NIMCET - 2012 [ORIGINAL QUESTION PAPER]

(+4, -1 Marking) (Answers given against each question) Timing : 2 hrs.

1. The number of words can be formed by using the letters of the word Mathematics that strart as well as end with T is
   (a) 80720 (b) 90720
   (c) 20860 (d) 37528 B
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2. If A-B = $\pi/4$, then (1 + tan A) (1 - tan B) is equal to
   (a) 2 (b) 1
   (c) 0 (d) 3 A
   NIMCET-2012

3. Let P(E) denote the probability of event E. Given P(A) = 1, P(B) = ½, then value of P (AlB) and P (BlA) respectively are
   (a) ¼, ½ (b) ½, ¼
   (c) ½, 1 (d) 1, ½ D
   NIMCET-2012

4. The number of different license plates that can be formed in the format 3 English letters (A ... Z) followed by 4 digits (0, 1, ... 9) with repetitions allowed in letters and digits is equal to
   (a) $26^3 \times 10^4$ (b) $26^3 + 10^4$
   (c) 36 (d) 26^3 A
   NIMCET-2012

5. Which of the following is correct ?
   (a) sin 1° > sin 1 (b) sin 1° < sin 1
   (c) sin 1° = sin 1 (d) sin 1° $(\pi/180)$ sin 1 B
   NIMCET-2012

6. If two towers of heights h_1 and h_2 subtends angles 60° and 30° respectively at the end point of the line joining their feet, then $h_1 : h_2$ is
   (a) 1 : 2 (b) 1 : 3
   (c) 2 : 1 (d) 3 : 1 D
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7. If the vectors $\bar{a} = (1, x, -2)$ and $\bar{b} = (x, 3, -4)$ are mutually perpendicular, then the value of x is
   (a) -2 (b) 2
   (c) 2 (d) -4 A
   NIMCET-2012

8. What is the value of a for which f(x) = $\begin{cases} \sin x \text{ if } \le \frac{\pi}{2} \\ ax \text{ if } x > \frac{\pi}{2} \end{cases}$ is continuous ?
   (a) π (b) $\pi/2$
   (c) $2/\pi$ (d) 0 C
   NIMCET-2012

9. If the real number x when added to its inverse gives the minimum value of the sum, then the value of x is equal to
   (a) - 2 (b) 2
   (c) 1 (d) - 1 C
   NIMCET-2012

10. If $\cos(\alpha + \beta) = 4/5$ and $\sin(\alpha - \beta) = 5/13$, $0 < \alpha, \beta, \pi/4$, then $\tan(2\alpha)$ =
    (a) 56 / 33 (b) 63 / 65
    (c) 16 / 63 (d) 33 / 56 A
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11. The value of $\lim_{n\to\infty} \frac{\pi}{n}\left[\sin\frac{\pi}{n} + \sin\frac{2\pi}{n} + ... + \sin\frac{(n-1)\pi}{n}\right]$ is
    (a) 0 (b) π
    (c) 2 (d) $\pi/2$ C
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12. The point on the curve $y = 6x - x^2$, where the tangent is parallel to x - axis is
    (a) (0, 0) (b) (2, 8)
    (c) (6, 0) (d) (3, 9) D
    NIMCET-2012

13. If $I_1 = \int_0^1 2^{x^3} dx$, $I_2 = \int_0^2 2^{x^3} dx$, $I_3 = \int_1^2 2^{x^2} dx$, $I_4 = \int_1^2 2^{x^3} dx$, then
    (a) $I_1 = I_2$ (b) $I_2 > I_1$
    (c) $I_3 > I_4$ (d) $I_4 > I_3$ D
    NIMCET-2012

14. The value of integral $\int_0^{\pi/4} \log \tan x \, dx$ is
    (a) π (b) $\pi/2$
    (c) $\pi/3$ (d) 0 D
    NIMCET-2012

15. A determinants is chosen at random from the set of all determinants of matrices of order 2 with elements 0 and 1 only. The Probability that the determinant chosen is non-zero is
    (a) 3/16 (b) 3/8
    (c) 1/4 (d) None of these B
    NIMCET-2012

