

Total No. of Printed Pages:02

SUBJECT CODE NO:- H-627
FACULTY OF SCIENCE AND TECHNOLOGY
B.E. (EEP/EE/EEE) (Sem-I)
Power System Protection
[CGPA]

[Time: Three Hours]**[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B

- 1) Q.No.1 and Q.No.6 are compulsory.
- 2) Solve any two questions from section A & B each excluding compulsory questions.
- 3) Assume suitable data if Necessary.

Section-A

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| Q.1 | Attempt any five:
a) Define current setting & Time setting.
b) Differentiate between C.T & P.T
c) Define reach of the Distance relay.
d) Write the characteristics of electromagnetic relay.
e) Draw and explain summation transformer.
f) What are the types of protection scheme?
g) List out the different faults occurs in transformer. | 10 |
| Q.2 | a) Explain construction & working of differential protection of Alternator.
b) What is static relay? What are the advantages and disadvantages of static of relay over electromagnetic relay? | 07
08 |
| Q.3 | a) Explain desirable qualities of protective relaying.
b) Draw a neat sketch of induction disc relay and discuss its operating principle. | 07
08 |
| Q.4 | a) Explain the connection of CT secondary for differential protection of Y/ Δ connected power transformer.
b) Draw and Explain Buchholz relay. | 08
07 |
| Q.5 | Write short note on:
a) Negative sequence relay.
b) Restricted earth fault protection.
c) Frame leakage protection of transformer. | 15 |

Section-B

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| Q.6 | Attempt any five:
a) What is RRRV?
b) Explain ELCB
c) Define Arc. Write down the cause of arc formation.
d) Give the classification of circuit Breaker.
e) Explain current chopping phenomenon. | 10 |
|-----|--|----|

- f) Give the advantages of vacuum circuit Breaker
- g) What is surge absorber?
- Q.7 a) Explain construction and working principle of ABCB (Air Blast circuit Breaker) with advantages & disadvantages. 08
- b) Explain the various methods of over voltage protection of overhead transmission line. 07
- Q.8 a) What are the different standard ratings of circuit Breaker? Also write the Application. 07
- b) Explain behaviour of Busbar differential scheme for internal and External faults. 08
- Q.9 a) Explain Microprocessor Based over current relays. 07
- b) Explain resistance switching concept used in CB action. Write the Expression for critical value of resistance for zero transient oscillations. 08
- Q.10 Write short note on:: 15
- a) Rod Gap lightning arrester.
- b) Protection against travelling wave.
- c) Carrier current protection.