

(i) Printed Pages: 3

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.A./B.Sc. (General) 2nd Semester
1048

COMPUTER APPLICATIONS

Paper : CA03 : C Programming Language

Time Allowed : Three Hours]

[Maximum Marks : 30

Note :— Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Units I-IV.

UNIT—I

- I. (a) Explain the following functions scanf(), printf(), getche(), getchar(), getch() and gets().
- (b) WAP to calculate the commission for a sales representative as per the sales amount given below :
- if sales \leq Rs. 500, commission is 5%
- if sales $>$ 500 but \leq 2000, commission is Rs. 35 plus 10% above Rs. 500
- if sales $>$ 2000 but \leq 5000, commission is Rs. 185 plus 12% above Rs. 2000
- if sales $>$ 5000, commission is 12.5% 3,3

II. Compare the following :

(a) Earth takes a period of revolution of 31558150 seconds.

WAP to convert this into number of days, hours and minutes.

(b) WAP to sum the following series :

$$S = 1 + (1 + 2) + (1 + 2 + 3) + \dots + (1 + 2 + 3 + \dots + N)$$

3,3

UNIT—II

III. What are actual and formal arguments ? Write a function to reverse a given integer. 6

IV. Write a program to show the use of #if, #else, #elif, #endif, #ifdef and #ifndef. 6

UNIT—III

V. WAP to determine whether the given matrix is symmetric or not. 6

VI. WAP to count the number of vowels in a string using pointers. 6

UNIT—IV

VII. WAP to show the passing of a structure to a function. 6

VIII. (a) Differentiate Text mode vs Binary mode.

(b) WAP to count number of lines, words and characters in a file. 3,3

UNIT—V

IX. Answer the following questions in brief :

- (a) Which operator in C has the lowest precedence ?
- (b) What is the use of %x control specifier ?
- (c) What is the output of the following program ?

```
main( )  
{  
    int x = 5;  
    while (x == 1)  
        x = x - 1  
    printf("%d\n", x);  
}
```

- (d) What is the use of null character in a string ?
- (e) List the names of four storage classes.
- (f) What is typedef ?

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