

Electrical Machine Design Objective Questions and Answers

1. With conventional hydrogen cooling it is possible to increase the rating of a single unit to
- 50 MW
 - 100 MW
 - 200 MW
 - none of the above

Ans: C

2. With direct water cooling it is possible to have ratings of about
- 200 MW
 - 300 MW
 - 400 MW
 - 600 MW

Ans: D

3. By which of the following methods motor rating for variable load drives can be determined?
- method of average losses
 - equivalent current method
 - equivalent torque method
 - equivalent power method
 - all of the above

Ans: E

4. The design of electromagnets is based upon which of the following fundamental equations?
- force equation
 - magnetic circuit equation
 - heating equation
 - voltage equation
 - all of the above

Ans: e

5. The distance between the starts of two consecutive coils measured in terms of coil sides is called
- front pitch
 - winding pitch
 - commutator pitch
 - Back pitch

Ans; B

6. Power transformers should be designed to have maximum efficiency
- at one fourth load
 - at one half load
 - at or near full load

d. any of the above

Ans: C

7. Multi-layer helical windings are commonly used in the transformers as high voltage windings

- a. upto 20 kV
- b. upto 50 kV
- c. upto 80 kV
- d. for 110 kV and above

Ans: D

8. The heat dissipating capability of transformers of ratings higher than 30 kVA is increased by providing which of the following?

- a. corrugations
- b. fins
- c. tubes
- d. radiator tanks
- e. all of the above

Ans: E

9. Transformers with a capacity of upto _____ have a cooling radiator system with natural cooling

- a. 2 MVA
- b. 5 MVA
- c. 7.5 MVA
- d. 10 MVA

Ans: D

10. The high voltage winding is usually which of the following type?

- a. cylindrical winding with circular conductors
- b. cross over winding with either circular or small rectangular conductors
- c. continuous disc type winding with rectangular conductors
- d. all of the above types

Ans: D