Q1. The probability of a man hitting a target is 14. How many times must he fire so that the probability of his hitting the target at least once is greater than 23?
(a) 4
(b) 3
(c) 2
(d) 1

Q2. A bag contains 20 tickets, numbered 1 to 20. A ticket is drawn and then another ticket is drawn without replacement. Find the probability that both tickets will show even numbers.
(a) 9/38
(b) 16/35
(c) 7/38
(d) 17/30

Q3. If A is any square matrix, then which of the following is skew-symmetric?
(a) $A + A^T$
(b) $A - A^T$
(c) AA^T
(d) A^TA

Q4. For any square matrix A, AA^T is a
(a) unit matrix
(b) symmetric matrix
(c) skew-symmetric matrix
(d) diagonal matrix

Q5. If $A^2 - A + I = O$, then the inverse of A is
(a) $I - A$
(b) $A - I$
(c) A
(d) $A + I$

Q6. $|a \times b|^2 + |a.b|^2 = 144$ and $|a| = 4$, then $|b|$ is equal to
(a) 12
(b) 3
(c) 8
(d) 4

Q7. The summation of two unit vectors is a third unit vector, then the modulus of the difference of the unit vector is
(a) $\sqrt{3}$
(b) $1 - \sqrt{3}$
(c) $1 + \sqrt{3}$
(d) $-\sqrt{3}$

Q8. Let a, b and c be vectors with magnitudes 3, 4 and 5 respectively and $a + b + c = 0$, then the values of $a.b + b.c + c.a$ is
(a) 47
(b) 25
(c) 50
(d) -25

Q9. The angle between the lines passing through the points (4, 7, 8), (2, 3, 4) and (-1, -2, 1), (1, 2, 5) is
(a) 0
(b) $\pi/2$

1

(c) π/4
(d) π/6

Q10. The shortest distance between the lines x = y = z and x + 1 − y = z0 is
(a) 1/2
(b) 1/√2
(c) 1/√3
(d) 1/√6

Q11. The area of the quadrilateral ABCD, where A(0, 4, 1), B(2, 3, -1), C(4, 5, 0) and D(2, 6, 2), is equal to
(a) 9 sq. units
(b) 18 sq. units
(c) 27 sq. units
(d) 81 sq. units

Q12. $A^2 - A + I = 0$ then the inverse of A
(a) A
(b) A + I
(c) I − A
(d) A − I

Q13. If A and B are two matrices of the order $3 \times m$ and $3 \times n$, respectively, and m = n, then the order of matrix (5A − 2B) is
(a) $m \times 3$
(b) 3×3
(c) $m \times n$
(d) $3 \times n$

Q14. If an operation is defined by $a* b = a^2 + b^2$, then (1 * 2) * 6 is
(a) 12
(b) 28
(c) 61
(d) None of these

Q15. Let A = {1, 2}, how many binary operations can be defined on this set?
(a) 8
(b) 10
(c) 16
(d) 20

Q16. What type of relation is 'less than' in the set of real numbers?
(a) only symmetric
(b) only transitive
(c) only reflexive
(d) equivalence

Q17. Let T be the set of all triangles in the Euclidean plane, and let a relation R on T be defined as aRb if a congruent to b ∀ a, b ∈ T. Then R is
(a) reflexive but-not transitive
(b) transitive but not symmetric
(c) equivalence
(d) None of these

Q18. 1, 6, 15, __, 45, 66, 91
a. 25

b. 26

c. 27

d. 28

Q19. Find the next two term of the series: A, C, F, J, __, __

a. o and u.

b. o and t

c. o and s

d. none of the above

Q20. Odd man out: 1, 2, 4, 8, 16, 32, 64, 96

a. 4

b.32

c.64

d.96

Q21.Find the next term in the alpha numeric series:

Z1A X2D V6G T21J R88M P445P?

a.N2676S

b. N2676S

c. T2670N

d. T2676N

Q22. In each of the following questions, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and fill in the blank spaces.

97, 86, 73, 58, 45, (…..)

(a) 24

(b) 34

(c) 44

(d) 54

Q23. 3, 7, 15, 31, 63, (…..)

(a) 92

(b) 115

(c) 117

(d) 127

Q24. 6, 11, 21, 36, 56, (…..)

(a) 41

(b) 51

(c) 61

(d) 81

Q25.The pattern is +5, +10, +15, +20, …

 (a) 352

(b) 342

(c) 332

(d) 322

Q26.34, 18, 10, 6, 4, (…..)

