Roll No. | | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Tech.(EE) PT (Sem.–7)

POWER SYSTEM-II (SWITCHGEAR & PROTECTION)

Subject Code : BTEE-602

M.Code : 74091

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a) Differentiate between Busbar and Feeder.

b) What is HRC fuse? Draw its cut off characteristics.

c) Define term Recovery voltage in relays.

d) Mention prominent features of Vacuum circuit breaker.

e) What are Thermal relays? Give its applications.

f) Mention functional characteristics of protective relays.

g) Give merits of Grounded neutral system.

h) List the protection schemes of transformer.

i) Name parameters to define rating of a circuit breaker.

j) What is meant by Carrier current protection of lines?

SECTION-B

2. Discuss layout of a distribution substation.

3. Describe briefly theories of Arc interruption in circuit breakers.

4. Explain construction and working principle of Translay relay.

5. With the help of diagram, discuss Restricted earth fault protection of an alternator.

6. Discuss distance protection of Feeders.

SECTION-C

7. a) Discuss working principle of SF_6 circuit breaker.

   b) Describe functioning of Impulse gap type arrestor.

8. Discuss various relaying schemes used for protection of transformers.

9. Write short notes on the following :

   a) Neutral grounding

   b) Loss of excitation protection of alternator

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.