Total No. of Questions—4] [Total No. of Printed Pages—4+1

Seat No.	

[4968]-2001

B.C.A. (Second Semester) EXAMINATION, 2016

PROCEDURE ORIENTED PROGRAMMING USING C (201)

(2013 PATTERN)

Time : Three Hours **Maximum Marks : 80**

N.B. :— (*i*) *All* questions are compulsory.

(*ii*) All questions carry equal marks.

1. Answer the following (any *ten*) : [10×2=20]

(1) What is identifier ? Explain with example.

(2) Define operator. List any *four* types of operators.

(3) Give syntax of printf statement with example.

(4) What is the usage of putchar( ) & puts( ) ?

(5) What is use of continue statement ? Give example.

(6) How is pointer variable declared and initialized ?

(7) Define Array. Give example of one-dimensional array.

(8) What is use of malloc( ) function ?

(9) Give syntax and use of strlen( ) & strcat( ).

(10) Explain fread( ) function with example.

(11) Define structure. Give suitable example.

(12) Define preprocessor.

P.T.O.

2. Attempt any *four* of the following : [4×5=20]

(1) Explain structure of 'C' program with example.

(2) What is dynamic memory allocation ? Explain functions used to allocate and delete memory dynamically.

(3) Differentiate between structure and union with example.

(4) Differentiate between entry controlled loop and exit controlled loop.

(5) What is command line argument ? Explain with example.

3. Attempt any *four* of the following : [4×5=20]

(1) Write a 'C' program to convert temperature from Celsius to Fahrenheit.

(2) Write a 'C' program to check whether a number is armstrong or not.

(3) Write a 'C' program to accept and display book details of 'n' books as book-title, author, publisher and cost. (using array of structure).

(4) Write a 'C' program to find factorial of given number using recursion. (e.g. no. = 3 factorial = 6).

(5) Write a 'C' program to display the following pattern :

```
1  2  3  4  5
1  2  3  4
1  2  3
1  2
1
```

4. Trace the output and justify : [5×4=20]

(1)
```
Void test (int * a);
main( )
{
   int X = 50;
   test(& X);
   printf("%d\n", X);
}
void test (int * a);
{
   *a=*a+50;
}
```

(2)
```
int prod (int m, int n);
main( )
{
   int X = 10;
   int Y = 20;
   int p, q;
   p = prod(X, Y)
   q =  prod(p, prod (X, Z));
   printf("%d%d, \n", p, q);
}
   int prod (int a, int b)
   {
      return(a * b);
   }
```

(3)
```
main( )
{
   struct student
   {
   char name [20];
   int rollno;
   }
   S1, * ptr, S[10];
printf("\n %d", size of (S1));
printf("\n %d", size of (ptr));
printf("\n %d", size of (S));
}
```

(4)
```
# include<string.h>
# include<ctype.h>
int main(void)
{
   int length, i;
   char string[ ] = "This is A Sting";
   length = strlen(string);
   for (i=0, i<length; i + t)
```

```
    {
        string[i] = to lower(string[i]);
    }
        printf ("%s\n", string);
    getch( );
    return 0;
    }
```

(5)
```
main( )
{
    char * m = "ABCD";
printf("%C---", ++ * (++ p));
printf("%C", * ++ P);
}
```