

Management Aptitude Test

February 2007

Directions (Q. 1-3): Read the following information to answer the questions given.

Six books are kept one on top of the other. The History book is just above Accountancy. The Maths book is between Punjabi and Urdu. English is between History and Punjabi.

1. Which book is between the Math and English books?
1) Accountancy 2) History
3) Urdu 4) None of these
2. Which book is at the bottom?
1) Accountancy 2) Punjabi
3) Urdu 4) Cannot be determined
3. Which book is at the top?
1) Punjabi 2) Urdu
3) Accountancy 4) Cannot be determined

Directions (Q. 4-6): Read the following information to answer the questions given.

Four friends A, B, C and D are studying together in class 10 + 2. A and B are good in Hindi but poor in English. A and C are good in Sanskrit but poor in Geography. D and B are good in Math as well as in Sanskrit.

Two persons are good in English and Geography each. Two persons are poor in Hindi and Math each.

4. Who amongst the following friends is not good in Math but good in Hindi?
1) C 2) A 3) D 4) B
5. Which of the following pairs of friends is good both in English and in Sanskrit?
1) A and D 2) A and C
3) C and D 4) D and B
6. Which one of the following is good in Sanskrit but poor in Geography and Hindi?
1) A 2) D
3) C 4) B

Directions (Q. 7-9): Read the given information to answer these questions.

Mohan Dey is undecided which four movies to see this week. He is considering a spy thriller, a murder mystery, a comedy and a science fiction. The movies will be shown by TV channels STAR, SONY, B4U and HBO, not necessarily in that order, and telecast on Tuesday, Wednesday, Saturday and Sunday, not necessarily in that order.

The movie by STAR will be shown on Sunday. The spy thriller will be shown on Tuesday. The science fiction movie is shown by B4U and not telecast on Saturday. The comedy is shown by HBO channel.

7. On Wednesday Mohan Dey can watch
1) the science fiction movie.
2) the murder mystery.

- 3) the spy thriller.
4) the comedy.
8. The TV channel SONY will telecast
1) a comedy on Saturday.
2) a science fiction movie on Saturday.
3) a murder mystery on Tuesday.
4) a spy thriller on Tuesday.
9. Mohan Dey watched movies on two channels whose names come first and third in the alphabetical order. He did not watch
1) the movie shown on Wednesday.
2) the murder mystery.
3) the science fiction movie.
4) the movie shown on Tuesday.

Directions (Q. 10-12): These questions are based on the statements given below.

Madhu and Shivani are good in Dramatics and Computer Science.

Asha and Madhu are good in Computer Science and Physics.

Asha, Pratibha and Namita are good in Physics and History.

Namita and Asha are good in Physics and Mathematics.

Pratibha and Shivani are good in History and Dramatics.

Two persons are not good in Dramatics and Computer Science each. One person is not good in Physics and History each. Two persons are not good in Mathematics.

10. Who is good in Physics, History and Mathematics, but not in Computer Science?
1) Pratibha 2) Asha
3) Madhu 4) Namita
11. Who is good in History, Physics, Computer Science and Mathematics?
1) Namita 2) Asha
3) Madhu 4) None of these
12. Who is good in Physics, History and Dramatics?
1) Pratibha 2) Madhu
3) Shivani 4) Asha

Directions (Q. 13-15): In each of these questions, two statements A and B are given followed by two conclusions I and II. Consider both the statements to be true even if they seem to be at variance with commonly known facts. Decide which of the given conclusions is / are definitely drawn from the given statements. Mark answer as

- 1) I only II follows.
- 2) if only I follows.
- 3) if neither I nor II follows.

examination and he failed by 2 marks. If he had secured 5 more marks his percentage of marks would have been 40%.

Directions (Q. 27-29): Use the data contained in the passage below to answer these questions:

As per the latest budget, proposals for personal income tax : From the total salary income, 1/3 of the income subject to a maximum of Rs 20,000 may be deducted as incidentals. From the dividend income, the total dividend income or Rs 15,000, whichever is lower, may be deducted. The balance after these two deductions is taxable income. The first Rs 40,000 is tax-free. Up to Rs 60,000, the tax is 10% of the income above 40,000. Above Rs 60,000 and upto Rs 150,000, it is Rs 2000 plus 20% of the income over Rs 60,000. Above 150,000, it is Rs 20,000 plus 30% of the income above 150,000. From the tax so calculated, $\frac{1}{5}$ of the investments, subject to a maximum of Rs 5,000, may be deducted as rebate. For an individual above the age of 65 years, Rs 10,000 may be deducted from the tax so calculated.

27. If a person has a salary income of Rs 100,000, dividend income of Rs 50,000 and invests Rs 20,000, then his income tax must be Rs

- 1) 7400 2) 9000
3) 13000 4) 15,500

28. What is the maximum income that a person can have, on which no tax is due, if he plans his dividends and investments judiciously?

- 1) Rs 78,000 2) Rs 98,000
3) Rs 115,000 4) Rs 125,000

29. In Q. 28, what is the maximum income (in Rs) if he has no dividend income and maximum investment?

- 1) 75,000 2) 85,000
3) 90,000 4) 100,000

30. In a certain code language 'POETRY' is written as 'QONDSQX' and 'OVER' is written as 'PNUDQ'. How is 'MORE' written in that code?

- 1) NNNQD 2) NLPQD
3) NLNQD 4) LNNQD

31. In a certain code language 'MOTHERS' is written as 'OMVGGPU'. How is 'BROUGHT' written in that code?

- 1) CPRTIEV 2) DPQSIFV
3) DPRTIDV 4) DPQTIFV

32. In a certain code PATHOLOGIST is written as PIUBQKSRHFN. How is CONTROVERSY written in that code?

- 1) SUOPDNXRQDU 2) SUOPDNZTSFW
3) QSMNBXPQRDU 4) QSMNBPTZTSFW

33. In a certain code 'CLOUD' is written as 'GTRKF'. How is SIGHT written in that code?

- 1) WGJHV 2) UGHHT
3) UHJFV 4) WFJGV

34. In a certain code BREAKTHROUGH is written as EAOUHRBRGHKT. How is DISTRIBUTION written in that code?

- 1) STTIBUDIONRI 2) STTIBUONRIDI
3) TISTBUONDRI 4) RISTTIBUDION

35. In a certain code BROUGHT is written as SGFVAQN. How is SUPREME written in that code?

- 1) FNFSRTO 2) RTOSDLD
3) DLDSTRTO 4) DLDSTVQ

Directions (Q. 36-41): Refer to the following table to answer these questions.

Year	Thermal	Hydel	Nuclear	Total
1990	7900	6390	420	14710
1991	8200	6610	420	15230
1992	8900	6780	420	16100
1993	9100	6965	640	16705
1994	10150	7530	640	18320
1995	11000	8500	640	20140
1996	12000	9200	640	21840
1997	13000	9880	640	23520
1998	15200	10200	800	26200
1999	16700	10450	800	27950
2000	19000	11000	800	30800

36. The two years when the capacities were augmented in all the sectors are

- 1) 1993 and 1998 2) 1990 and 1991
3) 1993 and 1996 4) 1990 and 2000

37. The percentage increase in hydel capacity over that of the previous year was maximum in

- 1) 1997 2) 1991
3) 1999 4) 1995

38. In 2000, the percentage share of nuclear power in the total power capacity installed was approximately

- 1) 10.0 2) 2.59
3) 5.42 4) 11.1

39. If the total power generated in thermal units be 40% of the installed capacity, in hydel units it be 50% of the installed capacity, and in nuclear it be 90% of the installed capacity, the total power generation in 1998 would be

- 1) 19835 MW 2) 11900 MW
3) 5015 MW 4) 22100 MW

40. In 1990, the percentage share of thermal in total installed capacity was approximately

- 1) 45 2) 50
3) 26 4) 54

41. The growth in the installed thermal capacity between 1991 and 1999 was approximately

- 1) 51% 2) 130%
3) 92% 4) 103%

Directions (Q. 42-44): Each of the following incomplete arguments is followed by four sentences. One of the four alternatives (1), (2) (3) and (4) completes the argument in order to justify the conclusion. Pick that out.

42. Man learns through experience as he has initiative by nature.
- 1) All who have initiative by nature learn through experience.
 - 2) Some who have initiative by nature learn through experience.
 - 3) None who has initiative by nature learns through experience.
 - 4) Only few with initiative learn through experience.
43. We now have to fight for peace with some courage and determination as we fought against aggression.
- 1) All those who have fought against aggression should fight for peace.
 - 2) Many are fighting for peace who have fought against aggression.
 - 3) Some who are fighting for peace have fought against aggression.
 - 4) None is fighting for peace who have fought for aggression.
44. Education has produced a vast population able to read but unable to distinguish what is worth reading.
- 1) All educated people can distinguish worth-reading materials.
 - 2) Many educated people cannot distinguish worth-reading materials.
 - 3) As much as educated people are there, it is easy to distinguish worth-reading materials.
 - 4) All those who are educated cannot distinguish the materials worth reading.

Directions (Q. 45-47): In each of \ questions a few statements are given followed by four conclusions numbered I, II, III and IV. Consider 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 follow(s) from the given statements.

45. **Statements:** A. All mirrors are phones.
B. Some phones are gadgets.
C. All gadgets are mirrors.
- Conclusions:** I. Some gadgets are phones.
II. Some gadgets are mirrors.
III. Some gadgets are not mirrors.
IV. Some mirrors are phones.
- 1) Only I and II follow
 - 2) Only I, II and IV follows
 - 3) Only II and III follow
 - 4) Either II or IV follow
46. **Statements:** A. All rackets are jackets.
B. No cow is a cat.
C. Only cats are dogs.

Conclusions: I. Some rackets are not cats.
II. Some cats are jackets.
III. Some rackets are cats.
IV. No dog is a cow.

- 1) Only II and IV follow
 - 2) Only either I or III and IV follow
 - 3) Only III and IV follow
 - 4) Only I and IV follow
47. **Statements:** A. All stairs are lifts.
B. No lift is an escalator.
C. Some escalators are helicopters.
D. Some lifts are planes.
- Conclusions:** I. No stair is an escalator.
II. Some helicopters are not escalators.
III. Some stairs are planes.
IV. Some helicopters are escalators.
- 1) Only I and IV follow
 - 2) Only I and either II or IV follow
 - 3) Either II or IV follows
 - 4) Only I, III or IV follows

Directions (Q. 48 - 50): Each question has a main statement followed by four statements labelled A, B, C and D. Choose the ordered pair of statements where the first statement implies the second, and the two statements are logically consistent with the main statement.

48. Every player will become a champ.
- A. Rajesh is a player.
 - B. Rajesh will become a champ.
 - C. Rajesh is not a player.
 - D. Rajesh will not become a champ.
- 1) DA 2) AD 3) CD 4) DC
49. You can find Chinese toys only in China.
- A. I didn't find Chinese toys.
 - B. I found Chinese toys.
 - C. I went to the fair.
 - D. I didn't go to China.
- 1) CB 2) CD 3) CA 4) AD
50. Only in Africa, you can see the African elephant.
- A. You went to Africa.
 - B. You didn't go to Africa.
 - C. You saw the African elephant.
 - D. You didn't see the African elephant.
- 1) DB 2) AC 3) AD 4) BD

Directions (Q. 51-63): Answer these questions independent of each other.

