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C09-EE-606

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCTOBER/NOVEMBER-2018
DEEE-SIXTH SEMESTER EXAMINATION**

POWER SYSTEMS-II

Time : 3 Hours]

[Total Marks: 80

PART-A

3X10=30

- Instructions :**
1. Answer **All** questions.
 2. Each question carries **Three** marks.
 3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. State any three disadvantages of D.C. Transmission system.
2. Define short, medium and long transmission lines.
3. What are the protective measures adopted for HVDC system.
4. State any three causes for failure of insulators.
5. Write the formulae for economical spacing of conductors in Over Head lines.
6. State the classification of cables according to nature of application of insulation and lead sheathing.
7. Compare Indoor and outdoor substations.
8. Define (a) Feeder (b) Distribution (c) service mains.
9. Write short notes on pilot wire protection system.
10. State the need of lightning arrestors in power system.

PART-B

10X5=50

Instructions : *

1. Answer any **Five** questions
 2. Each question carries **ten** marks.
 3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.
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11. Explain the phenomenon of CORONA in transmission lines.
 12. What is meant by hot line technique in transmission line and state its advantages.
 13. A transmission line has a span of 300m. Cross – sectional area of conductor is 2 cm^2 , weight of the conductor is 0.65 kg/m breaking stress is 5000 kg/cm^2 , wind pressure is 0.8 kg/m and ice coating is 0.6 kg/m. Factor of safety is 2.5. Find the sag and vertical sag.
 14. (a) Explain in brief the advantages of steel poles over other types of poles in OH lines.
(b) Write any five requirements of line supports.
 15. (a) What are the advantages of disadvantages of ring main distribution system?
(b) Classify the types of distribution systems.
 16. Explain about differential protection used for bus bars.
 17. (a) State any five advantages of neutral grounding.
(b) Write short notes on solid grounding system.
 18. (a) Explain skin effect in transmission line conductors.
(b) Draw duplicate bus – bar system.

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