BCA 1st Semester Examination, 2019

BCA

(*Programming in* C)

PAPER – 1102

Full Marks : 70

Time : 3 hours

Answer **Q.No.1** and any **four** questions from the rest

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Attempt any *five* questions :   2 × 5

    (*i*)   What is the use of gets () and puts ( ) ?

    (*ii*) What is the use of typedef in C ?

    (*iii*) Explain switch statement.

(*iv*) Explain four characteristics of C language.

(*v*) Explain the difference between variable and constants.

(*vi*) What is a flowchart ? Explain with one example.

(*vii*) What is enum in C ?

(*viii*) What is the use macro ?

2. (*i*) What will be the output of following program.

```
main ( )
{
    int a, b, * P1, *P2, X , Y, Z ;
    a = 12, b = 4 ;
    P1 = & a ;
    P2 = & b ;
    X = * P1 ** P2 – 6 ;
    Y = 4* – * P2/*P1 + 10 ;
    print f ("a = % u \n", P1) ;
    print f ("b = % u \n", P2) ;
```

```
print f ("\n") ;
print f ("a = % d, b= % d \n", a, b) ;
print f ("x = % d, y =% d \n", X, Y) ;
*P2 = *P2 + 3 ;
*P1 = *P2 – 5 ;
z = *P1 * *P2 – 6 ;
print f ("\n  a = % d, b = % d ", a, b) ;
print f ("z = % d \n", t) ;
}
```

(*ii*) Differentiate between :

Call-by-value   and   Call-by-reference
structure and union. $9 + (3 + 3)$

3. (*i*) What is the function of library function feof ( ) ?

(*ii*) Let *a* and *b* be unsigned integer variables whose values are 0x6db7 and 0xa726 respectively. Compute *a* and *b*.

(*iii*) Explain the meaning of the declaration *p (int a) ;

(*iv*) Write an appropriate declaration which declares a pointes to a floating point quantity, and a pointes to a double precision quantity.

(*v*) Write a short not on "Command line argument". $2 + 2 + 2 + (2 + 2) + 5$

4. (*i*) A C program contains the following declaration static int,

$X[8] = \{ 10, 20, 30, 40, 50, 60, 70, 80 \}$;

What is the meaning of X ?

What is the meaning of $(X + 2)$?

What is the value of $* X$?

What is the value of $(* X + 2)$?

What is the value of $*(X + 2)$?

(*ii*) Write a short note on bitwise operator.

(*iii*) State the difference between actual and formal argument. What is register variable ?

$(1 \times 5) + 5 + (3 + 2)$

(*Continued*)

5. (*a*) Explain about C Preprocessor with an example.

   (*b*) Differentiate between entry-control and exit-control loops with an example.

   (*c*) Write a C program that illustrates the arithmetic expressions.   5 + 5 + 5

6. (*a*) Write a recursive function and iterative function to find the power of a number.

   (*b*) Define and declare a structure to store date, which including day, month and year and explain.

   (*c*) What is the difference between local and static variable.   6 + 5 + 4

7. (*a*) What is file ?

   (*b*) What are the basic file operation in C language explain briefly.

   (*c*) Explain the following functions fput, fget, fputs, fseek.

(d) Write a program in C to copy the content of one file to another.

(e) What is file pointer.   1 + 2 + 4 + 6 + 2

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