### NIT NEW TEST SERIES NT - 07

### SECTION-A (Analytical Ability & Reasoning)

| <ol> <li>Find the missing to</li> </ol> | erm |
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0, 6, 24, 60, 120, 210, ?

(a) 240

(b) 290

- (c) 336
- (d) 504
- 2. If MINERAL is written as QRSTUVW and SOUND is written as ABCSD, then how will READER be written in the same code?
  - (a) SBFEFS
- (b) UTVDTU
- (c) TUDVUT
- (d) QDZCDQ

Directions (Q.3 to 5): Read the information given below and answer the questions that follow:

- (i) In a family of six persons A, B, C, D, E and F, there are two married couples.
- (ii) D is grandmother of A and mother of B.
- (iii) C is wife of B and mother of F.
- (iv) F is the grand daughter of E.
- 3. What is C to A?
  - (a) Daughter
- (b) Grandmother
- (c) Mother
- (d) Cannot be determined
- 4. How many male members are there in the family?
  - (a) Two
- (b) Three
- (c) Four
- (d) Cannot be determined
- **5.** Who among the following is one of the couples?
  - (a) CD

(b) DE

(c) EB

(d) Cannot be determined

**Directions (Q. 6 to 8):** Read the following information to answer the given questions:

- (i) A, B, C, D, E, F and G are playing cards sitting around a circular table.
- (ii) D is not neighbour of C or E.
- (iii) A is neighbour of B and C.
- (iv) G, who is second to the left of D, is the neighbour of E, and F.
- **6.** Which of the following is correct?
  - (a) A is between A and D
  - (b) D is between F and G
  - (c) E is to the immediate right of G
  - (d) None
- 7. Which of the following has the pair with the second person sitting to the immediate right of the first person?
  - (a) BD
- (b) GF
- (c) EC
- (d) AE
- **8.** Which of the following will be D's position after E and D interchanged their places ?
  - (a) Neighbour of G and C

- (b) To the immediate left of C
- (c) To the immediate right of F
- (d) Neighbour of C and A
- **9.** Forty boys are standing in a row facing the North. Amit is eleventh from the left and Deepak is thirty-first the right end of the row. How far will Shreya, who is third to the right of Amit in the row, be from Deepak?
  - (a) 2nd
- (b) 3rd
- (c) 4th
- (d) 5th
- **10.** Examine the following relationships among members of a family of six persons A, B, C, D, E and F.
  - 1. The number of males equals that to females.
  - 2. A and E are sons of F.
  - 3. D is the mother of two, one boy and one girl.
  - 4. B is the son of A.
  - 5. There is one married couple in the family at present.

Which one of the following interences can be drawn the above ?

- (a) A. B and C are all females.
- (b) A is the husband of D
- (c) D is the grand daughter of F
- (d) E and F are children of D.
- 11. Two bus tickets from city A to B and three tickets from city A to C cost Rs.77 but three tickets from city A to B and two tickets from city A to C cost Rs.73. What are the fares for cities B and C from A?
  - (a) Rs. 4, Rs. 23
- (b) Rs. 13, Rs. 17
- (c) Rs. 15, Rs. 14
- (d) Rs. 17, Rs. 13
- 12. In a two-digit number, if it is known that its unit's digit exceeds its ten's digit by 2 and that the product of the given number and the sum of its digits is equal to 144, then the number is:
  - (a) 24
- (b) 26
- (c) 42
- (d) 46
- 13. A train 110 metres long is running with a speed of 60 kmph. In what time will it pass a man who is running at 6 kmph in the direction opposite to that in which the train is going?
  - (a) 5 sec (
- (b) 6 sec
- (c) 7 sec
- (d) 10 sec

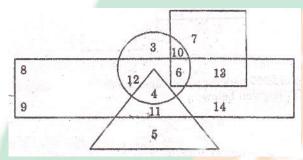
**Directions (Q.14 to 15):** Read the following statements to answer these questions:

Six persons A, B, C, D, E and F were playing a game of cards. A's father, mother and uncle were in the group. There were two women. B, the mother of A, got more points than her husband. D got more points than E but less than F. Niece of E got lowest points. Father of A got more points than F but could not win the game.

