

Program: BCA-Semester-II

Code No: 2.1

Digital Computer Design and Computer Organisation

Assignment No.1

What is logic gate? Explain the basic operations of Boolean algebra.

Assignment No.2

Define the role of a bootstrap loader

Assignment No.3

Discuss the evolution of computer

Assignment No.4

Write the symbols and truth tables for the following gates:

- a) AND b) OR c) NAND d) NOR

Assignment No.5

Explain the various types of digital computers.

Assignment No.6

Write note on a) Propagation delay b) power dissipation of logic gates

Assignment No.7

Write note on a) Noise Immunity b) Fan out of logic gates

Assignment No.8

(a) What is assembly language program? With the help of example code explain the rules of assembly language.

(b) Define register transfer. With the help of block diagram and timing diagram explain register transfer?

Assignment No.9

(a) What is Control Unit? Explain with the help of diagram the components of control Unit?

(b) Explain with the help of block diagram the concept of subroutine.

Assignment No.10

(a) Define flip-flop. Explain in detail S-R flip flop and Edge triggered flip flop.

(b) With the help of diagram and truth table explain 4 to 1 line multiplexer in detail

Code No: 2.2

System Analysis and Design

Assignment No.1

Define system. Explain the concept of system.

Assignment No.2

Write short note on the following

- a) Graphical User Interface
- b) Fourth Generation techniques

Assignment No.3

- (a) Explain different phases of feasibility study.
- (b) Explain structured flow chart with an example.

Assignment No.4

Write Feasibility Study in detail

Assignment No.5

- (a) Discuss different fact finding techniques.
- (b) Explain pseudo code with an example.

Assignment No.6

Write short note on the following

- a) MIS
- b) Software Engineering

Assignment No.7

Write a note on the system Development Life Cycle and Draw a neat diagram of (SDLC)

Assignment No.8

Write about various Software Development Process Models in detail.

Assignment No.9

Write on Entity Relation Diagram and its procedure of preparing in detail

Assignment No.10

Write short note on the following

- (a) Fact Finding Techniques
- (b) Structured Analysis

Code No: 2.3

'C' Programming & Data Structures

Assignment No.1

Write a program to sort the numbers using bubble sort method.

Assignment No.2

What is a STACK? What are the different operations that can be performed on a stack?

Assignment No.3

Write a note on data types in 'C'

Assignment No.4

Discuss the following constructs available in C language with suitable example for each

- a) Switch statement
- b) while loop

Assignment No.5

Write a note on the following:

- a) Pointer to structure
- b) Recursion

Assignment No.6

Write a note on the following:

- a) Extended binary tree
- b) Linked lists

Assignment No.7

Define following terms:

- a) Degree of a tree
- b) Binary tree
- c) Leaf Node
- d) Depth of a tree

Assignment No.8

a) What is a circular queue? Explain the need for a circular queue.

Assignment No.9

Differentiate between the following.

- a) getc() and putc()
- b) fprintf() and fscanf()

Assignment No.10

Explain the concept of structure with a suitable example.

Code No: 2.4
Organizational Behaviour

Assignment No.1

Define term Perception in detail.

Assignment No.2

What is group dynamics?

Assignment No.3

Explain the process of motivation in detail.

Assignment No.4

Write short notes on the following:

- a) Theory of X and Y of motivation
- b) Importance of OB

Assignment No.5

Write short notes on the following:

- a) Group decision making
- b) Traits of personality

Assignment No.7

Define stress. Explain in detail the various causes of stress.

Assignment No.8

What do you mean by personality? Explain in brief the theories of Personality.

Assignment No.9

Explain in detail Abraham Maslow's theory of motivation.

Assignment No.10

What is Organisational Behaviour? Explain in brief the different models of Organisational Behaviour.

Code No: 2.5

Business Environment

Assignment No.1

Write short notes on the following:

- a) Government Responsibility towards Business
- b) Economic Reforms

Assignment No.2

Write short notes on the following:

- a) World Bank
- b) Monetary Policy

Assignment No.3

What is fiscal policy? Discuss on the recent budget of the Indian economy.

Assignment No.4

Define Monetary Policy, What are credit control measures of RBI? Explain each in brief.

Assignment No.5

Explain the importance of banking services to business. Discuss the reforms in the Banking sector.

Assignment No.6

Assignment No.7

What is business environment? Discuss various factors of external environment of business.

Assignment No.8

What is WTO? Discuss the necessary guidelines as a platform for the conduct of global trade.

Assignment No.9

What is Foreign Trade? What are the major composition of India's import and export?

Assignment No.10

Write details of about economic planning in India with its objectives and strategies in India.

Code No: 2.6

Numerical Methods

Assignment No.1

Explain the terms:

- Error propagation
- Interpolation techniques

Assignment No.2

Represent hexadecimal number 7CF in power of 16 and find its decimal equivalent.

Assignment No.3

Find a real root of the equation $x^3 - 2x - 5 = 0$ by Newton Raphson method, correct to 2 decimal places.

Assignment No.4

Solve the following system of equations by Gauss elimination method.

$$2x + y + 4z = 12$$

$$4x + 11y - z = 33$$

$$8x - 3y + 2z = 20$$

Assignment No.5

Establish the Simpson's one third rule.

Assignment No.6

Find a real root of the equation $x^3 - 4x - 9 = 0$ by bisection method, correct to 2 decimal places.

Assignment No.7

Fit the curve $y = a + bx + cx^2$ which fits the following data:

x	0	1	2	3	4
y	1	1.8	1.3	2.5	2.3

Assignment No.8

a) Explain the terms:

- Accuracy
- Truncation error

b) Find the following:

- $(12.50)_{10} = (?)_2$
- $(625)_{10} = (?)_{16}$

Assignment No.9

a) Find the root of the equation:

$$x^4 - x - 13 = 0 \text{ Using Newton - Raphson method correct up to two}$$

decimal places.

b) Solve the system of equations:

$$23x_1 + 2x_2 + x_3 = 10$$

$$2x_1 + 3x_2 + 2x_3 = 14$$

$$x_1 + 2x_2 + 3x_3 = 14$$

Assignment No.10

a) Construct the divided differences table for the following data:

X	300	304	305	607
Y	2.4771	2.4829	2.4843	2.4871

Hence find $f(302)$?

b) Write a procedure in C to find a root of non-linear equation using the Bisection method.

Subject Code: 2.7

Computer lab-II

Assignment: 1

WAP to calculate the average of 10 values stored in an array and display all those values, which are more than the calculated average.

Assignment: 2

WAP to check that given number is Armstrong number or not. (if the sum of the cubes of each digits of the number is equal to the number itself, then the number is called the Armstrong number. For example, $153 = (1*1*1) + (5*5*5) + (3*3*3)$).

Assignment: 3

What is circular Queue? Explain with the help of example. What is the difference between circular queue and Dqueue