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181031/171031/
121031/031031

3rd Sem / Eltx, Mechatronics,
Med. Eltx, Power Eltx, Elect. & Eltx. Engg.

Subject:- Electronic Devices and circuits /
Analog Eltx. II

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 PUSH PULL amplifier use:

a) Class A b) Class B
c) Class C d) All

Q.2 An OP-AMP has following number of input terminal

a) 1 b) 2
c) 3 d) 4

Q.3 Transistor can be used as _____ for application

a) Switch b) amplifier
c) inverter d) All

Q.4 IC 555 Timer can be used as _____

a) Monostable b) Astable
c) both d) None

Q.5 In class A Amplifier, collector current flows for _____

a) Less than half cycle b) Half the cycle
c) Full cycle d) Less than entire cycle

Q.6 Transformer coupling is an example of _____

a) Direct coupling b) AC coupling
c) Impedance coupling d) None

Q.7 An oscillator always needs an amplifier with _____

a) Negative feedback b) Positive feedback
c) Both feedback d) LC tank circuit

Q.8 555 timer consists of _____

a) Comparator
b) RS flip flop
c) Transistor and resistor
d) All above

Q.9 For an ideal OP AMP, value of term CMRR is _____

a) zero b) infinite
c) 100 d) none

Q.10 A tuned voltage amplifier is used to amplify signal of _____

a) low frequency b) medium frequency
c) high frequency d) none of the above

SECTION-B

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

Q.11 SMPS stands for _____

Q.12 OP AMP has _____ number of inputs.

Q.13 A common device which can be used as an electronic switch is a _____

Q.14 Define CMRR.

Q.15 In resonant circuit, at resonance, net reactance is zero. (True/False)

Q.16 To generate square wave _____ multivibrator is used.

Q.17 What is power amplifier?

Q.18 The amplitude of _____ oscillations decreases with time.

Q.19 Positive feedback _____ bandwidth.

Q.20 The output waveform of 555 timer is _____.

SECTION-C

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

Q.21 Explain the working of RC phase shift oscillator.

Q.22 Explain block diagram of IC 555.

Q.23 Explain in brief operation of DC coupled amplifier and its frequency response.

Q.24 Discuss the effect of negative feedback on stability and bandwidth of an amplifier.

Q.25 Explain the gain of an amplifier.

Q.26 Explain working of Class A amplifier.

Q.27 Explain difference between voltage and power amplifiers.

Q.28 Explain series resonant circuit and bandwidth of resonant circuit.

Q.29 Define

a) Collector efficiency and distortion

b) Heat dissipation curve

Q.30 Explain working of monostable multivibrator.

Q.31 Explain the working of IC 7905.

Q.32 What are types of feedback? Explain in brief.

Q.33 Explain load regulation.

Q.34 Explain characteristics of ideal OP AMP and its block diagram.

Q.35 Explain the working of Single tuned amplifier.

SECTION-D

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

Q.36 Explain OP AMP as inverter, scale changer, intergrator & differentiator.

Q.37 Explain RC coupled amplifier with bypass capacitor.

Q.38 Explain complementary symmetry Push pull amplifier in detail and its advantages over PUSH PULL amplifier.