

08-06-15 (M)



SEM 2-3 (RC 07-08)

F.E. (Semester – II) (Revised in 2007-08) Examination, May/June 2015
INFORMATION TECHNOLOGY – II

Duration : 3 Hours

Total Marks : 100

Instructions : 1) Attempt **any five** questions, with atleast **one** question from **each Module**.

2) Make **suitable** assumption, if required.

MODULE – I

1. a) What are optical disks ? Explain different types of optical disks. 8
- b) Write short notes on the following input devices : 8
 - i) Keyboard
 - ii) Mouse
- c) List the functions of an operating system. 4
2. a) Briefly describe : URL, WWW, Web Browsers. 6
- b) Describe some salient features of DOS and Windows OS. 6
- c) Explain the working of CPU and memory with the help of a diagram. 6
- d) What is spamming ? 2

MODULE – II

3. a) Write an algorithm and draw a flowchart to exchange values of two variables. 6
- b) With the help of a neat diagram explain the steps involved in compilation. 6
- c) Describe the characteristics of data in a database. 8
4. a) Write an algorithm and draw a flowchart to find the summation of n natural numbers. 8
- b) How is a compiler different from an interpreter ? 3
- c) Differentiate between high level and low level languages. 6
- d) What is database and DBMS ? 3

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MODULE – III

5. a) Write a C program using do..while loop to accept a character from the user and print the corresponding ASCII value. 5
- b) Explain the basic structure of C Program with example. 6
- c) Explain the following with example : 6
- a) Enumerated data type
- b) Ternary operator.
- d) Evaluate the following expressions : 3
- a) Given $p = 5$, $q = 6$, $R = p + + + + + q$. What is the value of R ?
- b) Given $a = 4$, $b = 3$, evaluate $c = a$ and b . What is the value of c ?
6. a) What do you mean by identifier in C ? Specify the rules for identifier. Give example. 5
- b) Write a C Program to evaluate the series $1 + x + x^2 + x^3 + \dots + x^n$. 7
- c) Trace the output of the following programs :
- a)

```
#include<stdio.h>
#include<conio.h>
void main()
{
    float f = 0.13;
    printf("%8.2e",f);
    getch();
}
```
- b)

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int i = -3, j = 2, k = 0, m;
    m = ++i && ++j && ++k;
    printf("%d, %d, %d, %d\n", i, j, k, m);
    getch();
    return 0;
}
```
- d) What is meant by operator precedence and associativity ? Give example. 4



MODULE – IV

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|---|---|
| 7. a) Provide an example to explain nesting of function. | 3 |
| b) Write C Program to find largest element of an array. | 5 |
| c) What is recursion ? Write a C Program to calculate the power of a number using recursion. | 6 |
| d) Differentiate between call by value and call by reference. Give example. | 6 |
| 8. a) Write a short note on : | 6 |
| a) Automatic variables. | |
| b) Static variables. | |
| b) Write a C Program that accepts two integer arrays and finds the sum of the corresponding elements of these arrays. | 5 |
| c) Write a C Program to read name and roll number of N number of students from user and store them in a file. | 7 |
| d) Explain the following string manipulation functions : | 2 |
| i) strcat | |
| ii) strcmp. | |
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