**18EED13**

**Hall Ticket Number:**

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| **III/IV B.Tech (Regular) DEGREE EXAMINATION** | | | |
| **August, 2021** | **Electrical and Electronics Engineering** | | |
| **Sixth Semester** | **Power Distribution Systems** | | |
| **Time:** Three Hours | | **Maximum: 5**0 Marks | |
| *Answer Question No. 1 Compulsorily.* | | | (10X1 = 10 Marks) |
| *Answer* ***ANY ONE*** *question from each Unit.* | | | (4X10=40 Marks) |

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| 1. | a) | Write the objectives of distribution system planning | CO1 | |  |
|  | b) | List any two factors effecting load forecasting. | CO1 | |  |
|  | c) | What is the difference between feeder and busbar. | CO2 | |  |
|  | d) | What are the factors affecting substation location? | CO2 | |  |
|  | e) | What is secondary banking? | CO3 | |  |
|  | f) | Identify the requirements of line sectionalizers. | CO3 | |  |
|  | g) | Write purpose of recloser in distribution systems | CO3 | |  |
|  | h) | Summarize the economic benefits from the capacitor installations. | CO4 | |  |
|  | i) | List of methods used for voltage control. | CO4 | |  |
|  | j) | What is the main idea of using capacitor bank? | CO4 | |  |
| **Unit - I** | | | | | |
| 2. | a) | Explain various factors affecting the distribution planning. | CO1 | **5M** | |
|  | b) | How computers play a major role in Present and future of distribution system planning. | CO1 | **5M** | |
|  |  | **(OR)** |  |  | |
| 3. | a) | Illustrate the Load characteristics in distribution system. | CO1 | **5M** | |
|  | b) | Discuss the Diversified demand method. | CO1 | **5M** | |
| **Unit - II** | | | | | |
| 4. | a) | Examine the various distribution transformers used in distribution systems. | CO2 | **5M** | |
|  | b) | Analyze various sub-station bus schemes in the distribution substations. | CO2 | **5M** | |
|  |  | **(OR)** |  |  | |
| 5. | a) | Determine optimum location of sub-station in rural distribution networks using network flow techniques. | CO2 | **5M** | |
|  | b) | Illustrate distribution factors – KW KVA Method of determining regulation. | CO2 | **5M** | |
| **Unit - III** | | | | | |
| 6. | a) | Explain the design consideration of radial type distribution feeder. | CO3 | **5M** | |
|  | b) | Define secondary banking and explain different connections of secondary banking. | CO3 | **5M** | |
|  |  | **(OR)** |  |  | |
| 7. | a) | Explain in detail about recloser to fuse coordination. | CO3 | **5M** | |
|  | b) | Discuss in detail about Line sectionalizers and circuit breakers. | CO3 | **5M** | |
| **Unit - IV** | | | | | |
| 8. | a) | Explain the procedure to determine best capacitor location in Distribution systems. | CO4 | **5M** | |
|  | b) | Discuss the methods for voltage control. | CO4 | **5M** | |
|  |  | **(OR)** |  |  | |
| 9. | a) | Explain the effect of series and shunt capacitors used in distribution system. | CO4 | **5M** | |
|  | b) | Discuss about line drop compensation. | CO4 | **5M** | |

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