NIT NEW TEST SERIES NT - 04

MATHEMATICS

1. If every element of a third order determinant of value Δ is multiplied by 6, then the value of the new determinant is :

(a) Δ (b) 6Δ (c) 36Δ (d) 216Δ

2. The number of divisors of 9600 including 1 and 9600 are :

(a) ${}^{16}C_{11}$ (b) ${}^{16}C_5$ (c) ${}^{16}C_9$ (d) None

3. Two circles touch externally. The sum of their areas is 130π sq.cm. The distance between their centres is 14 cm. Then the radii of the circles are in the ratio :

(a) 11 : 31 (b) 31 : 11 (c) 11 : 3 (d) None

4. If the roots of the equation $px^2 + qx + r = 0$ are in the ratio $\ell : m$ then $\frac{\ell^2 + m^2}{\ell m}$ is equal to :

(a) $\frac{q^2 - 2pr}{pr}$ (b) $\frac{q^2 + 2pr}{pr}$

(c) $\frac{2pr - q^2}{pr}$ (d) 0

5. The number of roots of the quadratic equation $8\sec^2\theta - 6\sec\theta + 1 = 0$ is :

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

6. If $\vec{a} = \hat{j} - \hat{k}$, $\vec{c} = \hat{i} + \hat{j} + \hat{k}$ are given vectors, then a vector $\vec{b}$ satisfies $\vec{a} \times \vec{b} + \vec{c} = 0$ and $\vec{a} \cdot \vec{b} = 3$ is :

(a) $\hat{i} + \hat{j} + 2\hat{k}$ (b) $\hat{i} + \hat{j} - 2\hat{k}$

(c) $-\hat{i} + \hat{j} - 2\hat{k}$ (d) $\hat{i} - \hat{j} + 2\hat{k}$

7. The triangle whose vertices are $7\hat{j} + 10\hat{k}$, $-\hat{i} + 6\hat{j} + 6\hat{k}$ and $-4\hat{i} + 9\hat{j} + 6\hat{k}$ is :

(a) isosceles (b) right angled
(c) equilateral (d) a and b Both

8. If in the ΔABC, a^2, b^2, c^2 are in A.P., then $\cot A, \cot B, \cot C$ are in :

(a) HP (b) AP (c) GP (d) none

9. Points (5, 2, 4), (6, – 1, 2) and (8, – 7, *k*) are collinear if *k* is equal to :

(a) – 2 (b) 1 (c) – 1 (d) 2

10. If $\lim_{x\to 0} \frac{\log(3+x) - \log(3-x)}{x} = k$, the value of k is

(a) $-\frac{2}{3}$ (b) 0 (c) $-\frac{1}{3}$ (d) $\frac{2}{3}$

11. The mean and variance of a random variable X having binomial distribution are 4 and 2 respectively, then P (X = 1) is :

(a) $\frac{1}{4}$ (b) $\frac{1}{32}$ (c) $\frac{1}{16}$ (d) $\frac{1}{8}$

12. If $f(x) = x^n$, then the value of

$f(1) - \frac{f'(1)}{1!} + \frac{f''(1)}{2!} - \frac{f'''(1)}{3!} + \ldots\ldots\ldots\ldots \frac{(-1)^n f^n(1)}{1!}$ is :

(a) $\frac{1}{4}$ (b) $\frac{1}{32}$ (c) $\frac{1}{16}$ (d) None

13. $\vec{u} = \hat{i} + \hat{j}$, $\vec{v} = \hat{i} - \hat{j}$ and $\vec{w} = \hat{i} + 2\hat{j} + 3\hat{k}$. If $\hat{n}$ is a unit vector such that $\vec{u} \cdot \hat{n} = 0$ and $\vec{v} \cdot \hat{n} = 0$, then $\left|\vec{w} \cdot \hat{n}\right|$ is equal to :

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

14. A particle acted on by constant forces $4\hat{i} + \hat{j} - 3\hat{k}$ and $3\hat{i} + \hat{j} - \hat{k}$ to the point $5\hat{i} + 4\hat{j} - \hat{k}$ Then total work done by the forces is :

(a) 50 units (b) 47 units (c) 30 units (d) None

15. The vector component of $\vec{b}$ perpendicular to $\vec{a}$ is :

(a) $(\vec{b}.\vec{c})\vec{a}$ (b) $\frac{\vec{a} \times (\vec{b} \times \vec{a})}{|\vec{a}|^2}$

