

**BAPATLA ENGINEERING COLLEGE:: BAPATLA
(AUTONOMOUS)
IT Department
1st MID Examination**

SUB& Code : DLD-18IT204
Class : 1/4 IT (A&B)

Date: 11.03.2020.
Time: 90 min

I .Answer All the Questions

5x1=5

- a) What are the advantages of digital systems over Analog systems?
- b) What do you mean by logic gate ? name some logic gates.
- c) Convert (105.15)₁₀ to binary
- d) What do you mean by Gray code & what are its applications ?
- e) What are the alphanumeric codes ?

SECTION-I

2. A) Subtract the following numbers using 10's complement method [5M]
i) 2928.54-416.73 ii) 416.73-2928.54

- B) Represent basic logic Gates Using NAND & NOR Gates. [5M]

(Or)

- 3 A) Convert (49056)₁₀ to binary & (1011011101101110)₂ to decimal [5M]

- B) Perform the following additions in XS-3 Code. [5M]
a) 5+3 b) 11+ 22 c) 12.4+11.3

SECTION-II

- 4 A) Reducing the expression using K-MAP $F = ABCD + ABC D + ABCD + ABCD + ABC D + ABCD$ [5M]

- B) Reduce the expression by using Boolean laws $F = ABCD + ABC D + ABCD + ABCD + ABC D + ABCD$ [5M]

(Or)

- 5 A) Reduce using Mapping the expression $\sum m(0,1,2,3,5,7,8,9,10,12,13)$ and implement in logic gates [5M]

- B) i) Encode data bits 0011 into 7-bit even parity hamming code [5M]

- i i) Find the error in given hamming code by considering even parity 0011111

MSRK/SRB