51. From a point, Rajneesh started walking towards east and walked 35 m. He then turned towards his right and walked 20 m and he again turned right and walked 35 m. Finally he turned to his left and walked 20 m and he reached his destination. Now, how far is he from his starting point?
- 1) 55 m 2) 50 m
 - 3) 20 m 4) 40 m
52. Rama remembers that she met her brother on Saturday, which was after the 20th day of a particular month. If the 1st day of that month was Tuesday, then on which date did Rama meet her

- brother?
 1) 24th 2) 23rd
 3) 25th 4) None of these
53. Introducing Rajesh, Neha said, "his brother's father is the only son of my paternal grandfather". How is Neha related to Rajesh?
 1) Daughter 2) Sister
 3) Mother 4) Niece
54. A directional post is erected on a crossing. In an accident, it was turned in such a way that the arrow which was first showing east is now showing south. A passer-by went in a wrong direction thinking it is west. In which direction is he actually travelling now?
 1) North 2) South
 3) East 4) West
55. Ram's age was square of a number last year and it will be cube of a number next year. How long must he wait before his age be again the cube of a number?
 1) 10 years 2) 39 years
 3) 38 years 4) 64 years
56. An office has as many four-legged chairs and as many four-legged tables as workers, and as many three-legged stools as four-legged almirahs. If the number of stools be one more than the number of workers and the total number of legs be 585, the number of workers in the office is
 1) 17 2) 34
 3) 16 4) Cannot be determined
57. A, B, C and D play a game of cards. A says to B, 'If I give, you 8 cards, you will have as many as C has and I shall have 3 less than what C has. Also, if I take 6 cards from C, I shall have twice as many as D has.' If B and D together have 50 cards, how many cards has A got?
 1) 27 2) 23
 3) 37 4) 40
58. After a get-together every person present shakes the hand of every other person. If there were 105 hand-shakes in all, how many persons were present in the party?
 1) 14 2) 13 3) 15 4) 16
59. In a queue I am the last person while my friend is seventh from the front. If the person exactly between me and my friend is on the 23rd position from the front, what is my position in the queue?
 1) 37 2) 36 3) 38 4) 39
60. A cube is to be coloured in such a way as to avoid the same colour on adjacent surface. What is the minimum number of colours you will require?
 1) Four 2) Three 3) Six 4) Nine
61. There are eight poets A, B, C, D, E, F, G, and H. A, B, C and D are medieval poets whereas E, F, G and H are modern poets. Questions on modern poets and medieval poets are set in the question paper every alternate year. Among the modern poets, question-setters who like E also like F and those who like G also like H. The question-

setter has written a book on F and so he does not like to ask any question on F. Last year there was a question on A. On which poet will be the probable question this year?

- 1) F 2) E
 3) D 4) C
62. There are five books A, B, C, D and E. Book C lies above D. Book E is below A; D is above A; B is below E. Which is at the bottom?
 1) B 2) E
 3) A 4) C
63. A one-rupee coin is placed on a plain paper. How many coins of the same size can be placed round it so that each one touches the central and adjacent coins?
 1) 3 2) 4
 3) 7 4) 6

Directions (Q. 64-68): The following table refers to hotel construction projects. The cost of the project increased at the rate of 10% per annum if completed beyond 1997.

Hotels in Mumbai

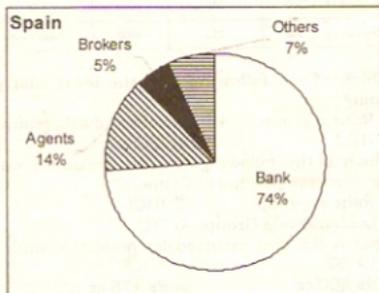
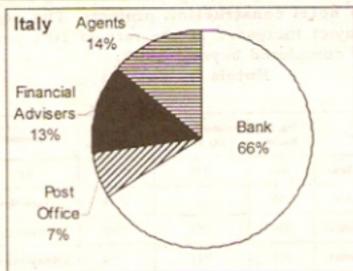
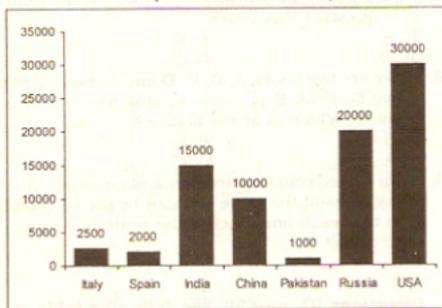
Project	No. of Rooms	Estimated cost (Rs in cr)	Year of Completion	Company
Windsor Manor	600	275	1999	IHCL
Leela Hotels	310	235	1999	Leela Hotels
Mumbai Heights	250	250	1998	Bombay Hotels
Royal Holidays	536	225	1998	Lekhandwala Group
Majestic Holidays	500	250	1999	Raheja Group
Supremo Hotel	300	300	1999	ITC
Hyatt Regency	500	250	2000	Asian Hotels

64. Which of the following had the least cost per room?
 1) Raheja group 2) Lokhandwala group
 3) IHCL 4) ITC
65. Which of the following has the maximum number of rooms per crore of rupees?
 1) Raheja Group 2) IHCL
 3) Lokhandwala Group 4) ITC
66. What is the cost incurred for projects completed in 1998?
 1) Rs 500 cr 2) Rs 475 cr
 3) Rs 522.5 cr 4) Rs 502.5 cr
67. What is the cost incurred for projects completed in 1999?
 1) Rs 1270 crore 2) Rs 1282.6 crore
 3) Rs 1805.1 crore 4) Rs 1535 crore
68. What is the approximate cost incurred for projects completed by 2000?
 1) Rs 2140 crore 2) Rs. 1785 crore
 3) Rs 2320 crore 4) None of these

Directions (Q. 69-71): These questions are based on the pie charts and the bar graph given

below.

Sale of Life Insurance Policies in 2002
(in million dollars)



69. By what amount is the life insurance sold in Italy through agents more/less than the life insurance sold in Spain through brokers and agents?

- 1) More by \$ 30 million
- 2) Less by \$ 10 million
- 3) Less by \$ 30 million
- 4) More by \$ 20 million

70. If it is known that 12.5% of the total life insurance sold in the countries is listed for term in-

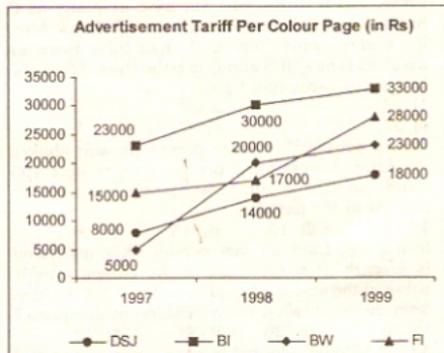
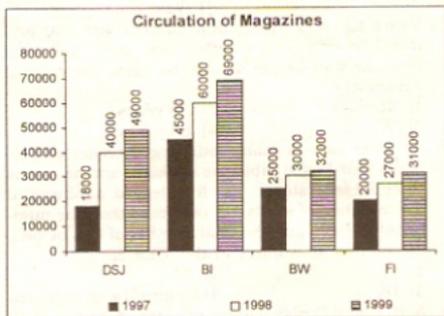
surance, then what is the approximate value of non-term insurance sold in these countries for the year 2002?

- 1) \$ 6480 million
- 2) \$ 10060 million
- 3) \$ 70400 million
- 4) Data insufficient

71. The split-up of sales of life insurance by distribution channels for India in 2002 is the same as that of Spain. If the insurance agents in India are paid a commission of 0.5% of their sales, then what is the amount of commission earned by them?

- 1) \$ 9.75 million
- 2) \$ 9.5 million
- 3) \$ 10.5 million
- 4) \$ 13.25 million

Directions (Q. 72-76): Study the following graphs to answer these questions.



Note: DSJ: Dalal Street Journal, BI: Business India, BW: Business World, FI: Fortune India

72. The total circulation figure for the four magazines together in 1998 was approximately
- 1) 181,000
 - 2) 108,000
 - 3) 157,000
 - 4) 140,000
73. During the years 1997-99, the magazine that has shown maximum percentage growth in circulation is
- 1) Dalal Street Journal
 - 2) Business India

- 3) Business World 4) Fortune India
74. In 1999, if Fortune India were to charge the same rate to its advertisers as Dalal Street Journal was charging a year ago, their cost of advertisement per thousand copies in Fortune India would
- 1) increase by Rs 140
 - 2) decrease by 50%
 - 3) decrease by Rs 400
 - 4) increase by 25%
75. In 1998, the advertisement cost for colour page per thousand copies was the lowest for
- 1) Dalal Steel Journal
 - 2) Business India
 - 3) Business World
 - 4) Fortune India
76. The advertisement cost of colour page per thousand copies for Business World has, from 1997 to 1998 (calculate approximate value only),
- 1) decreased by Rs 200
 - 2) remained the same
 - 3) increased by Rs 466
 - 4) increased by Rs 200

Directions (Q. 77-80): Each question consists of two quantities, one in Column A and one in column B. Compare the two quantities and choose answer option as

- 1) if the quantity in Column B is greater
- 2) if the quantity in Column A is greater
- 3) if the two quantities are equal
- 4) if the relationship cannot be determined from the information given

Column A

Column B

77. The number of posts needed for a fence 144 feet long and posts being placed 12 feet apart 12 posts
78. Time elapsed from 2:55 P.M. to 3:15 P.M. on the same afternoon $\frac{1}{3}$ hour
79. $\frac{1}{3}$ of 8 $66\frac{2}{3}\%$ of 4
80. The average of $\sqrt{0.49}$, $\frac{3}{4}$ and 0.8 75%
81. How many companies from India found a place in the 'Global - 500' list?
- 1) 6
 - 2) 4
 - 3) 8
 - 4) 10
82. For the year 2007-08, World Bank has predicted India's GDP growth at
- 1) below 8%
 - 2) below 7%
 - 3) 8-5%
 - 4) 9-6%
83. National Electricity Policy envisages elimination of power shortage by 2012 through addition of _____ during 10 and 11th Plan periods.
- 1) 75,000 MW
 - 2) 50,000 MW
 - 3) 100,000 MW
 - 4) 125,000 MW
84. Recently Tata Consultancy Services (TCS) has succeeded in acquiring a big deal from Bank of China worth
- 1) \$ 75 million
 - 2) \$ 50 million
 - 3) \$ 100 million
 - 4) \$ 125 million
85. As per the latest estimates of Petroleum Ministry, India's refining capacity will be increased to _____ million tonnes per annum by the end

of the coming 11th Plan.

- 1) 220
 - 2) 210
 - 3) 230
 - 4) 240
86. "Beyond Scarcity: Power, Poverty and Global Water Crisis" is the theme of
- 1) Human Development Report 2006
 - 2) Human Development Report 2005
 - 3) World Development Report 2005
 - 4) World Development Report 2006
87. Report of the Sachar Committee is related to
- 1) status of the Scheduled Castes in India.
 - 2) social, economic and educational status of the Muslim community.
 - 3) economic status of Backward Classes in India.
 - 4) None of these
88. According to the Global Gender Gap Report, 2006 by the World Economic Forum, the country which has provided more political empowerment to women among the following is
- 1) USA
 - 2) India
 - 3) Sri Lanka
 - 4) Bangladesh
89. According to the Human Development Report 2006 of UNDP, the position of India in Human Development Index is
- 1) 135th
 - 2) 126th
 - 3) 137th
 - 4) 81st
90. Noted author and activist Arundhati Roy has been supporting the farmers of Singur in West Bengal who are resisting the State Government move to acquire land and give it to
- 1) Tata Motors
 - 2) Maruti Ltd
 - 3) Infosys
 - 4) Hindustan Motors
91. Year 2007 is being celebrated by India and China as the
- 1) Tourism year
 - 2) Friendship year
 - 3) Co-operation year
 - 4) None of these
92. The 14th Asia Pacific Economic Co-operation (APEC) 2006 Summit was held in
- 1) Thailand
 - 2) Vietnam
 - 3) Brazil
 - 4) China
93. In the Union Budgets in India, which one of the following is the largest in amount?
- 1) Non-Plan Expenditure
 - 2) Plan Expenditure
 - 3) Revenue Expenditure
 - 4) Capital Expenditure
94. Centre for DNA Fingerprinting is located at
- 1) Bangalore
 - 2) New Delhi
 - 3) Pune
 - 4) Hyderabad
95. Cryogenic engines are used in
- 1) atomic reactors
 - 2) rockets
 - 3) defrost refrigerators
 - 4) doing research connected with superconductivity
96. Threat of global warming' is increasing due to increasing concentration of
- 1) Nitrous oxide
 - 2) Ozone
 - 3) Sulphur dioxide
 - 4) Carbon dioxide

97. The 2008 Olympic Games will be held at
 1) Montreal 2) Beijing
 3) Atlanta 4) London
98. Narain Karthikeyan is a sportsman in the field of
 1) shooting 2) car racing
 3) chess 4) golf
99. El Nino is
 1) a sea storm
 2) a warm ocean current
 3) a tropical disturbance
 4) another name of typhoon
100. Which of the following industries are the major beneficiaries of the Mumbai port?
 1) Sugar and Cotton textile industry
 2) Iron and Steel industry
 3) Cotton textile and Petrochemical industry
 4) Engineering and Fertilizer industry

Directions (Q. 101-104): Fill in the blanks.