(a) 0

(b) 1

(c) 2

(d) 3

Q27. 1, 2, 6, 24, (…..)

(a) 150

(b) 120

(c) 95

(d) 60

Q28. 1, 4, 2, 8, 6, 24, 22, 88, (…..)

(a) 352

(b) 154

(c) 90

(d) 86

Q29.1, 2, 2, 4, 8, 32, _____

a. 256

b. 164

c. 286

d. None of the above.

Q30.4, 11, 31, 90, _____

a. 265

b. 266

c. 234

d. None of the Above

Q31. 2, 2, 5,13, 28, ?

   a. 49

   b. 50

   c. 51

   d. 52

Q32. 120,99,80,63,48

a.34

b. 35

c. 36

d.32

Q33. 125,80,45,20

a.10

b. 5

c. 7

d.8

Q34. 2,2,5,13,28

    a. 52

    b. 50

    c. 10

    d. 15

35.   Cyclic Redundancy Check is a technique used for:
    (a) Error detection   (b) User detection
    (c) Encryption   (d) None of these

36.   "Push and Pop" are appropriate operations for which data structure?
    (a) Queue   (b) Stack
    (c) List   (d) None of these

37.   The statement printf("%d", (a++)); prints
    (a) The current value of a   (b) The value of a+1
    (c)An error message   (d) garbage

38.   The directives for the pre-processor begin with:
    (a) Ampersand symbol (&)   (b) Two Slashes (//)
    (c) Number Sign (#)   (d) Less than symbol (<)

39.   In OSI network architecture, packets are created at:
    (a) network layer   (b) data link layer
    (c) transport layer   (d) session layer

40.   What is the correct value to return to the operating system upon the successful completion of a program?
    (a)   -1   (b) 1
    (c)   0   (d) Programs do not return a value.

41.   Typically a variable defined in a function/procedure/module has
    (a)scope for the whole file   (b) local scope
    (c)global scope   (d) none of these

42.   Interrupts which are initiated by an I/O drive are
    (a) internal   (b) external
    (c) software   (d) all of above

43.   Which of the following is a network topology?
    (a) Star   (b) Hump
    (c) Cycle   (d) None of these

44.   Threads belonging to the same process share the
    (a) Stack   (b) Data Section
    (c) Register Set   (d) thread ID

45.   An electrical pathway within a computer is called:
    (a) Buffer   (b) Sector
    (c) bus   (d) track

46.   A constructor for a class MUST have
    (a) No parameters   (b) a different name to the class
    (c) the same name as the class   (d) a return value

47.   Which of the following is a non-preemptive scheduling algorithm?
    (a) First Come First Serve   (b) Priority
    (c) Shortest Job First   (d) None of these

48.   The maximum number of dimensions an array can have in C is:
    (a) 3   (b) 4
    (c) 5   (d) compiler dependent

49.   The speed imbalance between memory access and CPU operation can be reduced by
    (a) Cache memory   (b) memory interleaving
    (c) both (a) and (b)   (d) none of these

50. Which of the following is a non-preemptive scheduling algorithm?
   (b) First Come First Serve   (b) Priority
   (c) Shortest Job First   (d) None of these
51. The statement printf("%d", ++5); prints
   (a) 5   (b) 6
   (c) An error message   (d) garbage

Q.52: Synonym of " Uproar " is ------- ?
  a.   Acquiescence
  b.   Calm
  c.   Turmoil
  d.   Placid
Q.53: The rains have set ------ ?
  A.   In
  B.   Of
  C.   On
  D.   Out
Q54. My brother was trembling ---- cold ?
  a.   from
  b.   with
  c.   of
  d.   by
Q55. Select The Right Alphabets ?
  a.   Superintendent
  b.   Supperitanden
  c.   Suprientend
  d.   Supritendent
Q56. A man of straw
a.   A man of no substance
b.   A man without wife
c.   A man in the illage
d.   None of the above
Q57. Sang Froid
   a.   Composure
   b.   Irritated
   c.   Happiness
   d.   None of the above
Q58. I am envious_____ them.
a. of
b. about
c. in
d. on
Q59. It took me ages to find a space _____ park my car.
a. to
b. in
c. about
d. of
Q60. Father hung a calendar —- the fireplace.
a- on
b-over
c-under
d-at