

S - 1457

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Seat No.	
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F.E.(Part - I) (Semester - II) (Revised) Examination, May- 2015

FUNDAMENTALS OF ELECTRONICS & COMPUTERS

Sub. Code : 59184

Day and Date : Wednesday, 20 - 05 - 2015

Total Marks : 100

Time : 10.00 a.m. to 01.00 p.m.

- Instructions :
- 1) All questions are compulsory in section - I.
 - 2) Q. No. 4 is compulsory.
 - 3) Solve any two questions from Q. No. 5, 6, and 7.
 - 4) Figures to the right indicates full marks.
 - 5) Assume suitable data if necessary.

SECTION - I

- Q1)** a) Explain half wave rectifier with necessary waveforms. [6]
b) Explain NAND as universal gate. [6]
c) Explain any one type of pressure transducer. [6]
- Q2)** Solve any two of the following. [16]
a) Explain Microwave oven with its block diagram.
b) Explain full adder circuit with truth table.
c) Explain bias stability with respect to variation in I_{co} and β .
- Q3)** Solve any two of the following. [16]
a) What is flip flop? Explain J-K flip flop with neat circuit diagram.
b) How transistor (BJT) operates in common base configurations? Explain with i/p and o/p characteristics.
c) Write note on washing machine.

P.T.O.

SECTION - II

- Q4)** a) Discuss the different generations of Computers. [10]
b) Enlist any four input and output devices and explain their use. [8]
- Q5)** a) Explain the functioning of Control Unit and ALU. [8]
b) Convert the following decimals to octal equivalent - [8]
i) 1010 ii) 1100
iii) 0101 iv) 0011
- Q6)** a) Explain different types of operating systems. [8]
b) Give and explain any four tools of Word Processor. [8]
- Q7)** a) Explain with the help of an example the meaning of Algorithm. [8]
b) Draw and explain the OSI stack. [8]

