

- Q.26 State the necessity of transposition of conductors. (CO3)
- Q.27 Explain advantages of HVDC transmission. (CO3)
- Q.28 Write a short note on FACTS devices. (CO3)
- Q.29 Give the layout of a 33/11 Kv substation. (CO4)
- Q.30 Explain end condenser method for transmission line. (CO2)
- Q.31 Draw a singe line diagram of electric supply transmission and distribution systems. (CO1)
- Q.32 Define Corona, Mention any two advantages and disadvantages. (CO3)
- Q.33 How underground Cables are classified? (CO5)
- Q.34 Write type of line structures used in transmission and their specifications. (CO5)
- Q.35 What are the factors affecting the sag in a transmission line. (CO3)

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 State the effect of unity power factor on efficiency and regulation of transmission line. (CO2)
- Q.37 Explain types of different distribution schemes with advantages and disadvantages. (CO3)
- Q.38 Explain performance of the short line, its efficiency and voltage regulation. (CO2)

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3rd Sem / Mechtronics
Subject:- Electric Power Transmission & Distribution

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 A 3-phase , 4-wire system is commonly used for (CO1)
- Primary distribution
 - Secondary distribution
 - Primary transmission
 - Both a & b
- Q.2 Strain type insulators are used (CO5)
- At dead ends
 - on straight curve
 - both a & b
 - none
- Q.3 The permissible variation of frequency in power system is (CO2)
- $\pm 1\%$
 - $\pm 3\%$
 - $\pm 5\%$
 - $\pm 6\%$
- Q.4 A line which connects to a consumer to the distributor is called (CO4)
- feeder
 - Distributor
 - Service main
 - none

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202433

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202433

- Q.5 Distribution transformers are usually connected in (CO3)
- a) delta/star b) star/delta
 - c) delta/delta d) star/star
- Q.6 The phenomenon of rising in voltage at the receiving end of the open-circuited or lightly loaded line is called as (CO3)
- a) Roman Effect b) Skin Effect
 - c) Corona Effect d) Ferranti Effect
- Q.7 An under excited synchronous motor operates at (CO1)
- a) Leading power factor
 - b) Unity power factor
 - c) lagging power factor
 - d) 0.5 pf leading
- Q.8 Static capacitors are rated in terms of (CO6)
- a) Kw b) Kwh
 - c) kVAR d) none of the above
- Q.9 Bundled conductors are used for EHV transmission lines primarily for reducing the (CO6)
- a) Corona loss
 - b) Surge impedance
 - c) Voltage drop across the line
 - d) None of the above
- Q.10 As compared to ac transmission dc transmission is free from (CO3)
- a) Inductance b) Capacitance
 - c) Phase displacement d) All of the above

(2)

202433

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Define power factor. (CO2)
- Q.12 Define Reactive power. (CO2)
- Q.13 Expand FACTs. (CO3)
- Q.14 If the supply frequency is increased, the skin effect will _____. (CO2)
- Q.15 In short transmission lines, the effect of _____ is negligible. (CO2)
- Q.16 Max value of power factor is _____ (CO6)
- Q.17 Earth wire are made by _____ material. (CO5)
- Q.18 What is an ACSR conductor? (CO2)
- Q.19 What are the advantage of high voltage transmission (CO3)
- Q.20 How many cores are used in a cable for the transmission of voltages upto 66 kV? (CO5)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What are the reasons for failure of insulators. (CO5)
- Q.22 Explain characteristics of hogh voltage for power transmission. (CO1)
- Q.23 Compare Nominal- T and Nominal - P method of medium transmission line. (CO2)
- Q.24 Explain skin effect and proximity effect. (CO2)
- Q.25 List any four basic components present in distribution system. Also state function of each. (CO4)

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