

Q.22 Write the functions of switch, fuse, isolator and circuit breaker.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Describe protection schemes for feeders and transmission lines.

Q.24 Explain different types of lightning arrester with diagram.

Q.25 Write detailed notes on :

- a) Overcurrent relay (IDMT type)
- b) Distance relay (MHO type)

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6th Sem / Electrical

Subject : Power System Protection

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Under-voltage relay is used for:

- a) Detecting voltage drops
- b) Detecting current reversal
- c) Breaking overload circuits
- d) Voltage rise detection

Q.2 Which of the following is a double line to ground fault?

- a) L-L
- b) L-G
- c) 3-Phase Fault
- d) L-L-G

Q.3 Which relay is commonly used for distance protection?

- a) Thermal relay
- b) MHO relay
- c) Static relay
- d) Buchholz relay

Q.4 S_f6 circuit breakers are widely used due to:

- a) Arc-producing nature
- b) High dielectric strength of S_f6 gas
- c) Low cost
- d) Ease of installation

Q.5 Line-to-line fault is classified as:

- a) Symmetrical b) Unsymmetrical
- c) Balanced d) None of the above

Q.6 Fuse is used to:

- a) Improve voltage regulations
- b) Maintain constant power
- c) Protect equipment during faults
- d) Increase impedance

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 What is a static relay?

Q.8 Define Switchgear.

Q.9 Buchholz relay operates during _____ faults in transformers.

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Q.10 The main function of a surge arrester is to protect against _____.

Q.11 Overcurrent relays operate when current exceeds _____.

Q.12 Write the full form of E.L.C.B.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 How can transmission line be protected against lightening?

Q.14 Differentiate between symmetrical and unsymmetrical faults.

Q.15 What is Merz Price system for Earth and phase to phase fault protection for transformer?

Q.16 What is meant by arc extinction? Discuss any two methods.

Q.17 Describe the operating principle of a directional overcurrent relay.

Q.18 Write a short note on VCB and its advantages.

Q.19 List the properties of a good earthing system.

Q.20 Explain how fuses are classified based on voltage and breaking capacity.

Q.21 Describe working of Buchholz relay with a sketch.

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