

Total No. of Questions—4]

[Total No. of Printed Pages—4+1

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[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);
}
```