Question Paper of IPU - CET MCA 2006 (GGSIPU - MCA ENTRANCE 2006)

Quantitative & Mathematical Ability Test

1. $x_1, x_2, x_3 \in N$. The number of solutions of the equation $x_1, x_2, x_3 = 24300$ is
   (a) 480 (b) 512 (c) 560 (d) 680
   (e) 756

2. The numbe of ways in which 12 blue balls, 12 green balls and one black ball can be arranged in a row with the black ball in the middle and arrangements of the colours of balls being symmetrical about the black ball, is
   (a) $\frac{24!}{2(2)!(12)!}$ (b) $\frac{12!}{(6)!(6)!}$ (c) $\frac{2(24)!}{(12)!(12)!}$ (d) $\frac{12!}{2(6)!(6)!}$
   (e) $\frac{2(12!)}{2(6)!(6)!}$

3. The area of the largest rectangle, whose sides are parallel to the coordinate axes, that can be inscribed in the ellipse $\frac{x^2}{25}+\frac{y^2}{9}=1$ is
   (a) 10 (b) 20 (c) 30 (d) $20\sqrt{5}$
   (e) $20\sqrt{6}$

4. $x \in R$ the solution set of the inequality $|x-4| + |x-6| + |x+8| \le 15$, is
   (a) [1, 11] (b) [2, 12] (c) [0, 10] (d) [3, 10]
   (e) None of these

5. The sum of the infinite series $1+\frac{4}{5}+\frac{7}{5^2}+\frac{10}{5^3}+\frac{13}{5^4}\ldots\ldots$ is
   (a) $\frac{21}{16}$ (b) $\frac{15}{16}$ (c) $\frac{9}{16}$ (d) $\frac{35}{16}$
   (e) None of these

6. $x \in R$ the solution set of the inequality $10[x]^2 - 17[x] - 6 \le 0$ (where [x] denotes the greatest integer less than or equal to) is
(a) [0, 3] (b) [−1, 2] (c) [0, 3] (d) [−1, 3]
(e) None of these

7. A player is going to play a match either in the morning or in the afternoon or in the evening all possibilities being equally likely. The probability that he wins the match is 0.6, 0.1 and 0.8 according as if the match is played in the morning, afternoon or in the evening respectively. Given that he has won the match, the probability that the match was played in the afternoon is
(a) $\frac{1}{12}$ (b) $\frac{1}{15}$ (c) $\frac{2}{27}$ (d) $\frac{1}{10}$
(e) $\frac{1}{20}$

8. P, Q are 3 × 3 matrices. X is 3 × 1 matrix, PX = 0 has infinitely many solutions, QX = 0 has a unique solution. T be the solution set of P (QX) = 0. S be the solution set of Q(PX) = 0. Then,
(a) both T and S are infinite sets.
(b) only T is an infinite set.
(c) only S is an infinite set.
(d) both T and S are finite sets.
(e) exactly one of S, T is an infinite set.

9. The set solution set for real x of the equation $\log_x 4 + \log_x 2 = \frac{8}{3}$ is
(a) $\left\{\frac{1}{8}\right\}$ (b) $\{\sqrt{2}, 4\}$ (c) $\{\sqrt{12}\}$ (d) $\{\sqrt{2}\}$
(e) None of these

10. $p, q, r \in R$ $f(x) = px^2 + qx + r$, $f(12) = f(22) = f(42)$, $10\int_{12}^{42} f'(x)dx$ is eauls
(a) 300 (b) 200 (c) 100 (d) $\frac{100}{3}$
(e) None of these

11. The orthocentre of the triangle determined by the lines $6x^2 + 5xy - 6y^2 - 29x + 2y + 28 = 0$ and $11x - 2y - 7 = 0$ is
(a) (−4, 5) (b) (4, 4) (c) (0, 7) (d) (2, 1)
(e) (−1, 3)