- 14. Who won the game?
  - (a) A
- (b) B
- (c) D
- (d) F

- 15. B was one of the ladies. Who was the other lady?
  - (a) A
- (b) C
- (c) D
- (d) E
- **16.** A father tells his son, "I was of your present age when you were born". If the father is 36 now, how old was the boy five years back?
  - (a) 13
- (b) 15
- (c) 17
- (d) 20

**Directions (Q.17 to 18) :** The following questions are based on the diagram given below :



- (1) Rectangle represents males
- (2) Triangle represents educated
- (3) Circle represents urban
- (4) Square represents civil servants
- 17. Who among the following is an educated male who is not an urban resident?
  - (a) 4
- (b) 5
- (c) 9
- (d) 11
- **18.** Who among the following is neither a civil servant nor educated but is urban and not a male?
  - (a) 2
- (b) 3
- (c) 6
- (d) 10

**Directions (Q. 19 to 20):** These questions are based on the following information:

Five men A, B, C, D and E read a newspaper. The one who reads first gives it to C. The one who reads last had taken from A. E was not the first or last to read. There were two readers between B and A.

- **19.** B passed the newspaper to whom ?
  - (a) A
- (b) C
- (c) D
- (d) E
- 20. Who read the newspaper last?
  - (a) A
- (b) B
- (c) C
- (d) D
- 21. Choose the correct alternative

- (a) abbba
- (b) abbab
- (c) baabb
- (d) bbaba
- **22.** Pointing to a lady, a man said, "The son of her only brother is the brother of my wife." How is the lady related to the man?
  - (a) Mother's sister
- (b) Grandmother
- (c) Mother-in-law
- (d) Sister-in-law

- 23. The priest told the devotee, "The temple bell is rung at regular intervals of 45 minutes. The last bell was rung five minutes ago. The next bell is due to be rung at 7.45 a.m." At what time did the priest give this information to the devotee?
  - (a) 7.40 a.m.
- (b) 7.05 a.m.
- (c) 7.00 a.m.
- (d) 6.55 a.m.

**Directions (Q.24 to 26):** Study the following information carefully and answer the given questions:

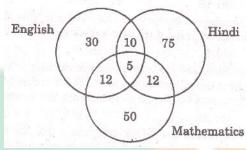
A Business School with six Professors L, M, N, O, P and Q, has decided to implement a new scheme of couse management. Each Professor has to coordinate one course and support another course. This semester, O's support course is Finance, while three others have it in coordinator's role. P and Q have Marketing as one of their subjects. Q coordinates Operations, which is a support course for both N and P. Finance and IT are L's subjects. Both L and O have same subjects. Strategy is a support is a support course for only one of the Professors.

- 24. Who coordinates the IT course?
  - (a) L
- (b) N
- (c) O
- (d) None
- 25. Which course is supported by M?
  - (a) Operations
- (b) IT
- (c) Strategy
- (d) Finance
- 26. Who among the following are coordinating the Finance course ?
  - (a) L and N
- (b) N and O
- (c) L, M and N
- (d) M, N and O
- 27. I am facing South. I turn right and walk 20 m. Then I turn right again and walk 10 m. Then I turn left and walk 10 m and then turning right walk 20 m. Then I turn right again and walk 60 m. In which direction am I from the starting point?
  - (a) North
- (b) North-West
- (c) East
- (d) North-east
- **28.** A man is facing west. He turns 45° in the clockwise direction and then another 180° in the same direction and then 270° in the anti-clockwise direction. Which direction is the facing now?
  - (a) South
- (b) North-west
- (c) West
- (d) South-west
- **29.** How many such pairs of letters are there in the word INSTRUCTION which have as many letters between them in the word as in the English alphabet?
  - (a) One
- (b) Two
- (c) Three
- (d) Four
- **30.** Reaching the place of meeting 20 minutes before 8.50 hrs Sumit found himself thirty minutes earlier than the man who came 40 minutes late. What was the scheduled time of the meeting?
  - (a) 8.00
- (b) 8.05
- (c) 8.10
- (d) 8.20

# impetus<u></u>

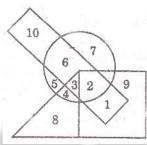


- 31. If P denotes 'multiplied by', T denotes 'subtracted from', M denotes 'added to' and B denotes 'divided by', then 28 B 7 P 8 T 6 M 4 = ?
  - (a) -3/2
- (b) 30
- (c) 32
- (d) 34
- **32.** How many meaningful English words can be formed form the first, fifth, seventh and ninth letters of the word PUNCTUATE using them in different sequence only once?
  - (a) one
- (b) Two
- (c) Three
- (d) none
- 33. Consider the diagram given below:



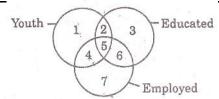
Five hundred candidates appeared in an examination comprising of tests in English, Hindi and Mathematics. The diagram gives the number of candidates who failed in different tests. What is the percentage of candidates who failed in at least two subjects?

