BASIC ELECTRONICS ENGG.

(Theory – 4(b))

Full Marks : 40

Time : $1\frac{1}{2}$ hours

Answer any **four** questions including **Q. Nos. 1 & 2**

Figures in the right-hand margin indicate marks

1. Answer *all* the questions : 2×5

(*a*) What is PIV ?

(*b*) Define Ripple factor. What is its value for half wave rectifier ?

(*c*) What is demodulation ?

(*d*) What is electron emission ? Name the types of the emission.

(*e*) Define transistor biasing. What is the need of biasing ?

2. Answer any *three* : 5×3

(*a*) Explain the operation of full wave rectifier with its advantages and disadvantages.

(*b*) With proper diagram describe the operation of capacitor input filter.

(*c*) Write down the difference between intrinsic and extrinsic semiconductor.

(*d*) Discuss different types of modulation with proper waveforms.

3. What is multimeter ? Explain the multimeter as ammeter, voltmeter and ohmmeter. $7\frac{1}{2}$

4. With proper block diagram, explain the function of each block of CRO. $7\frac{1}{2}$

5. (*a*) Explain the operation of LED with its advantages. $3\frac{1}{2}$

(*b*) Classify solid according to electrical conductivity with respect to energy band diagram. 4