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6th Sem / Branch : Electrical Engg.
Sub. : Electrical Power II/Power II

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 What is the full form of MCB
a) Miniature circuit breaker
b) Maximum current breaker
c) Maximum circuit breaker
d) Miniature current breaker
- Q.2 A single device that ensures protection from electrical hazard of shock and fire caused by over current, short circuit, earth leakage and earth fault is:
a) MCCB
b) Toggle switch
c) Miniature circuit breaker
d) ELCB
- Q.3 What is the difference between two-part tariff and maximum demand tariff?
a) A separate meter is used
b) A separate maximum demand meter is used
c) Semi fixed charges are also included
d) All of these

- Q.4 Which material is used as filler in HRC fuse?
a) Quartz b) Plaster of paris
c) Marble d) All of the above
- Q.5 What is the full form of OCB?
a) Over current breaker
b) Over circuit breaker
c) Oil circuit breaker
d) Oil current breaker
- Q.6 What is maximum value of power factor?
a) 0.5 b) 1
c) 1.5 d) 0.95
- Q.7 Flat rate tariff is charged on what basis?
a) Connected load b) Unit consumed
c) Maximum demand d) Both A & B
- Q.8 Ground wire is used to protect transmission lines against _____.
a) Direct lightning strokes
b) Leakage current
c) Heating effects
d) All of the above
- Q.9 The load factor is defined as the ratio of _____.
a) Average load to the minimum load
b) Average load to the maximum load
c) Average load + maximum load
d) None of the above

- Q.10 Which of the following is a type of circuit breaker?
- Air break circuit breaker
 - Air blast circuit breaker
 - SF₆ Circuit breaker
 - All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is an isolator?
- Q.12 Which relay is used for motor protection?
- Q.13 Which relay is used for the protection of transformer.
- Q.14 Define the term phase wire.
- Q.15 Explain the earthing concept.
- Q.16 Define the term "Tariff".
- Q.17 Mention any two underground faults.
- Q.18 Define lighting.
- Q.19 What is role circuit breaker in feeder.
- Q.20 Define surge diverter.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What are the advantages of SF₆ circuit breaker?
- Q.22 Discuss the phenomenon of arc formation in circuit breaker.
- Q.23 Explain the differences between Switch, isolator and circuit breaker.
- Q.24 Write a short note on flat rate tariff.

- Q.25 Describe construction and operation of H.R.C. cartridge fuse.
- Q.26 Discuss the function of power line carrier communication.
- Q.27 Explain briefly the unbalanced and single phasing protection.
- Q.28 Explain how we can protect transmission lines and substation against over-voltage?
- Q.29 Discuss the properties of fuse element.
- Q.30 Explain with the help of neat diagram the working of a thermal relay.
- Q.31 Explain with diagram Buchholz relay protection.
- Q.32 What are the basic methods of arc extinction in air?
- Q.33 Describe earthing of substation as per I.E. Rules.
- Q.34 What is relay? Give classification of relay.
- Q.35 What is meant by over voltages? Briefly explain its causes.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain with diagram, the construction and working operation of induction type non-directional over current relay.
- Q.37 Draw and explain the working of SF₆ circuit breaker.
- Q.38 Which types of faults occurred in overheads and underground power system?