- (a) 0.078
- (b) 1.0
- (c) 6.8
- (d) 7.8
- **34.** Find the number which when added to itself 13 times, gives 112.
  - (a) 7
- (b) 8
- (c) 9
- (d) 11
- **35.** In the following figure, the boys who are athletes and disciplined are indicated by which number ?



The triangle represents girls, the circle athletes, the rectangle boys and the square disciplined.

- (a) 1
- (b) 2
- (c) 6
- (d) 10
- 36. 12 year old Manick is three times as old as his brother Rahul. How old will Manick be when he is twice as old as Rahul?
  - (a) 14 years
- (b) 16 years
- (c) 18 years
- (d) 20 years
- Study te diagram below and identify the region representing youth who are employed but not educated.



- (a) 4 only (b) 5, 6
- (c) 1, 4, 7
- (d) 4, 7

Directions (Q.38 to 39): In each question below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

#### Give answer

- (a) if only conclusion I follows;
- (b) if only conclusion II follows;
- (c) if either conclusion I or II follows;
- (d) if neither conclusion I nor II follows.
- 38. Statements: Some dedicated souls are angles. All
  - social workers are angles.
  - Conclusions: I. Some dedicated souls are social
    - workers.
    - II. Some social workers are dedicated
      - souls.
- 39. Statements: All roads are poles.
  - No pole is a house.
  - Conclusions: I. Some roads are houses.
    - II. Some houses are poles.
- **40. Statements**: All flowers are toys.
  - Some toys are trees.
  - Some angels are trees.
  - Conclusions: I. Some angels are toys.
    - II. Some trees are flowers.
    - III. Some flowers are angels.
  - (a) None follows
- (b) Only I follows
- (c) Only I and III follow
- (d) Only III follows

## **SECTION-B (Computer)**

- 41. The number 1000 would appear just immediately after
  - (a) FFFF (hex)
- (b) 1111 (binary)
- (c) 7777 (octal)
- (d) none
- 42. Which of the following gate is a two-level logic gate
  - (a) OR gate
- (b) NAND gate
- (c) EXCLUSIVE OR gate
- (d) NOT gate

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- Consider the representation of six bit numbers by two's complement, one's complement, or by sign and magnitude. In which representation is these overflow from the addition of the integers 011000 and 011000?
  - (a) Two's complement only
  - (b) Sign and magnitude and one's complement only
  - (c) Two's complement and one's complement only
  - (d) All the representations.
- 44. Cache memory is used to transfer data between ?
  - (a) main memory and secondary memory
  - (b) processor and main memory
  - (c) processor and secondary memory
  - (d) processor and output device
- 45. The hexadecimal number equivalent to (1762.46)8 is (a) 3F2.89 (b) 3F2.98 (c) 2F3.89 (d) 2F3.98
- 46. What is decimal equivalent of BCD 11011.1100?
  - (a) 22.0
- (b) 22.2
- (c) 20.2
- (d) 21.2
- 47. Logic X-OR operation of (4ACO)H & (B53F)H results (a) AACB (b) 0000 (c) FFFF (d) ABCD
- 48. The simplified form of the Boolean expression (X + Y + XY) (X + Z) is
  - (a) X + Y + ZX + Y
- (b) XY YZ
- (c) X + YZ
- (d) XZ + Y
- 49. 8-bit 1's complement form of -77.25 is
  - (a) 01001101.0100
- (b) 01001101.0010
- (c) 10110010.1011
- (d) 10110010.1101
- **50.** The gray code equivalent of  $(1011)_2$  is
  - (a) 1101
- (b) 1010
- (c) 1110
- (d) 1111

