

# END TERM EXAMINATION

FIRST SEMESTER [BCA] FEBRUARY 2023

**Paper Code: BCA-105**

**Subject: Fundamentals of Computers & IT**

**Time: 3 Hours**

**Maximum Marks: 75**

**Note: Attempt all questions as directed. Internal choice is indicated.**

- Q1 Attempt **any five** questions:- (5x5=25)
- (a) List and explain five important characteristics of a computer.
  - (b) Explain the five Basic functions performed by a computer system.
  - (c) Differentiate between Multitasking and Multiprogramming.
  - (d) Distinguish between LAN, MAN, WAN.
  - (e) Define the Term byte. What is the difference between a bit and byte.
  - (f) Write full form of the following:- (a) GUI (b) CUI (c) BASIC (d) FORTRAN (e) MICR.

## UNIT-I

- Q2 (a) What is generation in Computer terminology? Explain various computer generations along with key characteristics of computers of each generation. (6.5)
- (b) Explain the following:- (i) Data (ii) Information (iii) RAM (iv) ROM (v) CPU (vi) Auxiliary Memory (6)

## OR

- Q3 (a) Define Memory? Explain different type of Memory in Computer System with the help of diagram. (6.5)
- (b) Write short notes on the Following:- (6)
- (i) Static Memory and Dynamic Memory
  - (ii) EPROM AND EEPROM

## UNIT-II

- Q4 Define Operating System? Explain the role of an operating system with respect to following Function:- (12.5)
- (a) Process Management
  - (b) Memory management
  - (c) Device Management
  - (d) Security
  - (e) Command interpretation

## OR

- Q5 (a) Define the following Terms:- (8)
- (i) Multiprogramming
  - (ii) Multitasking
  - (iii) Multithreading
  - (iv) Multiprocessing
- (b) Give Difference between:- (4.5)
- (i) Assembler and Loader (ii) Interpreter and compiler (iii) Linker and Loader

## UNIT-III

- Q6 Convert the following:- (2.5x5=12.5)
- (a) Convert 23 from base 10 to base 8.
  - (b) Convert 101011011 from base 2 to base 8.
  - (c) Convert 234 from base 8 to base 10.
  - (d) Convert E16 from base 16 to base 10.
  - (e) Perform binary addition of (12) + (18).

## UNIT-IV

- Q7 (a) What is Computer Network? Explain. (2.5)
- (b) Discuss the various Network topologies along with their advantages and disadvantages. (10)

## OR

- Q8 (a) Discuss various data transmission media. (6)
- (b) Differentiate between Digital and Analog Transmission. (6.5)

\*\*\*\*\*

P