive

29. .... by other singers and musicians, the singer sang his heart out and even .... the young newcomers during their act.

1) helped, smiled   2) accompanied, cheered

3) created, judged   4) stopped, applauded

5) assisted, greeted

30. The health officials were told to .... the medical practitioners about the treatment and immediate medical .... to be given to swine flue patients.

1) inform, assistance   2) enlist, backing

3) dissuade, aid   4) apprise, emergency

5) encourage, help

QUANTITATIVE APTITUDE

Directions (Q.31 – 35): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

1) if $x > y$ 2) if $x \geq y$ 3) if $x < y$ 4) if $x \leq y$

5) if $x = y$ or no relation can be established between x and y.

31. I. $x^2 - 8\sqrt{3}\, x + 45 = 0$

     II. $y^2 - \sqrt{2}\, y - 24 = 0$

32. I. $x - 7\sqrt{2}\, x + 24 = 0$

     II. $y - 5\sqrt{2}\, y + 12 = 0$

33. I. $12x^2 - 17x + 6 = 0$

     II. $20y^2 - 31y + 12 = 0$

34. I. $3x^2 - 8x + 4 = 0$

     II. $4y^2 - 15y + 9 = 0$

**35.** I. $x^2 - 16x + 63 = 0$

     II. $y^2 - 2y - 35 = 0$

Direction (Q.36 – 40): What should come in place of question mark (?) in the following number series ?

36. 45030   9000   1795   355   68   ?   1.32

1) 11.6   2) 12.2   3) 10.4   4) 9.8

5) None of these

37. 5   12   36   123   ?   2555   15342

1) 508   2) 381   3) 504   4) 635

5) None of these

38. 8   11   17   ?   65   165.5   498.5

1) 27.5   2) 32   3) 28   4) 30.5

5) None of these

39. 50   60   75   97.5   ?   184.275   267.19875

1) 120.50   2) 130.50   3) 131.625   4) 124.25

5) None of these

40. 12   15   36   ?   480   2415   14508

1) 115   2) 109   3) 117   4) 121

5) None of these

Directions (Q.41 – 45): Study the following graphs carefully and answer the questions given below.

Number of candidates appeared (In thousands) and Percentage of candidates qualified in a Competitive examination over the years
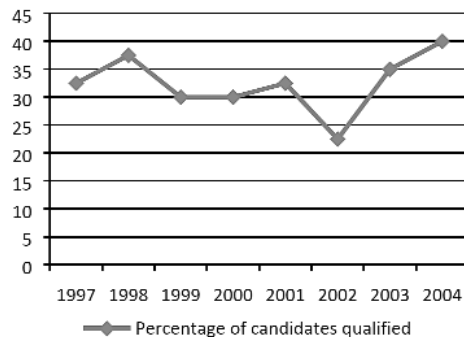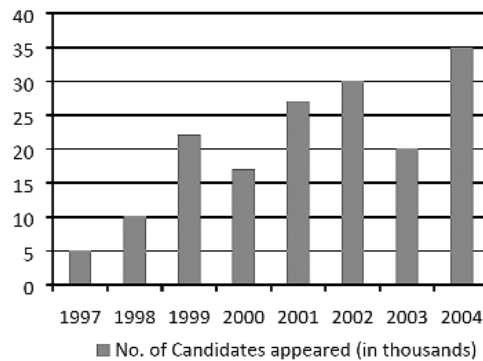

41. What was the ratio between the number of candidates appeared in 1997 and the number of candidates qualified in 2004?

1) 14 : 5   2) 5 : 14   3) 3 : 7   4) Data inadequate

5) None of these

42. In which of the following years was the number of candidates qualified the lowest among the given years?

1) 1997   2) 2002   3) 2001   4) 1998

5) None of these

43. What was the percentage drop in the number of candidates appeared from the year 2002 to 2003?

1) $66\frac{2}{3}$ 2) 30   3) 70   4) 33

5) None of these

44. How many candidates qualified in the year 2002?

1) 6750   2) 13500

3) 9900   4) Cannot be determined

5) None of these

45. The number of candidates qualified in 1999 was what percentage of the number of candidates appeared in 1998?

1) 68.5   2) 70   3) 32.5   4) 67.5

5) None of these

Directions (Q.46 – 50): Study the graph carefully to answer the questions that follow:

Percentage rise in Production of two different organizations over the years
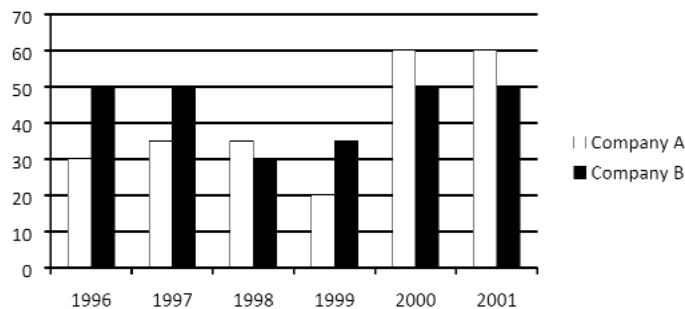
46. If the production of Company A in 1996 was 1.66 lakh units, what was the number of units produced by it in 1998?

1) 265145   2) 302535   3) 224100   4) 314323

5) None of these

47. What is the percent increase in percent rise of production of Company B in the year 2000 from the previous year? (rounded off to two digits after decimal)

1) 42.86   2) 15.37   3) 36.62   4) 32.48

5) None of these

48. If Company B produced 6,58,125 units in the year 2000, how many units did it produce in the year 1998?

1) 4,10,500   2) 2,98,000   3) 3,25,000   4) 4,05,500

5) None of these

49. What is the increase in percent rise in production of Company A in the year 2000 from the previous year?

1) 30   2) 60   3) 20   4) 200

5) None

50. Based on the above graph which of the following statements is definitely true?

1) Company A produced the maximum number of units in the year 2000.

2) For Company B there was no increase in production in the year 2001 from the previous year.

3) Company A has produced more units than Company B in the year 2000.

4) Average percent rise in production of Company B is more than the average percent rise in production of Company A.

5) None of these

Directions (Q.51 – 55): The following questions are accompanied by three statements (A) or (I), (B) or (II), and (C) or (III). You have to determine which statement(s) is/ are sufficient/ necessary to answer the questions.

51. The cost of carpeting a rectangular hall will be how much?

I. Perimeter of a rectangle is 60 m.

II. Angle between width and hypotenuse is 30°.

III. The cost of carpeting the surface floor is Rs.125 per square metre.

1) Only I and II

2) Only II and III

3) Only I and III or only II and III

4) Question cannot be answered even with information in all three

5) All the three statements I, II and III together are necessary for answering the question

52. 8 men and 6 women can complete a piece of work in 21 days. How many days will it take for 12 men and 9 women to complete the same work?

A) 6 men can complete the work in 42 days.

B) 7 women can complete the work in 63 days.

C) The amount of work done by a woman is 4/7 th of the work done by a man in one day.

1) Any two of them   2) Any of them

3) Only C   4) Either A or B only

5) No need of any information

53. If a and b are integers, is a + b an odd number?

A) 7 < a < 10   B) 8 < b < 11   C) a ≤ b

1) A and B together are sufficient

2) B and C together are sufficient

3) C and A together are sufficient

4) A, B and C together are necessary

5) A, B and C even together are not sufficient

54. How many marks did Jitendra obtain in Chemistry?

A) The average marks obtained by Jitendra in Physics, Maths and Chemistry is 71.

B) The total marks obtained by Jitendra in Chemistry and Physics is 142.

C) The total marks obtained by Jitendra in Physics and Maths is 162.

1) A & B Only   2) A & C Only

3) A & B or C Only   4) B & C Only

5) All A, B & C together are needed

55. A shopkeeper sold a watch and got Rs.225 as profit. Find the profit percentage.

A) Selling price of the watch is Rs.650.

B) He gave 20% discount on the labelled price, which is Rs.812.50.

C) Cost price of the watch is Rs.425.

1) Only either B or C is sufficient

2) Only either A or C is sufficient

3) Only A and C together are sufficient

4) Any one of A, B and C is sufficient

5) Any two of A, B and C are sufficient

56. The ratio of the present ages of Ram and Shyam is 6 : 7. If the ratio of the age of Ram 6 years ago to the age of Shyam 3 years hence is 2 : 3, what will be the ratio of the age of Ram 3 years hence to that of Shyam 10 years hence?

