FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

Complementary Course

BCS 1C 01—COMPUTER FUNDAMENTALS

Time : Three Hours   Maximum : 64 Marks

Part A

Answer **all** *questions.*

I. Choose the correct answer from the choices given :

1. In a flowchart a rhombus represents :

    (a) Decision.   (b) Connector.

    (c) Terminal.   (d) Process.

2. ———— is an optical storage device.

    (a) Floppy.   (b) Hard disk.

    (c) CD.   (d) None.

3. 1024 MB is equivalent to ————.

    (a) 1 GB.   (b) 1 TB.

    (c) 1 MB.   (d) 1 Byte.

II. Fill in the blanks :

4. MIDI stands for ————.

5. In BCD, 10_{10} is represented as ————.

6. The binary equivalent of 25_{10} is ————.

III. State whether the following statements are True *or* False :

7. Floppy disk is not magnetic storage device.

8. PROM is a volatile memory.

9. DVD is a sequential storage device.

(9 × 1 = 9 marks)

Turn over

Part B

Answer **all** *questions.*

10. What is PROM ?

11. Describe X-OR gate with logic diagram and truth table.

12. What is meant by non-positional number system.

13. Write a note on Plotter.

14. What is a parity bit ?

$(5 \times 2 = 10 \text{ marks})$

Part C

Answer any **five** *questions.*

15. Convert 168.75_{10} to binary, Octal and Hexadecimal number systems.

16. Explain the principle of duality with example.

17. Explain any three secondary storage devices.

18. Differentiate Inkjet and Dot-matrix printers.

19. What is a Flowchart ? Explain the different symbols used in flowchart.

20. Explain Memory Hierarchy.

21. Explain the different types of computer codes with examples.

22. Differentiate half adder and full adder.

$(5 \times 5 = 25 \text{ marks})$

Part D

Answer any **two** *questions.*

23. Write the algorithm and draw the flowchart to find the largest among three different numbers entered by user.

24. What are Logic Gates ? Explain the following logic gates with circuit diagram.

    AND, OR, NOT, NAND, NOR, XNOR.

25. Explain any *four* input and output devices in detail.

$(2 \times 10 = 20 \text{ marks})$