## SECTION-C (Mathematics)

**51.** If  $I = \int_0^{f/2} \cos(\sin x) dx$ ,  $J = \int_0^{f/2} \sin(\cos x) dx$ ,

$$K = \int_0^{f/2} \cos x \, dx \quad \text{then}$$

- (a) I > J > K
- (b) J > K > I
- (c) K > J > I
- (d) I > K > J
- 52. India plays two matches each with West Indies and Australia. In any match the probabilities of India getting point 0, 1 and 2 are 0.45, 0.05 and 0.50 respectively. Assuming that the outcomes are independents, the probability of India getting at least 7 points is
  - (a) 0.8750 (b) 0.0875
- (c) 0.0625
- (d) 0.0250
- **53.** The area of the figure bounded by the curves y = |x-1|

and 
$$y = 3 - |x|$$
, is

- (a) 2 sq. unit
- (b) 3 sq. unit
- (c) 4 sq. unit
- (d) 1 sq. units

- **54.** If  $m = a cos^3 + 3a cos sin^2$ ,  $n = asin^2 + 3a$  $\cos^2 \sin$ , then value of  $(m+n)^{2/3} + (m-n)^{2/3}$ is equal to:
  - (a)  $2a^{2/3}$  (b)  $a^{2/3}$  (c)  $a^{3/2}$

- In a series of 2n observations, half of them equal to a and remaining half equal to - a. If the standard deviation of the observations is 2, then |a| equals
  - (a)  $\frac{\sqrt{2}}{n}$  (b)  $\sqrt{2}$  (c) 2 (d)  $\frac{1}{n}$

- **56.** If  $\cos + \cos^2 + \cos^3 = 1$  and

$$\sin^6 = a + b\sin^2 + c\sin^4$$
 then  $a + b + c$  equals:

- (b) 2
- (c) 1
- 57. The value of  $\lim_{x\to 0} \left( \frac{\int_0^2 \sec^2 t \, dt}{x \sin x} \right)$  is
  - (a) 3
- (b) 2
- (c) 1
- (d) none
- 58. The number of solutions of  $\log_4(x-1) = \log_2(x-3)$ 
  - (a) 3
- (b) 1
- (c) 2
- (d) 0
- What is the slope of the tangent line drawn to the hyperbola  $xy = a(a \neq 0)$  at the point (a, 1)
  - (a) 1/a
- (b) -1/a
- (c) a
- (d) -a
- **60.** If  $0^{\circ} < 0 < 180^{\circ}$ , then

$$\sqrt{2+\sqrt{2+\sqrt{2+....+\sqrt{2(1+\cos \ )}}}}$$
, then n, number of 2's, is equal to :

- (a)  $2\cos\left(\frac{1}{2^n}\right)$
- (b)  $2\cos\left(\frac{1}{2^{n-1}}\right)$

- The median of a set of 9 distinct observations is 20.5. If each of the largest 4 observation of the set is increased by 2, then the median of the new set
  - (a) Is increased by 2
  - (b) Is decreased by 2
  - (c) Is two times the original median
  - (d) Remains the same as that of the original set

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- **62.** Let  $F(x) = f(x) + f\left(\frac{1}{x}\right)$  where  $f(x) = \int_{1}^{x} \frac{\log t}{1+t} dt$ . Then
  - F(e) equals
  - (a) 1/2 (b) 0
- (c) 1
- (d) 2
- If the function  $f(x) = 2x^3 9ax^2 + 12a^2x + 1$ , where a > 0attains its maximum and minimum at p and q respectively such that  $p^2 = q$ , then a equals
  - (a) 3
- (b) 1
- (c) 2
- (d) 1/2
- **64.** The domain of the function  $f(x) = {}^{16-x}C_{2x-1} + {}^{20-3x}P_{4x-5}$ where the symbols have their usual meanings, is the set
  - (a) {2, 3}
- (b) {2, 3, 4}
- (c) {1, 2, 3, 4}
- (d) {1, 2, 3, 4, 5}
- **65.** If f(x+y) = f(x). f(y) for all x and y and f(5) = 2, f'(0) = 3 then f'(5) will be (c) 6(d) 8 (a) 2 (b) 4
- A random variable X has Poisson's distribution with mean 2. Then P(X > 1.5) equals
  - (a)  $1 \frac{3}{a^2}$  (b)  $\frac{3}{a^2}$  (c)  $\frac{2}{a^2}$
- (d) 0
- **67.** If the roots of the equation  $x^3 12x^2 + 39x 28 = 0$ are in A.P., then their common difference will be:
  - (a)  $\pm 1$
- (b)  $\pm 2$
- (c)  $\pm 3$
- $(d) \pm 4$
- **68.** If  $7^{\log_7(x^2-4x+5)} = x-1$ , x may have values:
- (b) 7
- (c) 2, -3 (d) 2, -3
- 69. The number of points of intersection of the two curves  $y = 2\sin x$  and  $y = 5x^2 + 2x + 3$  is
  - (a) 0
- (b) 1
- If P is a point such that the ratio of the squares of the 70. lengths of the tangents from P to the circles
- $x^{2} + y^{2} + 2x 4y 20 = 0$  and  $x^{2} + y^{2} 4x + 2y 44 = 0$ is 2:3, then the locus of P is a circle with centre (a) (7, -8) (b) (-7, 8)(c)(7,8)(d) (-7, -8)
- 71. A pair of fair dice is thrown independent three times. The probability of getting a score of 9 exactly twice is (a) 1/729 (b) 8/9 (c) 8/729 (d) 8/243
- 72. The value of a in order that  $f(x) = \sin x \cos x ax + b$ decreases for all real values of x is given by
  - (a)  $a \ge \sqrt{2}$  (b)  $a < \sqrt{2}$
- (c)  $a \ge 1$
- (d) a < 1
- **73.** Let a = 2i + j 2k and b = i + j. If c is a vector such that

