

IIT JAM MOCK SAMPLE PAPER - 1

1. The order of 2 in the field Z_{29} is
 (a) 2 (b) 14 (c) 28 (d) 29
2. If $3 \int_0^{2h} f(x) dx = h[a f(0) + b f(h) + c f(2h)]$ for all polynomials $f(x)$ of degree ≤ 2 , and $h > 0$, then (a, b, c) is
 (a) (1, 2, 1) (b) (1, 4, 1) (c) (2, 2, 2) (d) (2, 4, 1)
3. The function $f(x, y) = x^3 + 3xy^2 - 4y^3 - 15x$ has a local
 (a) minima at $(-5, 0)$ (b) minima at $(5, 5)$
 (c) maxima at $(5, 0)$ (d) maxima at $(-5, 0)$
4. The orthogonal trajectories of the curves $y = 3x^3 + x + c$ are
 (a) $2 \tan^{-1} 3x + 3 \ln y = k$ (b) $3 \tan^{-1} 3x + 2 \ln y = k$
 (c) $3 \tan^{-1} 3x - 2 \ln y = k$ (d) $3 \ln x - 2 \tan^{-1} 3y = k$
5. Let G be a group of order 8 generated by a and b such that $a^4 = b^2 = 1$ and $ba = a^3b$. The order of the center of G is
 (a) 1 (b) 2 (c) 4 (d) 8
6. Let $f(x) = x^2 + 1$, $g(x) = x^3 + x^2 + 1$ and $h(x) = x^4 + x^2 + 1$. Then
 (a) $f(x)$ and $g(x)$ are reducible over Z_2 (b) $g(x)$ and $h(x)$ are reducible over Z_2
 (c) $f(x)$ and $h(x)$ are reducible over Z_2 (d) $f(x)$, $g(x)$ and $h(x)$ are reducible over Z
7. The value of the integral $\int_0^1 \frac{x}{x^2 + 10} dx$ using Simpson's 1/3 rule with $h = 0.5$ is
 (a) 41/902 (b) 43/902 (c) 45/902 (d) 47/902
8. Two teams A and B play a series of four matches. If the probability that team A wins a match is $2/3$, then the probability that team A wins three matches, loses one and the third win occurs in the fourth match is
 (a) $8/27$ (b) $16/27$ (c) $8/81$ (d) $32/81$
9. The value of $f(5)$ using Lagrange's interpolation formula, given

x	0	1	4	6
$F(x)$	1	-1	1	-1

 is
 (a) $-3/2$ (b) -1 (c) 1 (d) $3/2$
10. Let F be a field. Given below are six statements about F
 1. F is a skew field
 2. F is a group with respect to multiplication

