SAMPLE PAPER

BASED ON NEP

END SEMESTER EXAMINATION, 2024-25

Government Rajmata Vijaya Raje Sindhiya Kanya Mahavidyalya Kawardha

Course Code - CSSC-01T

Course Title – Computer Fundamental and Operating System
Course Type – DSC/GE

Duration: 3 Hours Max. Marks – 70

INSTRUCTIONS: Attempt all questions from SECTION - A

Section A: Multiple-Choice Questions (MCQs) 10x1 = 10

- 1. Which ancient Indian system is considered the precursor to the modern binary system?
 - a) Bhuta-Samkhya
- b) Katapayadi System
- c) Pingala System
- d) Sulbha Sutra
- 2. What does the Bhuta-Samkhya system represent?
 - a) Mathematical formulas
 - b) Numerical values using objects or phenomena
 - c) Binary codes
 - d) Logical sequences
- 3. Which of the following is an example of a non-impact printer?
 - a) Dot Matrix Printer
- b) Inkjet Printer

c) Line Printer

d) Drum Printer

- 4. What does USB stand for?
 - a) Universal Serial Block
- b) Unified System Bus
- c) Universal Serial Bus
- d) Uniform Signal Block
- 5. Which type of memory is volatile?
 - a) ROM

- b) RAM
- c) Flash Memory
- d) Magnetic Disk
- 6. Cache memory is primarily used to:
 - a) Store permanent data
 - b) Increase processing speed by storing frequently accessed data
 - c) Store backup copies of files
 - d) Manage virtual memory
- 7. Which command in Linux is used to list files and directories?
 - a) md

b) ls

c) cp

- d) rm
- 8. In DOS, which command is used to delete a file?
 - a) del

b) rm

c) erase

- d) remove
- 9. What is the primary function of the MMU (Memory Management Unit)?
 - a) Manage I/O ports
 - b) Manage memory allocation and protection
 - c) Control the CPU clock speed
 - d) Process arithmetic calculations

- 10. Which generation of computers first introduced microprocessors?
 - a) First

b) Second

c) Third

d) Fourth

Short Answer Questions

5x4 = 20

- 1. Explain the significance of the Katapayadi system in Indian mathematics.
- 2. What are the main differences between impact and non-impact printers?
- 3. Define cache memory and its purpose in a computer system.
- 4. List and explain two types of operating systems based on their functionality.
- 5. What is the role of the block diagram in understanding a CPU's operation?

Section B:

4x10 = 40

UNIT - I

1. Discuss the historical contributions of Indian mathematics to modern numerical systems, with examples.

OR

2. Explain the Pingala binary system and its relevance to contemporary computing.

UNIT - II

1. Describe the evolution and functionality of input/output devices in digital computers.

OR

2. Explain the architecture and usage of USB and IEEE 1394 in data transfer.

UNIT - III

1. Compare and contrast primary, secondary, and cache memory with examples.

OR

2. Discuss the concept of virtual memory and how it enhances system performance.

UNIT - IV

1. Explain the booting process of DOS and its internal and external commands.

OR

2. Discuss the structure of the Linux operating system and provide examples of key Linux commands.