101. Professionals focus their _____ on fulfilling their responsibilities and achieving results, not on _____ a particular image.
 1) leadership — attributing
 2) planning — devising
 3) abilities — contributing
 4) energies — portraying
102. When you are living with your _____ values and principles, you can be straightforward, honest and _____.
 1) inherited — distinct 2) core — upfront
 3) innate — durable 4) cultural — perceptive
103. _____ In the role of a counselor, you are an authority figure whose objective is to _____ attentively and sensitively to employees who _____ you with their feelings.
 1) manage — direct 2) projects — focus
 3) listen — trust 4) concentrate — believe
104. If a junior executive neglects his professional development and _____ education, he can easily and quickly become obsolete in a world changing at _____ rates.
 1) higher — vulnerable
 2) management — voluminous
 3) better — supreme
 4) continuing — dizzying

Directions (Q. 105 -108): Each of these questions has an underlined part. Choose the option that best replaces the underlined part. Answer option (2) repeats the original.

105. The political masters of the health care system have not listened to professional health planners because it has not been profitable for them to do that thing.
 1) has not been profitable for them to do so.
 2) has not been profitable for them to do that thing.
 3) has been unprofitable for them to do that thing.
 4) has been unprofitable for them to do so.
106. Most bacterial population grown in controlled conditions will quickly expand to limit the food

supply, produce toxic waste products that inhibit further growth, and reached an equilibrium state within a relatively short time.

- 1) will have produced toxic waste products that inhibit further growth and also will reach an equilibrium state within a relatively short time.
 2) produce toxic waste products that inhibit further growth, and reached an equilibrium state within a relatively short time.
 3) will then produce a toxic waste product that inhibits further growth and thus reached an equilibrium state in a very short time.
 4) produce toxic waste products that inhibit further growth and reach equilibrium.
107. It could be argued that the most significant virtue of a popular democracy is not the right to participate in the selection of leaders, but rather that it affirms our importance in the scheme of things.
 1) but rather is affirmation of
 2) but rather that it affirms
 3) but rather it's affirmation in terms of
 4) but instead of that, its affirming that
108. Long popular among the connoisseurs of Indian music, Ravi Shankar first impressed western listeners with his phenomenal technical virtuosity, but they soon came to appreciate his music as an artful expression of an older culture's musical insight.
 1) but it soon occurred that they appreciated his artful music as an
 2) but they soon came to appreciate his music as an artful
 3) but soon this was surpassed by an appreciation of it as an artful
 4) which was soon surpassed by an even deeper appreciation of it as an artful

Directions (Q. 109 -112): Each question has a group of sentences marked A, B, C, and D. Arrange these to form a logical sequence.

109. A. We tend to see the similarity within a category as being more important, and the similarity between different categories as being less important, than either actually is.
 B. Given a small amount of information about a person, we are ready to classify them as a member of a particular group, and then to infer all kinds of additional facts about them, as if all members of the group were the same in most respects.
 C. Our tendency to classify and label everything can lead us into the error of seeing the word as made up of only those categories for which we have names.
 D. Expecting too much of the descriptive power of languages is itself a serious cause of distorted thinking.
- 1) DCBA 2) DBAC
 3) BDAC 4) BCDA

- 110.A. Some of us, as a result, gain an overall impression of people as either all good or all bad, making further assumptions on this basis.
- B. An example is the assumption some patients make that doctors with a good "bedside manner" are also more technically competent as others who do not relate as well to their patients.
- C. This is what the psychologists refer to as halo effect.
- D. We have a strong tendency of associate positive attributes with other positive attributes and negative ones with each other.
- 1) DCBA 2) DABC
3) DBCA 4) DACB
- 111.A. In the past, the customized tailoring units were localized to the township or city and catered exclusively to domestic demand.
- B. Traditionally, Indians preferred custom-made clothing and the concept of ready-to-wear is a relatively recent one.
- C. Consumer awareness of styling issues and the convenience afforded by ready-to-wear helped the RMG industry make small inroads into the domestic market in the 1980s.
- D. The customized tailoring outfits have always been a major source of clothing for domestic market.
- 1) BDAC 2) BCDA
3) CDBA 4) DBAC
- 112.A. Participation involves more than the formal sharing of decisions.
- B. Through anticipation, individuals or organizations consider trends and make plans, shielding institutions from trauma of learning by shock.
- C. Innovative learning involves both anticipation and participation.
- D. It is an attitude characterized by the co-operation, dialogue and empathy.
- 1) ABCD 2) BCDA
3) CBAD 4) DABC
- Directions (Q. 113-116): Each of these questions has a sentence with four alternatives. Choose the alternative which best conveys the content of the given sentence correctly.**
113. No officer had ought to be put into a situation where he has to choose between his love for his family and the responsibilities accompanying his duty.
- 1) No officer had ought to be put into a situation in which he has to choose between his love for his family and the responsibilities accompanying his duty.
- 2) No officer had ought to be put into a situation where he has to choose between his love for his family and the responsibilities accompanying his duty.
- 3) No officer should be put into a situation where he has to choose between his love for his family and the responsibilities accompanying his duty.
- 4) No officer ought to be put into a situation in which he has to choose between his love for his family and the responsibilities accompanying his duty.
114. Being a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- 1) Since he was a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- 2) Being a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- 3) Being that he was a realist, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
- 4) Realist that he was, the detective could not accept the statement of the accused that UFOs had caused the disturbance.
115. Ever since the sting operation, there has been much opposition from they who maintain that it was an unauthorised act.
- 1) Ever since the sting operation, there has been much opposition from they who maintain that it had been an unauthorised act.
- 2) Ever since the sting operation, there has been much opposition from they who maintain that it was an unauthorised act.
- 3) Ever since the sting operation, there has been much opposition from those who maintain that it was an unauthorised act.
- 4) Ever since the sting operation, there has been much opposition from those maintaining that it was an unauthorised act.
116. The trend toward a decrease in the working hours is already evident in the longer weekend given to employees in many multinational organisations.
- 1) The trend toward a decrease in the working hours is all ready evident in the longer weekend given to employees in many multinational organisations.
- 2) The trend toward a decrease in the working hours is already evident in the longer weekend given to employees in many multinational organisations.
- 3) The trend toward a decrease in the working hours is already evident in the longer weekend given to employees in many multinational organisation.
- 4) The trend toward a decrease in the working hours is all in already evident in the longer weekend given to employees in many multinational organisations.
- Directions (Q. 117-120): Attempt these questions independent of each other.**
117. Many of the junk foods on the market today,

doughnuts, burgers and pizza, have less nutrients than natural foods, which were dominant a decade or two ago. Many nutritionists claim that pizza and doughnuts give less nourishment than natural foods. A spokesman of a leading junk food company — Pizza House — stated recently that an examination of grade school students shows less nutritional deficiency than in their parents' time. Hence, junk foods are not as bad as made out to be.

Which of the following, if true, would tend to strengthen the view of the spokesman?

- 1) Fewer junk foods were available to the parents.
 - 2) Grade school children reported eating no breakfast at all.
 - 3) Adults claim to eat junk foods as well as natural foods.
 - 4) Both (1) and (3)
118. Throughout the first decade of the 21st century, net increases in Indian direct investments in the Far East (funds outflows) exceeded net new Far East direct investment in India.

Each of the following, if true, could help to account for this trend except

- 1) Labour mobility was higher in India than in the Far East.
 - 2) Land values in the Far East were increasing at a faster rate than in India.
 - 3) The cost of labour (wages) was consistently lower in the Far East than in India.
 - 4) Corporate liquidity was lower in India than in the Far East.
119. Of the world's largest AIDS cases countries in 2010, three had the same share of world AIDS patients as they had in 2000. These three countries may serve as examples of countries that succeeded in holding steady their share of the AIDS disease.

Which of the following, if true, would most seriously undermine the idea that these countries serve as examples as described above?

- 1) Countries should strive to reduce their share of the total AIDS patients in the world, rather than try to hold it constant.
 - 2) Of the three countries two had a much larger share of world AIDS incidence in 2000 than in 2010.
 - 3) The three countries have different rates of population growth.
 - 4) None of these
120. The cost of housing in many urban parts of India has become so excessive that many young couples, with above-average salaries, can only afford small apartments. EMI and rent commitments are so huge that they cannot consider the possibility of starting a family since a new baby would probably mean either the mother or father giving up a well-paid position — something they can ill-aff-

ord. The lack of or great cost of child-care facilities further precludes the return of both parents to work.

Which of the following adjustments could practically be made to the situation described above which would allow young couples to improve their housing prospects?

- 1) Encourage couples to have one child only.
 - 2) Encourage couples to remain childless.
 - 3) Encourage young couples to move to cheaper areas for living.
 - 4) None of these is likely to have an impact on the current situation.
121. The World Trade Organization (WTO) was earlier known as
- | | |
|-----------|---------|
| 1) UNICEF | 2) GATT |
| 3) UNCTAD | 4) FAO |
122. What is Value Added Tax (VAT)?
- 1) A new initiative taken by the Government to increase the tax burden of high-income groups
 - 2) A simple, transparent, easy-to-pay tax imposed on consumers
 - 3) A single tax that replaces State taxes like surcharge, turnover tax, etc
 - 4) A new tax to be imposed on the producers of capital goods
123. The outcome of 'devaluation of currency' is
- 1) increased export and foreign reserve deficiency
 - 2) increased export and improvement in balance of payments
 - 3) increased import and improvement in balance of payments
 - 4) increased export and import
124. The common currency which has been introduced among 11 European nations is known as
- | | |
|----------------|------------------|
| 1) Euro | 2) Euro Pound |
| 3) Euro Dollar | 4) None of these |
125. Nuclear reactors used to produce electricity are based on
- | | |
|-------------------|----------------------|
| 1) nuclear fusion | 2) nuclear fission |
| 3) cold fusion | 4) superconductivity |
126. Who amongst the following was the head of the Investment Commission which submitted its report to the Government of India recently?
- | | |
|----------------------------|-------------------|
| 1) Dr Rakesh Mohan | 2) Mr Ratan Tata |
| 3) Mr Kumar Mangalam Birla | 4) Mr Rahul Bajaj |
127. Mr Arvind Kejriwal who got the Ramon Magsaysay Award 2006, is the founder of which of the following NGOs?
- | | |
|---------------|-------------|
| 1) Aawahan | 2) Sankalp |
| 3) Parivartan | 4) Sammelan |
128. Which bank has launched a new health cover scheme under the name of "Arogya Shree"?
- | | |
|----------------|--------|
| 1) PNB | 2) SBI |
| 3) Andhra Bank | 4) OBC |
129. The Eleventh Five Year Plan has been named as
- 1) 'Towards Fast and More Inclusive Growth'
 - 2) 'Towards Infrastructural and Agricultural Growth'