1) 4 : 3   2) 3 : 4   3) 5 : 3   4) 4 : 5

5) None of these

57. The production of a company experiences ups and downs every year. The production increases for two consecutive years consistently by 10% and in the third year it decreases by 5%. Again, in next two years, it increases by 10% each year, and decreases by 5% in the third year. If we start counting from the year 2008 what will be the effect on the production of the company in the year 2012?

1) 35% decrease   2) 42% increase   3) 26% increase   4) 31% decrease

5) 45% increase

58. A starts a business with Rs.5,000. B joins him after 3 months with Rs.10,000. C puts a sum of Rs.15,000 for 2 months only. At the end of the year a profit of Rs.3,600 was earned. Find the share of B.

1) Rs.1,900   2) Rs.1,600   3) Rs.1,800   4) Rs.2,000

5) None

59. In an examination, the percentage of students qualified with respect to the number of students appeared from School A is 80%. The number of students appeared from School B is 20% more than the number of students appeared from School A, and the number of students qualified from School B is 40% more than the number of students qualified from School A. What percentage of students qualified among those who appeared from School B?

1) $91\frac{2}{3}$ %   2) $90\frac{4}{5}$ %   3) $92\frac{1}{3}$ %   4) $93\frac{1}{3}$ %

5) None of these

60. Milk and water are mixed in a vessel A in the proportion of 5 : 2, and in vessel B in the proportion of 8 : 5. In what proportion should the quantities be taken out of these two vessels to form a new mixture by mixing the remaining quantities in the vessels, so that the proportion of milk to water becomes 9 : 4?

1) 3 : 2   2) 7 : 2   3) 7 : 5   4) 2 : 7

5) None of these

Directions (Q.61 – 62): The following questions are accompanied by three statements I, II and III. You have to determine which of the statements is/ are necessary/ sufficient to answer the questions.

61. What is the length of the diagonal of a rectangle?

I. The area of the rectangle is 121.68 cm2

II. The difference between the length and breadth is 7.5 cm.

III. The length is 103.4% more than the breadth.

1) All I, II and III   2) I and either II or III

3) Any two of three   4) Only I and II

5) Only II and III

62. What is the total surface area of a cone?

I. The area of the base of the cone is 452.57 cm^2

II. The curved surface area of the cone is 565.77 cm^2

III. The volume of the cone is 1357.71 cm^3

1) Any two of three

2) III and either I or II

3) II and either I or III

4) I and either II or III

5) None of these

Directions (Q. 63 – 65): What will come in place of question mark (?) in the following questions?

63. $(13\sqrt{6} + 17\sqrt{6}) \times (12\sqrt{6} - 9\sqrt{6}) - (11)^2 + (4)^2 = ?$

1) 565   2) 345   3) 435   4) 635

5) 490

64. $\sqrt{30276} \times \sqrt{625} - (97)^2 + \sqrt{9604} + 4410 = (?) - (49)^2$

1) 1670   2) 1570   3) 2270   4) 1850

5) 1970

65. $37\frac{18}{23} + 174\frac{19}{23} - 87\frac{15}{23} = ?$

1) $104\frac{22}{23}$ 2) $142\frac{20}{23}$ 3) $109\frac{18}{23}$ 4) $124\frac{13}{23}$

5) $124\frac{22}{23}$

REASONING ABILITY

Directions (Q.66 – 70): In each 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. Give answer

    1) if only conclusion I follows.

    2) if only conclusion II follows.

    3) if either conclusion I or II follows.

    4) if neither conclusion I nor II follows.

    5) if both conclusion I and II follow.

    Statements: All seconds are hours.

                  No minute is a needle.

                  Some hours are needles.

66. **Conclusions:** I. All needles being seconds is a possibility.

                    II. Some seconds are hours.

67. **Conclusions:** I. No hour is a minute.

                    II. Some minutes are hours.

68. **Statements:** No sweet is a drink.

                  Some liquids are solids.

                  All drinks are liquids.

    Conclusions: I. All drinks are solids.

                    II. Some liquids are definitely not sweets.

69. **Statements:** No sweet is a drink.

                  Some liquids are solids.

                  All drinks are liquids.

    Conclusions: I. All sweets being liquids is a possibility.

                    II. All liquids being sweets is a possibility.

70. **Statements:** Some stones are woods.

                  Some woods are not leaves.

                  All branches are stones.

    Conclusions: I. Some stones are not leaves.

                    II. All branches are woods.

Directions (Q.71 – 75): In these questions symbols @, $, #, &, % are used with different meanings as follows.