(c) $\vec{a} \times (\vec{b} \times \vec{a})$ (d) none of these

16. The area of the region bounded by the curves $y = |x - 1|$ and $y = 3 - |x|$ is :

(a) 6 sq. units (b) 2 sq. units
(c) 3 sq. units (d) 4 sq. units

17. If f (a + b - x) = f(x) then $\int_a^b xf(x)dx$ is equal to :

(a) $\frac{a+b}{2}\int_a^b f(a+b-x)dx$ (b) $\frac{a+b}{2}\int_a^b f(b-x)dx$

(c) $\frac{a+b}{2}\int_a^b f(x)dx$ (d) $\frac{b-a}{2}\int_a^b f(x)dx$

18. If 1, w, w^2 are the cube roots of unity, then

$\Delta = \begin{vmatrix} 1 & w^n & w^{2n} \\ w^n & w^{2n} & 1 \\ w^{2n} & 1 & w^n \end{vmatrix}$ is equal to :

(a) w^2 (b) 0 (c) 1 (d) w

19. If x_1, x_2, x_3 and y_1, y_2, y_3 are both in G.P. with the same common ratio, then the points $(x_1, y_1), (x_2, y_2)$ and the (x_3, y_3) :

(a) are vertices of a triangle

(b) lie on a straight line

(c) lie on an ellipse

(d) lie on a circle

20. The lines 2x - 3y = 5 and 3x - 4y = 7 are diameters of a circle having area as 154 sq. units. Then the equation of the circle is :

(a) $x^2 + y^2 - 2x + 2y = 62$ (b) $x^2 + y^2 + 2x - 2y = 62$

(c) $x^2 + y^2 + 2x - 2y = 47$ (d) $x^2 + y^2 - 2x + 2y = 47$

21. Events A, B, C are mutually exclusive events such that $P(A) = \frac{3x+1}{3}, P(B) = \frac{x-1}{4}$. The set of possible values of x are in the interval.

(a) $[0,1]$ (b) $\left[\frac{1}{3}, \frac{1}{2}\right]$ (c) $\left[\frac{1}{3}, \frac{2}{3}\right]$ (d) None

22. Seven horses are in a race. Mr. A selects two of the horses at random and bets on them. The probability that Mr. A selected the winning horse is :

(a) 2/7 (b) 4/7 (c) 3/7 (d) 1/7

23. The value of 'a' for which one root of the quadratic equation $(a^2 - 5a + 3)x^2 + (3a - 1)x + 2 = 0$ is twice as large as the other is :

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

24. If ${}^nC_r$ denotes the number of combination of n things taken r at a time, then the expression ${}^nC_{r+1} + {}^nC_{r-1} + 2\,{}^nC_r$ equals :

(a) ${}^{n+1}C_{r+1}$ (b) ${}^{n+2}C_r$ (c) ${}^{n+2}C_{r+1}$ (d) ${}^{n+1}C_r$

25. If in a triangle ABC $a\cos^2\left(\frac{C}{2}\right) + c\cos^2\left(\frac{A}{2}\right) = \frac{3b}{2}$, then the sides a, b and c :

(a) satisfy a+ b = c (b) are in A.P.

(c) are in G.P. (d) are in H.P.

26. $\vec{a}, \vec{b}, \vec{c}$ are 3 vectors, such that $\vec{a} + \vec{b} + \vec{c} = 0, |\vec{a}| = 1, |\vec{b}| = 2, |\vec{c}| = 3$ then $\vec{a}.\vec{b} + \vec{b}.\vec{c} + \vec{c}.\vec{a}$ is equal to :

(a) 1 (b) 0 (c) -7 (d) 7

27. The value of the integral $I = \int_0^1 x(1-x)^n\,dx$ is :

(a) $\frac{1}{n+1} + \frac{1}{n+2}$ (b) $\frac{1}{n+1}$

(c) $\frac{1}{n+2}$ (d) $\frac{1}{n+1} - \frac{1}{n+2}$

28. The value of $\lim_{x \to 0} \frac{\int_0^{x^2} \sec^2 t\,dt}{x \sin x}$ is :

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

29. The number of real solutions of the equation $x^2 - 3|x| + 2 = 0$ is :

(a) 3 (b) 2 (c) 4 (d) 1

30. If the function $f(x) = 2x^3 - 9ax^2 + 12a^2x + 1$, where a > 0, attains its maximum and minimum at p and q respectively such that $p^2 = q$ then a equals :