- 3) Towards Rapid Educational and Economical Growth'
 4) None of these
130. Which of the following State Governments has decided to provide health insurance to people living below the poverty line with effect from January 2007?
 1) Andhra Pradesh 2) Orissa
 3) Karnataka 4) West Bengal
131. In November 2006, Prime Minister Dr Manmohan Singh and Chinese President Hu Jintao signed how many agreements including the Bilateral Investment Protection Agreement, in New Delhi?
 1) 11 2) 15
 3) 13 4) 9
132. What is the position of Tatas, the largest Indian group in terms of revenues and market capitalisation, in the Forbes' list of world's most reputed companies?
 1) 20th 2) 18th
 3) 22nd 4) 24th
133. The Indian Railways has decided to start how many new luxury trains on the line of 'Palace on Wheels' to ensure foreign customer?
 1) 6 2) 4
 3) 10 4) 15
134. ASEAN, the major trade block of the world, consists of the following nations
 1) Indonesia, Malaysia, Thailand, Philippines and Singapore
 2) India, Bangladesh, Myanmar, Sri Lanka and Pakistan
 3) Indonesia, India, Thailand, Malaysia and Singapore
 4) Vietnam, Thailand, Mauritius, Singapore and Philippines
135. The states through which the Cauvery river flows is
 1) Kerala, Karnataka and Tamil Nadu
 2) Andhra Pradesh, Karnataka and Tamil Nadu
 3) Kerala, Andhra Pradesh and Tamil Nadu
 4) Maharashtra, Karnataka and Tamil Nadu
136. Which one of the following is not correctly matched?
 1) White Revolution - Dairy
 2) Green Revolution - Agriculture
 3) Blue Revolution - Fishery
 4) Red Revolution - Wool
137. Which one of the following is not a department in the Ministry of Human Resource Development?
 1) Department of Secondary Education and Higher Education
 2) Department of Elementary Education and Literacy
 3) Department of Technical Education
 4) Department of Woman and Child Development
138. In India, National Income is estimated by
 1) Central Statistical Organisation
 2) Planning Commission
 3) Indian Statistical Institute
 4) National Sample Survey Organisation
139. Which state in the country has the largest number of districts?
 1) Maharashtra 2) Madhya Pradesh
 3) Tamil Nadu 4) Uttar Pradesh
140. Who among the following has been given 'World Citizenship Award' 2006?
 1) Jimmy Carter 2) Kofi Annan
 3) Bill Clinton 4) Ronald Reagan
141. A man received Rs 12000 as Puja Bonus. He invested a part of it at 5% per annum and the remaining at 6% per annum, simple interest being allowed in each case. The total interest earned by him in 4 years is Rs 2580. The sum invested at 5% per annum is
 1) Rs 4500 2) Rs 4000
 3) Rs 7500 4) Rs 8000
142. A finance company declares that, at a certain compound interest rate, a sum of money deposited by anyone will become 8 times in three years. If the same amount is deposited at the same compound rate of interest, then in how many years will it become 16 times?
 1) 5 years 2) 4 years
 3) 6 years 4) 7 years
143. In an examination, a pupil's average marks was 63 per paper. If he had obtained 20 more marks for his Geography paper and 2 more marks for his History paper, his average per paper would have been 65. How many papers were there in the examination?
 1) 9 2) 8
 3) 10 4) 11
144. A boatman rows to a place 45 km distant and back in 20 hours. He finds that he can row 12 km with the stream in the same time as 4 km against the stream. Find the speed of the stream.
 1) 3 km/hr 2) 2.5 km/hr
 3) 4 km/hr 4) Cannot be determined
145. Two cyclists start on a circular track from a given point but in opposite directions with speeds of 7 m/sec and 8 m/sec respectively. If the circumference of the circle is 300 metres, after what time will they meet at the starting point?
 1) 100 sec 2) 20 sec
 3) 300 sec 4) 200 sec
146. In an objective examination of 90 questions, 5 marks is allotted for every correct answer and 2 marks is deducted for every wrong answer. After attempting all the 90 questions a student got a total of 387 marks. Find the number of questions that he attempted wrong.
 1) 36 2) 18
 3) 9 4) 27
147. Ram went to a shop to buy 50 kg of rice. He buys two kinds of rice which cost him Rs 4.50 per kg

- and Rs 5.00 per kg. He spends a total of Rs 240. What was the quantity of rice bought which cost him Rs 4.50 per kg?
- 25 kg
 - 30 kg
 - 20 kg
 - None of these
148. Seema invested an amount of Rs 16,000 for two years on compound interest and received an amount of Rs 17,640 on maturity. What is the rate of interest?
- 5 pcpa
 - 8 pcpa
 - 4 pcpa
 - Data inadequate
149. My Scooty gives an average of 40 kmpl of petrol. But after recent filling at the new petrol pump, its average dropped to 38 kmpl. I investigated and found out that it was due to adulterated petrol. Petrol pumps add kerosene, which is $\frac{2}{3}$ cheaper than petrol, to increase their profits. Kerosene generates excessive smoke and knocking and gives an average of 18 km per 900 ml. If I paid Rs 30 for a litre of petrol, what was the additional amount the pump-owner was making?
- Rs 1.75
 - Rs 1.80
 - Rs 2.30
 - Rs 2
150. A train after travelling 150 km meets with an accident and then proceeds at $\frac{3}{5}$ of its former speed and arrives at its destination 8 hours late. Had the accident occurred 360 km further, it would have reached the destination 4 hours late. What is the total distance travelled by the train?
- 960 km
 - 870 km
 - 840 km
 - 1100 km
151. In an engineering college the average salary of all engineering graduates from Mechanical trade is Rs 2.45 lacs per annum and that of the engineering graduates from Electronics trade is Rs 3.56 lacs per annum. The average salary of all Mechanical and Electronics graduates is Rs 3.12 lacs per annum. Find the least number of Electronics graduates passing out from this institute.
- 43
 - 59
 - 67
 - Cannot be determined
152. There are two identical vessels X and Y. Y is filled with water to the brim and X is empty. There are two pails A and B, such that B can hold half as much water as A. One operation is said to be executed when water is transferred from Y to X using A once and water is transferred to Y from X using B once. If A can hold $\frac{1}{4}$ a litre of water and it takes 40 operations to equate the water level in X and Y, what is the total volume of water in the system?
- 20 litres
 - 10 litres
 - 40 litres
 - 20 litres
153. In a class with a certain number of students, if one student weighing 50 kg is added then the average weight of the class increases by 1 kg. If one more student weighing 50 kg is added then the average weight of the class increases by 1.5 kg over the original average. What is the original average weight (in kg) of the class?
- 4
 - 46
 - 2
 - 47
154. The average monthly salary of employees, consisting of officers and workers, of an organisation is Rs 3,000. The average salary of an officer is Rs 10,000 while that of a worker is Rs 2,000 per month. If there is a total of 400 employees in the organisation, find the number of officers.
- 60
 - 50
 - 80
 - 40
155. Two vessels contain mixtures of milk and water in the ratio of 8 : 1 and 1 : 5 respectively. The contents of both of these are mixed in a specific ratio into a third vessel which was empty. How much mixture must be drawn from the second vessel to fill the third vessel (capacity 26 gallons) completely in order that the resulting mixture may be half milk and half water?
- 12 gallons
 - 14 gallons
 - 10 gallons
 - 13 gallons
156. A man can row 4.5 km/hr in still water and he finds that it takes him twice as long to row up as to row down the river. Find the rate of the stream.
- 1.5 km/hr
 - 2 km/hr
 - 2.5 km/hr
 - 1.75 km/hr
157. The work done by a woman in 8 hours is equal to the work done by a man in 6 hours and by a boy in 12 hours. If working 6 hours per day 9 men can complete a work in 6 days, then in how many days can 12 men, 12 women and 12 boys together finish the same work, working 8 hours per day?
- $3\frac{2}{3}$ days
 - $4\frac{1}{2}$ days
 - 3 days
 - $1\frac{1}{2}$ days
158. A team of workers was employed by a contractor who undertook to finish 360 pieces of an article in a certain number of days. Making four more pieces per day than was planned, they could complete the job a day ahead of schedule. How many days did they take to complete the job?
- 10 days
 - 8 days
 - 9 days
 - 12 days
159. Rahul can row a certain distance downstream in 6 hours and return the same distance in 9 hours. If the speed of Rahul in still water is 12 km/hr, find the speed of the stream.
- 2 km/hr
 - 2.4 km/hr
 - 3 km/hr
 - Data inadequate
160. Large, medium and small ships are used to bring water. 4 large ships carry as much water as 7 small ships. 3 medium ships carry the same

- 1) A and B 2) B only
 3) A and C 4) A, B and C
163. What was the uniqueness of the Tarapur agreement that was concluded in 1963?
- 1) It guaranteed supplies of enriched uranium fuel from the US for running the Tarapur reactors for entire life.
 - 2) It prevented other countries from carrying out nuclear tests.
 - 3) It addresses the legitimate concerns of India on fuel supply.
 - 4) All the above
164. Which of the following countries supplied fuel for Tarapur?
- 1) France
 - 2) USA
 - 3) USSR and France
 - 4) France, USSR and China

Passage - II

Not even a three-day brainstorming session among top psychologists at the Chinese University could unravel one of the world's greatest puzzles — how the Chinese mind ticks. Michael Bond had reason to pace the pavement of the Chinese University campus last week. The psychologist who co-ordinated and moderated a three-day seminar in Chinese psychology and most of the participants came a long way to knock heads. "If a bomb hits this building," muttered Bond, half-seriously, "it would wipe out the whole discipline." But the only thing that went off in the Cho Yiu Conference Hall of Chinese University was the picking of brains, the pouring out of brains and a refrain from an on-going mantra: "more work needs to be done" or "we don't know". Each of the 36 participants was allowed 30 minutes plus use of an overhead projector to condense years of research into data and theories. Their content spilled over from 20 areas of Chinese behaviour, including reading, learning styles, psychopathology, social interaction, personality and modernisation. An over-riding question for observers, however, was: why, in this group of 21 Chinese and 15 non-Chinese, weren't there more professionals from mainland China presenting research on the indigenous people? Michael Phillips, a psychiatrist who works in Hubei Province, explained: "The Cultural Revolution silenced and froze the research," said the Canadian-born doctor who has lived and worked in China for more than 10 years. "And 12 years later, research is under way but it is too early to have anything yet. Besides, most of the models being used are from the West anyway." In such a specialised field, how can non-Chinese academics do research without possessing fluency in Chinese? Those who cannot read, write or speak the language usually team up with Chinese colleagues. "In 10 years, we won't be able to do this. It's a money thing," said William Gabrenya of Florida Institute of Technology, who described himself as an illiterate Gwelo who lacks flu-

ency in Chinese. He said that 93 per cent of the non-Chinese authors in his field cannot read Chinese. Dr Gabrenya raised questions such as: why is research dependent on university students, why is research done on Chinese people in coastal cities (Singapore, Taiwan, Shanghai and Hong Kong) but not inland? "Chinese psychology is too Confucian, too neat. He's been dead a long time. How about the guy on a motorcycle in Taipei?" Dr. Gabrenya said, urging that research have a more contemporary outlook.

