Question Bank (G scheme)

Name of subject: ELEMENTS OF ELECTRONICS **Unit Test :II**
Subject code: 17215 **Course : IE/IS/EJ**
Semester: II

CHAPTER 3-Rectifiers & filters

3 Marks of Que.

Q1. Define i) Rectifier ii) Rectification efficiency iii) Ripple factor

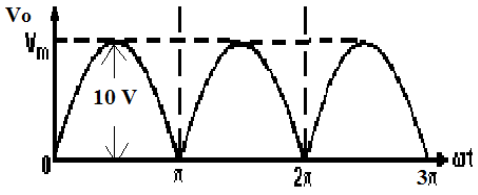
Q2. List different types of rectifier. Which rectifier is widely used & why?

Q3. Compare all filters.

4 Marks of Que.

Q4. Draw a circuit diagram of full wave bridge rectifier with LC filter. Explain with input & output waveforms.

Q5. In FWR V_m=10V, R_L=10 KΩ. Calculate V_{DC}, I_{DC}& ripple factor. Refer following fig.



Q6. Explain center tapped FWR with circuit & waveforms.

Q7. Draw a circuit diagram of series inductor filter with half wave rectifier. Explain with input & output waveforms.

Q8. Compare all types of rectifier.

CHAPTER 4–Wave shaping circuit

3 Marks Of Que

Q1.Compare linear & nonlinear wave shaping circuit.

Q2. What do you mean by the term wave shaping circuit? Explain why it is needed in practical application?

Q3. Draw a circuit diagram of RC integrator. Sketch the output waveform for square wave input. Describe the operation of the circuit.

4 Marks Of Que.

Q4.Describe the working principle of RCdifferentiator. State the condition for differentiator

Q5. Explain the operation of shunt negative clipper with circuit diagram & input-output waveforms.

Q6. Explain the operation of positive clamper with circuit diagram & i/p-o/p waveforms.

Q7. Compare clipper & clamper

Q8. Draw circuit dia. For positive & negative voltage clamping circuits. Show the input & output waveforms.

CHAPTER 5 – DC circuit& network theorems

3 Marks Of Que.

Q1. State the kirchoff's voltage law &kirchoff's current law along with formula.

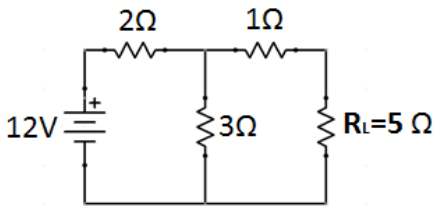
Q2. Explain the following terms

i) Active network ii) linear network iii) bilateral network iv) Unilateral network

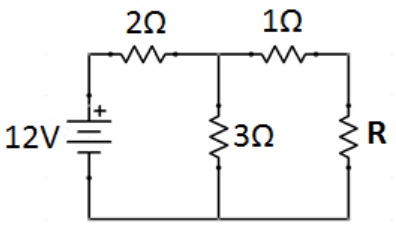
Q3.write the meaning term open circuit & short circuit

4 Marks Of Que.

Q4. Calculate the value of current in 5Ω resistance using Norton's theorem for the following network (4)

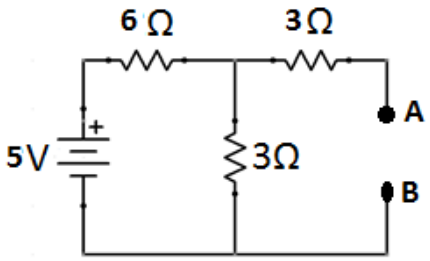


Q5. Calculate the value of R so that power transferred is maximum in the circuit shown below (4)



Q6. Three resistances each of 12Ω are connected in star. Convert it into equivalent delta connection

Q7. Obtain Thevenin's equivalent circuit for the network shown below



Q8. State the superposition theorem with suitable example.(4)

Q9.Draw the ideal current source &ideal voltage source & practical current source & practicalvoltage source (3)

Q9. Calculate the supply voltage of the circuit shown below (3)