14/05/2025 TE ELECTRICAL SEM-VI C-SCHEME PSPS QP CODE: 10083469

(3 Hours) **Total Marks: 80**

NB: 1) Question **No. 1** is **compulsory**.
2) **Answer** any **THREE** questions out of the remaining **FIVE** questions.
3) Assume suitable data if **necessary** and **justify** them.
4) **Figure** to the **right** indicates **marks**.

1.	a)	Explain time grading & current grading protection of the radial feeder.	5
	b)	What are the difficulties experienced in plain differential protection of transformers?	5
	c)	State advantages & disadvantages of static relay.	5
	d)	Write a short note on ELCB.	5
2.	a)	Explain different ways of connections of earth fault relay and their applications.	10
	b)	What is primary and back-up protection? Explain types of back-up protections.	10
3.	a)	With a neat diagram, explain construction and working of vacuum circuit breaker.	10
	b)	Explain three stepped distance protection provided to long transmission lines.	10
4.	a)	Write a short note on the following:- i) Instrument transformers used in protection. ii) Contactors.	10
	b)	Explain the different abnormal conditions observed in motors and protection provided against them.	10
5.	a)	Explain the construction, working and applications of HRC fuse.	10
	b)	What are incipient faults? Explain the protection provided to power transformers against them.	10
6.	a)	Explain the working of a numerical relay with a block diagram.	10
	b)	Explain negative phase sequence protection & field failure protection provided to generator.	10

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