- $a. c = |c|, |c-a| = 2\sqrt{2}$  and the angle between  $(a \times b)$
- and c is 30°, then  $|(a \times b) \times c| =$
- (a) 2/3
- (b) 3/2
- (c) 2
- (d) 3
- 74. The perpendicular bisector of the line segment joining P (1, 4) and Q (k, 3) has y-intercept -4. Then a possible value of k is
  - (a) 2
- (b) -2
- (c) -4
- **75.** The value of  $\log_3 4 \log_4 5 \log_5 6 \log_6 7 \log_7 8 \log_8 9$  is
  - (a) 1
- (b) 2
- (c)3
- If  $\cos + \cos + \cos = 0$ , then
  - $\sin + \sin + \sin = \text{equals}$ :
  - (a) 3
- (b) 2
- (c) 1
- (d) 0
- If one of the roots of equation  $x^2 + ax + 3 = 0$  is 3 and 77. one of the roots of the equation  $x^2 + ax + b = 0$  is three times the other root, then the value of b is equal to (b) 4 (c) 2(d) 1 (a) 3
- **78.** If the system of linear equation x + 2ay + az = 0, x + 3by + bz = 0, x + 4cy + cz = 0 has a non zero solution, then a, b, c
  - (a) are in A.P.
- (b) are in G.P.
- (c) are in H.P.
- (d) satisfy a + 2b + 3c = 0
- **79.** If  $A = \begin{bmatrix} 1 & 0 \\ 1 & 1 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ , then which one of the fol-

lowing holds for all  $n \ge 1$ , (by the principal of mathematical induction)

- (a)  $A^n = nA + (n-1)I$
- (b)  $A^n = 2^{n-1}A + (n-1)I$
- (c)  $A^n = nA (n-1)I$  (d)  $A^n = 2^{n-1}A (n-1)I$
- **80.** The period of the function  $|\sin f|x|$  is
  - (a)  $f^{2}$
- (b) 2f
- (c) 2
- (d) 1
- One ticket is selected at random from 50 tickets numbered 00, 01, 02, ......,49. Then the probability that the sum of the digits on the selected ticket is 8, given that the product of these digits is zero, equals

- (a)  $\frac{1}{14}$  (b)  $\frac{1}{7}$  (c)  $\frac{5}{14}$  (d)  $\frac{1}{50}$
- **82.** If  $f(x) = ae^{|x|} + b|x|^2$ ,  $a, b \in R$  and f(x) is differentiable at x = 0. Then a and b, are
  - (a)  $a = 0, b \in R$
- (b) a = 1, b = 3
- (c) a=1, b=2
- (d) a = 2, b = 3

