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6 th Sem. / Electrical Engg

Subject : Power System protection

Time : 3 Hrs. M.M. : 60

SECTION-A

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

Q.1 The fuse rating is expressed in terms of

a) Current b) Voltage

c) VAR d) KVA

Q.2 The torque produced in induction type relay (shaded pole structure) is

a) inversely proportional to the current

b) inversely proportional to the square of the current

c) proportional to the current

d) proportional to the square of the current

Q.3 Surge absorbers are used for protection against

a) High-voltage low frequency oscillations

b) Low-voltage low frequency oscillations

c) low-voltage high frequency oscillations

d) High-voltage high frequency oscillations

Q.4 Distance relays are Generally

a) Reactance type b) MHO type

c) Impedance type d) All of above

Q.5 The relay used for feeder protection is :

a) Undervoltage relay b) Translay relay

c) Thermal relay d) Buchholtz relay

Q.6 The Buchholz relay is used for the protection of transformer against

a) External faults b) internal faults

c) Both (a) & (b) d) None of the above

SECTION-B

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

Q.7 Time graded protection is scheme of _____ Protection.(Overcurrent / Overvoltage)

Q.8 A surge diverter is connected between ____ .(Two Lines/ Line & ground)

Q.9 HRC stands for_____

Q.10 Equal Fault current due to _____faults. (symmetrical unsymmetrical)

Q.11 Define fault.

Q.12 The fusing factor is always greater than____.

SECTION-C

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

Q.13 Explain briefly the causes of over voltage.

Q.14 Explain with the help of a neat diagram the working of a thermal relay.

Q.15 Mention the various methods of reducing earth resistance

Q.16 Explain the working of Buchholtz relay.

Q.17 Explain in brief the construction and working of Sf6 circuit breaker.

Q.18 Differentiate between symmetrical and unsymmetrical faults.

Q.19 Discuss how the resistance of arc is increased.

Q.20 Explain the difference between earth and neutral wire.

Q.21 Write a short note on Minimum oil circuit breaker.

Q.22 Mention the various applications of static relay.

SECTION-D

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

Q.23 Explain various methods of earthing with neat diagram.

Q.24 What is the role of a feeder in a power system . Discuss various methods of protection of a feeder .

Q.25 Describe in detail the Merz Price system of protection for generators