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12. $\int_{\frac{\pi}{2}}^{2\pi} \sqrt{1 + \cos 2\theta} d\theta$ equals
(a) $\sqrt{2}$ (b) $2\sqrt{2}$ (c) $3\sqrt{2}$ (d) $4\sqrt{2}$
(e) 0

13. The distance between the two focii of the a hyperbola H is 12. The distance between the two directrices of hyperbola H is 3. The acute angle between the asymptotes of H in degrees is
(a) 30° (b) 40° (c) 45° (d) 60°
(e) 70°

14. $\lim_{x\to 0}\frac{\frac{\pi}{2}-\cos^{-1}x}{x}-\lim_{x\to\sqrt{3}}\frac{\tan^{-1}x-\frac{\pi}{3}}{x-\sqrt{3}}$ is

(a) $\frac{1}{4}$ (b) $\frac{2}{4}$ (c) $\frac{3}{4}$ (d) 1

(e) $\frac{5}{4}$

15. a, b, c ∈ R, if 2a + 3b + 4c = 0, then the line ax + by + c = 0 always passes through the point

(a) $\left(-\frac{1}{3},\frac{3}{5}\right)$ (b) $\left(-\frac{2}{3},\frac{3}{4}\right)$ (c) $\left(\frac{5}{2},\frac{3}{7}\right)$ (d) $\left(\frac{1}{7},\frac{3}{11}\right)$

(e) $\left(\frac{1}{2},\frac{3}{4}\right)$

16. The solution of the differential equation $y(2x + y^2)dx + x(x + 3y^2)dy = 0$, is

(a) $x^2y + 2xy^3 = C$ (b) $2x^2y + xy^3 = C$ (c) $xy + xy^3 = C$ (d) $x^2y + xy^3 = C$

(e) $x^2y + xy^2 = C$

17. $P=\begin{bmatrix}\cos x & -\sin x\\ \sin x & \cos x\end{bmatrix}$ and $Q=\begin{bmatrix}\cos y & -\sin y\\ \sin y & \cos y\end{bmatrix}$, then

(a) PQ ≠ QP

(b) $P^2Q=\begin{bmatrix}\cos(2x+y) & -\sin(2x+y)\\ \sin(2x+y) & \cos(2x+y)\end{bmatrix}$

(c) $P^2Q=\begin{bmatrix}\cos(2x-y) & -\sin(2x+y)\\ \sin(2x-y) & \cos(2x-y)\end{bmatrix}$

(d) PQ = O for some x, y ∈ R

(e) None of the above

18. $\int_{-2}^{2}\left(\log_e\left(\frac{1-x+x^2}{1+x+x^2}\right)+e^{\log_e(x-1)^3}\right)dx$ equals

(a) 0 (b) 1 (c) 2 (d) 3

(e) 4

19. The general solution of the equation $\sin^2\theta + \sin 2\theta - 15\cos^2\theta = 0$ is given by θ equals

(a) $n\pi + \tan^{-1}3$ or $m\pi - \tan^{-1}5$

(b) $n\pi - \tan^{-1}3$ or $m\pi + \tan^{-1}5$

(c) $n\pi - \tan^{-1}2$ or $m\pi - \tan^{-1}6$

(d) $n\pi - \tan^{-1}7$ or $m\pi - \tan^{-1}3$

(e) None of the above

20. p, q and r are mutually perpendicular unit vectors, d is also a unit vector. If $d = u_1p + v_1q + w_1r$ and $d = u_2(q \times r) + v_2(r \times p) + w_2(p \times q)$, then the maximum value of $(u_1 - u_2) + (v_1 - v_2) + (w_1 - w_2)$ equals

(a) 0 (b) 1 (c) 2 (d) 3

(e) 4

21. $L_1 \parallel L_2$. Slope of $L_1 = 9$. Also $L_3 \parallel L_4$. Slope of $L_4 = -\frac{1}{25}$. All these lines touch the ellipse $\frac{x^2}{25} + \frac{y^2}{9} = 1$. The area of the parallelogram determine d these lines is
(a) 21 (b) 28 (c) 40 (d) 56
(e) 60

