Q.25 Explain R/2R Ladder Digital to Analog Converter.

Q.26 Write a short note on PLA.

Q.27 What is difference between EPROM and EEPROM.

Q.28 Design a MOD - 10 or Decade Counter using J-K Flip Flop.

Q.29 Explain in brief about different types of Sequential Circuits.

Q.30 Write any five differences between Static and Dynamic memories.

Q.31 Simplify using K-map

$$U=S(1,2,3,5,6,7,9,13,14)$$

Q.32 Draw the logic circuit diagram of IC 74181.

Q.33 Write a short note on Fuzzy Set.

Q.34 Describe Membership Function and its properties.

Q.35 Write a short note on Moore Machine.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 What is memory? Explain in brief about the classification of memory.

Q.37 Simplify the following logic expression by using the Quine Mccluskey method

$$f=(a,b,c,d)\ Sm(0,1,2,5,6,7,8,9,10,14)$$

Q.38 Explain the working of Dual Slope Analog to Digital converter with the help of circuit diagram.

Roll No. .....

4th Sem / Eltx, Med Eltx, Power Eltx
Subject:- Digital Electronics - II

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 The Unipolar logic family uses only

a) npn Transistor b) pnp Transistor

c) MOS device d) None of the above

Q.2 The number of gates in LSI are

a) 100 to 999 b) 1000 to 9999

c) Over 10000 d) 12 to 99

Q.3 Which type of register used in Successive Approximation type A/D Converter is

a) SISO b) PISO

c) SIPO d) SAR

Q.4 RAM stands for

a) Really old memory

b) Read only memory

c) Random access memory

d) Redundancy only memory

Q.5 Information in a memory chip is stored in_____ form.

a) Analog b) Digital

c) Both d) None

Q.6 How many cells are there in a four variable k-map?

a) 4 b) 16

c) 8 d) 15

Q.7 How many variables are reduced when the grouping of eight cells are done?

a) 1 b) 2

c) 3 d) 4

Q.8 The class B & C machines are also called

a) Mealy Machine b) Moore Machine

c) Finite State Machine d) None of the above

Q.9 IC 74181 have pins

a) 26 b) 28

c) 14 d) 24

Q.10 Which one of the following is a membership function.

a) p membership function

b) S - membership function

c) Gaussian membership function

d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 _____is the fastest logic family.

Q.12 TTL stands for_____.

Q.13 Write the name of two methods of Digital to Analog converter.

Q.14 CCD stands for_____.

Q.15 EPROM is _____ (Volatile/Non-Volatile) memory.

Q.16 The min terms are represented by _____ in a k-map.

Q.17 The number of Flip Flops required for a decade counter is _____.

Q.18 The Speed of an Asynchronous counter is _____ than that of synchronous counter.

Q.19 IC 74181 is used for_____.

Q.20 MOM stands for_____.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Define Fan in and Fan out for a logic family.

Q.22 Write a short note on MOS.

Q.23 How digital ICs are classified on the basis of packing density?

Q.24 Explain any five characteristics of Digital to Analog Converter.