3. F is an integral domain
 4. F has zero divisors
 5. F has no zero divisors
 6. Only ideals of F are $\{0\}$ and itself
 In which of the following options all the statements are correct?
 (a) 1, 2, 3 (b) 1, 3, 5 (c) 2, 4, 6 (d) 4, 5, 6
11. If $8x - y = 15$ is a tangent at $(2, 1)$ to the curve $y = x^3 + ax^2 + b$, then (a, b) is
 (a) $(1, 3)$ (b) $(-1, 3)$ (c) $(1, -3)$ (d) $(-1, -3)$
12. The nullity of the matrix $\begin{pmatrix} 1-i & 0 & i & i-1 \\ 0 & 2-i & -2 & 2 \\ -2 & -4 & 3-i & -3 \\ 1+i & 2+i & -1 & 2-i \end{pmatrix}$ is
 (a) 1 (b) 2 (c) 3 (d) 4
13. Which of the following sets is NOT a convex set?
 (a) $\{(x, y) \mid 4x^2 + y^2 \leq 9, x - y \leq 1\}$ (b) $\{(x, y) \mid 4x^2 + y^2 \leq 9, x - y \geq 1\}$
 (c) $\{(x, y) \mid 4x^2 + y^2 \geq 9, x - y \geq 5\}$ (d) $\{(x, y) \mid 4x^2 + y^2 \geq 9, x - y \leq 5\}$
14. For the set $W = \{(x, 1, z) \in \mathbb{R}^3\}$, consider the statements
 P. W is not closed under vector addition
 Q. W is closed under scalar multiplication
 R. W has an additive identity
 S. W is not a subspace of \mathbb{R}^3
 Which of the following group of statements is true?
 (a) P, R (b) Q, R (c) P, S (d) Q, S
15. If $g(x, y) dx + (x+y)dy = 0$ is an exact differential equation and if $g(x, 0) = x^2$, then the general solution of the differential equation is
 (a) $2x^3 + 2xy + y^2 = c$ (b) $2x^3 + 6xy + 3y^2 = c$
 (c) $2x + 2xy + y^2 = c$ (d) $x^2 + xy + y^2 = c$
16. The value of $\int_0^1 \frac{dx}{\sqrt{x(1-x)}}$ is
 (a) 0 (b) $\pi/2$ (c) π (d) 2π
17. If $f(x, y) = \frac{1}{x^2} \tan^{-1} \frac{x}{\sqrt{x^2 + y^2}} + \frac{x^{10}}{y^{12}} e^{\frac{x^2}{y^2}}$ for $x > 1, y > \frac{\pi}{2}$, then $x \frac{\partial f}{\partial x} + y \frac{\partial f}{\partial y} + 1000 f$ equals
 (a) $998f$ (b) $999f$ (c) $1000f$ (d) $1002f$
18. The volume of the closed region bounded by the surfaces $x^2 + y^2 = 2x, z = -1$ and $z = 1$ is
 (a) 0 (b) $\pi/2$ (c) 2π (d) π

19. If $P = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{bmatrix}$, then P^{50} equals
- (a) $\begin{bmatrix} 1 & 100 & 500 \\ 0 & 1 & 100 \\ 0 & 0 & 1 \end{bmatrix}$ (b) $\begin{bmatrix} 1 & 50 & 100 \\ 0 & 1 & 50 \\ 0 & 0 & 1 \end{bmatrix}$ (c) $\begin{bmatrix} 50 & 100 & 150 \\ 0 & 50 & 100 \\ 0 & 0 & 50 \end{bmatrix}$ (d) $\begin{bmatrix} 1 & 50 & 1275 \\ 0 & 1 & 50 \\ 0 & 0 & 1 \end{bmatrix}$
20. Let P be a matrix of size 3×3 with eigen values 1, 2 and 3. Then P is
 (a) neither invertible nor diagonalizable (b) both invertible and diagonalizable
 (c) invertible but not diagonalizable (d) not invertible but diagonalizable
21. The integral $\int_{-1}^1 |x| dx$ is computed by the trapezoidal rule with step length $h = 0.01$. The absolute error in the computed value is
 (a) 0 (b) 0.0001 (c) 0.0025 (d) 0.005
22. An iteration scheme generates a sequence $\{x_n\}$. For some $\alpha, c \in \mathbf{R}$, $\{x_n\}$ satisfies $|\alpha - x_{n+1}| \leq c |\alpha - x_n|$ for all $n \geq 0$. Which one of the following conditions on c ensures the convergence of $\{x_n\}$?
 (a) $c = 1$ (b) $c > 1$ (c) $c > 0$ (d) $0 < c < 1$
23. An approximate value of $\sqrt{3}$ is computed by the formula $x_{n+1} = x_n - \frac{1}{4}(x_n^2 - 3)$. If $x_0 = 1.75$, the value of x_1 correct to three decimal places is
 (a) 1.734 (b) 1.733 (c) 1.732 (d) 1.731
24. The optimal solution of the LPP $\max f = 2x + 3y + 20$ subject to
 $x + y \leq 1$,
 $2x + 5y \leq 3$,
 $x \geq 0, y \geq 0$, is
 (a) $\left(\frac{1}{3}, \frac{2}{3}\right)$ (b) $\left(\frac{2}{3}, \frac{1}{3}\right)$ (c) $\left(0, \frac{3}{5}\right)$ (d) $\left(\frac{3}{2}, 0\right)$
25. The value of x in the sequence 2, 4, 10, 28, 82, x , ... is
 (a) 102 (b) 168 (c) 252 (d) 244
26. The rank of the matrix $\begin{bmatrix} 1 & 2 & 3 & 4 \\ 2 & 3 & 4 & 5 \\ 3 & 4 & 5 & 6 \\ 4 & 5 & 6 & 7 \end{bmatrix}$ is
 (a) 1 (b) 2 (c) 3 (d) 4
27. A particular integral of the differential equation $\frac{d^2 y}{dx^2} - 16y = 4 \sin h^2 2x$ is