- a = 3i 5j and b = 6i + 3j are two vectors and c is a vector such that  $c = a \times b$ , then |a|:|b|:|c| is
  - (a)  $\sqrt{34}:\sqrt{45}:\sqrt{39}$
- (b)  $\sqrt{34}:\sqrt{45}:39$
- (c) 34:39:45
- (d) 39:35:34
- **84.** If a=i-j, b=i+j, c=i+3j+5k and n is a unit vector such that b.n=0, a.n=0 then the value of |c.n| is equal to
  - (a) 1
- (b) 3
- (c)5
- (d) 2
- **85.** If  $\cos 25^{\circ} + \sin 25^{\circ} = P$ , then  $\cos 50^{\circ}$  equals :
  - (a)  $-\sqrt{2-p^2}$  (b)  $-p\sqrt{2-p^2}$
  - (c)  $\sqrt{2-p^2}$
- **86.** If  $_{''} = \sin^{-1} x + \cos^{-1} x \tan^{-1} x$ ,  $x \ge 0$ , then the smallest interval in which " lies is given by
  - (a)  $\frac{f}{2} \le \pi \le \frac{3f}{4}$
- (b) 0 < " < f
- (c)  $\frac{-f}{4} \le \pi \le 0$
- (d)  $\frac{f}{4} \leq \pi \leq \frac{f}{2}$
- The expression  $\frac{\cos 13x \cos 14x}{1 + 2\cos 9x}$  equals :
  - (a)  $\cos 4x + \cos 5x$
- (b) cos4x cos5x
- (c) sin4x sin5x
- (d)  $\sin 5x + \sin 4x$
- The letters of the word COCHIN are permutated and all the permutations are arranged in an alphabetical order as in an English dictionary. The number of words that appear before the word COCHIN is
  - (a) 360

- (d) 48
- Angles A, B and C of a triangle ABC are in A.P. If  $\frac{b}{c} = \frac{\sqrt{3}}{\sqrt{2}}$ , then angle A is equal to :
- (b)  $\frac{\pi}{4}$  (c)  $\frac{5\pi}{42}$
- If m and M respectively denote the minimum and maximum of  $f(x) = (x-1)^2 + 3$  for  $x \in [-3, -1]$ , then the ordered pair (m, M) is equal to
  - (a) (-3, 19)
- (b) (3, 19)
- (c) (-19, 3)
- (d) (-19, -3)
- 91. ABC is an equilateral triangle of side a. The value of  $\overrightarrow{AB}.\overrightarrow{BC} + \overrightarrow{BC}.\overrightarrow{CA} + \overrightarrow{CA}.\overrightarrow{AB}$  is equal to :
- (a)  $3a_2$  (b)  $-3a^2$  (c)  $3a^2/2$  (d)  $-3a^2/2$

- If the area of the parallelogram whose adjacent sides are  $\frac{n}{6n+4}\frac{n+1}{6n+4}$  and  $2\stackrel{\wedge}{j}-4\stackrel{\wedge}{k}$  is  $\sqrt{436}$  square units and  $\geq 0$ , then
  - (a) 0
- (b) 4
- (c) 1
- (d) none
- **93.** If  $\vec{a}, \vec{b}, \vec{c}$  be three vectors such that  $[\vec{a}, \vec{b}, \vec{c}] = 4$  then  $[\vec{a} \times \vec{b} \quad \vec{b} \times \vec{c} \quad \vec{c} \times \vec{a}]$  is equal to :
  - (a) 8
- (b) 16
- (c) 64
- (d) none
- 94. If  $\frac{1}{b-a} + \frac{1}{b-c} = \frac{1}{a} + \frac{1}{c}$  and  $b \neq a + c$ , then a, b, c are in:
  - (a) A.P.
- (b) G.P.
- (c) H.P.
- 95.  $\frac{1}{2.5} + \frac{1}{5.8} + \frac{1}{8.11} + \dots + \frac{1}{(3n-1)(3n+2)} =$ 
  - (a)  $\frac{n}{6n-4}$  (b)  $\frac{n}{6n+3}$  (c)  $\frac{n}{6n+4}$  (d)  $\frac{n+1}{6n+4}$
- **96.** If matrix  $A = \begin{bmatrix} 3 & 2 & 4 \\ 1 & 2 & -1 \\ 0 & 1 & 1 \end{bmatrix}$  and  $A^{-1} = \frac{1}{K} adj(A)$ , then K is
  - (a) 7
- (c) 1/7
- 97. All the letters of the word 'EAMCET', are arranged in possible ways. The number of such arrangement in which no two vowels are adjacent to each other is:
  - (a) 360
- (b) 144
- (c)72
- (d) 54

- $98. \quad \lim_{x\to\infty} \left(\frac{x+9}{x+4}\right)^{x+9}$ 
  - (a)  $\frac{1}{a}$  (b)  $e^5$  (c)  $e^9$
- (d) none
- **99.** The slope of tangent to the curve  $x = t^2 + 3t 8$ ,
  - $y = 2t^2 2t 5$  at the point (2, -1) is