16. If $\sin^2 x = 1 - x$, $\cos^4 x + \cos^2 x$ =
    (a) 0 (b) 1
    (c) 2 / 3 (d) - 1 B
    NIMCET-2012

17. The equation of the plane passing through the point (1, 2, 3) and having the vector $\bar{N} = 3i - j + 2k$ as its normal is
    (a) 2x - y + 3z + 7 = 0 (b) 3x - y + 2z + 7 = 0
    (c) 3x - y + 2z = 7 (d) 3x + y + 2z = 7 C
    NIMCET-2012

18. The value of $\int_0^{\sin^2 x} \sin^{-1} 5t \, dt + \int_0^{\cos^2 x} \cos^{-1} 5t \, dt$ is
    (a) $\pi/4$ (b) $\pi/2$
    (c) 1 (d) None of these W
    NIMCET-2012

19. Coefficients of quadratic equation $ax^2 + bx + c = 0$ are chosen by tossing three fair coins where 'head' menas one and 'tail' means two. Then the probability that roots of the equation are imaginary is
(a) 7/8 (b) 5/8
(c) 3/8 (d) 1/8 A
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20. In a class of 100 students, 55 students have passed in Mathematics and 67 students have passed in Physics. Then the number of students who have passed in Physics only is
(a) 22 (b) 33
(c) 10 (d) 45 D
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21. If H is the Harmonic mean between P and Q, then $\frac{H}{P}+\frac{H}{Q}$ is
(a) 2 (b) $\frac{P+Q}{Q}$
(c) $\frac{PQ}{P+Q}$ (d) None of these A
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22. The number of values of K for which the system of equations $(k + 1)x + 8y = 4k$ and $kx + (k + 3)y = 3k - 1$ has infinitely many solutions is
(a) 0 (b) 1
(c) 2 (d) Infininte B
NIMCET-2012

23. The sum of ${}^{20}C_8 + {}^{20}C_9 + {}^{21}C_{10} + {}^{22}C_{11} - {}^{23}C_{11}$ is
(a) ${}^{22}C_{12}$ (b) ${}^{23}C_{12}$
(c) 0 (d) ${}^{21}C_{10}$ C

24. The value of the $Cot^{-1}(21) + Cot^{-1}(-8)$ is
(a) 0 (b) ∞
(c) π (d) $\pi/2$ A
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25. Normal to the curve $y = x^3 - 3x + 2$ at the point (2, 4) is
(a) $9x - y - 14 = 0$
(b) $x - 9y + 40 = 0$
(c) $x + 9y - 38 = 0$
(d) $-9x + y + 22 = 0$ C
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26. A problem in Mathematics is given to three students A, B and C whose chances of solving it are $\frac{1}{2},\frac{1}{3},\frac{1}{4}$ respectively. If they all try to solve the problem, what is the probability that the problem will be solved ?
(a) 1 / 2 (b) 1 / 4
(c) 1 / 3 (d) 3 / 4 D
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27. The function x^x decreases in the interval
(a) (0, e) (b) (0, 1)
(c) $\left(0,\frac{1}{e}\right)$ (d) None of these C
NIMCET-2012

28. If $\bar{a}+\bar{b}+\bar{c}=0, |\bar{a}|=3, |\bar{b}|=5, |\bar{c}|=7$, then angle between the vector $\bar{a}$ and $\bar{b}$ is
(a) $\pi/2$ (b) $\pi/3$
(c) $\pi/4$ (d) $\pi/6$ B
NIMCET-2012

29. If $\theta(0\le\theta\le\pi)$ is the angle between the vectors $\bar{a}$ and $\bar{b}$, then $\frac{|\bar{a}\times\bar{b}|}{\bar{a}.\bar{b}}$ equals
(a) $-\cot\theta$ (b) $\tan\theta$
(c) $-\tan\theta$ (d) $\cot\theta$ B
NIMCET-2012

30. If $f(a + b) = f(a) \times f(b)$ for all a and b and $f(5) = 2$, $f'(0) = 3$, then $f'(5)$ is
(a) 2 (b) 4
(c) 6 (d) 8 C
NIMCET-2012

31. If (4, -3) and (-9, 7) are the two vertices of a triangle and (1, 4) is its centroid then the area of triangle is
(a) $\frac{138}{2}$ (b) $\frac{319}{2}$
(c) $\frac{183}{2}$ (d) $\frac{381}{2}$ C
NIMCET-2012