22. The sum $\sum_{0 \le k \le 12} \frac{1}{k!(25-k)!}$ equals
(a) $\frac{2^{24}}{25!}$ (b) $\frac{2^{25}}{25!}$ (c) $\frac{2^{26}}{25!}$ (d) $\frac{2^{25}}{24!}$
(e) None of these

23. For complex number
z, $0 \le \arg(z) < 2\pi$. $S = \{z : |z - 5\sqrt{3} - 5i| = 5\}$.
The maimum {arg $(z) : z \in S$} is
(a) $\frac{\pi}{3}$ (b) $\frac{\pi}{4}$ (c) $\frac{\pi}{5}$ (d) $\frac{\pi}{6}$
(e) $\frac{\pi}{7}$

24. All the matrices in this equation are of order 3×3. $A_1 = P^{-1}BP$, $A_2 = P^{-1}B^2P$, $|B| = 3$. The value of $|A_1^2 + A_2|$ is
(a) 36 (b) 48 (c) 60 (d) 64
(e) 72

25. $f = R \to R$ is given by $f(x) = x^2 + 6x + 2$ if x is rational and $f(x) = x^2 + 5x - 1$, otherwise f is continuous at
(a) for all $x = R$ (b) for no $x \in R$
(c) for only one value of x (d) for two values of x
(e) None of these

26. If P, Q, R and S are four distinct collinear points such that $\frac{PR}{RQ} = \frac{-PS}{SQ} = k$, then the value of $\frac{RP + RQ}{PS + QS}$ is
(a) $-\left(\frac{1+k}{1-k}\right)^2$ (b) $-\left(\frac{1-k}{1-k}\right)^2$ (c) $\left(\frac{1-k}{1+k}\right)^2$ (d) $\left(\frac{1+k}{1-k}\right)^2$
(e) None of these

27. A contractor hires k poeple for a job and then complete the job in x days. A months later he gets a contract for an identical job. At this time, he has with him $k + m + n$ people for the job, the number of days it will require for them to complete it, is
(a) $k + m + n$ (b) $(k + m + n)\frac{x}{k}$ (c) $\frac{x}{k+m+n}$ (d) $\frac{kx}{k+m+n}$
(e) None of these

28. $P(x)$ is a real polynomial of degree three, $P(x) = 0$ has a double root at $x = 2$. It has a relative extremum at $x = 1$. The remaining root of $P(x) = 0$ is
(a) $\frac{4}{5}$ (b) $\frac{3}{4}$ (c) $\frac{2}{3}$ (d) $\frac{1}{2}$
(e) None of these

29. The volume of the trgrahedron whose vertices are P(k, k, k), Q(k + 1, k + 6, k + 36), R (k, k + 2, k + 5), S(k, k, k + 6) is
(a) 1 (b) 2 (c) 4 (d) 6
(e) 36

30. In an election 10% of the votes on the voters' list did not cast their votes and 50 votes cast their ballot papers blank. There were exactly two candidates. The winner was supported by 47% of all the voters in the list and he get 306 more than his rival. The number of voters in the list was
(a) 6400 (b) 6603 (c) 7263 (d) 8900
(e) None of these

31. P moves on the line $y = 3x + 10$. Q moves on the parabola $y^2 = 24x$. The shortest value of the segment PQ is
(a) $\frac{7}{12}$ (b) $\frac{8}{\sqrt{10}}$ (c) $\frac{\sqrt{7}}{2}$ (d) $\frac{6}{\sqrt{15}}$
(e) 6

32. Value of $(243)^{0.09}(81)^{0.13}$ is
(a) 1 (b) 3 (c) 9
(d) a quantity slightly greater than 4 (e) None of these

33. If a is a positive integer and the roots of the equation $7x^2 - 13x + 2a$ are rational numbers, then the smallest value of a is
(a) 1 (b) 2 (c) 3 (d) 4
(e) None of these

