I Semester B.A./B.Sc. Examination, November/December 2018
(Semester Scheme)
(Repeaters Prior to 2013 – 14) (2011 – 12 & Onwards)
COMPUTER SCIENCE – I
Computer Fundamentals and C Programming

Time : 3 Hours   Max. Marks : 70

SECTION – A

I. Answer **any 10** questions. **Each** question carries **1** mark.   (1×10=10)

1) What is an algorithm ?

2) Convert $(34.12)_{10}$ to binary.

3) Write the truth table of NAND gate.

4) State De Morgan's theorems.

5) Explain Machine Language.

6) Differentiate = and = = operators in 'C'.

7) State any 2 boolean postulates.

8) Expand EEPROM.

9) Mention any 2 mathematical functions used in 'C'.

10) Mention the use of \n and \t in 'C'.

11) Where do we use exit ( ) library function ?

12) How to declare a two dimensional array ?

SECTION – B

II. Answer **any five** questions. **Each** question carries **three** marks.   (3×5=15)

13) List any 6 symbols used in flow chart.

14) Explain the difference between while and do_while loops in 'C'.

15) Give the truth table, symbol and logical expression for XOR gate.

16) Explain Nested IF with an example.

17) Mention the uses of function.

18) Write a 'C' program to print the right most digit in a number.

19) Explain fread ( ) and fwrite ( ) functions in 'C'.

SECTION – C

III. Answer **any five** questions. **Each** question carries **seven** marks.   (7×5=35)

20) a) Convert the binary number 10101 to Gray code.   (2+5)
    b) Briefly list the characteristics of computers.

21) Give a brief note on Universal gates.

22) a) Explain any two input devices.   (4+3)
    b) Give a note on Assembly language.

23) Explain SR flip-flop with truth table and logic circuit.

24) Give a brief note on :   (2+2+3)
    a) Immediate Addressing.
    b) Direct Addressing.
    c) Indirect Addressing.

25) Explain the different types of operators available in 'C'.

26) Explain call by value with an example.

27) a) Define macro. Explain a simple macro definition with an example.   (4+3
    b) Compare structure and union.

SECTION – D

IV. Answer **any one** question. **Each** question carries **ten** marks.   (10×1=10

28) a) Explain different looping statements with their syntax and an
       example.   (7+3
    b) Write a note on increment and decrement operator used in 'C'.

29) a) Write a 'C' program to sort the given numbers.   (5+5
    b) What is recursion ? Explain recursive function with an example.

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