- (a) $\frac{1}{8}(xe^{4x} + xe^{-4x} - 1)$ (b) $\frac{1}{8}(xe^{4x} - xe^{-4x} + 1)$
- (c) $\frac{1}{8}\left(e^{4x} - xe^{-4x} + \frac{1}{2}\right)$ (d) $\frac{1}{8}\left(xe^{4x} + e^{-4x} + \frac{1}{2}\right)$
28. The area bounded by the curves $x^2 = 4 - 2y$ and $x^2 = y + 4$ is
 (a) 16 (b) 24 (c) 30 (d) 36
29. The volume of the region in \mathbf{R}^3 given by $3|x| + 4|y| + 3|z| \leq 12$ is
 (a) 64 (b) 48 (c) 32 (d) 24
30. Let $F(x, y, z) = x^2 + y^2 + z^2 + xy + yz + zx$. The value of $F_x + F_y + F_z$ at $(1, 1, 1)$ is
 (a) 12 (b) 10 (c) 16 (d) 8
31. An unbiased coin is tossed eight times. The probability of obtaining at least one head and at least one tail is
 (a) $255/256$ (b) $127/128$ (c) $63/64$ (d) $31/32$
32. A Poisson random variable X has unit mean. Then $P(X = \text{odd})$ is
 (a) $\frac{1}{2}\left(1 - \frac{1}{e}\right)$ (b) $1 - \frac{1}{e^2}$ (c) $\frac{1}{2} - \frac{1}{e^2}$ (d) $\frac{1}{2}\left(1 - \frac{1}{e^2}\right)$
33. The order of the permutation $(12)(546)(3978)$ in the symmetric group S_9 is
 (a) 6 (b) 9 (c) 12 (d) 24
34. Let S be a set with 10 elements. The number of subsets of S having odd number of elements is
 (a) 256 (b) 512 (c) 752 (d) 1024
35. Let $a_0 + a_1 x + a_2 x^2 + a_3 x^3 + \dots$ be the Taylor series for the function $\sin(x^2 + 3x)$ about $x = 0$. Then a_3 equals
 (a) $-\frac{9}{2}$ (b) $\frac{9}{2}$ (c) $\frac{27}{2}$ (d) $-\frac{27}{2}$
36. Let $f(x) = 2x^3 + 3x^2 - 12x + 4$ for all $x \in \mathbf{R}$. Then
 (a) f is not one-one on $[-1, 1]$
 (b) f is one-one on $[-1, 1]$ but not one-one on $[-2, 2]$
 (c) f is one-one on $[0, 2]$ but not one-one on $[-2, 0]$
 (d) f is one-one on $[-2, 2]$
37. Let $f(x, y) = x^3 + y^3$ for all $(x, y) \in \mathbf{R}^2$. Then
 (a) f has a local maximum at $(0, 0)$
 (b) f has a local minimum at $(0, 0)$
 (c) f has neither a local maximum nor a local minimum at $(0, 0)$
 (d) f has both a local maximum and a local minimum at $(0, 0)$
38. Which of the Following holds the ROM, CPU, RAM and expansion cards
 (a) Hard disk (b) Floppy disk (c) Mother board (d) None of the above

