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Roll No. .....

3rd Sem / Mechatronics

Subject:- Electric Power Transmission and Distribution

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The skin effect is _____ for stranded conductors than solid conductors . (CO2)

a) More b) Porcelain

c) Less d) Increased

Q.2 The usual generation voltage in India is ____. (CO1)

a) 20 KV b) 11 KV

c) 400 KV d) 66 KV

Q.3 During corona loss on the lines ,the sound produced is known as _____. (CO3)

a) Suspension b) Less

c) Hissing noise d) Whispering noise

Q.4 Earth wires are usually made of (CO4)

a) Aluminium b) Brass

c) Galvanized iron d) ACSR

Q.5 Name the cable which connects the distributor to the consumer terminals. (CO5)

Q.26 Differentiate between feeder, distributor and service main . (CO4)

Q.27 Explain the necessity of transposition of conductors . (CO2)

Q.28 Differentiate between primary and secondary transmission system. (CO1)

Q.29 Name different types of insulators used in transmission lines. Describe any one type of insulator . (CO5)

Q.30 Write a short note on importance of sag. (CO5)

Q.31 Write a short note on AC distribution system. (CO4)

Q.32 Explain short , medium and long transmission lines . (CO1)

Q.33 What are the requirements of underground cables . (CO4)

Q.34 Draw the single line diagram of power system . (CO1)

Q.35 Draw the layout of mono polar & bi-polar transmission lines . (CO3)

SECTION-D

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

Q.36 What is corona . What are the factors affecting corona . Write the various methods to reduce corona . (CO3)

Q.37 Explain the layout of HT and LT distribution system . (CO4)

Q.38 Derive an expression for string efficiency . Why should shielding be provided to insulators ? (CO5)

a) Distributor b) Service mains

c) Feeders d) All of these

Q.6 The bulk power consumer are supplied at (CO4)

a) 11 KV b) 66 KV

c) 400 V d) 230 V

Q.7 Lower power factor is usually not due to (CO2)

a) Discharge lamp

b) Arc lamps

c) Incandescent lamps

d) Induction furnace .

Q.8 In India electrical power is transmitted by (CO1)

a) 2-wire dc system

b) 3- wire dc system

c) 3-phase, 4-wire AC system

d) 3-phase , 3-wire AC system

Q.9 The voltage rating of the transformer in a pole-mounted sub station is _____ (CO4)

a) 11 KV / 400 V b) 11 KV / 240 V

c) 33 KV /400 V d) None of these

Q.10 What is the main type of distribution system in India? (CO4)

a) Radial b) Parallel

c) Network d) Both (b) and (c)

SECTION-B

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

Q.11 What is sag ? (CO5)

Q.12 Define sub-station (CO4)

Q.13 ACSR stands for_____. (CO2)

Q.14 _____system is less reliable than underground system . (CO5)

Q.15 Power factor is improved by using_____banks (CO2)

Q.16 In LT distribution _____ insulators are used (CO5)

Q.17 Step up transformer is installed near_____. (CO1)

Q.18 Define voltage regulation . (CO2)

Q.19 The highest transmission voltage in India is _____. (CO1)

Q.20 Corona will not involve energy loss. (True / False) (CO3)

SECTION-C

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

Q.21 What are the advantages of high voltage transmission ? (CO2)

Q.22 Write a short note on FACTS devices. (CO3)

Q.23 Describe the various parameters (Constants) of an overhead transmission lines. (CO2)

Q.24 What are the advantages of overhead transmission line. (CO5)

Q.25 Mention the demerits of HVDC transmission. (CO3)