

SUBJECT CODE NO:- P-72
FACULTY OF ENGINEERING AND TECHNOLOGY
B.E.(EEP/EEE) Examination MAY/JUNE-2016
Power System Protection
(Revised)

[Time:Three Hours]

[Max Marks:80]

“Please check whether you have got the right question paper.”

- N.B
- i) Q.No.1 and Q.No.6 are compulsory.
 - ii) Solve any Two questions from section A&B each, excluding compulsory questions..
 - iii) Assume suitable data.

Section A

- Q.1 Attempt any **five** 10
- a) Why we cannot use fuse instead of relays.
 - b) Write down Causes of faults
 - c) What is zone of protection
 - d) Why back up protection is required & how it works.
 - e) What are types of protection scheme?
 - f) Why distance protection is necessary
 - g) Explain different types of electromagnetic relay.
- Q.2 a) Describe construction and working of electromagnetic relay 08
- b) Explain impedance relay and its characteristics. 07
- Q.3 a) What is static relay? What are merits & demerits of static relay over electromagnetic relay also mention its application. 08
- b) What is difference between PSM and Pick up value of OC relay 07
- Q.4 a) Explain use of differential relay for parallel feeder & ring main. 08
- b) Write down universal torque equation. 07
- Q.5 a) Explain working characteristics and application of differential relay. 08
- b) Explain Merz price protection of Transformer. 07

Section B

- Q.6 Attempt any **five** 10
- a) How do you classify the C.B.?
 - b) Give the advantages of SF₆ C.B.
 - c) Explain restriking voltage
 - d) Explain recovery voltage
 - e) What is Peterson coil
 - f) Give the advantages of Vacuum C.B.
 - g) Explain Current chopping phenomena.
- Q.7 a) Explain in detail constructional features, principle of working, advantages and application of air blast circuit breaker with neat diagram. 08
- b) Explain current chopping phenomena. 07

Q.8	a) Explain behavior of bus bar differential schema for internal & external fault.	08
	b) Explain drawbacks of over current relay on EHV transmission line.	07
Q.9	a) State types of distance relay used for protection & transmission line.	08
	b) Explain Carrier aided protection for transmission line.	07
Q.10	Solve any Three	15
	a) Write note on MCB and ELCB	
	b) What is R.R.R.V.?	
	c) What is stability ratio?	
	d) Microprocessor based relay.	
	e) Arc Interruption Theory	