

- Q.25 Explain Binary Weighted Digital to Analog Converter.
- Q.26 Write a short note on EEPROM
- Q.27 Write a short note on CCD.
- Q.28 Explain in brief about PAL.
- Q.29 Simplify using K-map

$$Y = \overline{S}m(0,1,3,4,5,8,9,12,13)$$

- Q.30 Differentiate between Asynchronous and Synchronous Sequential Circuit.
- Q.31 Design a MOD - 6 Counter using J-K Flip Flop.
- Q.32 Write a short note on Mealy Machine.
- Q.33 Describe any five applications of ALU.
- Q.34 Write a short note on Fuzzy Control System.
- Q.35 Define Deffuzzification techniques.

SECTION-D

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

- Q.36 Explain Transistor-Transistor Logic family with the help of diagram.
- Q.37 Classify and explain memories on the basis of principle of operation.
- Q.38 Explain the working of Successive Approximation type Analog to Digital converter with circuit diagram.

No. of Printed Pages : 4
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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 Which is the fastest logic family?
- a) ECL
 - b) I²R
 - c) TTL
 - d) CMOS
- Q.2 LSI and VLSI device uses the technology of
- a) MOS
 - b) PMOS
 - c) NMOS
 - d) CMOS
- Q.3 The most important advantage of CMOS is
- a) High speed
 - b) Good Noise Immunity
 - c) Low power Consumption
 - d) None of the above
- Q.4 Which type of circuit used in Dual Slope A to D converter for generating ramp type voltage
- a) Differentiator
 - b) Integrator
 - c) Comparator
 - d) None of the above

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- Q.5 PLA consist of programmable _____ gates.
- AND
 - OR
 - AND-OR
 - None of the above
- Q.6 The class A machine also known as
- Mealy Machine
 - Moore Machine
 - Finite State Machine
 - None of the above
- Q.7 The modulus of a 4-bit counter is
- 10
 - 12
 - 16
 - 4
- Q.8 IC 74181 have pins
- 26
 - 28
 - 14
 - 24
- Q.9 According to distributive Law, which one of the following is correct
- $A \bar{E} (B \bar{C} C) = (A \bar{E} B) \bar{C} (A \bar{E} C)$
 - $A \bar{C} (B \bar{E} C) = (A \bar{C} B) \bar{E} (A \bar{C} C)$
 - Both of the above
 - None of the above
- Q.10 The word length of the number that can perform by IC 74181
- 4
 - 5
 - 6
 - 8

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 The number of gates in VLSI circuit are _____.
- Q.12 CMOS stands for _____.
- Q.13 Write the name of two methods of Analog to Digital converter.
- Q.14 FPGA stands for _____.
- Q.15 In EEPROM, the contents of the memory can be erased by _____.
- Q.16 How many cells are there in a three variable K-map?
- Q.17 Expand the term TTL
- Q.18 Write the full form of CCD
- Q.19 Symbol of JK flip flop.
- Q.20 Define Fuzzy Set.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Define noise Margin and Noise Immunity.
- Q.22 How digital ICs are classified on the basis of packing density?
- Q.23 Write a short note on Tristate Buffer.
- Q.24 Explain any five characteristics of Analog to Digital Converter.