Chettinad College of Engineering & Technology
Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai.

Department of Electrical and Electronics Engineering

EE 8015 – Electric Energy Generation Utilization and Conservation

Unit V – MCQ Bank

1. Fuse is a piece of wire of a material with

(A) High melting point

(**B) Low melting point**

(C) Moderate melting point

(D) None of the above

Answer: (B)

2. Earthing is necessary to give protection against

(**A) Electric shock**

(B) Voltage fluctuation

(C) Overloading

(D) High temperature of the conductors

Answer: (A)

3. According to house wiring rules as per ISI specification, the switchboard should be fitted at a height of

(A) 0.5 m

(B) 1.5 m

(C) 2.5 m

(**D) 3.5 m**

Answer: (D)

4. Earth pit is filled with

(A) Aluminum and Iron

(B) Graphite and Silver

(C) Graphite and magnesium

(D) Salt and charcoal

Answer: (D)

5. Static UPS requires _____

(A) only rectifier

(B) only inverter

(**C) both inverter and rectifier**

(D) none of the mentioned

Answer: (C)

6. No discontinuity is observed in case of

(A) short break static UPS configuration

(B) long break static UPS configuration

(**C) no break static UPS configuration**

(D) rotating type UPS configuration

Answer: (C)

7. Usually _____ batteries are used in the UPS systems.

(A) NC

(B) Li-On

(**C) Lead acid**

(D) All of the mentioned

Answer: (C)

8. Which is the electrolyte used in Li-ion battery?

(A) Lead dioxide

(**B) Lithium-based gel**

(C) Sulfur dioxide

(D) Cobalt

Answer: (B)

9. Which is the material used to as anode in a lithium-ion battery?

(A) Brass foil coated with graphite

(**B) Aluminum foil coated with graphite**

(C) Copper foil coated with graphite

(D) Stainless steel coated with graphite

Answer: (B)

10. Which of the following is not a disadvantage of a lithium-ion battery?

(A) Complex to manufacture

(B) Sophisticated chargers

(C) More expensive

(**D) High energy density**

Answer: (D)

11.What is the range of specific energy in Watt-hour per kg in a lithium-ion battery?

(A) 0-50

(**B) 100-265**

(C) 50-60

(D) 60-100

Answer: (B)

12. What is the percentage of acid and water present in the electrolyte of a lead-acid battery in a fully charged condition?

(**A) 39% acid and 61% water**

(B) 45% acid and 65% water

(C) 30% acid and 70% water

(D) 25% acid and 75% water

Answer: (A)

13. Which of the following is the electrolyte used in a lead-acid battery?

(A) Nitric acid

(**B) Sulphuric acid**

(C) Lead-acid

(D) Hydrochloric acid

Answer: (B)

14.What is the total number of cells present in a 12-volt battery?

(A) 5

(**B) 6**

(C) 3

(D) 4

Answer: (B)

15.Which of the following decreases within turn decreases the charging rate?

(**A) Temperature**

(B) Pressure

(C) Enthalpy

(D) Entropy

Answer: (A)

16. Which of the following causes the corrosion of terminals and clamps?

(**A) Spilled electrolyte**

(B) Increase in temperature

(C) Decrease in pressure

(D) Due to high current

Answer: (A)

17. What are the total hours taken by the battery to charge completely?

(A) 5-7

(B) 7-10

(**C) 12-20**

(D) 20-25

Answer: (C)

18. Which of the following is the electrolyte used in a dry cell?

(**A) Ammonium chloride**

(B) Manganese dioxide

(C) Potassium hydroxide

(D) Sulphuric acid

Answer: (A)

19. Grounding transformer is used where neutral .....available

(A) Is

(**B) Is not**

(C) Either A or B

(D). None of the above

Answer: (B)

20.In equipment grounding, the enclosure is connected to .....wire

(**A) Ground**

(B) Neutral

(C) Phase

(D) Either A or B

Answer: (A)

21.Earthing is necessary to give protection against

(**A) Danger of electric shock**

(B) Voltage fluctuation

(C) Overloading

(D) High temperature of the conductors

Answer: (A)

22. In case of earth fault, the underground neutral system_____lead to arcing ground

(**A) Does**

(B) Does not

(C) Any of above

(D) None of above

Answer: (A)

23. The advantage of neutral earthing is

(A) Freedom from persistent arcing grounds

(B) Over voltages due to lightning can be discharged to earth

(C) Simplified design earth fault protection

(**D) All of the above**

Answer: (D)

24.The advantage of neutral earthing

(A) Safety of personnel

(B) Reduction of earth fault current

(**C) Elimination of arcing ground**

(D) None of the above

Answer: (C)

25. In a substation the equipment used to limit short circuit current level is

(**A) Series reactor**

(B) Coupling capacitor

(C) Lightening switch

(D) Isolator.

Answer: (A)

26. Solid grounding is adopted for voltages below

(A) 100 V

(B) 230 V

(C) 400 V

(**D) 600 V**

Answer: (D)

27.In a star connected system without neutral grounding, zero sequence currents are

(**A) Zero**

(B) Phaser sum of phase currents

(C) Same as RMS value of phase currents

(D) Same as peak value of phase currents

Answer: (A)

28. Grounding transformer is used where neutral_____available

(A) Is

(**B) Is not**

(C) Any of above

(D) None of above

Answer: (B)

29. The earthing rod orientation in the pit is

(**A) Horizontal**

(B) Vertical

(C) 45°

(D) 120°

Answer: (A)

30. Ground resistance value for sensitive installations is

(A) Less than 5 Ω

(B) More than 5 Ω

(C) Equal to 50 Ω

(D) Any of above

Answer: (A)