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Exam.Code:0906
Sub. Code: 6677

1059
B.E. (Computer Science and Engineering)
Second Semester
CS-203: Digital Electronics and Logic Design

Time allowed: 3 Hours

Max. Marks: 50

NOTE- Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- Why the numbering in the K map is not in sequence?
- Give difference between TTL and CMOS on the basis of its characteristics.
- Differentiate between combinational and sequential circuits.
- Design internal structure of T flip-flop using NAND gates
- What are the applications of shift registers? (5x2)

UNIT - I

II. a) Explain two input TTL NAND gate with suitable circuit diagram.

- b) Minimize the following by using QM method.
 $F = \sum m(0,1,5,7,8,9,13,14,15)$ (2x5)

III. Minimize the following using K-map and implement with minimum number of NOR gates only:

$F = \pi M(1,5,8,11,13,14,17,21,23,27,31)$. d(4,7,18,30) (10)

IV. a) Explain BCD to Excess -3 code converter with the help of suitable circuit diagram.

- b) Design full SUBTRACTOR circuit using two 4:1 multiplexers only. (2x5)

UNIT - II

V. a) Convert JK flip flop to D flip flop.

- b) What is Ripple counter? Explain 3 bit asynchronous counter using T flip flop. (2x5)

VI. a) Design 3 bit up/down synchronous counter.

- b) Explain universal shift register with circuit diagram. (2x5)

VII. Write a short note on:-

- State reduction and State assignment.
- PAL and PLA. (5,5)

x-x-x

Exam.Code:0906
Sub. Code: 6661

1059

B.E. (Biotechnology) Second Semester
HSS-202: Communication Skills
(Common with Civil, IT and CSE)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) Define 'Communication Skills'.
- b) Write the technical barriers to communication.
- c) Define 'Technical Communication'.
- d) Examine the relevance of 'Personality Development'.
- e) Is stress manageable? (4x2)

UNIT - I

- II. Examine in detail the significance and importance of 'Communication Skills' in today's flat organizations. (10)**
- III. State in detail the scope and process of 'Communication Skills'. (10)**
- IV. Define and describe 'Speaking Skills'. How these skills can be enhanced? (10)**

UNIT - II

- V. Describe in detail the various tools of effective communication citing appropriate example". (10)**
- VI. Write short note on following:-**
 - a) Components of 'Personality Development'.
 - b) Technical Proposals (10)
- VII. How the emergence of advanced techniques like Telephonic Interview & Video Conferencing has affected the communication? Describe citing examples. (10)**

x-x-x