

Industrial Drives

Important Question

Unit - 01

1Q:- What is an electric drive? Define the need of electric drive.

2Q:- Explain the working of an electric drive by using block diagram.

3Q:- How many types of DC motor? Explain any one of them in detail.

4Q:- Explain the construction and working of permanent magnet motor.

(6-Marks Question) **Polytechnic Academy Patna**

5Q:- Explain the working of series and shunt D.C motor with equivalent circuit diagram.

6Q:- What is an universal motor? Explain the construction and working of an universal motor.

7Q:- Explain the construction and working of DC servo motor.

8Q:- Why starters are used for starting of DC motor? Explain the working

(2)

of two point starter.

5Q:- What do you mean by braking? How many types of braking used in DC motor? Explain one of the braking method in details.

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Unit - 02

1Q:- Explain the construction features and principle of single phase induction motor.

2Q:- Describe the working principle of resistance split phase motor.

3Q:- Describe the working operation of single-phase induction motor using capacitor run motor.

4Q:- Explain the ^{construction} ~~working~~ of shaded pole motor.

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(6-Marks Question)

5Q:- Explain the construction and working of squirrel cage three phase induction motor.

6Q:- Why starters are used for starting of 3- ϕ induction motor? Write

(3)

the name of different type of starter for 3-phase induction motor and explain in brief any one of them.

70:- ~~What~~ What is the meaning of braking for three phase induction motor? Explain all-type of braking method in short.

Unit-03 (4+6 Marks)

10:- Explain the working of half-wave converter drive using neat circuit diagram.

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20:- Explain the circuit operation of full wave converter.

30:- Explain the circuit operation of three phase half wave converter drive.

40:- Explain the circuit operation of three phase full-wave converter drive.

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5Q:- Explain the speed control methods of DC series motor

Unit - 04 (4+6 Marks)

1Q:- What is the starting method of three-phase induction motor? Write the name of all type of starting method. **Polytechnic Academy Patna**

2Q:- Explain the stator voltage control to speed control of induction motor.

3Q:- How the speed of induction motor can controlled by changing the frequency.

4Q:- Explain the speed control method to ~~xxx~~ by rotor resistance control of induction motor.

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5Q:- Explain the slip power recovery scheme (SPRS) for speed control of induction motor.

Unit - 05

(4+6 Marks) (5)

1. Q!- Explain the function of micro-processor based control for drive.

2Q!- Explain the operation of phase locked loop control of DC motor

3Q!- Explain the function of synchronous motor drives.

4Q!- Explain the function of stepper motor drives.

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