34. Let $y_1, y_2, \ldots, y_n$ be positive integers such that $y_i + y_{-i} = s$ for all i, where s is constant. If $y_1 = 1$, then the value of y_n is
(a) 1 (b) s – 1 (c) s (d) s + 1
(e) None of these

35. The line $2x + y - 1 = 0$ cuts the curves $5x^2 + xy - y^2 - 3x - y + 1 = 0$ at P and Q. O is the origin. The acute angle between the lines OP and OQ is
(a) $\frac{\pi}{7}$ (b) $\frac{\pi}{6}$ (c) $\frac{\pi}{5}$ (d) $\frac{\pi}{4}$
(e) $\frac{\pi}{3}$

36. The coefficient of x^6 in the expansion of $(1 + x^3)^3(2 + x^4)^{10}$ is
(a) 2^{14} (b) 31 (c) $\left(\frac{3}{3}\right)+\left(\frac{10}{1}\right)$ (d) $\left(\frac{3}{3}\right)+2\left(\frac{10}{1}\right)$
(e) None of these

37. A container in the shape of a cube is used to store liquid nitrogen. It's lenght, breadth and height is 60 cm each. Let h(t) denote the level, in centimeters, of liquid nitrogen above the base of the tank at time t secondes. Starting at time t = 0, liquid nitrogen is poured into the tank at a constant rate of 100 cc per second, and simultaneously liquid nitrogen is being removed from the container at the rate of 2.5 h(t) cc per second. As $t \to \infty$, the limit of the volume of liquid nitrogen in the container is
(a) 36000 cc
(b) 144000 cc
(c) the limit does not exist
(d) the limit exists, but cannot be determined without nowing h(0)
(e) None of the above

38. If $q > 0$ and $\int_0^q (x-3)dx = \int_3^q (x-3)^2 dx$ then the area of the region bounded by $(3 < x < q) \wedge (y > (x-3) \wedge (y < (x-3)^2)$ is
(a) 0 (b) 1/3 (c) 1/4 (d) 1/6
(e) None of these

39. A student took five papers in an examination, where the full marks were the same for each paper. The marks obtained by the student in these papers were in the proportion 6 : 7 : 8 : 9 : 10. The student obtained 3/5 of the total full marks. The number of papers in which the student obtained less than 45% marks is
(a) 2
(b) 3
(c) 4
(d) insufficient information to computer
(e) None of these

40. Only one of the following statements given below regarding elements and subsets of the set {2, 3, {1, 2, 3)} is correct. Which one is it ?
(a) $\{2, 3\} \subset \{2, 3, \{1, 2, 3\}\}$ (b) $1 \in \{2, 3, \{1, 2, 3\}\}$
(c) $\{2, 3\} \subseteq \{2, 3, \{1, 2, 3\}\}$ (d) $\{1, 2, 3\} \subset \{2, 3, \{1, 2, 3\}\}$
(e) All of these

General Aptitude

41. In certain code LEGAL is written as '@$&#!' and 'MAN' is written '*#^'. How is 'GAME' written in the code ?
(a) #&*$ (b) &*#$ (c) *&#$ (d) $*^&
(e) &#*$

Directions (Q. Nos. 42-43) Read the following statements carefully and answer the questions given below it.
I. 'P * Q' means P is the daughter of Q.
II. 'P ? Q' means P is the brother of Q.
III. 'P • Q' means P is the father of Q.

42. Which of the following will represent 'B is the son of A'?
(a) B * A • C (b) B ? D • A (c) B ? D * A (d) B * D ? A
(e) None of these

43. Which of the statements given above is superfluous for answering Q. No. 42 ?
(a) I (b) II (c) III (d) I and III
(e) None of these

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44. In the following action sequence 'R' stands for 'Read' T' stands for 'Translate', V stands for 'Write' and 'C' stands for 'Communicate. If the sequence were continued, which action should come in the place of the (?)?
RTWCRRTWC(?)RRT.
(a) Read (b) Translate (c) Write (d) Communicate
(e) Either Translate or Communicate.

