

Roll No

EX/EE-7005 (2) (CBGS)**B.E. VII Semester**

Examination, November 2018

Choice Based Grading System (CBGS)**EHVAC/DC Transmission***Time : Three Hours**Maximum Marks : 70***Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain the problems involved in EHV transmission. 7
b) Give a neat sketch of different HVDC links. 7
2. a) Explain various types of AC transmission system and compare them. 7
b) Explain the advantages of HVDC cables over EHVAC cables. <https://www.rgpvonline.com> 7
3. a) Explain why it is necessary to use compensation of EHVAC lines. 7
b) What is SVC? Explain in brief. 7
4. a) Explain the operation of Graetz circuit and derive expression for output voltage. 7
b) Explain the concept of Thyristor controlled series capacitor. 7

5. a) What are the causes of harmonics in HVDC system? Explain its adverse effect in HVDC system. 7
b) Explain the need of compensation in transmission system. Also explain STATCOM. 7
6. a) Describe the constant extinction angle control. 7
b) Explain the concept of attenuations and distortion in travelling waves. <https://www.rgpvonline.com> 7
7. a) What are the main causes of voltages surges on overhead transmission lines? Explain how the waveform of surge is specified. 7
b) Explain the protective measures for the control of lighting and switching over voltages in transmission system. 7
8. Write short notes (any two) 14
a) FACTS concept and application
b) Mechanism of lightning stroke
c) Ignition angle control

<https://www.rgpvonline.com>