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(6th Semester)

MATHEMATICS

Paper No. : MATH-364 (A)

(**Computer Programming in C**)

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(Marks : 35)

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

1. (a) Write a flowchart of executing a C program. 5
- (b) What is an expression? Give one example of C expression. 2
- Or*
- Differentiate between constants and variables. Write brief notes on (a) logical constants and (b) string constants. 7

2. (a) Explain while loop with flowchart or program. 5
- (b) Differentiate between getchar() and putchar(). 2

Or

Write the syntax of switch. Write a program using switch and explain in brief. 7

3. What is an array? Write a program to find average mark obtained by a class of 30 students in a test using array. 7

Or

Explain any five string handling functions. 7

4. What is 'function returning pointer'? Write a program to illustrate it. 7

Or

What is a union? Illustrate it with an example. 7

5. List all possible modes in which a file can be opened. Explain. 7

Or

Write the different types of operation that may be carried out on a file. Illustrate it with a program. 7

Subject Code : MATH/VI/12 (a)

Booklet No. **A**

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Date Stamp

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DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2016**
Subject
Paper

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DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2016**

Roll No.

Regn. No.

Subject

Paper

Descriptive Type

Booklet No. B

INSTRUCTIONS TO CANDIDATES

1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.
2. This paper should be ANSWERED FIRST and submitted within 45 minutes of the commencement of the Examination.
3. While answering the questions of this booklet, any cutting, erasing, overwriting or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.

Signature of
Scrutiniser(s)

Signature of
Examiner(s)

Signature of
Invigilator(s)

MATH/VI/12 (a)

2 0 1 6

(6th Semester)

MATHEMATICS

Paper No. : MATH-364 (A)

(Computer Programming in C)

(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 10)

- 1.** Put a Tick (✓) mark against the correct answer in the brackets provided : 1×10=10

(a) Every C program must contain a/an

(i) printf() function ()

(ii) scanf() function ()

(iii) exit() function ()

(iv) main() function ()

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(2)

(b) The number of keywords available in C is

(i) 30 ()

(ii) 32 ()

(iii) 14 ()

(iv) 28 ()

(c) The break statement is used to exit from

(i) an if statement ()

(ii) a for loop ()

(iii) a program ()

(iv) the main() function ()

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(3)

- (d) An array is a collection of
- (i) different data types scattered throughout the memory ()
 - (ii) the same data type scattered throughout the memory ()
 - (iii) the same data type placed next to each other in memory ()
 - (iv) different data types placed next to each other in memory ()

- (e) What will be the output if you execute the following C code?

```
# include <stdio.h>
void main ()
{
  char i = 13;
  while (i)
  {
    i++;
  }
  printf ("%d", i);
}
```

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

(4)

(f) File manipulation functions in C are available in which of the following header files?

(i) streams.h ()

(ii) stdio.h ()

(iii) stdlib.h ()

(iv) files.h ()

(g) Which of the following is valid string function?

(i) strpbrk ()

(ii) strlen ()

(iii) strxfrm ()

(iv) strcut ()

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(5)

(h) A multidimensional array can be expressed in terms of

(i) array of pointers rather than as pointers to a group of contiguous array ()

(ii) array without the group of contiguous array ()

(iii) data type arrays ()

(iv) None of the above ()

(i) Continue statement is used

(i) to go to the next iteration in a loop ()

(ii) to come out of a loop ()

(iii) to exit and return to the main function ()

(iv) to restart iteration from the beginning of a loop ()

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(6)

(j) Which of the following is character-oriented console I/O function?

(i) getchar() and putchar() ()

(ii) gets() and puts() ()

(iii) scanf() and printf() ()

(iv) fgets() and fputs() ()

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(7)

SECTION—B

(Marks : 10)

2. Answer the following questions :

2×5=10

(a) What is unary operator?

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(8)

(b) State two advantages of function.

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(9)

(c) What is 'call by value'?

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(10)

(d) Differentiate between union and structure.

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(11)

- (e) Write a program to find the largest of two numbers.

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