Q.26 Explain fixed base biasing circuit. (CO3)

Q.27 Explain the concept of AC load line. (CO4)

Q.28 Discuss Emitter follower circuit. (CO5)

Q.29 Draw the frequency response of single stage amplifiers and show bandwidth, lower and upper cutoff frequencies. (CO4)

Q.30 What is the need of Filter circuits? Explain PIE filter circuits. (CO1)

Q.31 Compare BJT and FET. (CO6)

Q.32 Write short note on LED. (CO1)

Q.33 Draw the AC equivalent circuit of single stage transistor amplifier. (CO4)

Q.34 Elaborate the concept of h-parameters. (CO3)

Q.35 Explain the working principle of JFET. (CO6)

SECTION-D

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

Q.36 What is the need of biasing circuits in amplifiers. Explain voltage divider types of biasing circuit. (CO3)

Q.37 Draw the V/I characteristics of semiconductor diode and explain it in detail with circuit diagram. (CO1)

Q.38 Draw the circuit of 2-stage RC coupled transistor amplifier and explain it in details. (CO5)

(**Note:** Course outcome/CO is for office use only)

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Roll No. .....

2nd Sem / Branch : Elect.

Subject:- Electronics - I

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Zener diode is used as? (CO1)

a) Oscillator b) Regulator

c) Rectifier d) Filter

Q.2 A p-n junction diode can be used as? (CO1)

a) Condenser b) Regulator

c) Amplifier d) Rectifier

Q.3 Which of the following converts light energy to electric current? (CO1)

a) LED b) Zener diode

c) Photodiode d) Solar cell

Q.4 Which among the following is larger compared to the other regions of a transistor? (CO2)

a) Emitter b) Collector

c) Base d) Charger

Q.5 BJT stands for _____ (CO2)

a) Bi-Junction Transfer

b) Blue Junction Transistor

c) Bipolar Junction Transistor

d) Base Junction Transistor

Q.6 Which junction is forward biased when transistor is used as an amplifier? (CO2)

a) Emitter-Base
b) Emitter-Collector
c) Collector-Base
d) No junction is forward biased

Q.7 The most popular general purpose transistor configuration is (CO4)

a) CE b) CB
c) CC d) None

Q.8 Faith full Amplification is obtained when the operating point of the transistor is (CO3)

a) near saturation
b) in the middle of the active region
c) near cutoff region
d) any of the above

Q.9 The frequency response of transformer coupling is _____ (CO5)

a) Good b) Very Good
c) Excellent d) Poor

Q.10 Which of the following statement is true about FET? (CO6)

a) It has high output impedance
b) It has high input impedance
c) It has low input impedance
d) It does not offer any resistance

SECTION-B

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

Q.11 Define potential barrier. (CO1)

Q.12 What is the PIV? (CO1)

Q.13 Draw the symbol of NPN transistor. (CO2)

Q.14 What is Quiescent point? (CO3)

Q.15 Define stability factor. (CO3)

Q.16 What is frequency response curve? (CO4)

Q.17 What is DC load line? (CO4)

Q.18 Define multistage transistor Amplifier. (CO5)

Q.19 Write the full form of FET. (CO6)

Q.20 MOSFET has _____ terminals. (CO6)

SECTION-C

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

Q.21 Draw the circuit of Half wave rectifier and explain its working with suitable waveforms. (CO1)

Q.22 Explain the use of Zener Diode as Voltage regulator. (CO1)

Q.23 Explain the mechanism of current flow in NPN Transistor. (CO2)

Q.24 Draw the circuit of CE transistor configuration and explain it. (CO2)

Q.25 Explain the need of stabilization of operating point. (CO3)