    P @ Q means P is neither smaller than nor equal to Q.

    P # Q means P is neither greater than nor equal to Q.

    P $ Q means P is neither greater nor smaller than Q.

P % Q means P is not greater than Q.

P & Q means P is not smaller than Q.

In each of the following questions assuming the given statements to be true, find out which of the two conclusions I and II given below them is/ are definitely true. Give answer

1) if only conclusion I is true.

2) if only conclusion II is true.

3) if either conclusion I or II is true.

4) if neither conclusion I nor II is true.

5) if both conclusions I and II is true

71. **Statements:** A @ B, B $ C, C # D

Conclusions: I. A # D   II. B @ D

72. **Statements:** P & Q, Q % R, R $ S

Conclusions: I. Q $ S   II. P # S

73. **Statements:** P & Q, Q @ R, R % S

Conclusions: I. Q % S   II. P % S

74. **Statements:** A @ B, B # C, C % D

Conclusions: I. B # D   II. D @ A

75. **Statements:** A @ B, B % C, C @ D

Conclusions: I. D $ B   II. B @ D

Directions (Q.76 – 80): Study the following information carefully and answer the questions given below:

Eight chemicals A, B, C, D, E, F, G and H, contained in eight different bottles, are placed around a circular table in such a manner that the tap fixed to each bottle is directed outward from the centre of the table. Each chemical is of a different colour, viz Blue, Yellow, Orange, White, Green, Violet, Brown and Black, but not necessarily in the same order.

★   Chemical B is placed third to the right of Chemical D.

★   The Yellow chemical is placed on the immediate left of Chemical B.

★   The colour of Chemical B is not White.

★   Chemical F is placed fourth to the left of Chemical A.

★   Neither Chemical F nor Chemical A is an immediate neighbour of Chemical B.

★   The colour of Chemical C is Violet and is placed third to the left of the Yellow chemical.

★   The Green chemical is placed second to the right of the Violet chemical.

★   The Brown chemical is placed second to the right of Chemical B.

★   H is the Orange chemical and is placed exactly between Chemical C and Chemical A.

★   The Blue chemical is placed second to the left of the Orange chemical

★   Chemical G is placed third to the right of Chemical C.

76. Which of the following chemicals is of White colour?

1) D   2) E   3) G   4) F

5) None

77. What is H's position with respect to F?

1) Third to the left   2) Second to the left

3) Third to the right   4) Second to the right

5) Fourth to the left

78. How many chemical bottles are placed between Chemical A and G (counted from G clockwise)?

1) One   2) Two   3) Three   4) Four

5) None of these

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

1) Violet - Brown   2) Black - Green

3) Orange - White   4) Yellow - Blue

5) Green - Yellow

80. What is the colour of Chemical B?

1) Blue   2) Black   3) Yellow   4) Can't say

5) None of these

Directions (Q.81 – 85): Read the following information carefully and answer the questions that follow.

Twelve friends are sitting in two squares. One square is inside another. P, Q, R, S, T and V are in the outer square facing inward. A, B, C, D, E and F are sitting in the inner square facing outward. They all are sitting in such a way that in each square four persons are sitting in the middle of the sides and two persons are sitting on diagonally opposite corners. Each friend in the inner square is facing another friend of the outer square. There are exactly two persons sitting between P and T. E sits second to the left of A. R is on the immediate left of the one who is facing A. Neither E nor A faces either T or P. S is facing F and Q is not opposite of R in the outer square. T is not sitting adjacent to S. B is not facing P. Between B and D there are as many persons as between R and V.

81. Who is sitting opposite B?

1) V   2) Q   3) T   4) Data inadequate

5) None of these

82. V is facing which of the following persons?

1) E   2) D   3) A   4) Data inadequate

5) None of these

83. Who is sitting on the immediate left of R?

1) A   2) S   3) P   4) Data inadequate

5) None of these

84. Four of the five are alike in a certain manner. Select the one which is not similar to the other four.

1) R, E   2) A, S   3) D, T   4) F, Q

5) C, E

85. Who is sitting second to the left of D?

1) A   2) E   3) F   4) Data inadequate

5) None of these

Direction (Q. 86 – 90): Study the given information and answer the following questions:

When a word and number arrangement machine is given an input line of words and numbers, it arranges them following a particular rule. The following is an illustration of input and its rearrangement. (All the numbers are two-digit numbers.)

