

325841(25)

**B. E. (Eighth Semester) Examination,
Nov.-Dec. 2018**

(New Scheme)

(EEF. Engg. Branch)

EHV AC & DC TRANSMISSION

Time Allowed : Three hours

Maximum Marks : 80

Minimum Pass Marks : 28

**Note : Part (a) of each questions is compulsory.
Attempt any two parts from (b), (c) and (d).**

Unit-I

- 1. (a) What is tuned power lines? 2

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- (b) Enlist the factor on which the power handling capacity of a transmission system. 7
- (c) Describe the reactive power compensation of EHVAC system. 7
- (d) Explain voltage profile along a long EHVAC lines. 7

Unit-II

- 2. (a) What are the applications of HVDC transmission system? 2
- (b) Compare the EHVAC and HVDC transmission on the basis of technical performance. 7
- (c) Explain planning for HVDC transmission system. 7
- (d) What are the advantages and disadvantages of HVDC transmission system as compared to HVAC transmission system. Give justified reason of your statement. 7

Unit-III

- 3. (a) Name the types of DC links with diagram. 2

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- (b) Explain conduction of three thyristors in 'GREATZ' circuit with over lapping. 7
- (c) Explain HVDC firing angle control. 7
- (d) Discuss converter control characteristics of HVDC system. 7

Unit-IV

- 4. (a) Name the different types of fault occurs in the converter valve's. http://www.csvtuonline.com 2
- (b) Explain any one of the following :
 - (i) Constant ignition angle control method
 - (ii) Constant extinction angle control method 7
- (c) Explain parallel operation of HVAC and DC system. 7
- (d) Describe the advantages and problems associated with EHVDC system. 7

Unit-V

- 5. (a) Define smoothing reactor's in HVDC lines. 2
- (b) Explain designing of AC filters. 7

- (c) Discuss the over voltage protection in converter station in EHV DC system. 7
- (d) Describe about the generation of harmonics and the desiging to remove them. 7