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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (EE) PT (Sem.-7)

**POWER SYSTEM-II (Switch Gear & 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****Write briefly:**

- 1) What do you mean by a static relay?
- 2) What are the duties performed by a Circuit breaker?
- 3) What is meant by back up protection?
- 4) Define the term "fusing factor" related to fuse.
- 5) What are the functions of a protective relay?
- 6) What are the uses of a Buchholz's relay?
- 7) What do you understand by RRRV?
- 8) Mention any two applications of differential relays.
- 9) What do you understand by pick up value of a relay?
- 10) What are the advantages of air blast circuit breakers over oil circuit breakers?



**SECTION-B**

- 11) Discuss various types of faults in Alternators. Explain Loss of excitation protection in Generators.
- 12) Describe the operation of a HRC cartridge fuse.
- 13) Classify various types of substations. Compare indoor and outdoor types of substations.
- 14) Explain briefly following terms related to CBs with the help of some diagram :
  - a) Arc voltage
  - b) Restriking voltage
- 15) Discuss the Time graded protection of feeders.

**SECTION-C**

- 16) Write a note on following :
  - a) Negative sequence relay
  - b) Carrier current protection of lines.
- 17) With the help of a neat sketch, describe the working of vacuum circuit breakers.
- 18) Write a note on following :
  - a) Reactance Relays
  - b) Ground wires

**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.**

