Q.23 What is a heat sink and why is it needed?

Q.24 What is Barkhausen criterion for oscillation.

Q25 Explain the concept of series resonance.

Q.26 What is an operational amplifier?

Q.27 What is UPS? List its types.

Q.28 Define clipping. Draw a clipper circuit.

Q.29 Explain why astable multi vibrator is known as free running multivibrator?

Q.30 What are the limitations of LC oscillators?

Q.31 Write a short note on IC 741.

Q.32 Explain any two differences between voltage amplifier and power amplifiers.

Q.33 Explain the concept of impedence mathching.

Q.34 Write the applications of transistor inverter circuit.

Q.35 What is load regulation and why is it needed?

Section-D

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

Q.36 Explain the working of Hartley Oscillator with the help of a neat circuit diagram.

Q.37 (i) What is a differentiator? Explain its circuit.

(ii) Explain the circuit of Astable Multi vibrator.

Q.38 Explain the circuit and working of complementary symmetry push-pull amplifier in detail.

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Roll No. .....

4th Sem.

Branch: Elect, Power station Engg. Elect & Eltx. Engg

Sub : Electronics-II

Time : 3 Hrs. M.M. : 100

SECTION-A

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

.Q.1 The Maximum efficiency of class B amplifier cannot be more than

a) 100% b) 78.5%

c) 50% d) 85%

Q.2 Frequencies above _____ KHz are called radio frequencies.

a) 2 b) 10

c) 50 d) 200

Q.3 At series reasonance the circuit offers_____ impedence.

a) Zero b) Minimum

c) Maximum d) None of the above

Q.4 At Parallel reasonance the circuit behaves as _____ load.

a) Capacitive b) Inductive

c) Resistive d) None of the above

Q.5 Emitter follower is used for

a) Current Gain b) Impedance matching

c) Voltage gain d) None of the above

Q.6 RC phase shift oscillator produces a phase shift of _____ degrees.

a) 180 b) 90

c) 360 d) 0

Q.7 An oscillator requires

a) Positive Feedback

b) Negative Feedback

c) An amplifier and positive feedback

d) An amplifier and negative feedback

Q.8 A monostable mulivibrator has

a) One stable state b) Two stable state

c) No stable state d) The state can't be changed

Q.9 An Op-Amp has _____ no. of input terminals.

a) 1 b) 2

c) 3 d) 4

Q.10 UPS is used in

a) Computers

b) Essential Instrumentation

c) Communication Link

d) All of the above

Section-B

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

Q.11 Name any multi vibrator which requires triggering?

Q.12 On which pin number triggering pulse is applied in IC555?

Q.13 What is the voltage gain of an amplifier with negative feedback?

Q.14 Which feedback connection is employed in negative feedback amplifiers?

Q.15 Which type of coupling has best impedance matching?

Q.16 What is the output frequency of RC phase shift oscillator?

Q.17 Write the full form of CVT.

Q.18 Hartley oscillator use_____feedback.

Q.19 The maximum collector efficiency of class A amplifier is _____.

Q.20 Positive feedback_____(increases / decreases) amplifier gain.

Section-C

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

Q.21 What are tuned voltage amplifiers? Where are they used?

Q.22 Write applications of Class C amplifiers.