Directions (Q. Nos. 45-48) The letter group in each question below is to be codified in the following code.

Letter	B	M	X	T	U	S	D	R	E
Code	2	7	4	5	1	8	0	9	6

You have to find out which of the answers (a), (b), (c) and (d) is the correct coded form of the given letters group and indicate it on your answer sheet. If none of the coded forms is correct, mark (e) as the answer.

45. XTUDE
(a) 45160 (b) 45106 (c) 45860 (d) 45016
(e) None of these

46. BUXRD
(a) 21460 (b) 24190 (c) 21406 (d) 21490
(e) None of these

47. TMSEM
(a) 57868 (b) 58768 (c) 57867 (d) 75867
(e) None of these

48. STMER
(a) 85769 (b) 85796 (c) 87569 (d) 87596
(e) None of these

Direction (Q. 49 - 54) : In a certain code, the symbol for 0 (zero) is ★ and for 1 ▲ is. There are no other symbols for numbering and all numbers greater than 1 are written using these two symbols only. The value of the symbol 1 boubles itself every time it shift one place to the left every it shifts one place to the left. Thus 0 is written as ★

1. is written as ▲
2. is written as ▲★
3. is written as ▲▲
4. is written as ▲★★
5. is written as ▲★▲

49. Which of the following will represent 16 ?
(a) ▲★★★★ (b) ▲★★★ (c) ▲★▲★★ (d) ▲▲★★★
(d) None of these

50. Which of the following will represent 25 per cent of 80 ?
(a) ▲★★★★ (b) ▲★★▲★ (c) ▲★▲★★ (d) ▲▲★★★
(e) None of these

51. If ▲★▲▲★is added to ▲★★★★. What will be the sum ?
(a) ▲★★★★★ (b) ▲★★▲▲★ (c) ▲★★▲▲ (d) ▲▲★★★
(e) None of these

52. Which of the following will represent i ?
(a) ▲★▲★ (b) ▲★★▲▲★ (c) ▲★★▲▲ (d) ▲★★★
(e) None of these

53. Which of the following will represent value of the expression 3 × 6 – 4 = ?
(a) ▲▲▲★ (b) ▲★▲▲ (c) ▲▲★★ (d) ▲★★★★
(e) None of these

54. If ▲▲★★★is divided by ▲▲, what will be the remainder ?
(a) ▲ (b) ▲★ (c) ▲▲ (d) ▲★★★
(e) None of these

Directions (Q. Nos. 55-60) Which of the following will answer the questions given here?
A word and number arrangement machine when given an input as set of words rearranges them following a particular rule and generates stepwise outputs till the rearrangement is complete following that rule.
Following is an illustration of input and steps of rearrangement-till the last step.
Input : green can 70 mine 32 ghost 1320
Step I : can green 70 mine 32 ghost 1320
Step II : can 70 green mine 32 ghost 1320
Step III : can 70 ghost green mine 32 1320
Step IV : can 70 shost 32 green mine 1320
Step V : can 70 ghost 32 green 20 mine 13
Step V is the last step and as per the rule followed in the above steps, find out the answer to each of the following questions.

55. Input : cow 19 deal 55 see 25 bee 13. Which of the following will be the III step?
(a) cow 55 bee 19 deal see 25 13
(b) bee 55 cow 25 19 deal see 13
(c) bee 55 cow 19 deal see 25 13
(d) bee 19 cow 25 55 deal see 13
(e) None of the above

56. Input : blue brown red 13 12 15 yellow 9. Which of the following will be the last step ?
(a) IV (b) III (c) II (d) V
(e) None of these

57. If the third step of an input is : and 75 buzz 50 thaSe dream 35 43, which of the following will be the last step?
(a) VII (b) VI (c) V (d) IV
(e) None of these

