**WINTER 2022 QUESTIONS BANK**

**ENERGY CONVERSION-II**

**5TH SEM ELECTRICAL**

**2 MARK QUESTIONS**

1. Why rotor slots of an induction motor are skewed?
2. Write down the advantages of stationary armature of alternator?
3. What is plugging?
4. What do u mean by voltage regulation of an alternator?
5. What is damper bar or damper winding?
6. State the applications of synchronous motor.
7. Write down the uses of universal motor.
8. Define the step angle of a stepper motor.
9. What are the conditions required for parallel operation of 3 phase transformers?
10. Why parallel operation of an alternator is required?
11. What is hunting?
12. What is v and inverted v curves of synchronous motor?
13. What are the different vector groups of 3 phase transformer winding connections?
14. What do you mean by an infinite bus?
15. Which type of alternators is used in hydroelectric power plant and why?
16. What is he relation between electrical degrees and mechanical angle of an alternator?
17. State the different between coil pitch and pole pitch.
18. State pitch factor and distribution factor.
19. Why a starting winding is needed for a single-phase motor?
20. What is the difference between a power transformer and distribution transformer?
21. Write the applications of universal motor.
22. Why transformer rating is expressed in KVA?
23. What is voltage regulations?
24. What is slip of an induction motor?

**LONG QUESTION ANSWERE**

1. Derive the equation for distribution magnetic stepper motor.
2. Explain the working of permanent magnetic stepper motor.
3. Explain the double field revolving theory in single phase induction motor.
4. What are the advantages and conditions for parallel operations of three phase transformers?
5. Describe the speed-torque characteristic of three phase induction motor.
6. What is armature reaction in an alternator? Explain with phasor diagram the effects of generated voltage when load is (i) Resistive (ii) Pure inductive (iii) Pure capacitive
7. Explain the effects of change of excitations of a synchronous motor driving a constant load.
8. Explain the construction, working principle and applications of universal motor.
9. Explain working principle of 3 phase I.M.
10. Derive the condition for maximum torque of 3 phase I.M. under running condition,
11. Derive expression for distribution factor of an alternator.
12. Explain how 3 phase supply produces a rotating magnetic field.
13. Explain about armature reaction of alternator.
14. Explain how a synchronous motor acts as a synchronous condenser with the help of vector diagram.
15. Explain hunting of synchronous motor.
16. State and explain maintenance schedules of a power transformer.
17. Write in brief about the applications of synchronous motor.
18. Write in brief about field revolving theory?
19. Write in brief about principle of operation of shaded pole motor.
20. Write in brief about the total maintenance of 3 phase transformers.
21. With neat sketch explain the working of a repulsion motor.