

- Q.29 Write the applications of wave shaping circuits.  
 Q.30 Explain the operation of R-C differentiating circuit.  
 Q.31 Explain the working of Diode clamper circuit.  
 Q.32 Explain, How the oscillations are produced in LC tank circuit?  
 Q.33 Draw and explain the pin diagram of IC741.  
 Q.34 Explain the op-amp as differentiator.  
 Q.35 Draw and explain the block diagram of SMPS.

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**4th Sem. / Elect, Power Station Engg.,  
Elect. & Eltx. Engg.  
Subject : Electronics-II**

Time : 3 Hrs. M.M. : 100

**SECTION-A**

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

- Note: Long answer type questions. Attempt any two questions out of three Questions. (2x10=20)**  
 Q.36 Explain the operation of Class A single ended power amplifier and derive the collector efficiency.  
 Q.37 Explain in detail the working of Monostable multivibrator.  
 Q.38 Draw the explain the block diagram of IC555.

- Q.1 In class B power amplifier, collector current flows for...  
 a) Full cycle                    b) Half cycle  
 c) Less than half cycle      d) None of these  
 Q.2 The last stage of audit amplifier is.....  
 a) Emitter Follower circuit b) Single tuned amplifier  
 c) Double tuned amplifier d) None of these  
 Q.3 The Negative feedback has the advantage of  
 a) Gain Stability              b) Grain Increase  
 c) Gain Double                d) None of these  
 Q.4 The Maximum collector efficiency of Class B operations is :  
 a) 50%                        b) 90%  
 c) 25%                        d) 75%  
 Q.5 In series RLC circuit, at resonance  
 a) Current is maximum      b) Impedance is minimum  
 c) Both A and B              d) Neither A nor B

- Q.6 Which one of the following is not the LC oscillator  
 a) Tuned collector      b) Hartley  
 c) Wein Bridge      d) Colpitt's
- Q.7 The clipper circuit is also called.....?  
 a) Slicer      b) Limited  
 c) Clipping      d) All of the above
- Q.8 A one shot multivibrator is also called as:  
 a) Astable multivibrator      b) Monostable multivibrator  
 c) Bistable multivibrator      d) None of the above
- Q.9 IN an ideal op-amp, which is not true?  
 a) Open loop voltage gain is infinite  
 b) Input resistance is infinite  
 c) Slew rate is infinite  
 d) CMRR is zero
- Q.10 A voltage follower.....  
 a) has a voltage gain of 1      b) Is non inverting  
 c) has no feedback resistor      d) Has all of these

### SECTION-B

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

- Q.11 Collector efficiency is also called.....efficiency.
- Q.12 The last stage of audit amplifier is.....
- Q.13 Bandwidth. BW = (.....-.....)

- Q.14 For generating very high frequency ..... oscillator is used. (LC/RC).
- Q.15 Expand CVT.
- Q.16 IC555 is known as.....
- Q.17 Full form of Q-Point is.....
- Q.18 Define damped oscillations.
- Q.19 IC741 has..... number of pins.
- Q.20 SMPS stands for.....

### SECTION-C

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

- Q.21 Define the following terms  
 a) Collector efficiency  
 b) Distortion and dissipation capability
- Q.22 Explain, How transformer is used for impedance matching in power amplifier?
- Q.23 Differentiate between series and parallel resonance circuits.
- Q.24 Write the applications of tuned voltage amplifiers.
- Q.25 Derive the expression for voltage gain of an amplifier with negative feedback.
- Q.26 Explain the importance of emitter by-pass capacitor in CE transistor amplifiers.
- Q.27 Differentiate between oscillator and alternator.
- Q.28 Draw the crystal oscillator circuit.