

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

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|-----|--|----------|
| Q.1 | Attempt any five | 10 |
| | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> a) Describe construction and working of electromagnetic relay b) Explain impedance relay and its characteristics. | 08
07 |
| Q.3 | <ol style="list-style-type: none"> a) What is static relay? What are merits & demerits of static relay over electromagnetic relay also mention its application. b) What is difference between PSM and Pick up value of OC relay | 08
07 |
| Q.4 | <ol style="list-style-type: none"> a) Explain use of differential relay for parallel feeder & ring main. b) Write down universal torque equation. | 08
07 |
| Q.5 | <ol style="list-style-type: none"> a) Explain working characteristics and application of differential relay. b) Explain Merz price protection of Transformer. | 08
07 |

Section B

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| Q.6 | Attempt any five | 10 |
| | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> a) Explain in detail constructional features, principle of working, advantages and application of air blast circuit breaker with neat diagram. b) Explain current chopping phenomena. | 08
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 <u>any Three</u>	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	