**1741**

**Code : 15EE52T**

*Register Number* | | | | | | | |

**V Semester Diploma Examination, Nov./Dec. 2017**

# TRANSMISSION DISTRIBUTION AND UTILIZATION

**Time : 3 Hours ]** **[ Max. Marks : 100**

***Note :*** (i) Answer any **six** questions from Part-**A**. (Each question carries **5** marks)

(ii) Answer any **seven** full questions from Part-**B**. (Each question carries **10** marks)

## PART – A

1. List the types of power transmission system and explain. **5**

2. State the standard voltage used for power transmission & distribution. **5**

3. Explain Direct lighting scheme. **5**

4. Explain with single line diagram HV DC Transmission. **5**

5. Explain the different types of A.C. distribution system. **5**

6. Explain ring main distribution system. **5**

7. List the advantages of Direct Arc furnace. **5**

8. List the advantages of high frequency coreless Induction furnace. **5**

9. List the properties of refrigerator. **5**

## PART – B

10. (a) Explain the classification of Transmission lines based on distance. **6**

    (b) Briefly explain the line comfort. **4**

11. (a) Explain with diagram the construction of 3-core under ground cables. **6**

    (b) List the applications of dielectric heating. **4**

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| 12. | (a) | Explain the flexible A.C. Transmission system. | 6 |
| | (b) | List the objectives of FACTS. | 4 |
| 13. | (a) | Explain the A.C. Secondary Distribution system. | 6 |
| | (b) | State the need of Distribution system. | 4 |
| 14. | (a) | Explain with diagram High frequency core-less Induction furnace. | 6 |
| | (b) | Explain different methods of Electric heating. | 4 |
| 15. | (a) | List the advantages of Electric heating. | 6 |
| | (b) | Explain neat sketch the Direct arc heating method. | 4 |
| 16. | (a) | State and explain Faradays Laws of Electrolysis. | 4 |
| | (b) | Explain with Electric circuit the block diagram for air-conditioning unit. | 6 |
| 17. | (a) | Explain with diagram the working of Vapour Compression refrigerator. | 6 |
| | (b) | List the necessity of Electroplating. | 4 |
| 18. | (a) | State and explain the Laws of Illumination. | 6 |
| | (b) | List the types of Electric arc welding. | 4 |
| 19. | (a) | Explain construction & working of mercury vapour lamp. | 6 |
| | (b) | A small workshop measuring 20 × 10 × 3 m is to be illuminated with 200 lux on the work plane. The output of each lamp selected is 4000 lumens. The utilization factor is 0.75 and the maintenance factor is 0.8. Find the number of lamps required. | 4 |