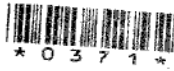


M.E. Second Semester (Electrical (Electronics & Power) Engineering) (New-CGS)
13320 : Digital Protection of Power System : 2 EEPME 1

P. Pages : 2

Time : Three Hours



AW - 3582

Max. Marks : 80

- Notes : 1. Answer **Three** question from Section A and **Three** question from Section B.
2. Assume suitable data wherever necessary.
3. Illustrate your answer necessary with the help of neat sketches.

SECTION - A

1. a) Explain basic Block diagram of digital relay. 7
b) Explain Analog and digital multiplexer. 7

OR

2. a) Explain numerical relay in detail. 7
b) What is function of filter. Explain its types. 7
3. a) Draw and explain flowchart for relay coordination. 7
b) Give an estimate of relay operating time. 7

OR

4. a) Explain the time multiplier setting and plug multiplier setting in current relay. 6
b) Explain in detail protection of an interconnected system. 7
5. a) Explain types of fault in overhead transmission line. 7
b) Explain induction type cylinder frequency relay. 6

OR

6. a) Explain various types of frequency relay. 7
b) State and explain rate of frequency decline. 6

SECTION - B

7. a) State and explain Re-closing relay and its operation. 7
b) Explain different precautions to be follow during reclosing. 7

OR

8. a) Explain the problems associate with relay during compensation. 7
b) Explain in details. 7
i) Single shot reclosing Relay. ii) Multi shot reclosing Relay. 7
9. a) What are recent developments in relaying principle. 6
b) Explain mathematical algorithm for location of fault.
- OR**
10. a) Explain Adaptive protection. 7
b) Explain protection of transmission line based upon travelling wave phenomenon. 6
11. a) State and explain Fourier Algorithm with suitable examples. 7
b) State the implementation of integral LSQ fit method. 6
- OR**
12. a) Explain Digital harmonic filtering. 7
b) Explain in detail full cycle window. 6
