

Course Name : BSCIT

Subject Name : Computer Fundamental

Subject Code : BSCITRMI-103

Date : 18-02-2026

Time : 11:30AM TO 01:45PM

Max Marks : 70

Section A

Q.-1. Respond to any three of the following questions in brief. (30)

- (1) Describe the Von Neumann Architecture in detail, illustrating the relationship between the input, processing, and output units.
- (2) Analyze the impact of computer technology on modern society, including its role in business, medicine, and communication.
- (3) Compare and contrast General Purpose Computer Systems and Embedded Systems with appropriate examples.
- (4) Explain the differences between Local Area Networks (LAN), Wide Area Networks (WAN), and the Internet.
- (5) Discuss the concept of 2's Complement and its importance in performing arithmetic operations in computers.

Section B

Q.-2. Write short notes on any four of the following topics. (20)

- (1) What is a CPU, and why is it often referred to as the "brain" of the computer?
- (2) Briefly explain the role of the Arithmetic Logic Unit (ALU) within the CPU.
- (3) What are "Utility Programs," and how do they assist the Operating System?
- (4) Briefly define the concept of a "Program Counter" (PC) register.
- (5) What is an "Accumulator," and what role does it play during instruction execution?
- (6) What is a "Web Browser," and how does it differ from a "Search Engine"?

Section C

Q.-3. Choose the correct answer from the options given below (10)

(1) What is the first step of the Instruction Cycle?

- | | |
|-----------|------------|
| A) Decode | B) Execute |
| C) Fetch | D) Store |

(2) What does the term "Operand" refer to?

- | | |
|----------------------|----------------------------------|
| A) An operation code | B) Data acted on by an operation |
| C) A storage device | D) A type of software |

(3) A combination of how many bits makes up one byte?

- | | |
|-------|-------|
| A) 4 | B) 8 |
| C) 16 | D) 32 |

(4) Which of the following is a non-volatile memory?

- | | |
|----------|-------------------|
| A) RAM | B) ROM |
| C) Cache | D) Virtual Memory |

(5) Which device is used to mount expansion cards on a motherboard?

- | | |
|---------------|-------------|
| A) Port | B) PCI Slot |
| C) CPU Socket | D) RAM Slot |

(6) What software converts scanned images into editable text?

- | | |
|--------|---------|
| A) OMR | B) MICR |
| C) OCR | D) CAD |

(7) In which network topology are all computers connected to a central hub?

- A) Bus
- C) Ring
- B) Star
- D) Mesh

(8) Which gate is the inverse of the AND gate?

- A) NOR
- C) XOR
- B) NAND
- D) OR

(9) What is the base of the Hexadecimal number system?

- A) 2
- C) 10
- B) 8
- D) 16

(10) What is the purpose of a printer?

- A) Audio output
- C) Input data
- B) Hard Copy output
- D) Store data

Section D

Q.-4. Decide whether the statements given below are True or False.

(10)

- (1) Software consists of the programs or instructions that tell the computer what to do.
- (2) ROM is the computer's working memory and is sometimes called random-accessed memory.
- (3) A Gigabyte is approximately equal to a million bytes.
- (4) Joysticks and scanners are examples of output devices.
- (5) Read Only Memory (ROM) is non-volatile and is not affected by power outages.
- (6) Operand refers to the data we are operating upon in an instruction.
- (7) A byte of memory is made up of a combination of four bits.
- (8) The smallest unit of data in a computer is a bit.
- (9) The output of an AND gate is HIGH only when all its inputs are HIGH.
- (10) An OR gate will have a HIGH output when any one of its inputs is HIGH.