Input: hearing 18 integrity 50 xenon 89 glow 33 century 81 23 goal.

Step I: glow hearing 18 integrity 50 xenon 33 century 81 23 goal 89

Step II: glow goal hearing 18 integrity 50 xenon 33 century 23 81 89

Step III: glow goal xenon hearing 18 integrity 33 century 23 50 81 89

Step IV: glow goal xenon century hearing 18 integrity 23 33 50 81 89

Step V: glow goal xenon century hearing 18 integrity 23 33 50 81 89

Step VI: glow goal xenon century hearing integrity 18 23 33 50 81 89

Step VI is the last step of the above arrangement as the intended arrangement is obtained. As per the rules followed in the above steps, find out the appropriate steps for the given input.

Input: 19 numerology 48 global 88 xylem 25 telling 79 59 fabricate torcher

86. Which step number would be the following output?

xylem global telling torcher 19 numerology 25 fabricate 48 59 79 88

1) Step III   2) Step IV

3) Step V   4) There will be no such step

5) None of these

87. Which of the following would be the last step of the rearrangement?

1) IV   2) V   3) VI   4) VII

5) None of these

88. If in the last step all the words get rearranged in alphabetical order, which of the following words would retain its original position?

1) fabricate   2) xylem   3) telling   4) global

5) None of these

89. Which of the following would be at the 7th position from the left in Step III?

1) 25   2) fabricate   3) 48   4) telling

5) None of these

90. In Step IV, if 'xylem' is related to '88' and 'global' is related to '79' then '19' is related to which of the following, if the same pattern is followed?

1) 48   2) 59   3) fabricate   4) 25

5) None of these

Directions (Q.91 – 94): Read the following information carefully and answer the questions that follow:

"The financial results of IT companies in the quarter ending December were 'far ahead' of estimates and very promising," Som Mittal, President of Nasscom said. "These results," he said, "reflected the 'strong fundamentals' of Indian IT companies."

These questions are based on the information given above and the sentences labeled as (A), (B), (C), (D) and (E) given below.

A) Nasscom is an organization which keeps an eye on the performance of IT companies.

B) IT companies form the crux of the Indian economy.

C) The financial results of the previous three quarters were admirable.

D) A strong financial position forms the backdrop of the overall health of the organisation.

E) The financial results of this quarter are dismal as compared to those of the last year.

91. Which of the statements, if true, would strengthen the statement of the speaker?

1) Only A   2) Only C   3) Only E   4) Both D and E

5) Both A and D

92. Which of the following can be a conclusion from the above passage?

1) Only A   2) Only E   3) Only B   4) Only C

5) Both B and E

93. Which of the following can be an assumption in the above passage?

1) Only B   2) Only E   3) Only D   4) Both B and C

5) Both A and E

94. Which of the statements, if true, would weaken the argument of the speaker?

1) Only C   2) Only E   3) Both E and C   4) Only D

5) None of these

95. In a certain code language KINDLE is written as OJLFME. How is CENTRE written in that code language?

1) DEOUSF   2) OFDFSU   3) FDOUFS   4) DFOFSU

5) None of these

Directions (Q.96 – 100): Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

Mark answer (1) if the inference is 'definitely true', i.e. it properly follows from the statement of facts given.

Mark answer (2) if the inference is 'probably true' though not 'definitely true' in the light of the facts given.

Mark answer (3) if the 'data are inadequate', i.e. from the facts given you cannot say whether the inference is likely to be true or false.

Mark answer (4) if the inference is 'probably false', though not 'definitely false' in the light of the facts given.

Mark answer (5) if the inference is 'definitely false', i.e. it cannot possibly be drawn from the facts given or it contradicts the given facts.

There has been considerable. debate in India regarding the privatisation of higher education. In this debate, there is generally an implicit assumption that privatisation is, essentially the same as corporatisation i.e. private investment comes due to the potential of returns. In the higher education field, privatisation and corporatisation are actually quite different. Privatisation, is regarding who controls the educational institute and the role of government in the management and funding of the institute, while corporatisation is about making profits. In India, there is no doubt that private not-for-profit universities need to be encouraged to increase education opportunities and the fact that there is no other alternative as the government simply cannot create enough public universities to satisfy the demand. However, guidelines for private not for profit universities should be made clear, simple and transparent to ensure that they are truly not for profit and offer a level playing field to all those who might want to see up a private university.

