

- Q.26 Explain working of Hartley and Colpitt oscillator.
- Q.27 Discuss the working principle of astable multivibrator.
- Q.28 Explain Emitter follower circuit and its application?
- Q.29 Explain OPAMP as an inverter and scale changer.
- Q.30 Explain concept of variable voltage regulator.
- Q.31 Explain working principle of photo transistors.
- Q.32 Explain RL as differentiator circuits.
- Q.33 Write a note on PLL?
- Q.34 What is effect of removing by pass capacitor from CE transistor amplifier.
- Q.35 Explain concept of Schmitt trigger circuit.

#### **SECTION-D**

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

- Q.36 Explain working of RC coupled amplifier with advantages and its frequency response.
- Q.37 Explain IC 555 as Monostable and astable multivibrator.
- Q.38 Explain working of Complementary Push Pull amplifier & its advantages and disadvantages.

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**4th Sem / Elect, GE, Power Station Engg., Elect. & Eltx.  
Engg., Fire Tech & Safety**

**Subject:- Electronic Devices and Circuits**

Time : 3Hrs.

M.M. : 100

#### **SECTION-A**

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

- Q.1 PUSH PULL amplifier uses:
- |            |            |
|------------|------------|
| a) Class A | b) Class B |
| c) Class C | d) None    |
- Q.2 \_\_\_\_\_ multivibrator does not require trigger pulse:
- |              |                |
|--------------|----------------|
| a) Astable   | b) Multistable |
| c) Bisatable | d) All         |
- Q.3 Emitter bypass capacitor \_\_\_\_\_ gain of an amplifier.
- |               |              |
|---------------|--------------|
| a) Increases  | b) Decreases |
| c) Makes zero | d) Makes 1   |
- Q.4 Oscillators uses \_\_\_\_\_ feedback
- |               |             |
|---------------|-------------|
| a) Positive   | b) Negative |
| c) Sinusoidal | d) None     |

- Q.5 Transformer coupling is an example of \_\_\_\_\_  
a) Direct coupling      b) AC coupling  
c) DC coupling      d) Impedance coupling
- Q.6 Gain of an Emitter follower circuit \_\_\_\_\_.  
a) 1                      b) 10  
c) 100                    d) None
- Q.7 The collector efficiency of amplifier is minimum for:  
a) Class A              b) Class B  
c) Class C              d) Class AB
- Q.8 When RL circuit is used an integrator, output is taken across:  
a) Resistor              b) Inductor  
c) Source                d) None
- Q.9 Output waveform of 555 timer is:  
a) Sine                   b) triangular  
c) Rectangular           d) Elliptical
- Q.10 For transistor to work as a switch, it is operated in \_\_\_\_\_  
a) Cutoff                b) Active  
c) Saturation            d) All

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Define dissipation capability?  
Q.12 Define fixed voltage regulator?  
Q.13 What are photo resistors?  
Q.14 What is an Opto coupler.  
Q.15 What is negative feedback.  
Q.16 What is power amplifier.  
Q.17 What are clamping circuits?  
Q.18 Define CMRR.  
Q.19 What is slew voltage?  
Q.20 Define VCO.

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What is difference between voltage and power amplifier  
Q.22 How transistor works as a switch.  
Q.23 Explain working principle of IC voltage regulator.  
Q.24 Explain double tuned voltage amplifier.  
Q.25 Explain working of class B amplifier in brief with input and output waveforms.