The academics came from Israel, Sweden, Taiwan, Singapore, United States, British Columbia and, of course, Hong Kong. Many of the visual aids they used by way of illustration contained eye-squinting type and cobweb-like graphs. One speaker, a sociologist from Illinois, even warned her colleagues that she would not give anyone enough time to digest the long, skinny columns of numbers. Is Chinese intelligence different from Western? For half of the audience who are illiterate in Chinese, Professor Jimmy Chan of HKU examined each of the Chinese characters for "intelligence". Phrases such as "a mind as fast as an arrow" and connections between strokes for sun and the moon were made. After his 25-minute speech, Chan and the group lamented that using Western tests are the only measure available to psychologists, who are starving for indigenous studies of Chinese by Chinese. How do Chinese children learn? David Kember of Hong Kong Polytechnic University zeroed in on deep learning versus surface. Deep is when the student is sincerely interested for his own reasons. Surface is memorising and spitting out facts. It doesn't nurture any deep understanding. If the language of instruction happens to be the children's second language, students in Hong Kong have all sorts of challenges with English-speaking teachers from Australia, Britain and America with accents and colloquialisms. Do Westerners have more self-esteem than Chinese? Dr Leung Kwok, chairman of the psychology department of Chinese University, points his finger at belief systems: the collectivist mindset often stereotypes Chinese unfairly. The philosophy of "yuen" (a concept used to explain good and bad events which are pre-determined and out of the individual's control) does not foster a positive self-concept. Neither do collectivist beliefs, such as sacrifice for the group, compromise and importance of using connections. "If a Chinese loses or fails, he has a stronger sense of responsibility. He tends to blame it on himself. A non-Chinese from the West may blame it on forces outside himself," Dr Leung said. By the end of the three-day session, there were as many questions raised as answered. It was agreed there was room for further research. To the layman, so much of the discussion was foreign and riddled with jargon and on-going references to studies and researchers. The work of the participants will resurface in a forthcoming *Handbook of Chinese Psychology*, which will be edited by Dr Bond

and published by Oxford University Press.

165. According to the passage, the author suggests that
- 1) not many people study Chinese psychology.
 - 2) the building is in danger of attack.
 - 3) Chinese psychology is a difficult subject to study.
 - 4) Chinese psychology is a difficult subject to organize.
166. It can be inferred from the passage that
- 1) the Cultural Revolution was a productive period for Chinese psychology.
 - 2) the Cultural Revolution was a dangerous period for Chinese psychology.
 - 3) the Cultural Revolution was an unproductive period for Chinese psychology.
 - 4) the Cultural Revolution was a new beginning for Chinese psychology.
167. According to the passage, William Gabrenya refers to himself as an 'illiterate Gweilo'. This suggests that
- 1) he feels defensive about not speaking and reading Chinese.
 - 2) he feels secure in his illiteracy.
 - 3) he is representative of other westerners active in this field.
 - 4) he can operate perfectly well without learning Chinese.
168. According to the passage, all of the following are true except
- 1) the visual aids were not very easy to understand.
 - 2) the conference attracted a very professional standard of presentation.
 - 3) the visual aids were not very tidy.
 - 4) the presenters were under time pressure.
169. According to the passage, which of the following is not true?
- 1) Chinese characters are very difficult for westerners to master.
 - 2) It is difficult to come to a conclusion about western and Chinese intelligence.
 - 3) It is difficult to measure Chinese intelligence with western tests.
 - 4) More tests are required that are conducted by the Chinese for the Chinese.

Passage - III

"Since wars begin in the minds of men," so runs the historic UNESCO Preamble, "it is in the minds of men that the defences of peace must be constructed." Wars erupt out when the minds of men are inflamed, when the human mind is blinded and wounded, succumbs to frustration and self-negation. War is the transference of this self-negation into the other-negation. The three Indo-Pak wars and the persisting will to terrorise have emanated from this savage instinct of other-negation that is the legacy of the partition carnage and its still-bleeding and unhealed

wound. Truncated from its eastern wing in 1971, Pakistan ever since has suffered from a sense of total existential self-negation. Plus the scars left by the two previously lost wars to India and Kargil fill the Army and the Pakistan psyche with a seething urge to revenge: that India has to be negated, destroyed — in a deep psychological sense, another Hiroshima in the subcontinent is imaginable and possible. Terrorism in Kashmir springs from such deep negating existential grounds. Like the former Soviet Union, Pakistan came into being as a result of a grand delusion and massive perversion of reality — the so called two-nation theory. Like the former Soviet Union, it stands in danger of crumbling unless it modifies its reality perception and comes to terms with its post-Bangladesh identity within the prevailing subcontinental equation. Failing this, Pakistan is bound to break up, nudging the region to a nuclear nightmare, including possible South Asian Hiroshimas. With 'hot pursuits and 'surgical operations' freely making rounds among the policy elite and the public at large, the national atmosphere looks ominously charged. "On the brink," headlines *The Week*, adding, "As men and machines are quickly positioned by India and Pakistan, the threat of war looms real." To which Gen Musharraf counters, "If any war is thrust on Pakistan, Pakistan's armed forces and the 140 million people of Pakistan are fully prepared to face all consequences with all their might." According to *Indian Express*, "Pakistan has deployed medium range ballistic missile batteries (MRBBs) along the Line of Control (LoC) near Jammu and Poonch, sectors in an action that will further escalate the tension between the two countries." And India's Defence Minister ups the ante, "We could take a (nuclear) strike, survive and then hit back; Pakistan would be finished." (*Hindustan Times*, December 30, 2001). Mr Fernandes's formulation is certainly a tactical super shot, even a strategical super hit inasmuch as this is the very logic of India's 'no-first-strike' doctrine. The Defence Minister obviously has no idea of the ethical, phenomenological implications of abandoning chunks of the Indian population to ransom for potential Hiroshimas and then 'finishing' the neighbouring country of 140 million in what could be nothing short of an Armageddon. Forget these horrendous scenarios. But does this not repudiate the grain of truth for which India's civilisation stood for and vindicated across the untold millennia of its history? Yet, Mr Fernandes, the pacifist and Gandhian, is no warmonger. As Defence Minister he had to react at a level with the Pakistanis, with their proclivity to drop the nuclear speak whenever that suited them, could have registered the message.

170. According to the passage, Pakistan is bound to disintegrate
- I. and it will throw the subcontinent into a nuclear backlash.
 - II. if it refuses to accept its present identity.

- III. if it does not stop fuelling terrorism in Kashmir.
- 1) II and III are correct 2) I, II and III are correct
3) I and II are correct 4) I and III are correct
171. It can be inferred from the passage that
- 1) Soviet Union crumbled as a result of the grand delusion of the two-nation theory.
 - 2) Soviet Union also came into being as a result of the two-nation theory.
 - 3) Soviet Union's disintegration was due to her failure to accept the reality.
 - 4) The ideological basis of creation of Soviet Union and Pakistan was the same.
172. According to the passage, the reason for terrorism in Kashmir is
- 1) Pakistan's perception of two-nation theory.
 - 2) Pakistan's blind faith in terrorism.
 - 3) Pakistan's sense of self-negation.
 - 4) Both (2) and (3)
173. According to the passage, all of the following about the defence minister are **not true, except**
- 1) He is not a Gandhian.
 - 2) He is not logical.
 - 3) He is a pacifist.
 - 4) He is a warmonger.

Passage - IV

Mobility of capital has given an unprecedented leverage to companies not only to seek low-paid, informal wage employees across national boundaries, but the threat of capital flight can also serve to drive down wages and place large numbers of workers in insecure, irregular employment. Informalisation strategies enable employers to draw on the existing pool of labour as and when they require, without having to make a commitment to provide permanent employment or any of the employee-supporting benefits associated with permanent jobs. As far as the working class is concerned, informalisation is in fact, a double-edged sword. For not only is the employee denied the rights associated with permanent employment, but the nature of casual work essentially destroys the foundations of working class organisation. As workmen move from one employer to another, numbers are scattered, everyday interests become divergent, and individualised survival takes precedence over group or collective struggles.

Even workers who have been in sectors with a long tradition of unionisation are difficult to organise once they are removed from the arena of permanent employment. About 50,000 textile mill workers in Ahmedabad City were laid off during the late 1980s and early 1990s. The move to obtain compensation and rehabilitation for these workers floundered on the weakness of the struggle, as numbers of workers who were available for pressing their claims and taking to some kind of activism dwindled, the motivation of leaders declined and the struggle slowly frittered away. If this is the situation with workers familiar

with the concept of unionisation, the task of organising vast masses of casual workers who have never been organised, is obviously much more difficult. The problem, essentially, is not only that of organising workers for struggle, but, given the transitory nature of casual employment, employers are not bound to provide insurance of any kind, and frequently, there is no fixed employer against whom workers' claims can be pressed. In this context, the formation of the National Centre for Labour (NCL) can be seen as a landmark in the history of the working class movement in India. The NCL is an apex body of independent trade unions working in the unorganised sector of labour, registered under the Indian Trade Union Act, 1926. Through its constituent members, the NCL represents the interests of workers in construction, agriculture, fisheries, forests, marble- and granite-manufacturing, self-employed women, contract workers, *anganwadi* and domestic workers, as also workers in the tiny and small-scale industries. The NCL, launched in 1995, has about 6,25,000 members spread over 10 states in India. The NCL reflects two tendencies. First, the formation of such a federation highlights that despite the problems in organising workers in the informal sector, there have, in fact, been a range of organisations which have sought to address these issues. On a collective plane, their activities represent a marked departure from the traditional way of conceptualising union activities exclusively around organised or formal sector workers. Thus, the unionisation of the hitherto unorganised sector has become inserted into the political universe as a possible and legitimate activity. Second, the formation of the NCL, to an extent, overturns the pessimistic logic that the interests of the unorganised sector — given their diverse and inchoate form — cannot be articulated from a single platform. For the NCL aims precisely, do not only provide an anchoring for these diverse organisations, but more importantly, articulate the need for institutionalised norms of welfare which can apply to the unorganised sector as a whole. It is in the context of this generalised movement that one needs to view recent efforts to bring in legislative acts which seek to create a new framework of laws and institutions addressing the needs of the unorganised sector. One of the major problems that has dogged this sector has of course been that of implementation. Thus, for example, while there is a stipulated minimum wage for most industries, this is frequently flouted by employers. A central objective of the NCL has been to advocate legislation to create agencies, which would mediate between the employer and the employee, to institutionalise certain guarantees of welfare and security to the employee. Thus, for example, the State-Assisted Scheme of Provident Fund for Unorganised Workers, 2000, proposed by the Labour Department of the Government of West Bengal, introduces the mechanism of a Fund which will be contributed to by the worker (wage-earner or self-employed

person), the employer, and the Government and to which the worker would be entitled at the age of 55 or above. By registering a worker to this programme and issuing an identity card, the initial hurdle of identifying a large mass of scattered workers is overcome, and a step is taken towards institutionalising their legitimate claims against the employers and from the State. The Karnataka Unorganised Workers (Regulation of Employment and Conditions of Work) Bill, 2001, offers a more comprehensive framework for addressing the unorganised sector's needs. It envisages the formation of a Fund and a Board, in each sector. The Board, consisting of members from the Government, employers and employees, would be responsible for administering the Fund. Employers must compulsorily pay towards the Fund, a certain fixed percentage of the wages or taxes payable by them, or a certain percentage of the cost of their project, (for example, in construction projects). The concept of the Fund is designed to create the financial viability of social security for workers, and to provide a structure for employers' contribution. Thus, workers would be insured for accident and illness, old age, and unemployment. The Board is designed to provide a mechanism to ensure the working of the Fund, and essentially, to institutionalise workers' claims against employers through an empowered agency. In the broader context of economic liberalisation, recently proposed labour reforms seek to extend the scope of contract employment and to facilitate worker lay-off. As casualisation of labour now seems an irreversible trend, the Bills outlined above would appear to be the only way to ensure workers' interest. To this extent, organisations such as the NCL, which have systematically struggled to push for such legislation, are serving an invaluable historical purpose. As the Karnataka Unorganised Workers Bill awaits endorsement during the Assembly sessions being held currently, for the protagonists of the movement, this would be a watershed, but, nevertheless only a moment in a struggle that needs to be waged at multiple points and to evolve to newer heights.