39. Operating system
- (a) Link a program with the subroutines it references
 - (b) Provides a layered, user-friendly interface
 - (c) Enables a programmer to draw a flowchart
 - (d) None of the above
40. Ethernet uses
- (a) Bus topology
 - (b) Ring topology
 - (c) Mesh topology
 - (d) None of the above
41. What will be output if you will compile and execute the following c code?
- ```
#include<stdio.h>
int main(){
int i=320;
char *ptr=(char *)&i;
printf("%d",*ptr);
return 0;
}
```
- (a) 320
  - (b) 1
  - (c) 64
  - (d) Compiler error
42. What will be output if you will compile and execute the following c code?
- ```
#include<stdio.h>
#define x 5+2
int main(){
int i;
i=x*x*x;
printf("%d",i);
return 0;
}
```
- (a) 343
 - (b) 27
 - (c) 133
 - (d) Compiler error
43. Indicate which , of the following is not true about 4GL.
- (a) 4GL does not support a high –level of screen interaction
 - (b) Many database management system packages support 4GLs
 - (c) A 4GL is a software tool which is written, possibly, in some third generation language
 - (d) None of the above
44. The remainder obtained on dividing 2^{1680} by 1763 is
- (a) 1
 - (b) 3
 - (c) 13
 - (d) 31
45. The iterative formula to compute the reciprocal of a given positive real number α using Newton-Raphson method is
- (a) $x_{n+1} = x_n (2 - \alpha x_n)$
 - (b) $x_{n+1} = x_n (2 + \alpha x_n)$
 - (c) $x_{n+1} = x_n^2 (2 - \alpha x_n)$
 - (d) $x_{n+1} = x_n^2 (2 + \alpha x_n)$

46. Let G be a group of order 8 generated by a and b such that $a^4 = b^2 = 1$ and $ba = a^3b$. The order of the center of G is
 (a) 1 (b) 2 (c) 4 (d) 8
47. The surface area of the solid generated by revolving the line segment $y = x + 2$ for $0 \leq x \leq 1$ about the line $y = 2$ is
 (a) $\sqrt{2}\pi$ (b) 2π (c) $2\sqrt{2}\pi$ (d) 4
48. The general solution of the differential equation $y''(x) - 4y'(x) + 8y(x) = 10e^x \cos x$
 (a) $e^{2x}(k_1 \cos 2x + k_2 \sin 2x) + e^x(2 \cos x + \sin x)$
 (b) $e^{2x}(k_1 \cos 2x + k_2 \sin 2x) + e^x(2 \cos x - \sin x)$
 (c) $e^{-2x}(k_1 \cos 2x + k_2 \sin 2x) - e^x(2 \cos x - \sin x)$
 (d) $e^{-2x}(k_1 \cos 2x + k_2 \sin 2x) + e^x(2 \cos x + \sin x)$
49. The work done by the force $\vec{p} = 3i - 2j + 4k$ acting on a particle, if the particle is displaced from $A(8, -2, -3)$ to $B(-2, 0, 6)$ along the line segment AB , is
 (a) 0 (b) 2 (c) 3.5 (d) 4.2
50. The entire area bounded by the curve $r^2 = a \cos 2\theta$ is
 (a) a (b) $2a$ (c) πa (d) $2\pi a$
51. Suppose that 20 misprints are distributed randomly in a book of 900 pages. Assuming Poisson distribution, the probability that a chapter of 30 pages contains 2 misprints is
 (a) $\frac{2}{9}e^{-2/3}$ (b) $\frac{2}{9}e^{-3/2}$ (c) $\frac{9}{8}e^{-2/3}$ (d) $\frac{9}{8}e^{-3/2}$
52. If ω is a non-real cube root of unity, then the eigenvalues of the matrix $\begin{pmatrix} 1 & 1 & 1 \\ 1 & \omega & \omega^2 \\ 1 & \omega^2 & \omega^4 \end{pmatrix} \begin{pmatrix} 1 & 0 & 0 \\ 0 & -1 & 0 \\ 0 & 0 & 0 \end{pmatrix} \begin{pmatrix} 1 & 0 & 1 \\ 1 & 1/\omega & 1/\omega^2 \\ 1 & 1/\omega^2 & 1/\omega^4 \end{pmatrix}$ are:
 (a) 1, -1, 0 (b) $\frac{1}{3}, -\frac{1}{3}, 0$ (c) 1, ω, ω^2 (d) 3, -3, 0
53. Example of non-numerical data is
 (a) Employee address (b) Examination score
 (c) Bank balance (d) None of the above
54. A Register is a group of _____
 (a) OR gates (b) OR & AND gate
 (c) Flip-flops (d) None of these
55. This is truth table for _____ gate

