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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(EE) (Electrical & Electronics) (2011 Onwards)
B.Tech.(Electrical Engineering & Industrial Control) (2012 Onwards)
(Sem.–6)

POWER SYSTEM-II
(Switch gear & Protection)

Subject Code : BTEE-602
M.Code : 71148

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 has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

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SECTION-A

1. Answer briefly :

a. Mention any two disadvantages of carrier current scheme for transmission line only.

b. Why bus bar protection is needed?

c. Explain the problem associated with the interruption of low inductive current.

d. What is restriking and recovery voltage?

e. Differentiate between a fuse and a circuit breaker.

f. Why neutral resistor is added between neutral and earth of an alternator?

g. What are the hazards imposed by oil when it is used as an arc quenching medium?

h. Mention the various insulation levels in substations.

i. Define Isolator and explain its requirements.

j. Name the different types of bus bar arrangements in substations?

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SECTION-B

2. Explain with a neat sketch the working of biased differential Relay.

3. Explain construction and working of HRC fuse.

4. Explain any one bus bar arrangement used in substation in detail.

5. Discuss and compare the various methods of neutral earthing.

6. Describe the construction and working of Buchholz relay.

SECTION-C

7. a. Explain basic distance protection scheme for protection of lines.

   b. Explain with a neat sketch construction and working of Stator Inter Turn Protection of alternators.

8. Describe the operating principle, constructional features and area of applications of reverse power or directional relay.

9. a. What protective measures are taken against lightning over voltages?

   b. Describe the construction and principle of operation of expulsion type lightning arrester.

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NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.

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