32. The equation of the ellipse with major axis along the x-axis and passing through the points (4, 3) and (-1, 4) is
(a) $15x^2 + 7y^2 = 247$ (b) $7x^2 + 15y^2 = 247$
(c) $16x^2 + 9y^2 = 247$ (d) $9x^2 + 16y^2 = 247$ B
NIMCET-2012

33. If the circles $x^2 + y^2 + 2ky + 6 = 0$ and $x^2 + y^2 + 2ky + k = 0$ interesect orthogonally then k is
(a) $2 \text{ or } -\frac{3}{2}$ (b) $-2 \text{ or } -\frac{3}{2}$
(c) $2 \text{ or } \frac{3}{2}$ (d) $-2 \text{ or } \frac{3}{2}$ A
NIMCET-2012

34. Focus of the parabola $x^2 + y^2 - 2xy - 4(x + y - 1) = 0$ is
(a) (1, 1) (b) (1, 2)
(c) (2, 1) (d) (0, 2) A
NIMCET-2012

35. If $\vec{a},\vec{b}$ and $\vec{c}$ are unit vectors such that $\vec{a}+\vec{b}+\vec{c}=0$, then the value of $\vec{a}.\vec{b}+\vec{b}.\vec{c}+\vec{c}.\vec{a}$ is
(a) $\frac{2}{3}$ (b) $\frac{-2}{3}$
(c) $\frac{3}{2}$ (d) $\frac{-3}{2}$ D
NIMCET-2012

36. If $\bar{a}, \bar{b}, \bar{c}$ are non-coplanar vectors and λ is a real number, then the vectors $\bar{a}+2\bar{b}+3\bar{c}, \lambda\bar{b}+4\bar{c}$ and $(2\lambda - 1)\bar{c}$ are non-coplanar for
(a) All values of λ
(b) All except one value of λ
(c) All except two values of λ
(d) No value of λ C
NIMCET-2012

37. Suppose values taken by a random variable X are such that $a \le x_i \le b$, where x_i denotes the value of X in the i^{th} case for i = 1, 2, 3, ... n, then
(a) $(b - a)^2 \ge Var(x)$ (b) $(a^2/4) \le Var(x)$
(c) $a^2 \le Var(x) \le b^2$ (d) $a \le Var(x) \le b$ A
NIMCET-2012

38. If ω is the cube root of unity, then the system of equations $x + \omega^2 y + \omega z = 0$, $\omega x + y + \omega^2 z = 0$, $\omega^2 x + \omega y + z = 0$ is
(a) Consistent and has unique solution
(b) Consistent and has more than one solution
(c) Inconsistent
(d) None of these B
NIMCET-2012

39. If $x = \log_a bc$, $y = \log_b ca$, and $z = \log_c ab$, then $\frac{1}{1+x}+\frac{1}{1+y}+\frac{1}{1+z} =$
(a) abc (b) $\sqrt{ab}+\sqrt{bc}+\sqrt{ca}$
(c) 1 (d) x + y + z C
NIMCET-2012

40. If $2^a = 3^b = 6^{-c}$ then ab + bc + ca =
(a) 1 (b) 2
(c) 0 (d) None of these C
NIMCET-2012

41. If e and e' be the eccentricities of a hyperbola and its conjugate, then $\frac{1}{e^2}+\frac{1}{e'^2}$ =
(a) 0 (b) 1
(c) 2 (d) None of these B
NIMCET-2012

42. If a fair coin is tossed n times, then the probability that the head comes odd number of times is
(a) 1/2 (b) $1/2^n$
(c) $1/2^{n-1}$ (d) None of these A
NIMCET-2012

43. If $\sin(\pi\cos\theta) = \cos(\pi\sin\theta)$, then $\sin 2\theta$ =
(a) $\pm\frac{3}{4}$ (b) $\pm\frac{1}{3}$ (c) $\pm\frac{1}{4}$ (d) $\pm\frac{4}{3}$ D
NIMCET-2012

44. In which of the following regualr polygons, the number of diagonals is equal to number of sides ?
(a) Pentagon (b) Square
(c) Octagon (d) Hexagon A
NIMCET-2012