96. Privatisation of higher education has yet to take proper shape in India.

97. Expansion of higher education opportunities in India is needed to meet the increasing demand.

98. Corporatisation of higher education has benefited the students in the developed countries.

99. Privatisation of higher education will lead to commercialisation of education in India

100. India does not have any extra guidelines for setting up higher educational institutions private entities.

KEY

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

EXPLANATIONS

6. Refer to the first sentence of the fifth paragraph.

7. Lure for Gold - The stark Reality

8. Refer to third and fourth paragraph.

9. To bring forward the problems associated with gold mining for India's benefit.

10. Refer to sixth paragraph.

11. Refer to seventh paragraph.

12. Refer to second last paragraph.

13. Refer to last two lines of first paragraph.

14. **Decimate** means kill, destroy, or remove a large proportion of. So, destroy is the word which is most similar in meaning to it.

15. Ceased means come or bring to an end. So, started is the word which is most opposite in meaning to it.

21. Every is followed by a Singular Noun/Pronoun. Hence, every facet of work .... should be used here.

22. Here, our colleagues are truly interested in a project .... should be used.

Look at the sentences:

I am very interested in history.

Can't we do something more interesting?

24. Here, Present Imperfect i.e. teams are leveraging diversity ... should be used.

25. It is preposition related error. Hence, leadership transitions and even for survival .... should be used.

26. Transformation means a marked change in form, nature, or appearance.

27. Vulnerability means Susceptible to physical harm or damage and measures means assess the importance, effect, or value of (something).

28. Assured means protected against discontinuance or change and committed means pledged or bound to a certain course.

29. Accompanied means go somewhere with (someone) as a companion and cheered means give comfort or support to.

30. Inform means give (someone) facts or information and assistance means the action of helping someone by sharing work.

31. $x = 5\sqrt{3}$, $3\sqrt{3}$, $y = 4\sqrt{2}$, $-3\sqrt{2}$ Therefore No relation.

32. $x = 4\sqrt{2}$, $3\sqrt{2}$, $y = 3\sqrt{2}$, $2\sqrt{2}$ Therefore $x > y$.

33. $x = \dfrac{2}{3}, \dfrac{3}{4}$; $y = \dfrac{4}{5}, \dfrac{3}{4}$ $\therefore x \leq y$

34. $x = 2, \dfrac{2}{3}$; $y = 3, \dfrac{3}{4}$ $\therefore x < y$

35. $x = 9, 7$, $y = 7, -5$ $\therefore x \geq y$

36. The series is: $(-30) \div 5$, $(-25) \div 5$, $(-20) \div 5$, $(-15) \div 5$, $(-10) \div 5$

37. Series is:

(Number + 7) × 1

(Number + 6) × 2

(Number + 5) × 3

(Number + 4) × 4 ....

38. Series is $\left(\times \dfrac{1}{2}\right) + 7$, $(\times 1) + 6$, $\left(\times \dfrac{3}{2}\right) + 5$, $(\times 2) + 4$, $\left(\times \dfrac{5}{2}\right) + 3$,..

39. Series is ×1.2, ×1.25, ×1.30, ×1.35, ×1.40 ..

40. Series is ×1 + 3, ×2 + 6, ×3 + 9, ...

41. $\dfrac{5000}{40\% \text{ of } 35000} = \dfrac{5}{14}$

42. Number of candidates qualified is lower in 1997 = $\dfrac{32.5 \times 5000}{100} = 1625$

43. Percentage drop $= \dfrac{30000 - 20000}{30000} \times 100$

$= \dfrac{10}{30} \times 100 = 33\dfrac{1}{3}\%$

44. 22.5% of 30000 = 6750

45. Number of candidates qualified in 1999 = $22500 \times \dfrac{30}{100} = 6750$

$\therefore$ Required percentage $= \dfrac{6750}{1000} \times 100 = 67.5$

46. $166000 \times \dfrac{135}{100} \times \dfrac{135}{100} = 302535$

47. $\dfrac{15}{35} \times 100 = 42.86$

48. $\dfrac{658125 \times 100 \times 100}{135 \times 150} = 325000$

49. $\dfrac{40}{20} \times 100 = 200\%$

50. Average percent rise in production of Company B is more than the average percent rise in production of Company A.

51. I) 2 $(l + b) = 60$

$l + b = 30$ ...... (1)
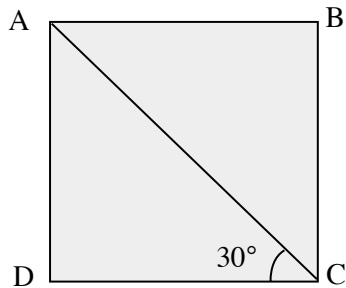
II) In DABC tan 30° = $\dfrac{b}{l}$