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

31. If the line 2x + y = k passes through the point which divides the line segment joining the points(1, 1) and (2,4) in the ratio 3 : 2, then k equals:

(a) 5 (b) 6 (c) 11/5 (d) 29/5

32. Domain of definition of the function

$f(x)=\frac{3}{4-x^2}+\log_{10}(x^3-x)$, is :

(a) $(-1,0)\cup(1,2)\cup(2,\infty)$ (b) $(0,2)$

(c) $(-1,0)\cup(0,2)$ (d) $(1,2)\cup(2,\infty)$

33. If $f:R\to R$ satisfies f(x + y) = f(x) + f(y), for all x, y $\in$ R and f(1) = 7, then $\sum_{r=1}^{n} f(r)$

(a) $\frac{7n(n+1)}{2}$ (b) $\frac{7n}{2}$

(c) $\frac{7(n+1)}{2}$ (d) $7n+(n+1)$

34. The real number x when added to its inverse gives the minimum value of the sum at x equal to :

(a) -2 (b) 2 (c) 1 (d) -1

35. In an experiment with 15 observations on x, the following results were available: $\sum x^2=2830, \sum x=170$ One observation that was 20 was found to be wrong and was replaced by the correct value 30. The corrected variance is :

(a) 8.33 (b) 78.00 (c) 188.66 (d) 177.33

36. A student is to answer 10 out of 13 questions in an examination such that he must choose at least 4 from the first five questions. The number of choices available to him is :

(a) 346 (b) 140 (c) 196 (d) 280

37. If $A=\begin{bmatrix} a & b \\ b & a \end{bmatrix}$ and $A_2=\begin{bmatrix} \sim & \\ & \sim \end{bmatrix}$, then :

(a) $\sim=2ab,\ =a^2+b^2$ (b) $\sim=a_2+b_2,\ =ab$

(c) $\sim=a^2+b^2,\ =2ab$ (d) $\sim=a^2+b^2,\ =a^2-b^2$

38. The number of ways in which 6 men and 5 women can dine at a found table if no two women are to sit together is given by :

(a) $7!\times5!$ (b) $6!\times5!$ (c) 0! (d) $5!\times4!$

39. Consider points A, B, C and D with position vectors $7\hat{i}-4\hat{j}+7\hat{k},\ \hat{i}-6\hat{j}+10\hat{k},\ -\hat{i}-3\hat{j}+4\hat{k}$ and $5\hat{i}-\hat{j}+5\hat{k}$ respectively. Then ABCD is a :

(a) parallelogram but not a rhombus (b) square

(c) rhombus (d) None

40. If $\vec{u},\vec{v}$ and $\vec{w}$ are three non-coplanar vectors, then

$\left(\vec{u}+\vec{v}-\vec{w}\right).\left(\vec{u}-\vec{v}\right)\times\left(\vec{v}-\vec{w}\right)$ equals :

(a) $3\vec{u}.\vec{v}\times\vec{w}$ (b) 0

(c) $\vec{u}.\vec{v}\times\vec{w}$ (d) $\vec{u}.\vec{w}\times\vec{v}$

41. The trigonometric equation $\sin^{-1}x=2\sin^{-1}a$ has a solution for :

(a) $|a|\le\frac{1}{\sqrt{2}}$ (b) 0

(c) $\frac{1}{\sqrt{2}}<|a|<\frac{1}{\sqrt{2}}$ (d) None

42. A function f from the set of natural numbers to integers defined by $f(n)=\begin{cases}\frac{n-1}{2}, & \text{when n is odd}\\ \frac{n}{2}, & \text{when n is even}\end{cases}$ is

(a) neither one-one nor onto
(b) one-one but not onto
(c) onto but not one-one
(d) one-one and onto both

43. Let f(x) be a polynomial function of second degree. If f(1) = f(-1) and a, b, c are in A.P, then $f'(a), f'(b)$ and $f'(c)$ are in :