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

- (a) OR gate (b) AND gate (c) NAND gate (d) EX-OR gate
56. Let V and W be vector spaces over a field F with $\dim FV = m$ and $\dim FW = n$, where m and n both are finite. Then $\dim F \text{Hom}(V, W)$ is
- (a) $m + n$ (b) $m - n$ (c) mn (d) m/n
57. Which of the following is a unit normal vector to the surface $z = xy$ at $P(2, -1, -1)$?
- (a) $\frac{i - 2j + k}{\sqrt{6}}$ (b) $i - 2j + k$ (c) $-i + 2j + k$ (d) $\frac{-i + 2j + k}{\sqrt{6}}$
58. The order of the quotient group $\mathbb{Z}8 \times \mathbb{Z}9 \times \mathbb{Z}18 / \langle (2, 2, 2) \rangle$ is
- (a) 18 (b) 36 (c) 72 (d) 144
59. Which of the following sets is NOT a convex set?
- (a) $\{(x, y) \mid 4x^2 + y^2 \leq 9, x - y \leq 1\}$ (b) $\{(x, y) \mid 4x^2 + y^2 \leq 9, x - y \geq 1\}$
- (c) $\{(x, y) \mid 4x^2 + y^2 \geq 9, x - y \geq 5\}$ (d) $\{(x, y) \mid 4x^2 + y^2 \geq 9, x - y \leq 5\}$
60. The program
- ```
main()
{ int a = 256, *p=&a;
 printf("%d", *p>>5);
}
prints
```
- (a) 2                      (b) 4                      (c) 6                      (d) 8
61. The output of the following program
- ```
main()
{
  int a[ ] = "computation";
  char *p = a, b=' ';
  for (int i = 1; i < 12; i++)
    if(i%4) continue;
    else a[i]=b;
  puts(p);
}
is
```
- (a) comp (b) comp tat on (c) com utat on (d) comp tati n

