

ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS.

MARKS 16*5=80

1. (a) Briefly explain the different types of programming languages with their advantages and disadvantages.
(b) Differentiate between the following:
(i) RAM and ROM (ii) Syntax error and logical error.
(c) Describe with a neat sketch, the features and working of magnetic tape unit. What are its merits and demerits?
2. (a) Mention and define the services that computer networks are capable of providing.
(b) Explain the salient features of UNIX operating system.
(c) Define the following terms (i) WWW (ii) Email (iii) HTTP (iv) Domain names (v) FTP
3. (a) Explain the meaning of algorithm, with a simple example.
(b) Give the coordinates (x, y) of ten points, obtain a procedure which will output the coordinates of all points which lie inside or on the circle with unit radius with its center at (0, 0)
(c) What do you understand by the term 'token' in C language
4. (a) Assuming that C language allocates 2 bytes for integer, write down minimum and maximum and maximum values of integer.
(b) Explain the concept of conditional operator and comma operation in C.
(c) Pick the incorrect decimal constant from the following list explaining why they are incorrect. 4689, +785, 425.35, 1 / 4, 1A45
5. (a) What are unary and binary operators? Explain with examples.
(b) With the definition of : int a, b, c, d, k, p, m. The following expressions are formed. Mention why each of them is considered as an incorrect integer expression.
(i) ab+
j (ii) a4.0
(iii) a+ +b+c (iv) a/b*%c (v) a(%
b+c) (vi) a**b+m
(vii) (p*(m+k) (viii) k/*d
(c) If statement in c language evaluates the condition expression as true or false (Boolean) in absence of Boolean data type in C language, explain how this is achieved.
6. (a) Give the syntax of 3 types of loops in C. Explain working of each loop. Give one example for each type of loop.
(b) a and b are 2 arrays each with 10 elements write a program to find array C such that
C[0] = a[0] + b[9]
C[1] = a[1] + b[8]
:::
C[8] = a[8] + b[1]
C[9] = a[9] + b[0]

7. (a) What are User defined functions? Give one example.

(b) Write a program to find the intersection of 2 arrays a and b with size m and n respectively.

8. (a) Explain any four built in string functions. Give one example for each.

(b) If P is a pointer having address '2000' what would be values for the following.

$P = P + 2$; for int * P

$P = P - 1$; for float * P

$P = P + 10$; for char * P

$P = P + 1$; for double * P

(c) What is call by value and call by reference