

Total No. of Questions : 6]

P104

SEAT No. :

[Total No. of Pages : 2

BE/Insem./APR-145

B.E. (Electrical)

403147 : SWITCHGEAR & PROTECTION

(2012 Pattern) (Semester - II)

Time : 1 Hour]

Instructions to the candidates:

- 1) Answer Q1 or 2, Q3 or 4, and Q5 or 6.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Use of Non-Programmable Scientific Calculator is allowed.
- 5) Assume suitable data if necessary.

[Max. Marks : 30

Q5) a) Explain the following terms with respect to circuit breaker. [4]

i) Short time current ii) Making capacity

b) Explain construction and working of aircircuit breaker. [6]

OR

Q6) a) Explain what is autoreclosing in circuit breaker. [4]

b) With neat diagram explain the construction and working of vacuum circuit breaker. [6]



Q1) a) What are the causes of faults? State the different types of fault in power system. [4]

b) What are essential qualities of Protective relaying? Explain in detail. [6]

OR

Q2) a) Draw and Explain the trip circuit of circuit breaker. [4]

b) Obtain torque equation of Induction type relay. [6]

Q3) a) Explain the concept of current chopping with neat waveform. [4]

b) Explain the following terms with respect to circuit breaker.

i) Restriking voltage

ii) R. R. V.

iii) Recovery voltage

[6]

OR

Q4) a) Explain high resistance interruption principle of circuit breaker. [4]

b) What is resistance switching? Derive the expression for critical value of switching resistance. [6]

P.T.O.

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