45. One hundred identical coins each with probability P of showing up heads are tossed if 0 < P < 1 and the probability of heads showing on 50 coins is equal to that of heads on 51 coins; then the value of P is
(a) $\frac{1}{2}$ (b) $\frac{49}{101}$
(c) $\frac{50}{101}$ (d) $\frac{51}{101}$ D
NIMCET-2012

46. The equation $(\cos p - 1)x^2 + (\cos p)x + \sin g\, p = 0$ where x is a variable has real roots. Then the interval of p is
(a) $(0, 2\pi)$ (b) $(-\pi, 0)$
(c) $\left(\frac{-\pi}{2}, \frac{\pi}{2}\right)$ (d) $(0, \pi)$ D
NIMCET-2012

47. Number of real roots of $3x^5 + 15x - 8 = 0$ is
(a) 3 (b) 5
(c) 1 (d) 0 C
NIMCET-2012

48. The value of k for which the set of equations $3x + ky - 2z = 0$, $x + ky + 3z = 0$ and $2x + 3y - 4z = 0$ has a non-trivial solution, is
(a) $\frac{15}{2}$ (b) $\frac{17}{2}$
(c) $\frac{31}{2}$ (d) $\frac{33}{2}$ D
NIMCET-2012

49. If $x = \log_3 5$, $y = \log_{17} 25$, then which one of the following is correct?
(a) x > y (b) x < y (c) $x \le y$ (d) x = y. A

50. If $A = \begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}$, then A^n for any natural number n is :
(a) $\begin{bmatrix} n & n \\ 0 & n \end{bmatrix}$ (b) $\begin{bmatrix} 1 & n \\ 0 & 1 \end{bmatrix}$
(c) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ (d) None of these. B

ANALYTICAL ABILITY AND LOGICAL REASONING

51. In ROAST is coded as PQYUR in a certain language, then SLOPPY is codded in that language as :
(a) MRNAQN (b) NRMNQA
(c) QNMRNA (d) RANNMQ. C

52. If Lelibroon means yellow hat, plakafroti means flower graden and frotimix means garden salad, then which word could mean "yellow flower"?
(a) Lelifroti (b) Lelipleka
(c) Plekabroon (d) Frontibroon. B

53. If +is *, - is +, *is / and / is -, then 6* - 9* + 8/ 3 ? 20 is:
(a) -2 (b) 6 (c) 10 (d) 12. C

54. Ib a certain year there were exactly four Fridays and four Mondays in January. On what day of the week did the 20th January fall that year?
(a) Saturday (b) Sunday
(c) Thursday (d) Tuesday. B

55. The letters P, Q, R, S, T, U and V not necessarily in that order represent seven consecutive integers from 22 to 33 and :
1. U is as much less than Q as R is greater than S.
2. V is greater than U.
3. Q is the middle term.
4. P is greater than S.
Then the sequence of letters from the lowest value of the highest value is :
(a) TVPQRSU (b) TRSQUPV
(c) TUSQRPV (d) TVPQSRU. C

56. The minimum number of tiles of size 16 by 24 reuired to form a square by placing them adjacent to one another is :
(a) 6 (b) 8
(c) 11 (d) 16. A

57. Five persons K, L, M, N and O are sitting around a dining table. K is the mother of M, M is actually the wife of O, N is the brother of K and L is the husband of K, how is N related to L?
(a) Son (b) Cousin
(c) Brother (d) Brother in-law. D

58. Three men A, B, C play cards. If one loses the game he has to give Rs. 2. If he wins the game he will gain Rs. 3 each from the other two losers. If A has won 3 games, B loses Rs. 3, C wins Rs. 12, then the total number of games played is :
(a) 12 (b) 21 (c) 20 (d) 6. A

59. If a man walks at the rate of 4 kmph, he misses a trai by only 6 min. However if he walks at the rate of 5 kmph he reaches the station 6 minutes before the arrival of the train. The distance covered by him to reach the station is :
(a) 4 (b) 7 (c) 9 (d) 5. A

