Seat No.

F.E. (Part - I) (Semester - I & II) (All Branches)Examination, December - 2018
FUNDAMENTALS OF ELECTRONICS AND COMPUTERS
Sub. Code : 59184

Day and Date : Monday, 03 - 12 - 2018

Time : 02.30 p.m. to 05.30 p.m.

Total Marks : 100

Instructions :
1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Assume suitable data, if necessary.

Q1) Solve any Two : [16]

a) Explain full wave rectifier using centre tap transformer with necessary waveforms.

b) Explain working of single stage RC coupled amplifier.

c) What is bias point? Draw and Explain AC/DC loadline.

Q2) Solve any Two : [16]

a) With neat labeled diagram and truth tables, explain logic gates.

b) What is Multiplexer? Explain 8:1 Multiplexer with truth table.

c) With neat labeled diagram, explain J-K and S-R flip-flop. Draw truth tables.

Q3) Solve any Two : [18]

a) Explain any one Pressure Transducer.

b) With the block diagram, Explain Digital thermometer.

c) With a neat block diagram, Explain microwave Oven.

Q4) Solve any Two : [16]

a) Mention and elaborate six applications of Computers.

b) Give the classification of computers based on their speed.

c) Explain various input devices of computer system

P.T.O.

Q5) Solve any Two : [16]

    a) Convert following number system

        i) $(1101001.011)_2$ to Decimal

        ii) $(657.40625)_{10}$ to Binary

        iii) $(74B7.C1)_{16}$ to Decimal

        iv) $(174)_{10}$ Decimal to Octal

    b) Explain the characteristics and applications of Word Processor.

    c) What is software? Differentiate between system software and application software. Give application for each.

Q6) Solve any Two : [18]

    a) With neat schematic diagram, Explain program development life cycle.

    b) What are different types of networks? Explain any one in brief.

    c) With neat diagram, briefly Explain OSI reference model?

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