

FE Sem - II (NEP 2020) Summer 2025

(ELEEC)

Duration 2hrs

Total Marks 60

NB: 1) Question No. 1 is Compulsory.

2) Attempt any three Questions out of remaining five Questions.

3) Assume suitable data if necessary and justify the same.

Q1. Answer any 5 from the following questions

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|---|---|
| A) What is BMS | 3 |
| B) List the advantages of Hydro power plant | 3 |
| C) Define the unit used in consumption of energy. | 3 |
| D) List the importances of measurement in electrical power system. | 3 |
| E) Write the power rating of PC, Laptop, Printer | 3 |
| F) Enlist the types of generations | 3 |
| Q2 A) Explain various types of transmission lines in power system | 7 |
| Q2 B) Explain Lithium-Ion battery with charging and Discharging characteristic | 8 |
| Q3 A) Compare single circuit and double circuit of 3 phase line | 7 |
| Q3 B) Explain industrial, residential and commercial loads with suitable application | 8 |
| Q4 A) Discuss the Thermal power plant with block diagram | 8 |
| Q4 B) Explain PMMC type of instruments with detail diagram | 7 |
| Q5 A) Write the short note on electric heating & welding | 8 |
| Q5 B) Explain the structure of power system with the diagram showing different voltage levels of Transmission, distribution and utilization | 7 |
| Q6 A) Explain the various types of Battery storage along with suitable applications | 8 |
| Q6 B) A single-phase overhead line is transmitting 1200 KW Power to a factory at 11 KV and 0.8 lagging power factor. Total resistance and reactance is of the line is 3 ohm and 4.5 ohm respectively determine 1) sending end voltage 2) % regulation | 7 |
