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WS March 08 255

Con. 3428-08.

ISE (select) VI (Rev)
HVDC Transmission

(REVISED COURSE)

(3 Hours)

9/6/08

CO-3362

[Total Marks : 100

MASTER

- N.B. : (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.
(3) Assume any **suitable** data, if **required**.

1. (a) Explain the causes of Harmonic generation in HVDC and its effects on the system. 10
(b) What are the classification of HVDC links ? Describe each one with neat diagram. 10
2. (a) Explain the firing schemes in HVDC valves. 10
(b) Explain with neat diagram the components of HVDC Transmission system. 10
3. (a) Explain with neat diagrams and waveforms the principle of 12 pulse converter. 10
(b) Explain single and double commutation failure. 10
4. Write short notes on :— 20
(a) Harmonic Filters
(b) Recent trends in HVDC.
5. (a) Explain the influence of AC system strength on AC/DC system interaction. 10
(b) Explain in detail the advantages of HVDC transmission system. 10
6. (a) Explain in brief the starting and stopping of D.C. link. 10
(b) What are the causes and effects of faults occurring in a converter station ? 10
7. Write short notes on (any **two**) :— 20
(a) Mode Stabilization
(b) Converter consumes reactive power— justify.
(c) Impact of ignition delay angle on direct voltage and phase displacement.