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BE - sem - VII - CBGS - Electrical
HVDT

30/11/15

QP Code : 5898

(3 Hours)

[Total Marks: 80]

N.B. - Question No: 1 is compulsory.
Answer any three from the remaining six questions
Figures to right indicate full marks
Assume suitable data if necessary

- Q.1
- | | |
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| (a) Explain different types of HVDC links | 10 |
| (b) Explain with neat diagrams and waveforms the principle of 12 pulse converter | 10 |
- Q.2
- | | |
|---|----|
| (a) What are the main components of HVDC transmission | 10 |
| (b) Explain the firing schemes in HVDC valves. | 10 |
- Q.3
- | | |
|--|----|
| (a) Explain the causes of harmonic generation in HVDC and its effects on the system. | 10 |
| (b) Draw control characteristic of rectifier, inverter provided with both C.C. and C.E.A. controller and explain in brief. | 10 |
- Q.4
- | | |
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| (a) Explain single commutation with neat waveforms and diagrams. | 10 |
| (b) Draw and explain a block diagram of the Hierarchical levels of controls of HVDC transmission system. | 10 |
- Q.5
- | | |
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| (a) Give comparison between A.C. transmission and HVDC transmission. | 10 |
| (b) Justify the statement "converter consumes reactive power" | 10 |
- Q.6
- | | |
|---|----|
| (a) Explain the importance of current margin. | 10 |
| (b) Operation of the bridge converter with overlap angle more than 60° is abnormal. Justify the statement. | 10 |