

**B.Sc. (Part—I) Semester—I Examination**

**IS : COMPUTER SCIENCE / COMPUTER APPLICATION / INFORMATION  
TECHNOLOGY—I (NEW)**

**(Fundamentals of Information Technology and C Programming)**

Time : Three Hours]

[Maximum Marks : 80

**N.B. :—** (1) ALL questions from questions number 2 to 13 carry equal 12 marks.

(2) Question 1 carries 8 marks.

(3) Assume suitable data wherever necessary.

1. (A) Fill in the blanks : 2

(i) \_\_\_\_\_ is a compulsory function in all C-programs.

(ii) DMP stands for \_\_\_\_\_ .

(iii) The combination of 4-bits is called as \_\_\_\_\_ .

(iv) To read a single character in 'C' \_\_\_\_\_ function is used.

(B) Choose the correct alternative : 2

(i) The computer size was very large in :

(a) First generation (b) Second generation

(c) Third generation (d) Fourth generation

(ii) EEPROM stands for :

(a) Electrically Erasable Programmable Read Only Memory

(b) Easily Erasable Programmable Read Only Memory

(c) Electronic Erasable Programmable Read Only Memory

(d) None of these

(iii) Which function is mandatory in C-program ?

- (a) scanf ( )
- (b) main ( )
- (c) start ( )
- (d) None of these

(iv) Inkjet printer is :

- (a) Impact printer
- (b) Non-impact printer
- (c) Both (a) and (b)
- (d) None of these

(C) Answer the following in **one** sentence :

4

- (i) What are constants in C ?
- (ii) What is compiler ?
- (iii) What does FAT stand for ?
- (iv) What is an Operating system ?

2. (A) Explain the terms :

- (i) Microcomputers
- (ii) Mainframe computers.

6

(B) What are the characteristics of computers ? Explain.

6

**OR**

3. (A) Explain the generations of computers.

6

(B) Explain the terms :

6

- (i) ROM
- (ii) RAM
- (iii) Cache Memory.

4. (A) Explain the different functions of an operating system. 6  
(B) What is Batch processing ? Explain. 6

**OR**

5. (A) Explain the terms : 6  
(i) Real Time Systems  
(ii) Multiuser.  
(B) Explain the file attributes used in file structure. 6
6. (A) What is Topology ? Explain the Ring topology. 6  
(B) Explain the TCP/IP and FTP internet protocols. 6

**OR**

7. (A) What do you mean by Computer Network ? Explain the types of networks. 6  
(B) What is Web Browser ? Explain Internet Explorer. 6
8. (A) What is 'C'-language used for ? Describe the history of 'C' with its features. 6  
(B) What are Header files in C ? Why it is required to include these in the program of C ? 6

**OR**

9. (A) Explain the structure of C-program with an example. 6  
(B) What is an Algorithm ? Write an algorithm to find the area of circle. 6
10. (A) What are constants in C ? Explain symbolic constants in C. 6  
(B) What is an operator in C ? Explain the arithmetic, relational and logical operators with example. 6

**OR**

11. (A) What is a conditional operator in C ? Explain with an example. 6  
(B) What is operator precedence in C ? Explain with suitable example. 6
12. (A) Explain the Switch-case statement in C. Write a program to perform basic arithmetic operations using Switch-case statement. 6  
(B) Explain the nested if-else statement with example. 6

**OR**

13. (A) Write a program in C to calculate the factorial of a number. 6  
(B) Explain the following statements with example : 6
- (i) getch( )
  - (ii) getche
  - (iii) getchar.