DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

UNIT -4

19EEE302 – ELECTRICAL SAFETY ENGINEERING

16 -MARK QUESTIONS

1. How are hazards classified? Explain about the secondary hazards in detail. (13)
2. Account on the effects of electrocution and effects of electric current through the human body with its preventive measures. (13)
3. Give a detailed answer on the different classes of insulation. (13)
4. i) Give the electrical causes of fire and explosion. (6)
   ii) Explain the construction and working of a lightning arrester. (7)
5. .i) Explain the secondary hazards of electricity.
   ii) Define the classes of insulation in detail. (6)
6. Difference between the High, Medium and low voltage classifications and how they relate to industrial generators. (13)
7. i) Write a note on High and Extra High Voltage levels. (7)
   ii) What is Excess electricity? What can we do with this surplus amount of energy? (6)
8. Explain the internal and external sources ,causes and prevention of Surge currents. (13)
9. i) Difference between Overcurrent and short circuit current. (7)
   ii) List out few safety measures followed by human in use of electricity. (6)
10. Elucidate in detail the causes, effects and prevention of corona and describe about coronal discharge. (13)
11. How the safety measures are followed while
    a) Earthing b)Earth pit maintenance (7+6)
12. Explain the construction, working and installation of a lightning arrestor. (13)
13. Give a detailed description on caution of arc energy, arc energy release, arc energy input and Arc surface area. (13)

14. Summarize on the National Electrical Safety Code ANSI C2. (13)
15. Describe the preventive measures in electrical safety with example. (15)
16. Generalize the definition of static electricity and brief on its sources, conditions of hazards and its control. (15)
17.. Explain the term earthing and earthing resistance and write a note on maintaining an earth pit. (15)
18. What are the parameters to be considered in electric power shock hazards? Explain. (15)