



SEM 2 – 3 (RC 07-08)

F.E. Semester – II Examination, November 2009

(Revised in 2007-08)

INFORMATION TECHNOLOGY

Duration : 3 Hours

Total Marks : 100

Instructions : i) Answer **any five** questions with **atleast one** question from **each Module**.

ii) Assume **necessary** data.

MODULE – I

1. a) Explain the following :

1) Central processing unit

2) Control unit

3) Arithmetic and logic unit

4) Memory

5) Registers.

5

b) Write a short note on CD-ROM.

4

c) Define any five characteristics of monitors.

5

d) Explain multi-user, multi-processing and real-time operating systems.

6

2 a) State various advantages and disadvantages of Disk Operating System (DOS). 2

b) Define topology. Explain briefly any one of the topology.

3

c) Explain URL with an example.

5

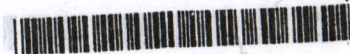
d) Explain electronic mail.

5

e) Explain WWW.

5

P.T.O.

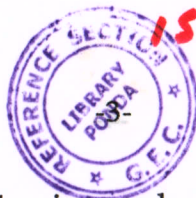


MODULE – II

3. a) What is DBMS ? Explain any two database models.
- b) Explain the following characteristics of the data present in the database.
- 1) Shared
 - 2) Persistence
 - 3) Security
 - 4) Consistency
 - 5) Non-redundancy
 - 6) Validity/Integrity.
- c) What is an assembler, compiler and a interpreter ?
4. a) Define and explain algorithm and flowchart.
- b) Write an algorithm and draw a flowchart to find sum of even and odd numbers between 1 to N.
- c) Write an algorithm and draw a flowchart to generate required number of terms of the fibonacci sequence.

MODULE – III

5. a) Explain with a flowchart the process of compiling and running a C program.
- b) What are different syntax rules for Identifiers ?
- c) What is exam ? Explain with an example.
- d) Evaluate the following expressions :
- $$x_1 = (-b + \sqrt{b^2 - 4ac}) / (2a)$$
- assuming $a = 1$, $b = -5$ and $c = 6$.
6. a) Explain how input of integer numbers is performed in a C program.



b) What is the output of the following codes ?

(3×2=6)

i) # include <stdio.h>

#include <conio.h>

void main()

{

int i

clrscr();

i = printf("computer");

printf("%d", i);

}

ii) # include <stdio.h>

include <conio.h>

void main()

{

intvar1 = 15, varz = 10, p, q;

clrscr();

p = var1 > 14;

q = var1 > 8 && varz == 8;

printf("p=%d", p);

printf("q=%d", q);

}

iii) # include <stdio.h>

include <conio.h >

void main()

{

int flt = 15, g = 10;

printf ("%d\n", flt<<z);

printf ("%d\n", flt%g);

}



- c) Write a C program using switch-case construct to do the following
 When user enters 0 -calculate area of a circle
 When user enters 1 – calculate area of a square. 5
- d) Write a C program using do while loop to accept a character from the user and
 print the corresponding ASCII value. 5

MODULE – IV

7. a) Explain the general syntax of the function definition. 5
- b) Illustrate with an example nesting of functions. 6
- c) What are the rules to be followed while passing 2D arrays to functions ? 4
- d) Define scope, visibility and lifetime of variables. Explain these attributes for
 automatic and static variables. 5
8. a) Explain how initialization of 1D array is performed at the two stages. 4
- b) Write a C program using functions to generate fibonacci sequence of n terms. 8
- c) Illustrate reading from and writing to a file. 8