60. The missing number in the given series is
3, 6, 6, 12, 9, 12 :
(a) 15 (b) 18 (c) 11 (d) 13. C

61. A man runs 20 m towards east and turns right, runs 10 m and turns right, runs 9 m and turns left, runs 5 m and turns left, runs 12 m and finally turns left and runs 6m. Which direction is the man facing?
(a) North (b) South (c) East (d) West.
A

62. In a club there are cerrtain number of males and females. If 5 females are absent then female strenth will be 5 times that of males. Number of males actually present is :
(a) 45 (b) 80 (c) 105 (d) 175.
B

63. The missing number in the following series is
6, 12, 21,...., 48 :
(a) 40 (b) 33 (c) 38 (d) 45. B

Directions : (Questions 64 to 66) : Read the below passage carefully and answer the questios : Five roommates Randy, Sally, terry, Uma and Vernon each do one housekeepingtask mopping, sweeping, laundry, vacuuming or dusting one day a week, Monday through Friday.

* Vernon does not vacuum and does not do his task on Tuesday.
* Sally does the dusting and does not do it on Monday or Friday.
* The mopping is done on Thursday.
* Terry does his task, which is not vacuuming, on Wednesday.
* The laundry is done on Friday and not by Uma.
* Randy does his task on Monday.

64. The task done by Terry on Wednesday is :
(a) Vacuuming (b) Dusting
(c) Mopping (d) Sweeping. D

65. The day on which the Vacuuming is done is :
(a) Friday (b) Monday
(c) Tuesday (d) Wednesday. B

66. Sally does dusting on :
(a) Friday (b) Monday
(c) Tuesday (d) Wednesday. C

67. Find the odd number in the series : 2, 9, 28, 65, 126, 216, 344,... :
(a) 28 (b) 65
(c) 126 (d) 216. B

68. Average age of students of an adult school is 40 years. 120 new students whose average is 32 years joined the school. As a result the average age is decreased by 4 years. The number of students of the school after joining of the new students is :
(a) 1200 (b) 120
(c) 360 (d) 240. D

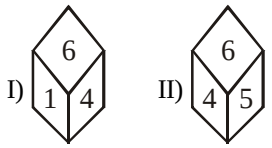
Questions 69 to 70 are based on the following :
P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre. P is second to the right of T, T is the neigbout of R and V, S is not the neighbour of P, V is the neighbour of U, Q is not between S and W, and W isnot between U and S.

69. Which two of the following are not neighbours?
(a) RV (b) UV
(c) RP (d) QW.
A

70. What is the position of S?
(a) Between U and V.
(b) Second to the right of P.
(c) To the immediate right of W.
(d) Data inadequate. D

71. Theratio between a two digit number and the sum of the digits of theat number is 4 : 1. If the digit in the units place is 3 more than the digit in ten's place, then the number is :
(a) 24 (b) 63
(c) 36 (d) 42. C

72. Two positions of a dice are shown below. When number 1 is on the top, what number will be at the bottom?



(a) 2 (b) 3
(c) 5 (d) cannot be determined. C

73. A, B, C, D, E, F and G are sitting in a line facing East. C is immediate to the right of D, B is at one of the extreme ends and has E as his neighbor. G is between E and F, D is sitting third fro the south end. Who is sitting third from North?
(a) A (b) E (c) F (d) G. D

74. There is a family party consisting of two fathers, two mothers, two sons, one father-in-law, one mother-in-law, one daughter-in-law, one grandfather, one grandmother and one grandson.
What is the minimum number of persons required so that this is possible?
(a) 5 (b) 6 (c) 7 (d) 8. A

75. If A is brother of B, C is brother of B and A is brother of D, then which of the following must be true?
(a) A is bother of C (b) B is brother of C
(c) D is brother of C (d) B is brother of D. A

Questions 76 to 78 are based on the following :
Five houses lattered A, B, C, D and E are built in a row next to each other. the houses are lined up in the order A, B, C, D and E. Each of the five houses have colored roofs and chimneys. The roof and chimney of each house must be painted as follows :
1) the roof must be painted either green, red or yellow.
2) The chimney must be painted either white, black or red.
3) No house may have the same color chimney as the color of roof.
4) No house may use any of the same colors that adjacent house uses.
5) House E has a green roof.
6) House B has a red roof and a black chimney.

