

(20519)

Roll No. ....

Total Questions : 13 ]

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**NP-3591**

B.Sc. (Computer Science) IInd Semester  
Examination, May-2019

**PROGRAMMING IN C**  
(BCS-204)

Time : 3 Hrs. ]

[ M.M. : 75

*Note* :- Attempt questions from all Sections as per instructions.

**Section-A**

(Very Short Answer Type Questions)

*Note* :- Attempt all the five questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

- ①. What are the different data types in C ? Explain any four with an example.

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Turn Over

- ②. Write a program to print all natural numbers divisible by 5 ranging from 1 to 100.

- ③. Define a pointer and give the meaning of declaration :

`int*ptr;`

with the help of an example.

- ④. Write the output of the following program :

```
main
```

```
{
```

```
int i=10; intj=20;
```

```
if((i*j)/(i+j)>=6)
```

```
printf("hello world");
```

```
else
```

```
printf("world hello");
```

```
}
```

- ⑤. What is a file in C ? Write the commands to open and close a file.

**Section-B**

(Short Answer Type Questions)

*Note* :- Attempt any two questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words.

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6. Define structures and write a program to make a structure for book entity with fields : book name, book price, book author, book publisher, year of print and ISBN.
7. Write a program to check that an integer string is a palindrome or not.
8. Explain the different between the for and while loop with an example.

### Section-C

#### (Long Answer Type Questions)

**Note :-** Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.

9. (a) Explain the concept of array of pointers with example.
- (b) What are the string operations in C ? Explain the following string operations using examples :
  - (i) strcat
  - (ii) strlen
  - (iii) strcmp
  - (iv) strcpy
10. (a) What are the operators in C ? State *four* arithmetic operators and *four* logical operators.
- (b) Write a program in C to multiple two matrices of nxn size each.

11. (a) What are formal parameters in functions ?
- (b) Write a program to find the biggest number among 3 numbers given by user using if else statements.
12. (a) Declare one-dimensional, 5 elements integer array 'List' and initialize all values.
- (b) What are the modes in which a file can be opened ? Explain any *two* with example.
13. (a) What is a Keyword ? State *two* keywords of C.
- (b) Write the output of the following program given below :

Main

```
{
int x=10;
int *p=&x;
printf("Value of variable x is : %d", x);
printf("\n Value of variable x is : %d", *p);
printf("\nAddress of variable x is : %p", &x);
printf("\nAddress of variable x is : %p", p);
printf("\nAddress of pointer p is : %p", &p);
}
```