



Date: 18-11-2024

LGS GROUP OF COLLEGES

Physics

Assignment

XII (B)

TEST#

WK-8

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|-------------------------------|-------------------|-----------------|--|--|--|--|------------------|
| Topic: Chapter 16 (AC) | Name:..... | Roll No: | | | | | |
| Time: 40 mins | | | | | | | Marks =15 |

- Q1. How does the frequency response of a capacitor differ from that of an inductor when subjected to a source of AC voltage? (02)
- Q2. Draw the impedance diagram for an RLC series circuit at resonance and show why its power factor is equal to one? (02)
- Q3. Show graphically the phase relationship between the current and the voltage across an inductor. (02)
- Q4. What are the transmission frequencies for electromagnetic waves in A. A.M range, B. F.M range? (02)
- Q5. With reference to modulation, give the difference between the information and carrier. (02)
- Q6. What is a choke coil and why is it used in A.C. circuit? (02)
- Q7. A 20 mH, 10Ω coil is connected across 240 V and $180/\pi$ Hz source. How much power does it dissipate? (03)