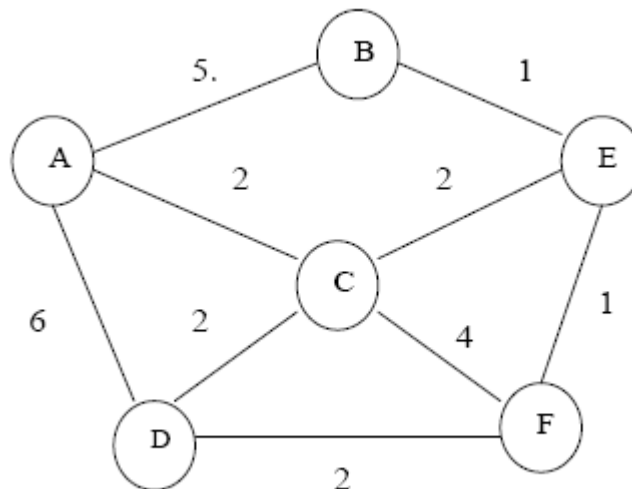
62. In 1978 Intel introduced the 16 bit Microprocessor 8086 now called as _____
(a) M6 800 (b) APX 80 (c) Zilog z8000 (d) Intel 8086
63. In a C program, variables x and y are declared to be of type int. Consider the following four statements
S1: $y = x \& 1$; S2: $y = x \% 2$;
S3: $y = x / 2$; S4: $y = x \ll 1$;
Which of the statements will result in the same value of y for every value of x?
(a) S3 and S4 (b) S1 and S3 (c) S1 and S2 (d) S2 and S4
64. Consider the following fragment of a C program
`int x = 20;`
`int y = 25;`
`int z = x ^ y;`
where ^ denotes bit-wise XOR operation. Then the value assigned to z will be
(a) 20 (b) 25 (c) 23 (d) 13
65. What does a light pen contain?
(a) Refillable ink (b) Pencil lead (c) Light sensitive elements
66. What will be the decimal equivalent of $(111011.10)_2$
(a) 48.625 (b) 59.487 (c) 48.487 (d) 59.625
67. The decimal number 127 may be represented by
(a) 1111 1111B (b) 1000 0000B (c) EEH (d) 0111 1111
68. Information is stored and transmitted inside a computer in
(a) binary form (b) ASCII code form
(c) decimal form (d) alphanumeric form
69. An FPU
(a) makes integer arithmetic faster (b) makes pipelining more efficient
(c) increases RAM capacity (d) makes some arithmetic calculations faster
70. What do the abbreviations VAB stand for?
(a) Voice activated broadcasting (b) Voice answer back
(c) Visual audio board
71. IBM PC's were originally based on the
(a) Intel 80 × 86 processor family (b) Motorola 68000 family
(c) Motorola 6800 family (d) PowerPc family
72. Flip flop is also called as _____
(a) Stable (b) Bi stable (c) Tri stable (d) not stable
73. A software is termed an open source software if
(a) the developer company is open 24 hours
(b) its source code is available to share, study and modify
(c) it can be downloaded from the Internet
(d) it is available free of cost

74. Order the following memory types in increasing order of access time
M1: Cache, M2: CD-ROM, M3: Hard disk, M4: RAM, M5: Register
- (a) M5 M1 M4 M3 M2 (b) M5 M1 M3 M4 M2
(c) M1 M5 M4 M3 M2 (d) M1 M4 M5 M3 M2
75. Example of non-numerical data is
- (a) Employee address (b) Examination score
(c) Bank balance (d) None of the above
76. The language that the computer can understand and execute is called
- (a) Machine language (b) Application software
(c) System program (d) None of the above
77. Consider the following C program

```
int main() {
char str[] = "leap";
int len = strlen(str)-1;
int i = 0;
while (i <= len) {
str[i] = str[len-i];
i++;
}
printf("%s", str);
return 0;
}
```

The output of the program will be

- (a) paal (b) pael (c) papa (d) paap
78. Following graph shows distances between six cities A through F.



If x and y are minimum and maximum distances from A to F where no city is visited more than once, then (x, y) is

- (a) (6, 11) (b) (5, 12) (c) (4, 13) (d) (6, 12)

79. Consider the following two lists:

	List I		List II
1.	DOS	P.	Sun Microsystems
2.	P4	Q.	Microsoft Corporation
3.	Java	R.	IBM
4.	PC	S.	Intel Corporation

The correct match is

- (a) $1 \rightarrow Q, 2 \rightarrow S, 3 \rightarrow P, 4 \rightarrow R$ (b) $1 \rightarrow Q, 2 \rightarrow R, 3 \rightarrow S, 4 \rightarrow P$
(c) $1 \rightarrow S, 2 \rightarrow P, 3 \rightarrow Q, 4 \rightarrow R$ (d) $1 \rightarrow R, 2 \rightarrow P, 3 \rightarrow Q, 4 \rightarrow S$
80. This US president is associated with the abolition of slavery. Identify him from the given options.
(a) George Washington (b) Abraham Lincoln
(c) Franklin D Roosevelt (d) Richard Nixon
81. A computer cannot “boot” if it does not have the
(a) Compiler (b) Loader (c) Operating system (d) Assembler
82. This famous Indian freedom fighter established the newspaper titled Young India. Identify him from the given options.
(a) MK Gandhi (b) Lala Lajpat Rai (c) GK Gokhale (d) BG Tilak
83. The term ‘baud’ is a measure of the:
(a) speed at which data travels over the communication line
(b) memory capacity
(c) instruction execution time
(d) all of the above
84. Consider the following C program

```
main()
{
int i=-1,j=-1,k=0,l=2,m;
m=i++&& j++&& k++||l++;
printf("%d %d %d %d %d",i,j,k,l,m);
}
```