76. Which of the following is true?
(a) At least two houses have black chimeny.
(b) At least two houses have red roofs.
(c) At least two houses have white chimneys.
(d) At least two houses have green roofs. C

77. If house C has a yellow roof, then which of the following must be true?
(a) House E has a white chimney.
(b) House E has a black chimney.
(c) House E has a red chimney.
(d) House D has a red chimeny. A

78. What is the maximum number of green roofs?
(a) 1 (b) 2
(c) 3 (d) 4. C

79. Krishna said, "This girl is the wife of grandson of my mother". How is krishna related to girl?
(a) Father (b) Father-in-law
(c) Husband (d) Grand father. B

80. Instead of walking along two adjacent sides of a rectangular field, a body took a short cut along the diagonal of the field and saved a distance equal to half the longer side. The ratio of the shorter side of the rectangle to the longer side is :
(a) 1/2 (b) 2/3 (c) 1/4 (d) 3/4. D

81. Each word is parenthesis below is formed in a method. This method is used in all four examples :
SNIP (NICE) PACE
TEAR (EAST) FAST
TRAY (RARE) FIRE
POUT (OURS) CARS.
Based on this method, the word in the parenthesis of CANE (?) BATS is :
(a) NEAT (b) CATS
(c) ANTS (d) NETS. C

82. A study of native born residents in an area of Adivasis found that two-thirds of the children developed considerable levels of nearsightedness after starting school, while their illiterate parents and grandparents, who had no oppurtunity for formal schooling, showed no signs of ths disability.
If the above statements are true, which of the following conclusions is most strongly supported by them?
(a) Only people who have the opportunity for formal schooling develop nearsightedness.
(b) People who are illiterate do not suffer from nearsightedness.
(c) The nearsightedness in the children is caused by the visual stress required by reading and other class work.
(d) Only literate people are nearsighted. C

Questions 83 to 85 are based on the following :
* A causes B or C, but not both
* F occurs only if B occurs.
* D occurs if B or C occurs.
* E occurs only if C occurs
* J occurs only if E or F occurs.
* D causes G or H or both.
* H occurs if E occurs.
* G occurs if F occurs.

83. If A occurs, which may occur?
I. F annd G II. E and H III. D
(a) I only.
(b) II only.
(c) I and III or II and III, but not both.
(d) I, II and III. C

84. If B occurs, which must occur?
(a) D (b) G (c) H (d) J. A

85. If J occurs, which must have occured?
(a) Both E and F (b) Either B or C
(c) Both B and C (d) None of these. B

86. Let x, y and z be distinct integers x and y are odd and positive and z is even and positive. Which one of the following statements cannot be true?
(a) $(x - z)^2 y$ is even (b) $(x - z) y^2$ is odd
(c) $(x - z)y$ is odd (d) $(x - y)^2 z$ is even. A

87. Pointing to a man in the photograph a lady said. "The father of his brother is the only son of my mother." How is this man in photograph related to the lady?
(a) Brother (b) Son
(c) Grandson (d) Nephew. D

Questions 88 to 90 are based on the following :
Six boys A, B, C, D, E and F are marching in a line. They are arranged according to thier heights, the tallest being at the back and the shortest in the front. F is between B and A, E is shorter than D but taller than C who is taller thanA, E and F have two boys between them. A is not the shortest among them.

88. Where is E?
(a) Between A and B (b) Between C and A
(c) Between D and C (d) In front of C. C

89. If we start counting from the shortest, which boy is fourth in the line?
(a) E (b) A (c) D (d) C. D

90. Who is next to the shortest?
(a) C (b) B (c) E (d) F. D

GENERAL ENGLISH

In questions 91 to 97, fill in the blank with correct option to make a proper sentece :

91. And how for this evening's main headline, Britain____another Olympic gold medal :
(a) Had won (b) Wins
(c) Won (d) Has won B

92. If she____about his financial situation, she would have helped him out :
(a) knew (b) had been knowing
(c) had known (d) have known. C

93. I am sure she can teach computers as well. She's not___new to the subject :
(a) All together (b) Altogether
(c) Alltogether (d) Together. C

