

DE-8348**11**

DISTANCE EDUCATION
B.C.A. DEGREE EXAMINATION, MAY 2010.
ELECTRONIC DEVICES AND DIGITAL CIRCUITS
(upto 2002)

Time : Three hours

Maximum Marks: 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. (a) State and explain demorgans theorem.
(b) What is ASCII code? Explain.
2. (a) Discuss about half adder and full adder.
(b) Write in detail about the design of combinational circuits.
3. (a) Write briefly about FET and JFET.
(b) Briefly explain about asynchronous counters.
4. (a) Write short notes on review of oscillators.
(b) Convert the following decimal numbers to octal and hexadecimal numbers.
 - (i) 543
 - (ii) 278.
5. (a) Simplify using Karnaugh map and draw circuits using AND, OR gates.
$$F(A, B, C, D) = \Sigma(0, 1, 2, 4, 5, 6, 10, 14, 15)$$

(b) Explain about J-K flip flop with circuit diagram and truth table.
6. (a) Explain about break down diode and its uses.

- (b) Explain about p-n diode and its characteristics.
 - 7. (a) Briefly explain about NAND gate and XOR gate with truth table and circuit diagram.
 - (b) Explain the working of transistor as switch.
 - 8. (a) Discuss in detail about the half subtractor with example.
 - (b) Explain number system with appropriate examples.
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