58. Step I : Clean 85 rub 70 waste zeal 50 65. Which of the following will be the III step, if the I step is as above?
(a) Clean 85 rub 70 waste 65 zeal 50.
(b) Clean 65 rub 70 waste 85 zeal 50.
(c) Cannot be determined.
(d) Step III is not there as Step II is the last step.
(e) None of the above

59. Input : run 23 skip 45 50 wave 15 late. Which one would be the last but one step?
(a) late 60 run 45 23 skip wave 15
(b) late 60 run 23 45 skip wave 15
(c) late 60 run 45 skip 23 wave 15
(d) late 60 run 45 23 wave skip 15
(e) None of the above

60. Step II : cry 95 30 smile zeal. 52 test 21 Which of the following would be the last step?
(a) IV (b) III (c) VI (d) VII
(e) None of these

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Directions (Q. Nos. 61-65) In the following questions, the symbols $, ©, @, ¥ and are used as illustrated below.
'P $ Q' means 'ID is neither greater than nor smaller than Q.
'P © Q' means 'P is neither smaller than nor equal to Q.
'P @ Q' means 'P is neither greater than nor equal to Q.
'P ¥ Q' means 'P is not greater than 0.
'P ® Q' means 'P is not smaller than Q'
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true?

Give answer (a) if only Conclusion I is true.
Give answer (b) if only Conclusion II is true.
Give answer (c) if either Conclusion I or II is true.
Give answer (d) if neither Conclusion I nor II is true.
Give answer (e) if both Conclusions I and II are true.

61. Statements
A @ B, B ® C, Q $ A
Conclusions
I. Q ® C
II. A $ C

62. Statements
A ¥ B, P ¥ B, C ¥ P
Conclusions
I. C @ B
II. B © A

63. Statements
A ® D, C @ B, D @ B
Conclusions
I. D $ C
II. B © A

64. Statements
A @ B, B © C, D @ C
Conclusions
I. A $ C
II. B © D

65. Statements
A ® C, B $ A, D ¥ C
Conclusions
I. B © D
II. B $ D

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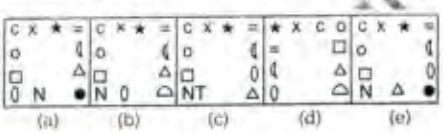
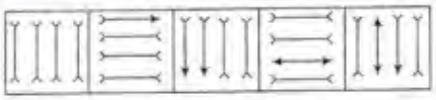
Directions (Q. Nos. 66-70) In each of the questions given below which one of the five answer figures on the below should come after the problem figures on the top if the sequence were continued?

66. Problem Figures

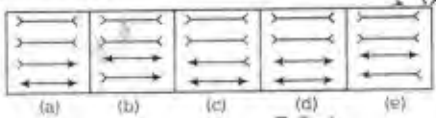
Answer Figures



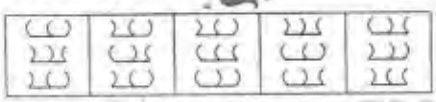
67. Problem Figures



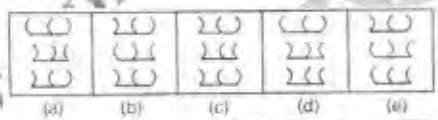
Answer Figures



68. Problem Figures

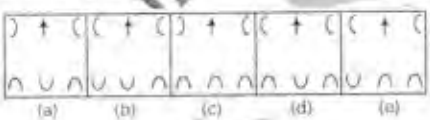


Answer Figures

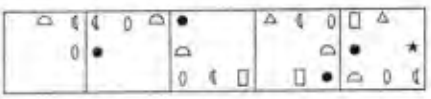


69. Problem Figures

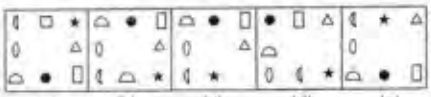
Answer Figures



70. Problem Figures



Answer Figures



Direction (Q. 71 - 75) : In each of the following questions two equations are given. You have to solve the equations and give answer.