94. You are trying to drag me_____a controversy :
(a) in (b) into (c) from (d) for. B

95. The people____you socialise are called friends :
(a) with whom (b) who
(c) with who (d) whom. A

96. _____to school yesterday?
(a) Did you walk (b) Did you walked
(c) Do you walk (d) Have you walked A

97. There was no_____in the railway compartment for additional passengers :
(a) space (b) place
(c) seat (d) room. C

98. The sentence below has 2 blanks. Fill in the blanks picking the appropriate pair of words from the ones given below that best completes the meaning of the sentence. The most technologically advanced societies have been responsible for the greatest____; indeed, savagery seems to be in direct proportion to_____ :
(a) Wars; viciousness (b) Catastrophes; ill-will
(c) Atrocities; development (d) Triumphs; civilization. C

99. Fill in the blanks with the correct form of tense.
The thief_____before the police came :
(a) Escaped (b) Had escaped
(c) Will escape (d) Has been escaped. B

100. Fill in the blank with appropriate words given.
Anne had to pay for everything because as usual, Peter_____his wallet at home :
(a) had left (b) was leaving
(c) left (d) leave. A

101. Pick the synonym of the word MEAGRE :
(a) helpful (b) abundant
(c) essential (d) limited. D

102. Choose the words that best express the meaning of the given idiom - Mid Slinging :
(a) Giving pain.
(b) Abusing someone.
(c) Laying blame.
(d) Damaging the reputation. D

103. For a word, four spellings are given. Choose the correct one :
(a) cieling (b) cealing
(c) ceiling (d) ceeling. C

104. Choose the wrongly spelt word :
(a) Believe (b) Relieve
(c) Grieve (d) Decieve. D

105. Choose the word or phrase that is most similar in meaning to the word - POLEMIC :
(a) black (b) magnetic
(c) grimace (d) controversial. D

106. Pick the antonym of the word TIMID :
(a) bold (b) lazy
(c) calm (d) slow. A

107. Pick the part of the sentence that has an error. If you would have come to me, I would have nelped you :
(a) If you would have (b) Come to me
(c) I would have (d) Helped you. A

108. Choose the word or phrase that is most nearly opposite in meaning to the word EXTRINSIC :
(a) Reputable (b) Inherent
(c) Ambitious (d) Cursory. B

109. Select the alternative giving the closest meaning of the idiom - To eat a humble pie :
(a) To become a vegetarian.
(b) Disinfecting everywhere.
(c) To fill one's belly.
(d) To say you are sorry for a mistake thay you made. D

110. Pick the antonym of the word FABRICATE :
(a) Construct (b) Weaken
(c) Dismantle (d) Evolve. C

COMPUTER AWARENESS

111. $(2FAOC)_{16}$ is equivalent to :
(a) $(195\ 084)_{10}$.
(b) $(001011111010\ 00001100)_2$.
(c) both (a) and (b).
(d) none of these. B

112. The decimal equivalent of octal number 111 010 is :
(a) 81 (b) 72 (c) 71 (d) 61 B

113. An I/O processor controls the flow of information between :
(a) cache memory and I/O devices.
(b) main memory and I/O devices.
(c) two I/O devices.
(d) cache and main memories. B

114. Which of following devices will take highest time in taking the backup of the data from a computer?
(a) Magnetic Disk (b) Pen Drive
(c) CD (d) Magnetic Tape. C

115. ROM is a kind of :
(a) primary memory (b) cache memory
(c) removable memory (d) secondary memory. A

116. The errors that can be pointed out by compilers are :
(a) Syntax (b) Semantic errors
(c) Logical errors (d) Internal errors. A

117. Let x = 11111010 day y = 00001010 be two 8-bit 2's complement numbers. Their product in 2's complement notation is :
(a) 11000100 (b) 10011100
(c) 10100101 (d) 11010101. A

118. The range of numbers that can be stored in 8 bits, if negative numbers are stored in 2's complement form is:
(a) -128 to +128 (b) -128 to +127
(c) -127 to +128 (d) -127 to +127. B

119. Primary storage is____as compared to secondary memory :
(a) slow and expensive (b) fast and inexpensive
(c) fast and expensive (d) slow and inexpensive. C

120. Which of the following unit is used to supervise each instruction in the CUP?
(a) Control Unit (b) Accumulator
(c) ALU (d) Control Register. A