Reg. No. :

Question Paper Code : X 67535

B.E./B.Tech. DEGREE EXAMINATIONS, NOV./DEC. 2020
First Semester
Civil Engineering
CS 1101 – FUNDAMENTALS OF COMPUTING AND PROGRAMMING
(Common to All Branches)
(Regulations 2008)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions.

PART – A **(10×2=20 Marks)**

1. List the components of a computer system.
2. Explain the various types of software.
3. Define BCD.
4. What is digital code ?
5. Differentiate between PROM and EPROM.
6. Give the types of printers.
7. Define DSL and give its classification.
8. What are the Common types of Networks ?
9. What are identifiers ?
10. Compare scanf and printf function.

PART – B **(5×16=80 Marks)**

11. a) Explain the components of a computer system with a neat block diagram. **(16)**

(OR)

b) With suitable examples explain the logic operations : AND, OR, NAND and NOR. **(16)**

12. a) Convert the following numbers from the given base to the base indicated :
    i) Decimal 225.225 to binary and octal. **(4)**
    ii) Octal 623.77 to binary, decimal and hexadecimal. **(6)**
    iii) Hexadecimal 2AC5.D to decimal, octal and binary. **(6)**

(OR)

b) i) Simplify the following Boolean function

F (A, B, C, D) = $\sum$ (0, 1, 2, 5, 8, 9, 10) in (1) sum of products and (2) product of sums. **(4)**

ii) Perform the arithmetic operations.
(+42) + (–13) and
(–42) – (–13) in binary using
1) sign 1's complement representation.
2) Sign 2's complement representation. **(6)**

iii) What is the range of numbers that can be accommodated in a 16 bit register when the binary numbers are represented in sign magnitude ?
Give the answer in equivalent decimal representation. **(6)**

13. a) What are input devices and output devices ? Briefly explain some popular input device and various types of output devices. **(16)**

(OR)

b) i) Explain the architecture of UNIX OS. **(8)**
ii) Brief the salient features of Windows VISTA OS. **(4)**
iii) Write down the Applications of MS-Word. **(4)**

14. a) i) Explain in detail about Broadband Connection. **(8)**
ii) Describe different types of network structures. **(8)**

(OR)

b) i) Describe about the Cable Modern Connections with diagram. **(8)**
ii) Write briefly about network hardware. **(8)**

15. a) i) Write C program to find a Fibonacci serious for a given number. **(8)**
ii) Write C program to manipulate addition of two matrices. **(8)**

(OR)

b) i) What is different between structures and unions ? **(3)**
ii) Discuss in detail about looping (While, Do-while, for) concepts with suitable example. **(13)**

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