$\therefore l : b = \overline{\sqrt{3} : 1}$ .... (2)

Combining 1 and 2, we get the value of $l \approx 19$ and $b \approx 19$

Therefore Area of rectangle = 19 × 11 = 209 m²

III) Cost = Rs.125 per sq. m.

52. If 8 men and 6 women can complete the work in 21 days, then 1.5 (8 m + 6 w)

= 12 m + 9 w can complete the work in

$\dfrac{21 \times 2}{3}$ = 14 days.

Hence no further information is required.

54. A → $\dfrac{P + M + C}{3} = 71$ ....(1)

B → C + P = 142 ......(2)

C → P + M = 162 ......(3)

From (1) and (2), C = 71 × 3 − 162 = 51

Therefore, for answering the question only statements A and C are required.

55. Selling Price = (100 − 20)

= 80% of Rs.812.50 = Rs.650

Profit percentage = $\dfrac{\text{Profit}}{\text{CP(= SP − Profit)}} \times 100$

As the profit is already given, if either CP or SP is known, profit percentage can be obtained. So, answer is 4.

56. 6x, 7x

$\dfrac{6x - 6}{7x + 3} = \dfrac{2}{3}$

Required Ratio $= \dfrac{36 + 3}{42 + 10} = \dfrac{39}{52} = 3 : 4$

57. Let population in 2008 = 100

Population in 2012

$= 100 \times \dfrac{110}{100} \times \dfrac{110}{100} \times \dfrac{95}{100} \times \dfrac{110}{100}$

$= 126.445$

Therefore increased by 26% approx.

58. $5 \times 12 + 9 \times 10 : 15 \times 2$

A : B : C = 2 : 3 : 1

$B = \dfrac{3}{6} \times 3600 = 1800$

59. Let A = 100 (Appeared),

A = 80 qualified

B = 120 (Appeared),

B = 80 + 40% of 80 = 112

Therefore required % $= \dfrac{112}{120} \times 100 = 93\dfrac{1}{3}\%$

60. By Allegation Method

In vessle $A = \dfrac{5}{7}$ (milk), $B = \dfrac{8}{13}$ (milk)

$$\dfrac{5}{7} \qquad\qquad \dfrac{8}{13}$$
$$\dfrac{9}{13}$$
$$\dfrac{1}{13} \qquad\qquad \dfrac{2}{91}$$

Required Ratio $= \dfrac{1}{13} : \dfrac{2}{91} = 7 : 2$

61. By using any two of the given statements we can find out the length and breadth of the rectangle. And after finding length and breadth, we can find the length of diagonal by using Pythagoras theorem.

