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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Electrical &amp; Electronics) (2013 &amp; Onwards E-II)/

B.Tech. (Electronics &amp; Electrical) (Sem.-7)

**HIGH VOLTAGE DIRECT CURRENT TRANSMISSION**

Subject Code : BTEEE-804B

M.Code : 71964

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****Write briefly :**

1. What is the difference between AC and DC transmission?
2. What are the applications of DC transmission?
3. Define the overlap angle and extinction angle.
4. What are the different types of modes of operation of rectifier?
5. What are the different HVDC links normally adopted?
6. What are the applications of HVDC transmission system in India?
7. What are the possible reasons of over voltage occurrence in converter?
8. How do you fix transient overvoltage?
9. What is proximity effect in transmission lines?
10. What is the function of smoothing reactor?



### SECTION-B

11. Discuss the working of monopolar operation of HVDC system.
12. Discuss the application of Thyristor valve for HVDC transmission system.
13. Analyze the working of Graetz circuit with overlap.
14. Draw the complete converter control characteristics and explain the principle of power control in a DC link.
15. Discuss in detail about the modern HVDC converters.

### SECTION-C

16. Described about starting and stopping of DC link.
17. Describe the working of over current and over voltage protection in a converter station.
18. What is 12-pulse converter? Explain the 12 pulse converter operation.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**