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SHIVAJI UNIVERSITY, KOLHAPUR

Subject : Fundamental of Electronic and Computer   Code : 59184

First Year Engineering - Sem - I (New Course)

Day and Date : Monday 23-12-2013   Time : 10.00 a.m. to 01.00 p.m.

Total Marks : 100

Note: 1) All questions are compulsory.

2) Figure to right indicates full marks

3) Assume suitable data if necessary

4) Write two sections on separate answer sheets.

SECTION - I

Q.1. a) Explain full wave bridge rectifier with necessary waveforms.   06

  b) Explain basic and universal gates with its truth table.   06

  c) Explain any one type of displacement transducer.   06

Q.2. Solve any two of the following.

  a) Explain washing machine with its block diagram and its features.   08

  b) What is multiplexer? Explain 4 to 1 multiplexer with truth table.   08

  c) Explain self bias circuit for biasing of transistor. Derive expression for stability factor.   0

Q.3. Solve any two of the following.

  a) What is flip flop? Explain J. K. flipflop with neat circuit diagram.   08

  b) With help of neat circuit diagram explain series regulated power supply.   08

  c) Explain in detail Thermistor.   08

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SECTION - II

Q.4. Solve any two 16

   a) List computer applications & explain any three in detail.

   b) Explain communication between processor to memory in detail.

   c) Explain various storage devices of computer system.

Q.5 Solve any two 16

   a) convert

   1. Hex to binary CF8E

   2. Hex to octal B2F8

   3. Binary to octal   11010000100

   4. Binary to hex 1111111.11111

   b) Explain following UNIX commands with an example

   1. LS   2. CD   3. CAT   4. MKDIR

   c) Explain in brief Assembler, interpreter and compiler.

Q.6 Solve any two 18

   a) List & explain different topologies of computer network.

   b) Explain Algorithm and flowchart for computer programming using any suitable high level language.

   c) Explain low level language & high level language in detail.