

Q.22 Describe Transistor as an amplifier in CE configuration.

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SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain any one D/A converter with Suitable Diagram.

Q.24 Discuss Construction, operation and characteristics of MOSFET.

Q.25 Describe Shift Registers and their applications with suitable Diagram.

**2nd Sem. / Instrumentation and Control Engg.,
Medical Electronics
Subject : Analogue and Digital Electronics**

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Donor type semiconductors are formed by adding impurity of valances _____.

- a) 3
- b) 5
- c) 4
- d) 6

Q.2 The circuit arrangement of a Transistor used as a buffer is _____.

- a) CE
- b) CB
- c) CC
- d) Both A and B

Q.3 FET can be used as _____.
a) Single stage Voltage amplifier.

(420)

(4)

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(1)

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- b) Multi stage Voltage amplifier
- c) Power Amplifier
- d) All of these

Q.4 The base value of Octal No. System is _____

- a) 2
- b) 4
- c) 8
- d) 10

Q.5 A byte represents _____.

- a) 3 nibble
- b) 8 nibble
- c) 2 nibble
- d) 4 nibble

Q.6 D Flip Flop is _____ Flip Flop.

- a) Delayed
- b) Digital
- c) Differential
- d) Dial type

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

Q.7 Expand PIPO.

Q.8 Draw Symbol of OR Gate.

Q.9 Expand MOSFET.

Q.10 A transistor contains _____ PN junction.

Q.11 Define Ripple.

Q.12 Mention name of any one A/D convertor.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. $(8 \times 4 = 32)$

Q.13 Write a short note on PN junction Diode.

Q.14 Discuss Structure of PNP Transistor.

Q.15 Explain NOT and AND Gate with their symbol and truth table.

Q.16 Write a short note on combinational Circuits.

Q.17 Differentiate between Analog and digital signals.

Q.18 Discuss I/P and O/P connections of CB configuration.

Q.19 Explain Diode as a Half wave rectifier.

Q.20 Describe characteristics and applications of Zener Diode.

Q.21 Differentiate between JFET and BJT.