

xv) What do you understand by term regulated DC power supply?

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SECTION-C

Note: Long answer type questions. Attempt any three questions. $3 \times 10 = 30$

- Q.3 Explain working principle and diagram of transformer coupled amplifier.
- Q.4 Draw and explain diagram of RC coupled amplifier without emitter bypass capacitor.
- Q.5 Explain double tuned voltage amplifier and their frequency response characteristics.
- Q.6 Explain basic operational amplifier as differentiator and integrator.
- Q.7 Explain block diagram and working of IC 555.

3rd Sem. / ECE/ E&E/ MT/ PE/ ME /E

Subject : Analog Electronics-II

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. $(15 \times 2 = 30)$

- Q.1 a) Name different types of coupling.
- b) Push Pull amplifier used _____ number of transistors.
- c) Gain of multistage amplifier is given by _____.
- d) Which amplifier among Class A, Class B and Class C has higher efficiency?
- e) What is heat dissipation curve?
- f) Define positive feedback.
- g) Define feedback factor.
- h) The amplifier gain with feedback is known as _____ gain.

- i) Sinusoidal Oscillator uses _____ feedback.
- j) Draw damped oscillations.
- k) Name any two RC oscillators.
- l) Colpitts oscillator uses inductive feedback. (True/False)
- m) Define bandwidth of resonant circuit.
- n) Draw saw tooth wave shape.
- o) Define astable multi vibrator.
- p) Give any two uses of operational amplifier.
- q) _____ IC is used as voltage regulator.
- r) Define multi vibrator circuit.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Why coupling device is used in multistage amplifier?
 - ii) Explain frequency response of RC coupled amplifier.

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- iii) Differentiate between voltage and power amplifier.
- iv) What is the importance of heat sinks?
- v) What are disadvantages of Push Pull amplifiers?
- vi) What are different types of feedbacks used in amplifier?
- vii) What is voltage feedback? Draw circuit diagram for voltage series feedback and voltage shunt feedback.
- viii) What are applications of emitter follower amplifier?
- ix) Explain Barkhausen criterion for oscillations.
- x) Write a short note on "Tuned oscillator".
- xi) Write a short note on "Series resonant circuit".
- xii) What are applications of RL integrating circuits?
- xiii) Explain IC 555 as monostable multivibrator.
- xiv) Explain CMRR in detail.

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