

Printing Pages : 1

Paper Code :MPED-312

(A) SVSU 2024-25/R

Enrollment No.

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COURSE NAME (Branch)- M.TECH (PED)

II-YEAR/ III SEM. EXAMINATION

Subject Name: FACTS AND CUSTOM POWER DEVICES

[Time: 3:00 Hours]

[Max Marks: 70]

NOTE:- ATTEMPT ALL THE QUESTIONS AS PER GIVEN INSTRUCTIONS.**QUESTION NO.-1: ATTEMPT ANY Two PARTS.**

(7*2=14)

- What is Reactive power flow control in Power Systems? Explain. (CO1) (PO1,2)
- Explain the control of dynamic power unbalances in Power System? CO2) (PO1,2)
- What are the benefits of FACTS Transmission line compensation? (CO3) (PO1,2)

QUESTION NO.-2: ATTEMPT ANY Two PARTS

(7*2=14)

- Compare the Static versus passive VAR compensator. CO2)(PO1,2)
- Explain the Static shunt compensators with neat sketch.(CO1)(PO1,2)
- What is STATCOM and discuss the Compensator control of the STATCOM? (CO3) (PO1,2)

QUESTION NO.-3: ATTEMPT ANY TWO PARTS.

(7*2=14)

- Explain the Static series compensation approach in the power system. (CO3) (PO1,2)
- With neat sketch explain the Static synchronous compensation.(CO1)(PO1,2)
- What is mean by Static voltage regulator and explain the same with suitable circuit (CO4) (PO1,2)

QUESTION NO.-4: ATTEMPT ANY TWO PARTS.

(7*2=14)

- What are the Unified Power Flow Controller? (CO3)(PO1,2)
- Explain in detail the basic Principle of P and Q control. CO2) (PO1,2)
- What is SSR and what are the roles of SSR in power flow control. (CO3) (PO1,2)

QUESTION NO.-5: ATTEMPT ANY TWO PARTS.

(7*2=14)

- Explain the interline power flow controller with the suitable example. (CO3) (PO1,2)
- Explain the Modeling and analysis of FACTS Controllers. CO2) (PO1,2)
- Explain the process of harmonic propagation. . (CO1) (PO1,2)

