

SEAT No. _____

No. of Printed Pages: 2

[139]

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T.Y.B.Sc. Semester-VI
ELECTRONICS (US06CELE22)



Digital Systems

Tuesday, 05/04/2022

TIME:-3:00 PM to 5:00 PM

MARKS-70

Q-1 Choose correct answer (Attempt all)

[10]

1. Successive approximation converter is the _____ converter.
(A) Slowest (C) Fastest
(B) Medium speed (D) None of these
2. Address multiplexing is used for _____ in no of pins.
(A) Increasing (C) Decreasing
(B) Multiplying (D) None of these
3. _____ is D/A converter
(A) V/F type (C) V/T type
(B) R/2R ladder type. (D) None of these
4. _____ is A/D converter.
(A) V/F type (C) R/2R ladder type.
(B) Weighted resistor type. (D) None of these
5. Fusible links are present in _____.
(A) MROMs (C) PROMs
(B) Capacitor (D) None of these
6. _____ logic gate is used in counter type A/D converter.
(A) AND (C) XOR
(B) X-NOR (D) None of these
7. The access time in magnetic disk memory is _____ than semiconductor memories.
(A) Longer (C) Shorter
(B) Very short (D) None of these
8. The full form of FPLA is _____.
(A) Field Programmable logic Array (C) Programmable logic devices.
(B) Programmable Array logic. (D) None of these
9. _____ type of counter is used in counter type A/D converter.
(A) UP (C) Down
(B) up-down (D) None of these
10. In three states Switch o/p may be low or high or _____.
(A) Floating (C) Short circuit
(B) Ground circuit. (D) None of these

Q-2 Do as Directed

A Filling the Blanks with appropriate answer (Attempt all)

(04)

1. In V/T type A/D converter _____ is constant.
2. IC ADC 0801 is a _____ pin IC.
3. Full form of PLD is _____.
4. In PAL _____ logic gate is programmable.

P.T.O.

B State whether following statements are true or false (04)

- 1 Dynamic RAM are fabricated using MOS technology..
- 2 Binary-weighted converter is a D/A converter.
- 3 Flash type A/D converter is fastest converter.
- 4 The RAMs constructed using ECL technology has high speed.

Q-3 Answer the following question in short. (Attempt any 10) [20]

1. List different types of static RAMs.
2. List different types of ROMs.
3. List different types of A/D converter.
4. List different types of D/A converter.
5. Compare different types of A/D converters.
6. List different types of Programmable logic devices.
7. List different types of magnetic memory devices.
8. Define PLD device.
9. Draw the diagram of single transistor dynamic memory cell.
10. Define FPLA.
11. Define A/D converter.
12. In three bit flash type ADC, how many resistors and comparators are used?



Q.4. Answer the following (Attempt any four). [32].

- 1 Give an account of PROMS 8
- 2 Give an account of MROM 8
- 3 Draw a neat diagram of 4-bit R-2R ladder type D/A convertor, explain its analysis for any two different input 4 bit condition.. 8
- 4 Give an account of Tracking type A/D converter. 8
- 5 Draw a neat pin diagram of IC ADC O801, Explain importance of each pin in detail. 8
- 6 Draw the PAL basic structure, explain in brief & program it for any function. 8
- 7 Give an account of magnetic memory. 8
- 8 Give an account of V/F type A/D converter. 8

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