  - (a) 22/7 (b) 6/7
- (d) None
- **100.** For  $\frac{|x-1|}{x+2} < 1$ , x lies in the interval
  - (a)  $(-\infty, -2) \cup \left(-\frac{1}{2}, \infty\right)$  (b)  $(-\infty, 1) \cup [2, 3]$
  - (c)  $(-\infty, -4)$

**impetus** 

# The Catalyst of Your Ambition

### <u> SECTION - D GENERAL ENGLISH</u>

- Directions (Q.1 to 5): Pick out the one which can substitute the underlined group of words correctly, without changing the meaning of the sentence.
- 101. One of my draw backs is that I do not have to lerance of ambiguity.
  - (a) do not have
- (b) can not have to
- (c) am not
- (d) did not have to
- 102. It was he, not me, who decided to postpone the programme
  - (a) he, not I
- (b) him, not me
- (c) he, not mine
- (d) him, not I
- 103. Presently he is working in a factory
  - (a) In present
- (b) At the present
- (c) At present
- (d) No error
- 104. Having tired of play he sat down to rest
  - (a) Having tired with
- (b) Having tired by
- (c) Being tired of
- (d) Having been tiring by
- 105. I am working on this book since last January.
  - (a) was working
- (b) have been worked
- (c) being worked
- (d) have been working
- Directions (Q. 106 to 108): Pick out the nearest correct meaning or synonym of the words given below
- 106. ATTRIBUTE (a) infer
- (b) impute
- (c) inhere
- (d) inundate

- 107. PARADIGM
  - (a) solution
- (b) model
- (c) discovery
- (d) invention
- 108. IMPERATIVE
  - (a) order
- (b) command
- (c) suggestion
- (d) neccessity
- Directions (Q.109 to 110): Choose the most suitable antonym of the given word:
- 109. SPREAD
  - (a) express (b) prohibit
- (c) contain
- (d) avail

- 110. INSPIRED
  - (a) expiried
- (b) extracted
- (c) negated
- (d) discowaged
- Directions (Q. 111 to 115): Read the following passage carefully and mark out the correct answer from among the alternatives given below each question in every passage.

The wise old wazir was famous for his judgement and people came to him for justice from all parts of the country. One day two men came to his court and claimed ownership of an extra-oridinarily good looking horse. It was a black beauty indeed. One of the men was tall, very well-dressed and soft spoken. The other one was just the opposite. Each of them said that the horse was his. The wazir heard them patiently and asked them to

leave the horse and come to him next morning. Both the men came the next morning. The wazir asked his soldiers to give the horse to the tall man and to assert the other man. The tall man wanted to know how the wazir has learnt the truth. "Very Simple", said he, "Firstly, a man of your appearance and manness could not have been the thief still, I wanted to be sure just after you had left the court. I asked one of my soldiers to leave the horse free and to see whom if followed. If ment after you. This hint was enough for me".

- **111.** Which of the following best describes the other man?
  - (a) ill-dressed, short-satured, loud voiced
  - (b) tall, ill dressed, counteous
  - (c) not will dressed, short but good mannered
  - (d) thin, poorly built, harsh in expression.
- 112. The wazir discovered the real owner of the horse
  - (a) by assesting the other man
  - (b) from the appearance and good manners of the tall
  - (c) by patiently listening to the care of theff
  - (d) by knowing whom the horse followed.
- 113. With the wazir's wisdom, the tall man was
  - (a) consoled
- (b) impressed
- (c) embarrassed
- (d) undecided
- 114. People came to wazir from all places because he was
  - (a) very famous
- (b) an old judge
- (c) an old wazir
- (d) a wise judge
- 115. This story proves that
  - (a) The court soldiers were very smart
  - (b) The judge was quite old
  - (c) The judge was indeed quite intelligent
  - (d) The horse was very clenes
- Directions (Q.116 to 120): Fill the blanks that correct choice is your answers.
- 116. I take interest film making.
  - (a) to
    - (b) in
- (c) with
- (d) on

(d) longed

- **117.** The child for the lone of mother.
  - (a) bagged (b) lacked (c) desired
- **118.** There is a/an \_\_\_\_ to every rule.
  - (a) objection
- (b) criticism
- (c) caveat
- (d) exception
- 119. The police \_ him of stealing a car.
  - (a) charged (c) warned
- (b) accured (d) None
- **120.** Hight in a straight line.
  - (a) moves
- (b) goes
- (c) travels
- (d) flows