(a) Arithmetic-Geometric Progression (b) A.P.
(c) G.P. (d) None

44. The value of λ and μ so that points with position vectors $-\hat{i}+3\hat{j}+2\hat{k}$, $-4\hat{i}+2\hat{j}-2\hat{k}$ and $5\hat{i}+\lambda\hat{j}+\mu\hat{k}$ lie on a straight line are :

(a) $\lambda=5,\ \mu=-10$ (b) $\lambda=-5,\ \mu=10$

(c) $\lambda=5,\ \mu=10$ (d) $\lambda=10,\ \mu=5$

45. In a throw of a dice the probability of getting one in even number of throw is

(a) $\frac{5}{36}$ (b) $\frac{5}{11}$ (c) $\frac{6}{11}$ (d) $\frac{1}{6}$

46. Urn *A* contains 6 red and 4 black balls and urn *B* contains 4 red and 6 black balls. One ball is drawn at random from urn *A* and placed in urn *B*. Then one ball is drawn at random from urn *B* and placed in urn *A*. If one ball is now drawn at random from urn *A*, the probability that it is found to be red, is

(a) $\frac{32}{55}$ (b) $\frac{21}{55}$ (c) $\frac{19}{55}$ (d) none

47. A box contains 24 identical balls, of which 12 white and 12 are black. The balls are drawn at random from the box one at a time with replacement. The probability that a white ball is drawn fro the 4th time on the 7th draw is

(a) $\frac{5}{64}$ (b) $\frac{27}{32}$ (c) $\frac{5}{32}$ (d) $\frac{1}{2}$

48. A unit vector in the plane of the vectors $2\hat{i}+\hat{j}+\hat{k}$, $\hat{i}-\hat{j}+\hat{k}$ and orthogonal to $5\hat{i}+2\hat{j}+6\hat{k}$ is

(a) $\frac{6\hat{i}-5\hat{k}}{\sqrt{61}}$ (b) $\frac{3\hat{j}-\hat{k}}{\sqrt{10}}$

(c) $\frac{2\hat{i}-5\hat{j}}{\sqrt{29}}$ (d) $\frac{2\hat{i}+\hat{j}-2\hat{k}}{3}$

49. $1+\cos 56^\circ+\cos 58^\circ-\cos 66^\circ=$

(a) $2\cos 28^\circ\cos 29^\circ\cos 33^\circ$

(b) $4\cos 28^\circ\cos 29^\circ\cos 33^\circ$

(c) $4\cos 28^\circ\cos 29^\circ\sin 33^\circ$

(d) $2\cos 28^\circ\cos 29^\circ\sin 33^\circ$

50. For a real number *x*, [*x*] denotes the integral part of x. The value of

$\left[\frac{1}{2}\right]+\left[\frac{1}{2}+\frac{1}{100}\right]+\left[\frac{1}{2}+\frac{2}{100}\right]+....+\left[\frac{1}{2}+\frac{99}{100}\right]$ is

(a) 49 (b) 50 (c) 48 (d) 51

ANALYTICAL ABLITY AND LOGICAL REASONING

51. If you write down all the numbers from 1 to 100, then how many times do you write 3 ?

(a) 11 (b) 18 (c) 20 (d) 21

52. If 100 cats kill 100 mice in 100 days, then 4 cats would kill 4 mice in how many days ?

(a) 1 day (b) 4 days (c) 40 days (d) 100 days

Directions for (Q.53 and Q.54) : Read the following information and answer the questions given below :
A is the father of C. But C is not his son.
E is the daughter of C. F is the spouse of A
B is the brother of C. D is the son of B.
G is the spouse of B. H is the father of G.

53. Who is the grandmother of D?

(a) A (b) C (c) F (d) H

54. Who is the son of F ?

(a) B (b) C (c) D (d) E

55. In a certain code language, 'nee muk pic' means 'grave and concern', 'ill dic so' means 'every body else' and 'tur muk so' means 'body and soul'. Which of the following would mean 'every concern'?