62. From statement I we can find out the radius of the base, using r2

By using statement I and II we can find out the total surface area = r2 + r*l* (both given). By using I and III we can find out the height of the cone and then we can find out l.
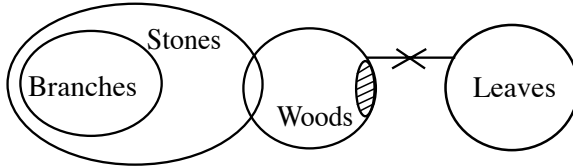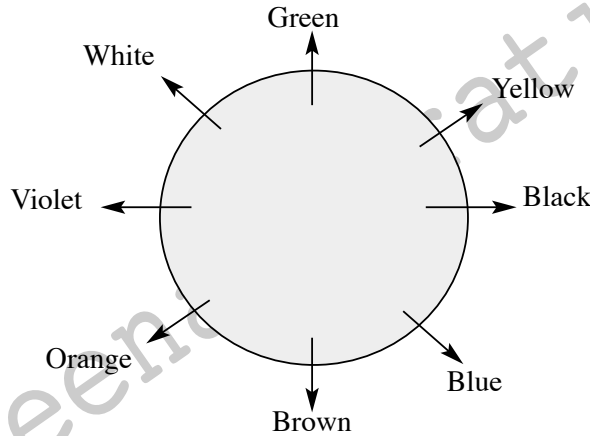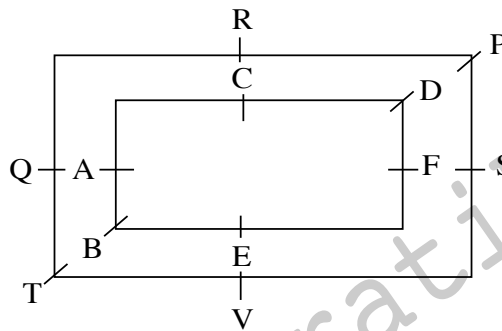
(Q.66 − 67):
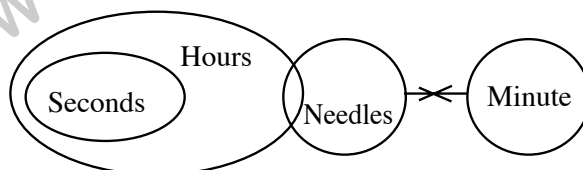
(Q.68 – 69):
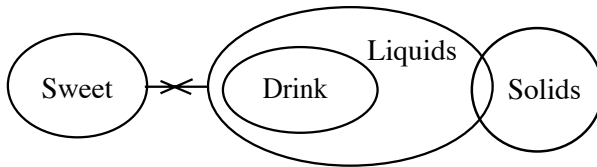
(Q.70):

(Q.76 – 80):

(Q.81 – 85): Persons sitting in inner square are facing outward and persons sitting in outer square are facing inward.

(Q.86 – 90): The words are rearranged in increasing order of their length and in case of a tie, they are arranged according to the dictionary, from left to right. Numbers are rearranged in descending order from right to left. Each step arranges a word and a number.

Input: 19 numerology 48 global 88 xylem 25 telling 79 59 fabricate torcher

Step-I: xylem 19 numerology 48 global 25 telling 79 59 fabricate torcher 88

Step-II: xylem global 19 numerology 48 25 telling 59 fabricate torcher 79 88

Step-III: xylem global telling 19 numerology 48 25 fabricate torcher 59 79 88

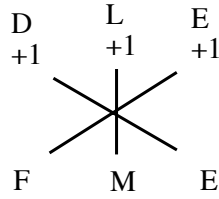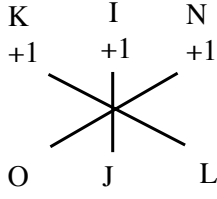**Step-IV:** xylem global telling torcher 19 numerology 25 fabricate 48 59 79 88

Step-V: xylem global telling torcher fabricate 19 numerology 25 48 59 79 88

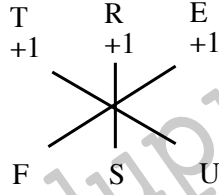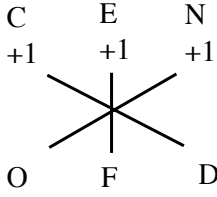**Step-VI:** xylem global telling torcher fabricate numerology 19 25 48 59 79 88

91. The results in this quarter are promising. And if this promise rides on an 'admirable' background, the companies must really be doing well.

92. Look at the way Som Mittal is evaluating the performance of IT companies in his capacity as the president of Nasscom.

94. Brings about a mood of pessimism.

95.

```
  K      I      N          D      L      E
 +1     +1     +1         +1     +1     +1

      ✳                        ✳

  O      J      L          F      M      E
```

Similarly

```
  C      E      N          T      R      E
 +1     +1     +1         +1     +1     +1

      ✳                        ✳

  O      F      D          F      S      U
```

96. From the very first time of the passage it is clear that privatisation of higher education has already in vogue in India. The passage deals with form of privatisation of higher education. Therefore, the inference is definitely false.

97. The inference is definitely true. Consider the following line of the passage:

"In India, there is no doubt that private not-for profit universities need to be encouraged to increase education opportunities".

98. The passage makes no such reference.

99. The inference is definitely false. It is mentioned in the passage that privatization and corporatization are actually quite different in the field of higher education.

100. The use of term 'any' in the inference indicates that the inference is definitely false. From the last line of the passage it is clear that more transparent guideline is needed. It does not imply that there is no such guideline.

(ఈ నమూనా ప్రశ్నపత్రాన్ని హైదరాబాద్‌లోని Race Institute కు చెందిన నిపుణులు రూపొందించారు.)