174. According to the passage, the proposed labour reforms

- 1) will provide a much needed thrust to liberalization.
- 2) will encourage the practice of hiring labourers on a contract basis.
- 3) have resulted in casualisation of labour.
- 4) seek to extend the scope of employment and to facilitate worker retrenchment.

175. According to the passage, textile mill workers could not obtain compensation because

- 1) the number of workers available for pressing their claims was not adequate.
- 2) they were not united.
- 3) of the weakness of the struggle.
- 4) the motivation of the leaders was very low.

176. According to the passage, the most important aspect of the NCL is that

- 1) it has given a voice to the interests of workers in the unorganised sector.
- 2) it is an apex body of independent trade unions.
- 3) it has 6,25,000 members spread over 10 states in India.
- 4) it is the only body of its kind in India.

Directions (Q. 177-180): Each of these questions has four parts. Identify the part which is not correct.

177. 1) No sooner he left the office /2) than it started /3) raining heavily /4) enough to make him completely wet.

178. 1) Even after hearing the leader /2) for a long time /3) the followers could not make out /4) which he was talking about.

179. 1) The principal along with the teachers /2) were seen boarding a bus /3) to go to a picnic /4) on a national holiday.

180. 1) With the introduction of the new syllabus /2) the number of colleges reporting /3) high results are decreasing /4) year after year.

181. A train 300 m long is running at a speed of 90 km/hr. How many seconds will it take to cross a 200-m-long train running in the opposite direction at a speed of 60 km/hr?

- | | |
|-------------------|-------|
| 1) $7\frac{1}{5}$ | 2) 60 |
| 3) 12 | 4) 20 |

182. Out of eight crew members three particular members can sit only on the left side. Another two particular members can sit only on the right side. Find the number of ways in which the crew can be arranged so that four men can sit on each side.

- | | |
|--------|---------|
| 1) 864 | 2) 865 |
| 3) 863 | 4) 1728 |

183. Three pipes are made of different shapes. The cross-sections of the pipes are an equilateral triangle, a hexagon and a circle. The perimeter of each of these cross-sections is equal. The flow through the pipes is proportional to the area of cross-section. If it takes 8 minutes for the triangular pipe to fill up the tank, what will be the difference in the times taken by the hexagonal and circular pipes?

- | | |
|----------------|----------------|
| 1) 45 seconds | 2) 1 minute |
| 3) 1.5 minutes | 4) 7.9 minutes |

184. An iron cube of size 10 cm is hammered into a rectangular sheet of thickness 0.5 cm. If the sides of the sheet be in the ratio 1 : 5, then the sides are

- | | |
|------------------|------------------|
| 1) 20 cm, 100 cm | 2) 10 cm, 50 cm |
| 3) 40 cm, 200 cm | 4) None of these |

185. A portion of a 30-m-long tree is broken by a tor-

- nado and the top strikes the ground making an angle of 30° with the ground level. The height of the point where the tree is broken is equal to
- 1) 10 m 2) $\frac{30}{\sqrt{3}}$ m
3) $30\sqrt{3}$ m 4) 60 m
186. Fresh grapes contain 80 per cent water while dry grapes contain 10 per cent water. If the weight of dry grapes is 250 kg what was its total weight when it was fresh?
1) 1000 kg 2) 1125 kg
3) 1225 kg 4) 1100 kg
187. A dealer buys dry fruit at the rate of Rs 100, Rs 80 and Rs 60 per kg. He bought them in the ratio 12 : 15 : 20 by weight. He in total gets 20% profit by selling the first two and at last he finds he has no gain no loss in selling the whole quantity which he had. What was the percentage loss he suffered for the third quantity?
1) 40% 2) 20%
3) 30% 4) 50%
188. A man sitting in a train travelling at the rate of 50 km/hr observes that it takes 9 sec for a goods train travelling in the opposite direction to pass him. If the goods train is 187.5 m long, find its speed.
1) 40 km/hr 2) 25 km/hr
3) 35 km/hr 4) 36 km/hr
189. Amit Kumar got a 4-digit pass code (which is formed out of the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, 9) of his ATM card from ICICI Bank. But after the 50th day he lost the pass code and also forgot the number. How many maximum number of trials may he have to take to get the right number? 0 can be the beginning of the code number.
1) 10! 2) 10^4
3) 9^4 4) 9!
190. The length of a ladder is exactly equal to the height of the wall it is leaning against. If the lower end of the ladder is kept on a stool of height 3 m and the stool is kept 9 m away from the wall, the upper end of the ladder coincides with the top of the wall. Then the height of the wall is
1) 15 m 2) 12 m
3) 18 m 4) 11 m
191. If three equal cubes are placed adjacently in a row, then the ratio of the total surface area of the new cuboid to the sum of the surface areas of the three cubes will be
1) 5 : 9 2) 1 : 3
3) 2 : 3 4) 7 : 9
192. The Qutab Minar casts a shadow 150 m long at the same time when the Vikas Minar casts a shadow 120 m long on the ground. If the height of the Vikas Minar is 80 m, find the height of the Qutab Minar.
1) 100 m 2) 180 m
3) 150 m 4) 120 m
193. Due to a global recession starting in January, Ram's monthly salary of Rs 8000 was cut by 10%. The monthly expenses, which were Rs 6000, increased at the rate of 5% per month. Since which month will he have no savings if the recession lasted for a year?
1) April 2) March
3) May 4) June
194. An oil refinery takes 100 litres of crude oil as input and after refining for 1 hour gives certain amount of output oil X litres. This can be sold in the market at a profit of Rs 30 per litre. If this oil is further refined for $\frac{1}{2}$ hour it gives oil Y litres. This can be sold at a profit of Rs 50 per litre. Output and input ratio at both the stages is 90%. The maximum amount that can be earned from 1000 litres of crude input is
1) Rs 30,000 2) Rs 27,000
3) Rs 40,000 4) Rs 40,500
195. The radius of a cylindrical cistern is 10 metres and its height is 15 metres. Initially the cistern is empty. We start filling the cistern with water through a pipe whose diameter is 50 cm. Water is coming out of the pipe at a velocity of 5 m/s. How many minutes will it take to fill the cistern with water?
1) 20 2) 40
3) 60 4) 80
196. If m and n are natural numbers such that $2^m - 2^n = 960$, what is the value of m?
1) 10 2) 12
3) 16 4) Cannot be determined
197. If an angle of a triangle remain unchanged but each of its two including sides is doubled, then by what factor does the area get multiplied?
1) 2 2) 3
3) 4 4) 6
198. A number when divided by 765 leaves a remainder 42. What will be the remainder if the number is divided by 17?
1) 8 2) 7
3) 6 4) 5
199. If 11,109,999 is divided by 1111, then what is the remainder?
1) 1098 2) 1188
3) 1010 4) 1110
200. A mixture (40 litres) contains lime and water in the ratio 3 : 1. To make the ratio 5 : 2. How much additional amount of water is required?
1) 5 litres 2) 4 litres
3) 3 litres 4) 2 litres

Answers and explanations

1-3:

Order	Book
1.	Urdu
2.	Math
3.	Punjabi
4.	English
5.	History
6.	Accountancy

1. 4; Punjabi

2. 1 3. 2

4-6:

Person	Eng	Hindi	Math	Geog	Sanskrit
A	×	✓	×	×	✓
B	×	✓	✓	✓	✓
C	✓	×	×	×	✓
D	✓	×	✓	✓	✓

4. 2

5. 3

6. 3

7-9:

Day	Channel	Movie
Tuesday	SONY	Spy Thriller
Wednesday	B4U	Science Fiction
Saturday	HBO	Comedy
Sunday	STAR	Murder Mystery

7. 1

8. 4

9. 2

10-12:

Person	Dramatics	Com Science	Ply	His	Math
Madhu	✓	✓	✓	×	✓
Shivani	✓	✓	×	✓	×
Asha	×	✓	✓	✓	✓
Pratibha	✓	×	✓	✓	×
Namita	×	×	✓	✓	✓

10. 4

11. 2

12. 1

13. 3; There may be several reasons responsible for the increase in the onion prices. Hence, neither I nor II follows.

14. 3; I is only probably true. Hence I does not follow. II is probably false. Hence, II does not follow.

15. 3; Soman may or may not be a rich person. Hence, neither I nor II follows.

16-18:

Earnings: I. $C > E > B > A$ II. $D > A$ $F_{(+)}$ Sick man
$$C_{(+)} \text{ Journalist} \Leftrightarrow D_{(-)} \text{ (Doctor/Professor)}$$

$$B_{(-)} \text{ Journalist} \Leftrightarrow A_{(-)} - E_{(\text{Journalist})} \text{ Professor/Doctor}$$

16. 4; Either A or D

17. 2

18. 2

19. 1; The number of units demanded in B
 $= 1200 - (550 + 250)$
 $= 400$ units

20. 2; Required value of M
 $= 225 + 800 + 300 - 250$
 $= 1325 - 250 = 1075$ units

21. 2; Demand in E = $550 + 800 + 650 = 2000$ units

Now, demand in A = $\frac{2000}{80} \times 100$
 $= 2500$ units

22. 4

23. 1; **From B:**

Father's present age = 30 years

Four years before the age of the father was 26 years. At that time mother's age was 24 years.

 \therefore Mother's present age = $24 + 4 = 28$ years24. 3; **From A:** The required number of boys

$$= \frac{4}{(4+5)} \times 45 = 20$$

From B: The required number of boys

$$= \frac{9}{(5-4)} \times 5 = 45$$

25. 1; **From B:** Suppose the number is N. Then

$$\frac{1}{2} \times 44 - \frac{1}{5} \times N = 15$$

$$\text{or, } \frac{1}{5} N = 22 - 15$$

$$N = 35$$

26. 3; **From A:** We get

$$(36 - 32)\% \text{ of total marks} = 1 + 1$$

$$\therefore \text{Total marks} = \frac{2}{4} \times 100 = 50$$

\therefore Required minimum marks to pass in the examination
 $= 32\% \text{ of } 50 + 1 = 17$

From B: We get

$$(40 - 30)\% \text{ of total marks} = 5$$

$$\therefore \text{total marks} = \frac{5}{10} \times 100 = 50$$

\therefore Required minimum marks to pass in the examination

$$= 30\% \text{ of } 50 + 2 = 17$$

27. 2; Salary income = Rs 100000

Dividend income = Rs 50000
 Total = Rs 150000
 Less Incidentals = Rs 20000
 (Rs 20000 Max.)
 Balance = Rs 130000
 Less Dividend = Rs 15000
 (Rs 15000 Max.)
 Balance = Rs 115000
 Income Tax on Rs 115000
 = Rs 2000 + 20% of 55000
 = 13000

Less Investment $\frac{1}{5}$ th of Rs 20000 = Rs 4000

Net Tax Payable = Rs 9000

28. 1; On the income of Rs 78000, no tax will be due.

