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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Electrical & Electronics)/(Electrical Engineering)/  
(Electronics & Electrical) (Sem.-5)

**SWITCHGEAR AND PROTECTION**

Subject Code : BTEE-504B-18

M.Code : 78704

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION 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**

**Answer briefly :**

- 1) What are the limitations of static relays?
- 2) Name the various faults occurring in transformers.
- 3) What is meant by Zone of protection?
- 4) What are the duties of a Circuit breaker?
- 5) Explain over fluxing protection of transformers.
- 6) Explain the term plug setting of a relay.
- 7) What are the functions of protective relays?
- 8) Differentiate a fuse and CB.
- 9) What do you mean by pilot wires?
- 10) What is meant by fusing current of a fuse?

### SECTION-B

- 11) Explain Restricted Earth Fault protection of Transformers.
- 12) Discuss the working of Valve type lightening arresters.
- 13) Discuss the current balance differential protection of feeders.
- 14) Explain various theories of arc extinction in CBs.
- 15) Discuss the working of Thermal Relays.

### SECTION-C

- 16) Discuss the various types of faults occurring in Generators. Explain Differential protection scheme of Generators.
- 17) Write a note on following :
  - a. Back up protection of bus bars
  - b. Rod Gaps
- 18) Discuss various types of fuses. Also mention application of each type.

**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.**