

DISTANCE EDUCATION
B.C.A. DEGREE EXAMINATION, DECEMBER 2009.
ELECTRONIC DEVICES AND DIGITAL CIRCUITS
(upto 2002)

Time : Three hours

Maximum: 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

1. (a) Explain Gray codes with examples.
(b) Explain about 4 bit shift registers with circuit.

2. (a) Explain Binary Operations with example.
(b) Explain about controlled shift registers.

3. (a) Discuss the applications of op-amp.
(b) Explain in detail about the review of amplifiers.

4. (a) Explain about UJI and SCR.
(b) Convert the following decimal numbers to octal and hexa decimal numbers.
 - (i) 445.
 - (ii) 178.

5. (a) Explain about the working principle of half adder with circuit diagram.
(b) Write short notes on synchronous counters.

6. (a) Perform binary addition on the following :
 - (i) 1010 + 1111

- (ii) $23 + 48$.
- (b) Write short note on breakdown diode.
7. (a) Explain the function of shift right register with a circuit diagram.
(b) Explain Boolean theorem with examples.
8. (a) Construct the basic logic gates using universal building blocks.
(b) Explain the construction and working of MOSFET.
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