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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ECE) / (EE) (Sem.-3)
NETWORK ANALYSIS AND SYNTHESIS
Subject Code : EE-201
M.Code : 57004

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

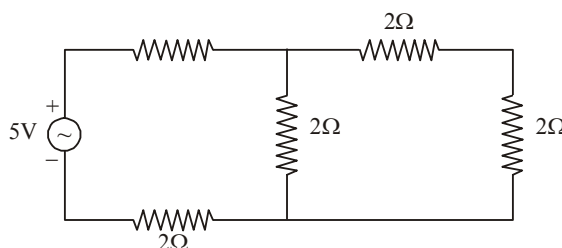
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**1. Answer briefly :**

- a) What is the unit ramp function?
- b) What is superposition theorem?
- c) What is a node and loop?
- d) What is the information we get from poles?
- e) What is Network analysis?
- f) What is laplace transform?
- g) What is impedance and admittance?
- h) What do you understand from reactive network?
- i) What is pass band and stop band?
- j) What do you understand from sinousoidal and periodic voltage?

SECTION-B

2. What is filter? What are its types? Design constant K low pass filter.
3. What is network synthesis? Explain foster and cauer forms with suitable example?
4. Explain the presentation of basic RC circuit in terms of generalized frequency response.
5. Solve using norton theorem.

**FIG.1**

6. What is convolution theorem? Explain with example.

SECTION-C

7. What is the necessity of network theorems? Explain steps involved in solving problems by Norton and Thevenin theorem with suitable example.
8. How time and frequency domain analysis is done? Discuss with suitable example .
9. What is real liability condition for impedance synthesis of RL and RC circuits?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.