

18U138

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Name:

Reg. No.

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(Regular/Supplementary/Improvement)

(CUCBCSS-UG)

CC15U CSC1 C01 / CC17U CSC1 C01 - COMPUTER FUNDAMENTALS

(Computer Science - Complementary Course)

(2015 Admission onwards)

Time: Three Hours

Maximum: 64 Marks

PART – A

Answer *all* questions. Each question carries 1 mark.

1. The Hamming distance between two successive code groups in a cyclic code is
2. $A + (A.B) = \dots\dots\dots$
3. stands at the top of the memory hierarchy.
4. holds the current instruction being executed.
5. The storage capacity of a single-sided, single-layer DVD is about
6. MIDI stands for
7. A is a vector graphics printing devices that can print graphical plots.
8. What is the common name used for a bar code reader?
9. is an informal high-level description of the operating principle of an algorithm.

(9 x 1 = 9 Marks)

PART – B

Answer *all* questions. Each question carries 2 marks.

10. Perform the following :
 - a) $(54)_8 = ()_2$
 - b) $1101.1 + 1011.1$
 - c) $(1000 - 11)$
 - d) $(1A)_{16} = ()_{10}$
11. State and prove De Morgan's theorem.
12. Differentiate between volatile and non-volatile memories.
13. What is DVD?
14. Define the term 'Algorithm'.

(5 x 2 = 10 Marks)

PART – C

Answer any *five* questions. Each question carries 5 marks.

15. Describe different types of computer codes.
16. What is sequential logic circuit? How does it differ from the combinational logic circuit?
17. Briefly explain half adder and full adder in detail.
18. What are different form of ROM? Explain.
19. Distinguish between magnetic tape and magnetic disk.
20. What are pointing devices? Explain the functioning of three pointing devices.
21. What are scanners? List and explain various types of scanners.
22. What is a flowchart? Describe various symbols used in flowchart.

(5 x 5 = 25 Marks)

PART – D

Answer any *two* questions. Each question carries 10 marks.

23. Explain cache memory. Describe the memory mapping mechanism used in cache memory.
24. Briefly describe the different types of printer.
25. Draw flowchart/write algorithm to find greatest of three numbers.

(2 x 10 = 20 Marks)
