

FE ELECTRICAL SEM-II (NEP-2020) EES QP CODE: 10086389

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 |