Total Gross Income = Rs 78000
 Less Incidentals (Rs 20000) + Dividends (Rs 15000) = Rs 35000
 Balance Rs 43000
 Less Investments upto a maximum of Rs 5000 = 3000

Rs 43000 - Rs 3000 = Rs 40,000

Tax Payable: Nil

29. 3; Total Gross Income: Rs 90000

Less Incidentals Rs 20000
 Balance Rs 70000
 Tax on Rs 70000 = Rs 2000 + 20% of Rs (70,000 - 60,000) = Rs 2000 + Rs 2000

= Rs 4000 less $\frac{1}{5}$ th of the Investments

= Rs 4000

Tax Payable: Nil

30. 3;

P O E T R Y
 ↘ | 1 | 1 | 1 | 1 | 1 | 1 |
 Q O N D S Q X

Similarly,

O V E R
 ↘ | 1 | 1 | 1 | 1 | 1 |
 P N U D Q

Similarly, MORE will be coded as follows:

M O R E
 ↘ | 1 | 1 | 1 | 1 | 1 |
 N L N Q D

31. 4; M O T H E R S

+2 -2 +2 -1 +2 -2 +2

O M V G G P U

Similarly, BROUGHT will be coded as follows:

B R O U G H T

+2 -2 +2 -1 +2 -2 +2

D P Q T I F V

32. 1;

P A T H O L I Q U I S T
 ↘ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
 P I U B Q K S R H F N

First five letters of the word PATHOLOGIST are reversed first and then coded as one place for-

ward. Similarly, the last five letters of the word are reversed then coded as one place backward. Middle letter is coded as one place backward. Hence, CONTROVERSY will be written as SUOPDNXRQDU.

33. 1; Here, each letter of the word CLOUD is written as three letters forward and one letter backward alternately. Following this, CLOUD becomes FKRTG. After that, reverse the order of the result obtained in the previous operation. Thus, FKRTG becomes GTRKF.

Similarly, SIGHT will change its form as follows:

SIGHT @ VJHGW @ WGJHV

34. 1;

BR EA KT HR OU GH
 1 2 3 4 5 6
 2 5 4 1 6 3
 EA OU HR BR GH KT

DI ST RJ BU TI ON
 1 2 3 4 5 6

Similarly, 2 5 4 1 6 3

ST TI BU DI ON RI

ie DISTRIBUTION will be coded as STTIBUDIONRI.

35. 3; Here the given word is BROUGHT. Reversing the order of the letters, it becomes THGUORB. Now write each letter one place backward except the middle letter (write middle letter one place forward). It becomes SGFVNQA.

Now reverse the order of the last three letters and it becomes SGFVAQN.

Similarly,

SUPREME → EMERPU →

DLDSOTR → DLDSRTO

36. 1; In the years 1993 and 1998 the capacities in all the sectors get increased.

37. 4; It is obvious from the table given in the question part.

Year	Per cent increase in Hydel capacity
1997	$\frac{(9880 - 9200)}{9200} \times 100 = 7\frac{9}{23}\%$
1991	$\frac{(6610 - 6390)}{6390} \times 100 = 3\frac{283}{639}\%$
1999	$\frac{(10450 - 10200)}{10200} \times 100 = 2\frac{23}{51}\%$
1995	$\frac{(8500 - 7530)}{7530} \times 100 = 12\frac{664}{753}\%$

38. 2; Required per cent share = $\frac{800}{30800} \times 100$

$$= 2\frac{46}{77}\%$$

39. 2; Total power generation in the year 1998
 = 40% of 15200 + 50% of 10200 + 90% of 800
 = 6080 + 5100 + 720
 = 11900 MW

40. 4; Required percentage capacity
 = $\frac{7900}{14710} \times 100 \approx 53.70\%$

41. 4; Required growth (in per cent)
 = $\frac{(16700 - 8200)}{8200} \times 100$
 = $103\frac{27}{41}\%$

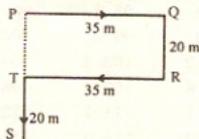
42. 1 43. 1 44. 2

45. 2; Conversion of statement (B) gives conclusion I. Hence, conclusion I follows. Conclusion II is an implication of statement (C). Hence, conclusion II follows. Similarly, conclusion IV is implication of statement (A). Hence, conclusion IV follows. Conclusion III does not follow from statement (C).

46. 2; "Only cats are dogs" implies "All dogs are cats". Now, All dogs are cats + conversion of statement (B) gives conclusion IV [$\therefore A + E = E$]. Hence, conclusion IV follows. Again, since, there is no common term between statement A and (B or C), we can't get any specific conclusion regarding 'racket' or 'jacket' and 'cat'. Therefore, neither conclusion I nor II nor conclusion III follows. But since conclusion I and conclusion III make a complementary pair either conclusion I or conclusion III follows.

47. 1; Statement (A) + statement (B) gives conclusion I [$\therefore A + E = E$]. Hence, conclusion I follows. Again, conversion of statement (C) gives conclusion IV. Hence, conclusion IV follows but conclusion II does not follow. Again, statement (A) + statement (D) gives no conclusion [$\therefore A + I =$ no conclusion]. Hence, conclusion III does not follow.

48. 4
 49. 3
 50. 4
 51. 4



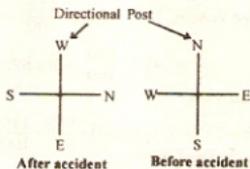
$$\begin{aligned} PS &= PT + ST \\ &= QR + ST \\ &= 20 \text{ m} + 20 \text{ m} \\ &= 40 \text{ m} \end{aligned}$$

52. 4; Data inadequate

53. 2; Only son of one's paternal grandfather implies

one's father. Hence, Neha is the sister of Rajesh.

54. 1;



55. 3; Ram's present age is 26 years [$\therefore 25 = 5^2$ and $27 = 3^3$].

When Ram will be 64 years old then his age will be the cube of 4.

Hence required time = $64 - 26 = 38$ years

56. 2; Go through the options.

$$\begin{aligned} 34(4 + 4 + 2) + (34 + 1)(3 + 4) \\ &= 34 \times 10 + 35 \times 7 \\ &= 340 + 245 \\ &= 585 \end{aligned}$$

57. 4; Note that $A + 6 = 2D$

Value of A can't be an odd number because in that case $A + 6$ will not be perfectly divisible by 2. Therefore, reject the choices 1), 2) and 3).

58. 3; Suppose the total number of persons in the group was x. Then we have

$$\frac{x(x-1)}{2} = 105$$

$$\text{or, } x(x-1) = 210$$

$$\therefore x = 15$$

59. 2; Total number of the persons in the queue
 = $23 + (23 - 7 - 1) + 1$
 = $23 + 15 + 1$
 = 39

60. 2

61. 2

62. 1; 1. C

2. D

3. A

4. E

5. B

63. 4; No. of coins $\approx \frac{2 \times 2\pi r}{2r} = 2\pi \approx 6$

64-68:

64. 2; Company

Cost per room
(in Rs crore)

1. Raheja group $\frac{250}{500} \times \frac{110}{100} \times \frac{110}{100} \approx 0.605$

2. Lokhandwala group $\frac{225 \times 110}{536 \times 100} \approx 0.461$

3. IHCL $\frac{275}{600} \times \frac{110}{100} \times \frac{110}{100} \approx 0.554$

$$4. \text{ ITC} \quad \frac{300}{300} \times \frac{110}{100} \times \frac{110}{100} = 1.21$$

65. 3

$$66. 3; \text{ Required cost} = (250 + 225) \times \frac{110}{100} \\ = 475 \times \frac{110}{100} = \text{Rs } 522.5 \text{ crore}$$

67. 2; Required cost

$$= (275 + 235 + 250 + 300) \times \frac{110}{100} \times \frac{110}{100} \\ = 1060 \times 1.1 \times 1.1 \\ = \text{Rs } 1282.6 \text{ crore}$$

68. 1; Required cost

$$= [\text{Rs } 522.5 + \text{Rs } 1282.6 + \\ \text{Rs } (250 \times 1.1 \times 1.1 \times 1.1)] \text{ crore} \\ = [\text{Rs } 522.5 + \text{Rs } 1282.6 + \text{Rs } 332.75] \text{ crore} \\ = \text{Rs } 2137.85 \text{ crore}$$

69. 3; Life insurance sold in Italy through agents

$$= 14\% \text{ of } 2500 \\ = \$ 350 \text{ m}$$

Life insurance sold in Spain through brokers and agents

$$= (14 + 5)\% \text{ of } 2000 \\ = \$ 380 \text{ m}$$

$$\therefore \text{ Required difference} \\ = (380 - 350) = \$ 30 \text{ m}$$

70. 3; Required value of non-term insurance

$$= (100 - 12.5)\% \text{ of total sale of life insurance policy} \\ = 87.5\% \text{ of } [2500 + 2000 + 15000 + 10000 + 1000 \\ + 20000 + 30000] \\ = 87.5\% \text{ of } 80500 \\ = \$ 70437.5 \text{ m}$$

71. 3; According to the given information, sales through agents in India

$$= 14\% \text{ of } 15000 \\ = \$ 2100 \text{ m}$$

$$\text{Now, the commission paid to the agents} \\ = 0.5\% \text{ of } 2100 \\ = \$ 10.5 \text{ m}$$

72. 3; Required total circulation of the four magazines

$$= 40,000 + 60,000 + 30,000 + 27,000 \\ = 1,57,000$$

73. 1; It is obvious from the given graph.

$$74. 2; \frac{28000 - 14000}{\frac{31000 - 14000}{28000}} \times 100$$

$$= \frac{14000}{31000} \times \frac{31000}{28000} \times 100 = 50\%$$

75. 1; Magazine **Cost of advertisement per thousand**

$$\text{DSJ} \quad \frac{14000}{40000} \times 1000 = \text{Rs } 350$$

$$\text{BI} \quad \frac{30,000}{60000} \times 1000 = \text{Rs } 500$$

$$\text{BW} \quad \frac{20000}{30000} \times 1000 = \text{Rs } 666.6$$

$$\text{FI} \quad \frac{17000}{27000} \times 1000 = \text{Rs } 629.6$$

76. 3; Advertisement cost per thousand for Business World in the year

$$(i) \text{ 1997} = \frac{5000}{25000} \times 1000 = \text{Rs } 200$$

$$(ii) \text{ 1998} = \frac{20,000}{30,000} \times 1000 = \text{Rs } 666 \frac{2}{3}$$

Thus increased advertisement cost per thousand

$$= \text{Rs } 666 \frac{2}{3} - \text{Rs } 200 = \text{Rs } 466 \frac{2}{3}$$

77. 2; Here,

$$\begin{matrix} \text{A} & \text{B} \\ \left(\frac{144}{12} + 1\right) \text{ posts} & 12 \text{ posts} \end{matrix}$$

Hence we get $A > B$

78. 3; Here,

$$\begin{matrix} \text{A} & \text{B} \\ 3 : 15 \text{ pm} - 2 : 55 \text{ pm} & \frac{1}{3} \text{ hour} \\ = 20 \text{ min} & = 20 \text{ min} \end{matrix}$$

79. 3; Here,

$$\begin{matrix} \text{A} & \text{B} \\ \frac{1}{3} \text{ of } 8 & 66 \frac{2}{3}\% \text{ of } 4 \\ = 2 \frac{2}{3} & = \frac{200}{3 \times 100} \times 4 \\ & = \frac{8}{3} = 2 \frac{2}{3} \end{matrix}$$

80. 3; Here,

$$\begin{matrix} \text{A} & \text{B} \\ \frac{\sqrt{0.49 + \frac{3}{4}} + 0.8}{3} = \frac{3}{4} & 75\% = \frac{3}{4} \end{matrix}$$

81. 1	82. 2	83. 3	84. 3
85. 4	86. 1	87. 2	88. 4
89. 2	90. 1	91. 2	92. 2
93. 1	94. 4	95. 2	96. 4
97. 2	98. 2	99. 2	100. 3
101. 4	102. 2	103. 3	104. 4
105. 1	106. 4	107. 2	108. 4
109. 1	110. 2	111. 1	112. 3
113. 4	114. 2	115. 3	116. 2
117. 1	118. 1	119. 1	120. 3
121. 2	122. 3	123. 2	124. 1
125. 2	126. 2	127. 3	128. 1
129. 1	130. 3	131. 3	132. 1
133. 2	134. 1	135. 1	136. 4

$$\text{or, } x = \frac{720}{12} = 60 \text{ km/hr}$$

Suppose the actual time taken by the train in the journey at a speed of 60 km/hr is T hours. Since first 150 km is covered at normal speed in 2.5 hours and the remaining distance is covered

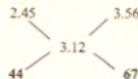
$$\text{at } 60 \times \frac{3}{5} \text{ km/hr in } T + 8 - 2.5 \\ = (T + 5.5) \text{ hrs,}$$

$$60T = 150 + 60 \times \frac{3}{5} (T + 5.5)$$

$$\therefore T = 14\frac{1}{2} \text{ hrs}$$

$$\text{And required distance} = 14\frac{1}{2} \times 60 = 870 \text{ km} \\ = 870 \text{ km}$$

151. 3; **Mechanical Trade** **Electronic Trade**



Ratio of graduates from Mechanical trade to those from Electronic trade = 44 : 67

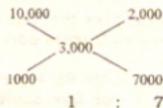
152. 1

153. 4; Go through the given options.

