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

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 The best frequency response is of _____coupling
a) RC b) Transformer
c) Direct d) None

Q.2 Class_____ operation gives the maximum distortion.
a) A b) C
c) AB d) None

Q.3 Pin number 5 in timer 555 IC is _____.
a) Control voltage b) Threshold
c) Output d) reset

Q.4 Circuit which consist of a quasi-stable state is called_____.
a) Monostable b) Bistable
c) Astable d) None

Q.5 The common-mode gain of an op-amp is _____
a) Very high b) Very low
c) unity d) Unpredictable

Q.6 _____multivibrators are used as flip-flop in digital circuits.
a) Astable b) Monostable
c) Bistable d) None

Q.7 What is PSRR value of an ideal op-amp ?
a) Zero b) Infinte
c) Unity d) None

Q.8 The voltage gain of a tuned amplifier is _____at resonant frequency
a) Minimum b) Maximum
c) average d) Zero

Q.9 The _____ is defined as the time the output is active divided by the total period of the output signal.
a) Off time b) Active ratio
c) Duty cycle d) None

Q.10 OP AMP amplifies_____
a) Ac only
b) Dc only
c) AC and DC
d) None

SECTION-B

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

Q.11 CMRR stands for _____?

Q.12 What is a multistage amplifier?

Q.13 _____ multi vibrator is called one shot multi vibrator ?

Q.14 PSRR stands for _____.

Q.15 What is negative feedback.

Q.16 What is heat sink ?

Q.17 What is voltage amplifier.

Q.18 The negative feedback increases _____in amplifier .

Q.19 An oscillator converts _____?

Q.20 The multivibrator which generates square wave of its own is the _____multivibrator.

SECTION-C

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

Q.21 Explain working of Hartley oscillator

Q.22 Explain feedback and its type

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

Q.24 Discuss the effect of negative feedback on gain, distortion and bandwidth.

Q.25 Explain importance of impedance matching in amplifiers.

Q.26 Explain working of class AB amplifier

Q.27 Explain Double tuned voltage amplifier

Q.28 Explain concept of DC power supply?

Q.29 Explain OP AMP as differentiator and integrator

Q.30 Explain working of Monostable multivibrator?

Q.31 Explain IC voltage regulator 7805

Q.32 Explain series resonant circuit

Q.33 Define slew rate and input offset current.

Q.34 Explain working principle of crystal oscillator.

Q.35 Difference between voltage and power amplifiers

SECTION-D

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

Q.36 Explain block diagram of IC 555 and its working and applications.

Q.37 Explain RC coupled amplifier with emitter by pass capacitor.

Q.38 Explain heat dissipation curve and push pull amplifier.