

1469**Code : 15EC-33T**

Register
Number

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III Semester Diploma Examination, Nov./Dec. 2016**ANALOG COMMUNICATION****Time : 3 Hours]****[Max. Marks : 100**

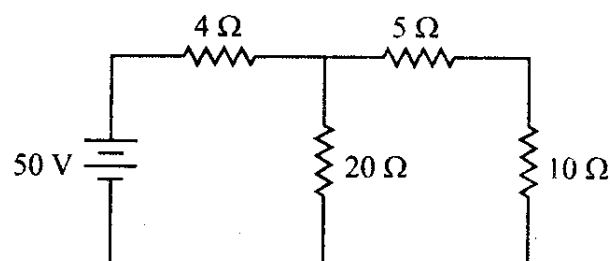
- Note :** (i) Answer any **six** question from Part-A ($5 \times 6 = 30$ marks)
(ii) Answer any **seven** questions from Part-B ($7 \times 10 = 70$ marks)

PART – A

1. State superposition theorem. List the steps to be followed to solve a network. **5**
2. State and explain Norton's theorem with an example. **5**
3. Define filter. Classify filters. **5**
4. Derive the relation between Decibel and Nipper. **5**
5. Define characteristic impedance. Deduce an equation of Z_0 for Co-axial cable. **5**
6. Explain the need for impedance matching in a transmission line. **5**
7. Describe Ground wave propagation. **5**
8. Explain the working of Broadside array. **5**
9. Define amplitude modulation. Write expression for the components present in AM output. **5**

PART – B

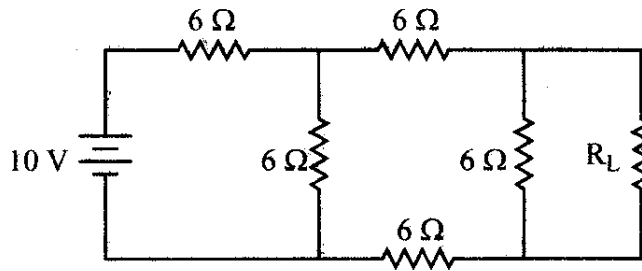
10. Find the current through 10Ω resistor by using thevenin's theorem. **10**



[1 of 2]

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11. Determine the value of load resistance R_L for transferring maximum power to it in the circuit shown below. Also find maxⁿ power deliver to it. 10



12. Design a low pass filter (T and π type) to have a cut-off frequency of 800 Hz & load impedance of 900Ω . 10

13. Write the block diagram to realize B.P.F. and B.R.F. using L.P.F. and H.P.F. 10

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14. Explain the Electrical model for a transmission line. 10

Diploma - [All Branches]

Beta Console Education

3+

15. (a) Explain broadside array with a neat diagram.
(b) Compare different modes of wave propagation. 5



5

Diploma Question Papers [2015-19]

Beta Console Education

3+

16. (a) List the difference between AM & FM.
(b) Define modulation. Explain the need for modulation. 5



5

17. Define Demodulation and explain the working of AM linear diode detector circuit. 10

18. Explain need for Pre emphasis & De emphasis, along with the circuit. 10

19. Explain Foster seeley discriminator method of F.M. detection. 10