

Paper VII(General)

Answer three question choosing one from each group.

Total Marks: 12

Group-A:

Electronics-II

1. How is an OP-AMP circuit used for an integration and adding operations ? 4
2. What do you mean by sequential circuit? Explain the working principle of decode counters. 4

Group-B:

Machine and Energy Sources

3. How does McLeod gauge measure low pressure? Why is it known as an absolute gauge ? 4
4. What are the differences between an Otto cycle and a Diesel cycle ? 4

Group-C:

Communication and Computers

5. Obtain an expression for the frequency spectrum of amplitude modulated wave? What are upper side band and lower side band? 4
6. State the importance of acceptance angle and numerical aperture. What is the difference between them? 4