

TE Electrical - V (R) May 2018

Q.P. Code: 40221

T.E/sem-V/CBAs/MAY-18
Electrical Engg

(3 Hours)
P & SE

25/5/18

[Total marks: 80]

(1/1)

- N.B.:- (1) Question 1 is compulsory
(2) Solve any **three** questions from remaining **five** questions.
(3) Figures to the right indicate **full** marks.

- Q 1. Answer the following questions. 20
A) Draw single line diagram and show all substation devices.
B) Explain primary backup and remote backup protection of relay.
C) Why isolators, contactors and circuit breaker are used in power system.
D) What is the use of instrument transformer in power system
- Q 2 a) Differentiate between 3 types of distance relay 10
Q 2 b) State different types of fault that occurs in transformer. Explain protection for incipient faults 10
- Q 3 a) Explain with neat diagram construction and working of MOCB 10
Q 3 b) What are the different types of fuse available? Explain the constructional details of HRC fuse with its characteristics. Write advantages over other type. 10
- Q 4 a) Explain high resistance and low resistance method of arc quenching. 10
Q 4 b) Differentiate between static and electromagnetic relays 10
- Q 5 a) Explain construction and working principle of vacuum circuit breaker with its advantages and disadvantages 10
Q 5 b) State various abnormal conditions of induction motor. Explain motor protection against single phasing 10
- Q 6 a) Explain REF protection for alternator. How 100% winding is protected in an alternator. 10
Q 6 b) Explain working principle of induction disc type of relay with help of diagram. 10