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5th Sem / Elect, Elect & Eltx Engg.
Subject:- Electrical Power - I / Power -I
(G.T. & D.E.P)

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Power plant having minimum running charges (CO1)

a) Nuclear power plant b) Hydro power plant
c) Diesel power plant d) Both (B) and (C)

Q.2 Geothermal energy obtained from: (CO1)

a) Sun b) Oceans
c) Earth d) None of these

Q.3 Sag in the Line is given by: (CO3)

a) $WL^2/8T$ b) $W^2L/8T$
c) $WT^2/8L$ d) LT/8L

Q.4 Spillway is used in (CO1)

a) Thermal power plant
b) Nuclear Power plant
c) Hydroelectric power plant
d) Gas power station

Q.5 _____ is a nonconventional Energy Source.(CO1)

a) Diesel oil b) Coal
c) Wind d) both A and B

Q.6 Corona loss in HT overhead lines is more in (CO3)

a) Summer seasons b) winter seasons
c) Autumn seasons d) Rainy seasons

Q.7 The insulator used in EHT lines are : (CO3)

a) Suspension type b) Pin type
c) Egg type d) Reel insulator

Q.8 Overexcited Synchronous motor are operated at (CO7)

a) Lagging Power factor
b) Unity Power factor
c) Leading Power factor
d) None of these

Q.9 Murray loop test works on the principle of (CO5)

a) Faraday's b) Wheatstone bridge
c) Skin effect d) None of these

Q.10 The top most conductor of EHV overhead Transmission line is : (CO3)

a) R-Phase b) Y-Phase
c) Earth conductor d) B-Phase

SECTION-B

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

Q.11 The tendency of current to concentrate near the surface of the conductor is known as _____(CO3)

Q.12 It is desirable the voltage regulation of the transmission line should be high (T/F) (CO3)

Q.13 Define Peak load Plant. (CO2)

Q.14 Surge thank is used in Nuclear power plant.(T/F) (CO1)

Q.15 Define super heater. (CO1)

Q.16 Power factor is the ratio of active power and reactive power (T/F) (CO7)

Q.17 Define diversity factor. (CO2)

Q.18 Most of substation in the power system changes _____ of electric supply. (CO6)

Q.19 Expand ACSR. (CO3)

Q.20 A line which feeds the service main is called_____ (CO5)

SECTION-C

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

Q.21 Enlist any five Points related to site of selection of Nuclear power plant. (CO1)

Q.22 Explain the importance of load curve. (CO2)

Q.23 Explain the significance of load factor. (CO2)

Q.24 Explain the transposition of conductors. (CO3)

Q.25 Explain the factors affecting sag. (CO3)

Q.26 Explain the reasons of low power factor. (CO7)

Q.27 Explain the faults occurs in overhead systems. (CO5)

Q.28 Give the comparisons of overhead and underground system. (CO5)

Q.29 Give the five merits of outdoor substation over indoor substations. (CO6)

Q.30 Name the different line insulators used for overhead lines. (CO3)

Q.31 Explain the benefits of power transmission at high voltage. (CO3)

Q.32 Explain interconnected system in distribution of power. (CO4)

Q.33 Draw the layout of transmission system. (CO4)

Q.34 Explain the significance of regional and national grid. (CO2)

Q.35 Describe the present scenario of energy in India. (CO1)

SECTION-D

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

Q.36 Explain the working of high head hydroelectric power plant with help of a labeled diagram. (CO1)

Q.37 Define corona. Explain the factors affecting and method of reducing the corona in transmission lines. (CO3)

Q.38 Explain the various types of supports used in transmission system. (CO3)