The output of the program will be
(a) 0 0 1 3 1 (b) 0 1 1 3 1 (c) 0 2 1 3 1 (d) 1 0 1 3 1
85. A bootstrap is:
(a) a memory device
(b) a device to support the computer
(c) a small initialization program to start up a computer
(d) an error correction technique

86. The number of gold medals won by India in the commonwealth games held in New Delhi in 2010 is
(a) 36 (b) 37 (c) 38 (d) 40
87. Which of the following schedules of the Constitution of India deals with the Union list, State list and Concurrent list?
(a) Fourth Schedule (b) Fifth Schedule (c) Sixth Schedule (d) Seventh Schedule
88. A file is corrected immediately after the input of a transaction. This is an example of
(a) sorting (b) batching (c) on-line updating (d) off-line updating
89. Using 2's Complement, subtraction, of $(1010)_2$ from $(0011)_2$ is
(a) $(0111)_2$ (b) $(1001)_2$ (c) $-(0111)_2$ (d) $-(1001)_2$
90. The number of functions taking two Boolean variables as input and providing three Boolean variables as output is
(a) 12 (b) 32 (c) 4096 (d) 65536
91. Let P, Q, R and S be statements, each of which can be either true or false. It is known that if P is true or Q is true then R is true and S is false. Suppose it is given that R is false. Then which one of the following will certainly be TRUE?
(a) Both P and Q are true (b) P is true and Q is false
(c) P is false and Q is true (d) Both P and Q are false
92. Multiplexer means ____
(a) One into many (b) many into one (c) many into many (d) none of these
93. The chief reason why digital computers use complementally subtraction is that is
(a) simplifies their circuitry (b) is a very simple process
(c) can handle negative numbers easily (d) avoids direct subtraction
94. The National anthem of India was sing for the first time at the Calcutta session of Indian National Congress in the year ____
(a) 1906 (b) 1909 (c) 1911 (d) 1913
95. Organization for Economic Cooperation & Development (DE CD) is headquartered at ____
(a) Geneva (b) Paris (c) The Hague (d) Vienna
96. The twinkling of stars is due to the phenomenon of ____
(a) Reflection (b) Refraction (c) Diffraction (d) Scattering
97. An example of an embedded system is ____?
(a) A calculator (b) A machine tool (c) A CD-ROM (d)
98. What will be output if you will compile and execute the following c code?

```
#include<stdio.h>
int main(){
int i=10;
static int x=i;
if(x==i)
printf("Equal");
else if(x>i)
printf("Greater than");
```

```

else
printf("Less than");
return 0;
}

```

- (a) Equal (b) Greater than (c) Less than (d) Compiler error

99. What will be output if you will compile and execute the following c code?

```

#include<stdio.h>
int main(){
double far* p,q;
printf("%d",sizeof(p)+sizeof q);
return 0;
}

```

- (a) 12 (b) 8 (c) 1 (d) 4

100. In the following table, numbers 1, 2, 3, 4 are to be arranged wherever missing in such a way that each row as well as each column has all of these numbers exactly once

		4	2
2	4		
			1
	1		

The missing entries in the main diagonal are

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

101. Given list I and list II as

	List I		List II
P.	Abhijnana Shakuntalam	1.	Tulsidas
Q.	Godan	2.	Valmiki
R.	Ramcharitmanas	3.	Kalidas
S.	Ramayana	4.	Jawaharlal Nehru
T.	Discovery of India	5.	Prem Chand

Which of the following group is correct?

- (a) (R-2, S-3, T-4) (b) (P-1, Q-5, S-2) (c) (P-3, S-2, T-4) (d) (Q-5, R-2, T-4)