

3 (Sem-1) CSC M 1

2016

COMPUTER SCIENCE

(Major)

Paper : 1.1

(Computer Fundamentals and Programming)

Full Marks : 60

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following questions as directed :

1×7=7

(a) Optical disk is a primary storage device.

(State true or false)

(b) Resolution of a printer is measured in ____.

(Fill in the blank)

A7/50

(Turn Over)

(2)

- (c) Choose the correct output for the following code segment :

```
#include<stdio.h>
main()
{
    int a[3] = {2, 1};

    printf ("%d", a[a[1]]);
}
```

- (i) 0
(ii) 1
(iii) 2
(iv) 3

(Choose the correct one)

- (d) Choose the correct option :

A variable name in C cannot start with

- (i) a number
(ii) a special symbol other than underscore.
(iii) an alphabet
(iv) None of the above

(3)

- (e) Choose the correct statement.

- (i) A statement in C should end with a semicolon
(ii) Pointers and integers are interchangeable
(iii) C is a low-level programming language
(iv) None of the above

- (f) If there is any error in opening file, the *fopen()* function returns ____.

(Fill in the blank)

- (g) Choose the correct option :

Computer keyboard is a

- (i) memory device
(ii) output device
(iii) input device
(iv) storage device

2. Answer the following questions : $2 \times 4 = 8$

- (a) Find out the binary equivalent of $(87.25)_{10}$.
(b) Differentiate between *Compiler* and *Interpreter*.

(4)

- (c) Find out the output of the following program :

```
#include<stdio.h>
int main()
{
    int i = 1;

    while (++i <= 5)
        printf ( "%d", i++ );
}
```

- (d) What are the functions of a linker?

3. Answer any *three* questions : $5 \times 3 = 15$

- (a) What are the characteristics of a digital computer?
- (b) What is a computer program? List the important characteristics of an algorithm.
- (c) What is storage class? State the different storage classes available in C with suitable example.
- (d) Write a function that will return the factorial of a given number.

(5)

- (e) Draw a flowchart for a program to find out the sum of the digits of an integer number.

- (f) What is *data type*? What are the different types of data type used in C programming language?

- (g) What is the purpose of *do...while* statement? How does it differ from the *while* statement?

4. Answer any *three* questions : $10 \times 3 = 30$

- (a) Write a program to find out the largest of n numbers, where n is an input.

- (b) Write a program using structure to accept names of n students, their date of birth, date of enrolment and print them.

- (c) Write a program to delete an element in an integer array. The position of the element to be deleted should be specified by the user.

- (d) Write a program to find out the sum of two 3×3 matrices.

(6)

(e) Define functions to perform the following tasks :

(i) Find out the reverse of a given integer number (e.g. if a given number is 857, then reverse should be 758).

(ii) Check whether a number is palindrome or not.

(f) Explain the following functions with examples :

(i) strcmp ()

(ii) strcat ()
