2 0 1 7

(6th Semester)

MATHEMATICS

Paper : 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 simple C program and explain the structure of C program.   4

(b) Explain formatted and unformatted input/output functions in brief.   3

Or

Differentiate between operators and operands. Discuss the commonly used operators in C programming.   7

(2)

2. Write a program to differentiate break and continue statements. Explain briefly.   7

Or

What is nested for loop? Write a program to illustrate nested for loop and explain it.   7

3. Explain and differentiate call by value and call by reference with examples.   7

Or

(a) Write a program for insertion sort.   3

(b) What is recursive function? Write a C program of factorial by using recursive function.   1+3=4

4. Write a C program implementing pointer and function.   7

Or

Write a C program of function for concatenation of two strings, comparing two strings.   7

5. What is structure within a structure? Write a C program to explain structure within a structure and explain the program.   7

Or

Explain the function fprintf ( ) and fscanf ( ) and write complete example of file management.   7

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Subject Code : MATH/VI/12 (a)

> [ ]

To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.......................) Exam., **2017**

Subject ....

Paper ....

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, over-writing 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.**

To be filled in by the Candidate

DEGREE 6th Semester

(Arts / Science / Commerce /

.......................) Exam., **2017**

Roll No. ....

Regn. No. ....

Subject ....

Paper ....

Descriptive Type

Booklet No. B ....

2 0 1 7

(6th Semester)

MATHEMATICS

Paper : 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) What will be the output of the following arithmetic expression?

$$5 \quad 3 \quad 2\%10 \quad 8 \quad 6$$

     (i)   27   (   )

     (ii)   42   (   )

     (iii)   32   (   )

     (iv)   37   (   )

(b) What will be the output of the code

$$b \qquad c \qquad c$$

if *c* is 10 initially?

  (i) 20   ( )

  (ii) 21   ( )

  (iii) 22   ( )

  (iv) 23   ( )

(c) In case of ordinary integer variable

  (i) the leftmost bit is reserved for sign   ( )

  (ii) the rightmost bit is reserved for sign   ( )

  (iii) no bit is reserved for sign   ( )

  (iv) all bits are reserved for sign   ( )

(d) Which key word is used for skipping part of the loop?

  (i) Skip   ( )

  (ii) Continue   ( )

  (iii) Break   ( )

  (iv) Jump   ( )

(3)

(e) What is the only function all C programs must contain?

    (i) start( )   (   )

    (ii) system( )   (   )

    (iii) main( )   (   )

    (iv) include( )   (   )

(f) The declaration void function (int) indicates function which

    (i) return but no argument   (   )

    (ii) return nothing but argument   (   )

    (iii) no return no argument   (   )

    (iv) Both *(i)* and *(ii)*   (   )

(g) Which of the following is not logical operator?

    (i) &   (   )

    (ii) &&   (   )

    (iii) || (   )

    (iv) !   (   )

(h) In C, if you pass an array as an argument to a function, what actually gets passed?

    (i) Value of elements in the array   ( )

    (ii) First element of the array   ( )

    (iii) Base address of the array   ( )

    (iv) Address of the last element of the array   ( )

(i) If the two strings are identical, then strcmp ( ) function returns

    (i) −1   ( )

    (ii) 1   ( )

    (iii) 0   ( )

    (iv) True   ( )

(j) What is the similarity among structure, union and enumeration?

    (i) All of them let you define new data types   ( )

    (ii) All of them let you define new values   ( )

    (iii) All of them let you define new pointers   ( )

    (iv) All of them let you define new structures   ( )

(5)

SECTION—B

(*Marks* : 10)

2. Answer the following questions :   2×5=10

(a) Differentiate between while loop and do-while loop.

(6)

(b) What is multidimensional array?

(c) Mention two advantages and disadvantages of pointer.

(8)

(d) Briefly explain union.

(9)

(e) Write on differential diversion and iteration.

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