Q.25 Draw single line diagram with components of electric supply transmission and distribution. (CO1)

Q.26 Describe the types of HVDC links in details. (CO3)

Q.27 Write properties of material which are used for conductors. (CO5)

Q.28 Give the layout of a 33/11 Kv substation. (CO2)

Q.29 Explain end condenser method for transmission line. (CO2)

Q.30 Draw single line diagram of electric supply transmission and distribution systems. (CO1)

Q.31 Write a note on skin and proximity effect. (CO2)

Q.32 Explain the effect of power factor on transmission line. (CO2)

Q.33 Write the limitations of EHV AC with respect to the distribution system. (CO3)

Q.34 Write type of line structures and their specifications. (CO5)

Q.35 What are the reasons for failure of insulators. (CO5)

SECTION-D

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

Q.36 Classify the underground cables. Explain in details. (CO5)

Q.37 What is string efficiency? Derive an expression for string efficiency. (CO5)

Q.38 What is corona? Discuss the various factors affecting corona. (CO3)

No. of Printed Pages : 4 202433

Roll No. .....

3rd Sem.

Branch : Mechtronics

Sub.: Electric Power Transmission & Distribution

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 The highest transmission voltage in India is (CO3)

a) 750 kV b) 400 kV

c) 132 kV d) 66 kV

Q.2 In transmission line cross – arm are made of (CO5)

a) Aluminium b) Copper

c) RCC d) Steel

Q.3 An over excited synchronous motor operates at(CO6)

a) Lading power factor b) Unity power factor

c) Lagging power factor d) 0.5 pf leading

Q.4 As per IE rules the maximum allowable variation between declared and actual voltage at consumer's premises should be (CO5)

a) ±6% b) ±8%

c) ±5% d) ±10%

Q.5 The conductors used in high tension overhead lines are (CO4)

a) Stranded b) Solid

c) Both A & B d) None of the above

Q.6 The underground system cannot be operated above (CO5)

a) 220 kV b) 66kV

c) 33kV d) 11kV

Q.7 Distribution transformers are usually connected in (CO3)

a) Delta/star b) Star/delta

c) delta/star d) star/star

Q.8 Which of the following distribution systems is preferred for good efficiency and high economy? (CO4)

a) Single phase, 2 wire system

b) 2 ph, 3 wire system

c) 3 ph, 3 wire system

d) 3 ph, 4 wire system

Q.9 Bundled conductors are used for EHV transmission lines primarily for reducing the (CO3)

a) Corona loss

b) Surge impedance

c) Voltage drop across the line

d) None of the above

Q.10 In the case of an HVDC system, there is (CO3)

a) Charging current but no skin effect

b) No charging current but skin effect

c) Neither charging current nor skin effect

d) Both charging current and skin effect

SECTION-B

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

Q.11 Define line supports. (CO5)

Q.12 What is an ACSR conductor? (CO2)

Q.13 If the supply frequency is increased, the skin effect will____. (CO2)

Q.14 In short transmission lines the effect of _____ is negligible. (CO2)

Q.15 The voltage for secondary distribution in our country is _____. (CO4)

Q.16 Sag is independent of _____. (CO4)

Q.17 Define Ferranti effect. (CO3)

Q.18 What is HVDC transmission. (CO3)

Q.19 Which material is suitable for the manufacture of armour in a single core cable? (CO5)

Q.20 The cost of material used in a distribution circuit per kVA of the distributed power varies as_____. (CO4)

SECTION-C

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

Q.21 Difference between feeders, distribution & service mains. (CO4)

Q.22 State any four properties of insulating materials. (CO5)

Q.23 What are the various components of an over head line? (CO1)

Q.24 Compare Nominal –T and Nominal-TT method of medium transmission line. (CO2)