(a) dic pic (b) ill nee (c) pic nee
(d) Cannot be determined (e) None of these

56. If STRONG is written as ROTNSG, then how would NAGPUR be written in the same code ?

(a) GPAUNR (b) PGUARN
(c) PGAURN (d) GPUANR

Directions for (Q.57 to Q.59): Study the information given below carefully and answer the questions that follow :

A, B, C, D, E, F, G, H and I are nine houses. C is 2 km east of B. A is 1 km north of B and H is 2 km south of A. G is 1 km west of H while D is 3 km east of G and F is 2 km north of G. I is situated just in middle of B and C while E is just in middle of H and D.

57. Distance between E and G is :

(a) 1 km (b) 1.5 km (c) 2 km (d) 5 kms

58. Distance between E and I is :

(a) 1 km (b) 2 km (c) 3 kms (d) 4 km

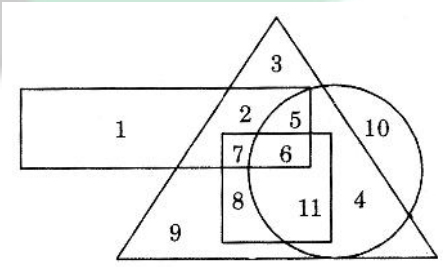
59. Distance between A and F is :

(a) 1 km (b) 1.41 km (c) 2 km (d) 3 km

60. If GLARE is coded as 67810 and MONSOON is coded as 2395339, then how can RANSOM be coded?

(a) 183952 (b) 189352 (c) 189532 (d) 198532

Directions for (Q.61 to Q. 63) : The following questions are based on the diagram given below :



(a) The rectangle represents government employees
(b) The triangle represents urban people
(c) The circle represents graduates
(d) The square represents clerks

61. Which of the following statement is trus ?

(a) All government employees are clerks.
(b) Some government employees are graduates as well as clerks
(c) All government employees are graduates
(d) All clerks are government employees but not graduates

62. Which of the following statements is true ?

(a) All urban people are graduates
(b) Some clerks are government employees but not urban
(c) All government employees are clerks
(d) Some urban people are not graduates

63. Choose the correct statement :

(a) Some clerks are government employees
(b) No clerk is urban
(c) All graduates are urban
(d) All graduates are government employees

64. If Q means 'add to', J means 'multiply by', T means 'substract from' and K means 'divide by', then 30 K 2 Q 3 J 6 T 5 = ?
(a) 18 (b) 28 (c) 31 (d) 103

Directions (Ques. 65 to 66) : In each of the following questions, which one of the four interchanges in signs and numbers would make the given equation correct ?

65. 6 × 4 + 2 = 16
(a) + and ×, 2 and 4 (b) + and ×, 2 and 6
(c) + and ×, 4 and 6 (d) None of these

66. (3 ÷ 4) + 2 = 2
(a) + and ÷, 2 and 3 (b) + and ÷, 2 and 4
(c) + and ÷, 3 and 4 (d) No,interchange, 3 and 4

Direction (Q. 67 to Q. 68) : Read the following information carefully to answer these questions ?

(a) Six Flats on a floor in two rows facing North and South are allotted to P, Q, R, S, T and U.
(b) Q gets North facing flat and is not next to S.
(c) S and U get diagonally opposite flats.
(d) R, next to U, gets a south facing flats and T gets a North facing flat.

67. The flats of which of the other pairs than SU, are diagonally opposite to each other ?
(a) QP (b) PT (c) QR (d) TS

68. Which of the following combinations gets South facing flats ?
(a) UPT (b) URP (c) QTS
(d) Data inadequate

69. If $3^{4X-2} = 729$, the value of X is
(a) 3 (b) 2 (c) –1 (d) 1

70. The sum of two numbers is 9 and their product is 18. The sum of their reciprocals is
(a) 1/10 (b) 1/2 (c) 3 (d) 2

71. $n^2 + 3n + 5$ is divisible by 121, only for the cases when:
(a) n is even (b) n is cases
(c) n is odd (d) none

Directions for (Qns. 72 & Qns. 73) :

A, B, C are three numbers, Let

@ (A,B) = average of A and B,

/ (A,B) = product of A and B, and

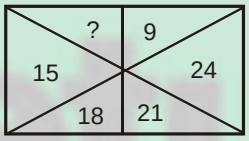
× (A,B) = the result of dividing A by B

72. The sum of A and B is given by:
(a) $/(@(A,B), 2)$ (b) $\times(@(A,B), 2)$
(c) $@(/(A,B), 2)$ (d) $@(\times(A,B), 2)$

73. Average of A, B and C is given by
(a) $@(/(@(/B,A), 2),C),3)$
(b) $\times(@(/(@(B,A), 3),C),2)$
(c) $/((\times(@(B,A), 2),C),3)$
(d) $/(\times(@(/(@(B,A), 2),C),3),2)$

74. Find the odd number in the following number series : 13.5, 16.0, 17.5, 20.0, 21.5, 23.0, 25.5, 28.0
(a) 16.0 (b) 17.5 (c) 20.0 (d) 23.0

75.



