

MODEL QUESTION PAPER SET- 1 : 2021 - 22

MM : 50

ELECTRONIC - I (THEORY)

Time : 3 Hrs

Entire Syllabus

- Q1. (A) Select the correct alternatives 4M**
- (1) Zener Voltage regulator is a regulator
 (a) shunt (b) series (c) forward (d) inverted
- (2) Schmitt trigger generateo/p (waveform)
 (a) Square (b) Triangular (c) Sine (d) Sawtooth
- (3) is self Generating transduce
 (a) Passive (b) Astable (c) Active (d) Fsk
- (4) The ideal Bandwidth of OP-AMP is
 (a) Infinite (b) positive (c) zero (d) negative
- Q.1 (B) Answer Any Two from Following 6M**
- (1) Define
 (a) LAN (b) MAN (c) WAN
- (2) Define Active & Passive transducer
- (3) Draw & derive Op-Amp as Non Inverting Amplifier
- Q.2 (A) Answer Any Two from Following 6M**
- (1) Draw & Explain working of Function generator
- (2) Draw & Derive Op-Amp as Integrator
- (3) In a Half wave rectifier, the secondary voltage is 25V. Calculate the DC load Voltage & load current for a load of 20 ohm
- Q.2 (B) Answer Any one of following 4M**
- (1) Draw & Explain Modem
- (2) Explain working of Astable Multivibrator
- Q.3 (A) Answer Any Two from Following 6M**
- (1) Explain Block Diagram of OP-AMP
- (2) Explain Working of Loud speaker
- (3) Derive & Draw – Explain voltage regulator
- Q.3 (B) Answer Any one of following 4M**
- (1) A 25V, 500mW zener diode is used for providing a 25 Zener Voltage regulator is 25V stabilized supply to variable load. If the input voltage is 40 calculate series Resistance 'RS' required when $R_L = 5\text{kohm}$.
- (2) Explain with any 3 front panel controls of C.R.O.
- Q.4 (A) Answer Any Two from Following 6M**
- (1) Draw & Explain Working of Superheterodyne receiver
- (2) Explain Application of C.R.O.
- (3) Draw Pin diagram & Symbol of IC-(1) 741 (2) 555

- Q.4 (B) Answer Any one of following 4M**
- (1) Explain Internal Block Diagram of IC – 555
 - (2) Explain Term (a) Star Topology (b) Ring topology (c) Bus Topology
- Q.5. (A) Answer Any Two from Following 6M**
- (1) Explain Working of Shunt Capacitor Filter
 - (2) Draw & Explain CRT
 - (3) In a IC 555 monostable multivibrator a resistance of 50Kohm is connected with a capacitor of 100 micro farad. Find its time delay
- Q.5 (B) Answer Any one of following 4M**
- (1) Draw & Explain Transistorized voltage regulator with current limiting action.
 - (2) Explain Working of op-Amp as Subtractor

Together we will make a difference