(a) if $x < y$ (b) if $x > y$ (c) if $x = y$ (d) if $x \geq y$
(e) if $x \leq y$

71. I. $3x^2 - 12x + 12 = 0$
II. $2y^2 - 5y + 2 = 0$

72. I. $x^2 - 12x + 35 = 0$
    II. $y^2 - 5y + 6 = 0$

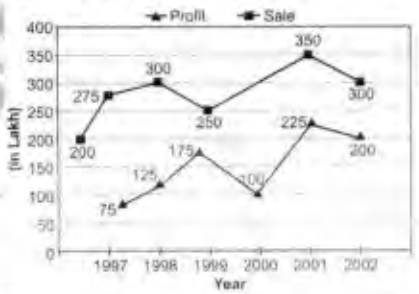
73. I. $x^2 + 4x + 4 = 0$
    II. $2y^2 + 8y + 8 = 0$

74. I. $3x^2 - 7x - 6 = 0$
    II. $2y^2 - 28y + 98 = 0$

75. I. $4x^2 = 64$
    II. $2y^2 - 16y + 32 = 0$

Dirction (Q. 76 - 80) : Study the following graph carefully and answer the question given below it.

Sales & Profit an organisation over the years



76. During which of the given years increase in profit over the previous year was the highest?
    (a) 2000 (b) 1999 (c) 2001 (d) 1998
    (e) 2002

77. Approximately, what is the average sales (in lakh) of the organisation over the year? (Rounded off to the next integer).
    (a) 270 (b) 300 (c) 290 (d) 280
    (e) 295

78. What is the percentage increase in the profit in 1999 over that in 1997?
    (a) $100\frac{5}{7}$ (b) $110\frac{3}{5}$ (c) $125\frac{2}{5}$ (d) $130\frac{2}{3}$
    (d) $133\frac{1}{3}$

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79. In which year was the ratio of profit to sales the highest over the given years?
    (a) 2001 (b) 2002 (c) 1999 (d) 1998
    (e) None of these

80. If in the year 2000, the profit was more by 54 lakh, what would been the average profit (in lakh) over the given years ?
    (a) 159 (b) 164 (c) 169 (d) 155
    (e) None of these

English Language

Directions (Q. Nos. 81-90) Read the following passage carefully and answer the questions that follow it. Certain words/expressions are given in bold in the passage to help you locate them while answering some of the questions.

Poverty, illiteracy, and unemployment are socially and economically inter linked, these are supplementary and complementary to one another. e.g., the economic problem of unemployment causes, promotes, and sustains poverty, which in turn forces people to indulge in crimes like theft, pickpocket, burglary, murder, beggary, etc., Poverty also contributes to the problem of population explosion because the only recreation of the poor people is the creation of children, who are regarded by them as an asset and not a liability, as a source of income because they either resort to begging or work as child labourers. Both poverty and unemployment perpetuate most of other socio-economic maladies resulting into a vicious circle situation.

The per capita and industrial progress are doubtless indication of nation's greatness, but the real strength of a nation lies in what we do to bring about social change and the fervour with which we stick to our programme of implementing it. The economic strength is acquired through ruthless attack on poverty and social backwardness and in uplifting the standard of the weaker sections of the society. Social inequality is the greatest obstacle to the nation's progress. Only creating a strong and healthy nation is not enough, unless we can achieve and maintain a higher rate of growth. Social injustice and growth are the two inseparable sides of a coin. The benefits gained by education, capacity and economic strength must reach the people of all stratas. Economic disparity must be eradicated; otherwise this will be a monstrous thing which will undo every hope.