(a) 27 (b) 12 (c) 24 (d) 42

Read the following passage to answer the questions from (76 to 77).

In each question below are given three statements follwed by three conclusions numbered I, II and III. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow(s) from the given statements disregarding commonly known facts. Then decide which of the answers (A), (B), (C) and (D) is the correct answer.

76. Statements :

Some trees are branches.

All buds are branches.

All flowers are trees.

Conclusions,

I. Some branches are buds.
II. Some trees are flowers..
III. Some buds are trees.
(a) Only I follows (b) Only II follows
(c) Only I and II follow (d) All follow

77. Statements

All actors are writers.

Some writers are dancers.

All poets are writers.

Conclusions

I. All actors are poets
II. Some dancers are writers
III. Some dancers are actors
(a) None follows
(b) Only I and II follow
(c) Only II and III follow
(d) Only I and III follow

78. How many sets of two letters have as many letters between them as in the alphabetical order in the word 'ARISTOCRAT' ?

(a) 1 (b) 2 (c) 3 (d) 4

79. 'Hate' is related to 'Love' in the sameway as 'Create' is related to :

(a) Make (b) Renovate

(c) Destroy (d) Build

80. Find the odd-man out.

(a) 32 : 15 (b) 86 : 42

(c) 56 : 26 (d) 74 : 36

81. Six persons are sitting in a circle facing the centre of the circle. Parikh is between Babita and Narinder. Asha is between Chitra and Pankaj. Chitra is to the immediate left of Babita. Who is to the immediate right of Babita ?

(a) Parikh (b) Pankaj

(c) Narinder (d) Chitra

82. Ankit started walking towards North. After walking 30 metres, he turned towards left and walked 40 metres. He then turned left and walked 30 metres. He again turned left and walked 50 metres. How far is he from his original position ?

(a) 50 metres (b) 40 metres

(c) 10 metres (d) 20 metres

83. In 10 years, A will be twice as old as B was 10 years ago. If at present A is 9 years older than B, the present age of B is :

(a) 19 years (b) 29 years

(c) 39 years (d) 49 years

84. In a town, 65% people watch the news on television, 40% read a newspaper and 25% read a newspaper and watch the news on television also. What percent of the people neither watch the news on television nor read a newspaper ?

(a) 5 (b) 10 (c) 15 (d) 20

85. How many squares are there in the figure given below ?

(a) 4 (b) 5 (c) 6 (d) 7

86. Two successive discounts of 8% and 12% are equal to a single discount of :

(a) 20% (b) 19.04%

(c) 20.96% (d) 22%

87. X introduces Y saying, "He is the husband of the grand daughter of the father of my father." How is Y related to X ?

(a) Brother (b) Son

(c) Brother-in-law (d) Nephew

88. In the following number-series, one term is wrong. Which term is wrong ?

5, 12, 19, 33, 47, 75, 104

(a) 33 (b) 47 (c) 75 (d) 104

Directions : Q. 89 : In the following question below are given two statements followed by four conclusions numbered I, II, III, IV. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically logically follows from the two given statements, disregarding commonly known facts.

89. Statements :

A) Some green are blue B) No blue is white

Conclusions

I) Some blue are green

II) Some white are green

III) Some green are not white

IV) All white are green

(a) Only I follows (b) Only II and III follows

(c) Only I and III follows (d) Only I and II follows

90. Choose which pair of numbers carries next in the following sequence :

61, 57, 50, 61, 43, 36, 61

(a) 29, 61 (b) 27, 20 (c) 31, 61 (d) 29, 22

GENERAL ENGLISH

Directions for (questions 91 to 95) : ***Fill in the blanks with suitable words:***