Here,
No. of students = 2
Average wt = 47 kg

154. 2; **Officer**

Workers



Hence, the required number of officers

$$= \frac{1}{(1+7)} \times 400 = 50$$

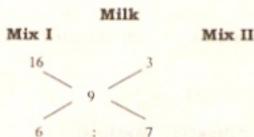
155. 2;

	Milk	:	Water
Mix I	8	:	1
Mix II	1	:	5
Mix I + II	1	:	1

The above information can be written as follows:

	Milk	:	Water
Mix I	16	:	2
Mix II	3	:	15
	9	:	9

Ratio of the contents of Mix I and Mix II can be obtained using **Alligation Method**.



$$\text{Required quantity} = \frac{7}{(6+7)} \times 26 = 14 \text{ gallons}$$

156. 1; Suppose the rate of stream is x km/hr. Then we have

Ratio of upstream speed and downstream speed = 1 : 2

$$\text{ie } (4.5 - x) \times 2 = 4.5 + x$$

$$\therefore x = 1.5 \text{ km/hr}$$

157. 4; Suppose a woman in 8 hours finishes 24 pillars [\therefore LCM of 8, 6 and 12 = 24].

Then work done by

1 woman in 1 hour = 3 pillars

1 man in 1 hour = 4 pillars

1 boy in 1 hour = 2 pillars

Note that working 6 hours per day, 9 men can complete the work in 6 days. The above information implies that the work consists of $(4 \times 9 \times 6 \times 6) = 1296$ pillars.

Therefore, required number of days to finish the work by 12 men, 12 women and 12 boys together, working 8 hours per day

$$= \frac{1296}{(4+3+2) \times 12 \times 8} = 1\frac{1}{2} \text{ days}$$

158. 1; Suppose the team finishes x articles per day and completes the work in y days.

Then, according to the question, we have

$$x \times y = 360 \dots (i)$$

And

$$(x + 4) \times (y - 1) = 360 \dots (ii)$$

Now, solve the above equations or go through the given choices.

Use option 1). If y = 10 then x = 36

$$\text{ie } 36 \times 10 = 360$$

And

$$(36 + 4) \times (10 - 1) = 360.$$

Hence, choice 1) satisfies the two given equations.

159. 2; Suppose the speed of the stream is y km/hour. Then we have

$$(12 + x) \times 6 = (12 - x) \times 9$$

Now, look at the given choices. The choice 2) satisfies the above equation.

$$(12 + 2.4) \times 6 = (12 - 2.4) \times 9$$

$$\therefore x = 2.4 \text{ km/hr}$$

160. 3; We have:

Ratio of efficiencies of large and small ships = 7 : 4

Again, ratio of efficiencies of medium and large ships

$$\frac{7 \times 2 + 4 \times 1}{3} : 7 \text{ ie } 6 : 7$$

Ratio of efficiencies of large, medium and small ships = 7 : 6 : 4

Now, required number of journeys

$$= \frac{(15 \times 7 + 7 \times 6 + 14 \times 4)36}{(12 \times 7 + 14 \times 6 + 21 \times 4)} = \frac{7308}{252} = 29$$

161. 4	162. 4	163. 1
164. 4	165. 3	166. 3
167. 1	168. 2	169. 1
170. 3	171. 3	172. 3
173. 3	174. 3	175. 3
176. 1		

177. 1; Insert had before he.

178. 4; Substitute what for which.

179. 2; Substitute was.

180. 3; Substitute is.

181. 3; Required time = $\frac{(300 + 200)}{(90 + 60) \times \frac{5}{18}}$

$$= \frac{500 \times 18}{150 \times 5} = 12 \text{ seconds}$$

182. 4; Required number of ways

$$= {}^3C_2 \times 4! \times 4! = 1728$$

183. 2; Suppose the perimeters of the cross-sections of each pipe be 132 cm. The, area of the cross-section of

(i) equilateral triangular pipe

$$= \frac{\sqrt{3}}{4} \times \left(\frac{132}{3}\right)^2 = \frac{\sqrt{3}}{4} \times 44^2$$

(ii) hexagonal pipe

$$= 6 \times \frac{\sqrt{3}}{4} \times \left(\frac{132}{6}\right)^2$$

$$= 6 \times \frac{\sqrt{3}}{4} \times 22^2$$

(iii) circular pipe = $\frac{22}{7} \times \left(\frac{132}{2 \times \frac{22}{7}}\right)^2$

$$= \frac{22}{7} \times (132 \times \frac{7}{2})^2$$

Now, according to the given information,

$$\frac{\frac{\sqrt{3}}{4} \times 44^2}{6 \times \frac{\sqrt{3}}{4} \times 22^2} = \frac{8}{?}$$

Here ? = the time taken to finish the job by hexagonal pipe

$$? = \frac{8 \times 6 \times 22^2}{44^2} = 12$$

Also,

$$\frac{\frac{\sqrt{3}}{4} \times 44^2}{\frac{22}{7} \left(\frac{132 \times 7}{2 \times 22}\right)^2} = \frac{8}{?}$$

Here ? = the time taken to finish the job by circular pipe

$$? = \frac{8 \times \frac{22}{7} \left(\frac{132 \times 7}{2 \times 22}\right)^2}{\frac{\sqrt{3}}{4} \times 44^2}$$

$$= \frac{8 \times 22 \times 924 \times 924}{7 \times 44 \times 44 \times \sqrt{3} \times 11 \times 44} = 13.22$$

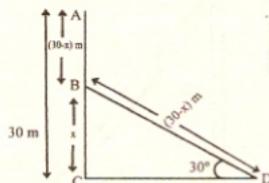
Hence, the required difference in the times taken by hexagonal and circular pipes = 13.22 - 12 = 1.22 min

184. 1; We have $x \times 5x \times 0.5 = 10 \times 10 \times 10$

$$\therefore x = \sqrt{\frac{10 \times 10 \times 10}{5 \times 0.5}} = 20$$

\therefore sides are $20 \times 1 = 20$ cm and $20 \times 5 = 100$ cm

185. 1;



$$\sin 30^\circ = \frac{BC}{BD} \quad \text{or,} \quad \frac{1}{2} = \frac{BC}{BD}$$

$$\text{or, } BC = \frac{BD}{2} \quad \text{or, } x = \frac{(30-x)}{2}$$

$$\text{or, } 2x = 30 - x$$

$$\therefore x = 10 \text{ m}$$

186. 2; From the given information we get that 20% of fresh grapes = 90% of dry grapes ie 20% of fresh grapes

$$= \frac{250 \times 90}{100} = 225 \text{ kg}$$

\therefore required weight of fresh grapes = 225 \times 5 = 1125 kg

187. 1; Suppose the man purchases 12 kg dry fruits of the first type, 15 kg of the second type and 20 kg of third type.

\therefore Total cost of dry fruits

$$= 100 \times 12 + 80 \times 15 + 60 \times 20 \quad \checkmark$$

$$= \text{Rs } 1200 + \text{Rs } 1200 + \text{Rs } 1200$$

= Rs 3600

Now, according to the given information, he got 20% profit on the first and the second. This implies that he got Rs 480 as a profit on the first two types of dry fruits.

And since the man got no profit no loss on the whole transaction, we can conclude that the man incurred Rs 480 as a loss on the third item.

Thus, required per cent loss = $\frac{480}{1200} \times 100$
= 40%

188. 2; We have $\frac{187.5}{(50+x) \times \frac{5}{18}} = 9$

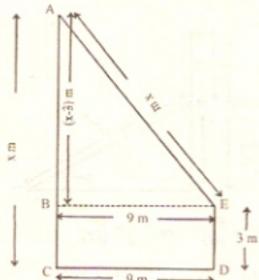
or, $\frac{187.5 \times 18}{(50+x)5} = 9$

or, $x = \frac{187.5 \times 18}{9 \times 5} - 50 = 75 - 50 = 25 \text{ km/hr}$

189. 2; Required number of trials

= $10 \times 10 \times 10 \times 10 = 10^4$

190. 1;



We have $(x-3)^2 + 9^2 = x^2$

Now, go through the option and search for a suitable value of x . We get $x = 15$

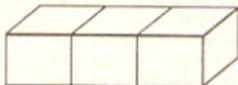
$(15-3)^2 + 9^2 = 15^2$

Hence, required height of wall = 15 m

191. 4; Suppose the side of the cube is 1 cm. Then total surface areas of three cubes

= $3 \times 6 \times 1^2 = 18 \text{ cm}^2$

Now, when the three cubes are placed adjacently in a row, it will look as follows:



Then the surface area of the above cuboid-shaped figure

= $2(lb + bh + hl)$

= $2(3 \times 1 + 1 \times 1 + 1 \times 3)$

= 14 cm^2

Hence, the required ratio = 14 : 18

= 7 : 9

192. 1; We have $x : 150 :: 80 : 120$

$\therefore x = 100$

193. 1;

	Salary	Expense	Savings
Jan	Rs 7200	Rs 6300	Rs 900
Feb	Rs 7200	Rs 6615	Rs 585
Mar	Rs 7200	Rs 6945	Rs 254.25
Apr	Rs 7200	Rs 7293.0375	-Rs 93.0375

Since April he will have no savings.

194. 4; Volume of $x = 90\%$ of 1000

= 900 litres

Volume of $y = 90\%$ of 900

= 810 litres

Volume of x can generate a profit equal to Rs 27000 [$\because 900 \times 30 = 27000$].

While the volume of y can generate a profit equal to Rs 40,500 [$\because 810 \times 50 = 40500$].

Now it is obvious that the profit obtained from the second stage is higher. Therefore, the maximum amount that can be earned from 1000 litres of crude input = Rs 40,500.

195. 4; Required time

$$= \frac{\pi \times 10 \times 10 \times 15}{\pi \times \frac{0.5}{2} \times \frac{0.5}{2} \times 5 \times 60}$$

= 80 min

196. 1; Convert 960 into a binary number since we are dealing with powers of 2.

2	960	
2	480	0
2	240	0
2	120	0
2	60	0
2	30	0
2	15	0
2	7	1
2	3	1
2	1	1

Now $(960)_{10} = (1111000000)_2$

Now,

$(1000000000)_2 - (1000000)_2 = (1111000000)_2$

or $2^{10} - 2^6 = 960$

Hence $m = 10$

Note: If you are not familiar with subtraction of binary numbers, try the method given below as **Aliter**.

Aliter: $2^m > 2^n$ and $2^m - 2^n = 960$