81. Which of the following statements (s) is/are true in the context of the passage?
I. Merciless attack on poverty is a prerequisite for acquiring economic strength.
II. Higher rate of growth is necessary for nation's progress.
III. Per capita income is a doubtful indicator of nation's progress.
(a) Only I (b) Only II (c) Only III (d) I and II only
(e) All of these

82. Find out a word which is MOST OPPOSITE in meaning to the word obstacle as used in the passage?
(a) Facilitator (b) Manipulator (c) Provider (d) Destabiliser
(e) Equaliser

83. Which of the following is referred to as 'a monstrous thing' in the passage ?
(a) Regional disparity
(b) Low per capita income
(c) Poor implementation of programmes
(d) Low industrial productivity
(e) None of the above

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84. Find out a word similar in meaning to the word fervour as used in the passage ?
(a) Hope (b) Admiration (c) Appreciation (d) Zeal
(e) Morality

85. How a nation acquires an economic strength ?
(a) Through attack on poverty and social ills.
(b) Rooting herself firmly in the harsh realities.
(c) By eliminating traditional and dogmatic values.
(d) By providing a boost to industrial production.
(e) Through sinking the differences and working unitedly.

86. The real power of a nation lies in
(a) industrial progress and productivity
(b) aggregate output of consumer goods
(c) the volume of national income
(d) creating conditions of basic health and employment
(e) the quality of programme of social change

87. Which of the following is the single most important hurdle in the progress of a nation?
(a) Per capita income
(b) Social inequality
(c) Low rate of literacy
(d) Lack of unity among the citizens
(e) Weaker economy

88. Which of the following is the sign of the greatness of a nation?
(a) Agricultural production
(b) People living above poverty line
(c) Average income of each person
(d) Use of modern technology in industrial production
(e) None of the above

89. Choose the word which is similar in meaning to the word perpetuate as used in the passage.
(a) Cause (b) Manifest (c) Develop (d) Hinder
(e) Involve

90. How are poverty , illiteracy, and employment socially and economically inter-linked?
(a) Literacy is both desirable and necessary condition for growth.
(b) Economic problem of unemployment causes, promotes and sustains poverty.
(c) Poverty contributes to the ill-health of people which results into lower birth rate.
(d) Unemployment causes intergroup conflict like communalism and casteism.
(e) None of the above

Directions (Q. Nos. 91-95) Pick out the most effective word from the given words to make the sentence/s meaningfully complete.

91. Indeed the effects of ... social isolation can be very distressing.
(a) Unsolicited (b) Empowered (c) Enmeshed (d) Enforced
(e) Engulfed

92. The ability to process and ... information is known as memory.
(a) relate (b) direct (c) focus (d) entrage
(e) retrieve

93. It is a common fallacy to think of intellectually bright people as physically ... in stature or health.
(a) propelled (b) accomplished (c) frail (d) devastating
(e) dynamic

94. Within each society there exist fairly...views concerning the appropriate behaviour for girls and boys
(a) rigid (b) applicable (c) advisory (d) redundant
(e) absorbing

95. Prior to the ... of the printing press techniques for memorising were of great importance.
(a) contribution (b) advent (c) superiority (d) proposition
(e) origin

Directions (Q. Nos. 96-100) In each of the following questions four words are given of which two words are most nearly the SAME or OPPOSITE in meaning. Find the two words which are most nearly the same or opposite in meaning and indicate the number of the correct letter combination in your Answer Sheet.

96. I. Poise II. Coarseness III. Intrigue IV. Agreement
(a) III - IV (b) II - IV (c) I - II (d) I - II
(e) I - IV

97. I. Durable II. Vulnerable III. Impregnable IV. Testable
(a) I - II (b) II - III (c) II - IV (d) III - IV
(e) I - IV

98. I. Delegate II. Record III. Deluge IV. Overflow
(a) II-IV (b) II-III (c) I-V (d) III-IV
(e) I-IV

99. I. Stingy II. Stationary III. Unexpected IV. Generous
(a) III-IV (b) II-III (c) I-III (d) II-IV
(e) I-IV

100. I. Habitual II. Genial III. Convivial IV. Stupid
(a) II-III (b) II-IV (c) I-III (d) III-IV
(e) I-II