91. The pilot was .....injured ; he died within half and hour.

(a) seriously (b) fatally (c) fatefully (d) vitally

92. His ..... directions misled us; we did not know which road to take.

(a) complex (b) obscure

(c) mingled (d) vague

93. He was very friendly with the press and it really ..... him even for what he did not a achieve.

(a) praised (b) lionized

(c) appreciated (d) highlighted

94. The police ..... the mob.

(a) scattered (b) disbanded

(c) drove (d) dispersed

95. I cannot ..... to know much about it.

(a) imagine (b) conceive

(c) pretend (d) contemplate

Directions for (questions 96 to 97) : In the following questions, out of the two alternatives, choose the one which best expresses the same meaning of the given word:

96. ALERT.

(a) hostile (b) watchful (c) brave (d) quick

97. ACCEDE.
(a) consent (b) access
(c) assess (d) proceed

Directions for questions 98 to 99 : ***In the following questions, choose the opposite in meaning to the given word:***

98. ATHEIST.
(a) rationalist (b) theologist
(c) believer (d) ritualist

99. GIGANTIC.
(a) weak (b) fragile
(c) slight (d) tiny

Directions for questions 100: ***In the following questions, choose one word which is correctly spelt. Find the correctly spelt word that is your answer:***

100. (a) Enterpreneur (b) Enterprenure
(c) Enterpreneur (d) None

Directions for questions 101 to 102 : ***In the following questions, a part of the sentence is printed in bold. Below are given alternatives to the bold part at (1),(2) and (3) which may improve the sentence. Chosse the correct alternative . In case no improvement is needed your answer is (4):***

101. She has decided to **canvas** for the Conservative Party.
(a) advertise (b) canvass
(c) canvassing (d) No improvement

102. He **ordered** me open the window.
(a) asked (b) bade
(c) requested (d) No improvement

103. Give the antonym for CRYPTIC
(a) Futile (b) Candid
(c) Famous (d) Indifferent

Directions for questions 104 to 110 : ***Fill in the blanks with sultable words:***

104. There are several ways of ..... the price at which a product can be marketed.
(a) arriving (b) thinking
(c) determining (d) noticing

105. Although they are not rich, they always wear ..... clothes.
(a) respectful (b) respective
(c) respectable (d) respected

106. After a recent mild paralytic attack his movements are ..... restricted, otherwise he is still very active.
(a) entirely (b) nowhere
(c) not (d) slightly

107. The prisoner was realeased on ..... for good behaviour.
(a) probation (b) bail
(c) parole (d) guarantee

108. Rajeev is too ..... as far as his food habits are concerned.
(a) enjoyable (b) fastidious
(c) curious (d) interesting

109. I ..... you to keep quiet.
(a) beg of (b) beg from
(c) beg (d) beg for

110. He stood ..... as a rock and faced the challenge.
(a) quiet (b) strong
(c) solid (d) firm

COMPUTER

111. Where is RAM located ?
(a) Expansion Board (b) External Drive
(c) Mother Board (d) All of above

112. Full form of URL is ?
(a) Uniform Resource Locator
(b) Uniform Resource Link
(c) Uniform Registered Link
(d) Unified Resource Link

113. IP address version 4 is in which format ?
(a) 4 bit (b) 8 bit (c)16 bit (d)32 bit

114. The Boolean expression is logically equivalent to what single gate?
(a)NAND (b)NOR (c)AND (d)OR

115. Which is not a word size?
(a)64 (b)28 (c)16 (d)8

116. Convert 11001010001101012 to hexadecimal.
(a)121035 (b)CA35 (c)53AC1 (d)530121

117. Determine the decimal equivalent of the signed binary number 11110100 in 1's complement.
(a)116 (b)–12 (c)11 (d)128

118. A 4-variable AND-OR circuit produces a 0 at its Y output. Which combination of inputs is correct?
(a) A = 0, B = 0, C = 1, D = 1
(b) A = 1, B = 1, C = 0, D = 0
(c) A = 1, B = 1, C = 1, D = 1
(d). A = 1, B = 0, C = 1, D = 0

119. Solving –11 + (–2) will yield which two's-complement answer?
(a)1110 1101 (b)1111 1001
(c)1111 0011 (d)1110 1001

120. When 1100010 is divided by 0101, what is the decimal remainder?
(a)2 (b)3 (c)4 (d)6