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 III – MCQ Bank

1. As compared to other methods of heating using gas and coal etc, electric heating is far superior because of its.

(A) cleanliness

(B) ease of control

(C) higher efficiency

(D) all of the above.

Answer: (D)

2.Magnetic materials are heated with the help of

(A) hysteresis loss

(B) electric arc

(C) electric current

(D) radiation.

Answer: (A)

3.In the indirect resistance heating method, heat is delivered to the charge

(A) direcly

(B) by radiation

(C) by convection

(D) both (b) and (c).

Answer: (D)

4. The main requirements of a good heating element used in a resistance furnaces are

(A) high resistivity

(B) high melting-temperature

(C) positive resistance-temperature coefficient

(D) all of the above.

Answer: (D)

5.Electric ovens using heating elements of..... can produce temperatures up to 3000°C

(A) nickel

(B) graphite

(C) chromium

(D) iron.

Answer: (B)

6.The temperature of resistance furnaces can be controlled by changing the

(A) applied voltage

(B) number of heating elements

(C) circuit configuration

(D) all of the above.

Answer: (D)

7.Which of the following heating method is based on the transformer principle ?

(A) resistance heating

(B) eddy-current heating

(C) induction heating

(D) dielectric heating.

Answer: (C)

8.When graphite electrodes are used in arc furnaces, the temperature obtained is in the range of degree centigrade.

(A)3000-3500

(B)2500-3000

(C)2000-2500

(D)1500-2000

Answer: (A)

9.Which of the following furnace suffers from pinch effect?

(A) resistance furnace

(B) core type induction furnace

(C) coreless induction furnace

(D) vertical core type induction furnace.

Answer: (B)

10.Which of the following induction furnace has the lowest power factor?

(A) vertical core type

(B) indirect core type

(C) coreless type

(D) core type.

Answer: (D)

11.The coreless induction furnace uses high-frequency electric supply in order to obtain high

(A) flux density

(B) eddy-current loss

(C) primary resistance

(D) power factor.

Answer: (B)

12. Spot welding is used for

(A) thin metal sheets

(B) rough and irregular surfaces

(C) costings only

(D) thick sections

Answer: (A)

13. Which of the following is an advantages of heating by electricity?

(A) Quicker operation

(B) Higher efficiency

(C) Absence of flue gases

(D) All of the above

Answer: (B)

14. ..... has the highest value of thermal conductivity.

(A) Copper

(B) Aluminium

(C) Brass

(D) Steel

Answer: (A)

15. Which of the following heating methods has maximum power factor?

(A) Arc heating

(B) Dielectric heating

(C) Induction heating

(d) Resistance heating

Answer: (D)

16..... method has leading power factor

(A) Resistance heating

(B) Dielectric heating

(C) Arc heating

(D) Induction heating

Answer: (B)

17. ..... is used for heating non-conducting meterials.

(A) Eddy current heating

(B) Arc heating

(C) Induction heating

(D) Dielectric heating

Answer: (D)

18. Which of the following methods of heating is not dependent on the frequency of supply?

(A) Induction heating

(B) Dielectric heating

(C) Electric resistance heating

(D) All of the above

Answer: (C)

19. When a body reflects entire radiation incident on it, then it is known as

(A) white body

(B) grey body

(C) black body

(D) transparent body

Answer: (A)

20. For the transmission of heat from one body to another

(A) temperature of the two bodies must be different

(B) both bodies must be solids

(C) both bodies must be in contact

(D) at least one of the bodies must have some source of heating

Answer: (A)

21. Heat transfer by condition will not occur when

(A) bodies are kept in vacuum

(B) bodies are immersed in water

(C) bodies are exposed to thermal radiations

(D) temperatures of the two bodies are identical

Answer: (D)

22. A perfect black body is one that

(A) transmits all incident radiations

(B) absorbs all incident radions

(C) reflects all incident radiations

(D) absorbs, reflects and transmits all incident radiations

Answer: (B)

23. Heat is transferred simultaneously by condition, convection and radiation

(A) inside boiler furnaces

(B) during melting of ice

(C) through the surface of the insulted pipe caring steam

(D) from refrigerator coils to freezer of a refrigerator

Answer: (A)

24.The process of heat transfer during the re-entry of satellites and missiles, at very high speeds, into earth's atmosphere is known as

(A) ablation

(B) radiation

(C) viscous dissipation

(D) irradiation

Answer: (A)

25. Which of the following has the highest value of thermal conductivity?

(A) Water

(B) Steam

(C) Solid ice

(D) Melting ice

Answer: (C)

26.The basic electrical requirement in arc welding is that there should be

(A) coated electrodes

(B) high open-circuit voltage

(C) no arc blow

(D) d.c. power supply.

Answer: (B)

27.Welding is not done directly from the supply mains because

(A) it is customary to use welding machines

(B) its voltage is too high

(C) its voltage keeps fluctuating

(D) it is impracticable to draw heavy currents.

Answer: (D)

28. A.C. welding machine cannot be used for welding

(A) MIG

(B) atomic hydrogen

(C) resistance

(D) submerged arc.

Answer: (A)

29. In electric welding, arc blow can be avoided by

(A) using bare electrodes

(B) welding away from earth ground connection

(C) using a.c. welding machines

(D) Increasing arc Length

Answer: (C)

30. The major disadvantage of carbon arc welding is that

(A) there is occurrence of blow holes

(B) electrodes are consumed fast

(C) separate filler rod is needed

(D) bare electrodes are necessary.

Answer: (A)