



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35

Accredited by NBA-AICTE and Accredited by NAAC – UGC with A+ Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME: 16EE214 / ELECTRICAL MACHINES AND DRIVES

III YEAR / VI SEMESTER

UNIT 1- OVERVIEW OF ELECTRICAL DRIVE

Topic 7 - Classes of Duty



SUCCESSFUL STUDENT

Positive
Attitude

Professionally
Groomed

Socially
Interactive

Technically
Skillful



CLASSES OF MOTOR DUTY

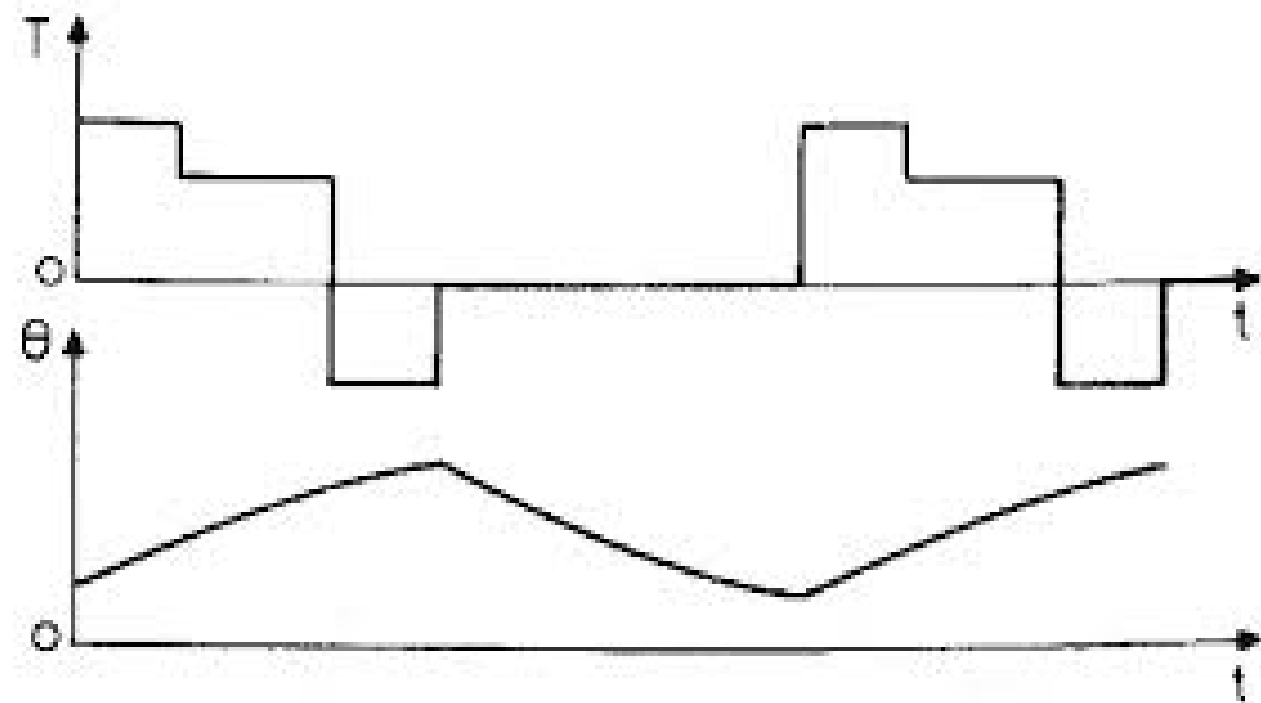


The various class of motor duties are

- Continuous duty
- Short time duty
- Intermittent periodic duty
- Intermittent periodic duty with starting
- Intermittent periodic duty with starting and braking
- Continuous duty with intermittent periodic loading
- Continuous duty with starting and braking
- Continuous duty with periodic speed changes



• Intermittent periodic duty with starting and braking



- Heat losses during starting and braking cannot be negligible
- It consists of a period of starting, a period of operation with constant load, a braking period with electrical braking and rest period



- **Continuous duty with intermittent periodic loading**

- In this, time of drive operation is considerably less than the heating time constant and machine is allowed to cool off to ambient temperature before the motor is operated again.



• Continuous duty with starting and braking

- This duty consists of a period of starting, running and electric braking. Here there is no period of rest.
- Example : Blooming mill

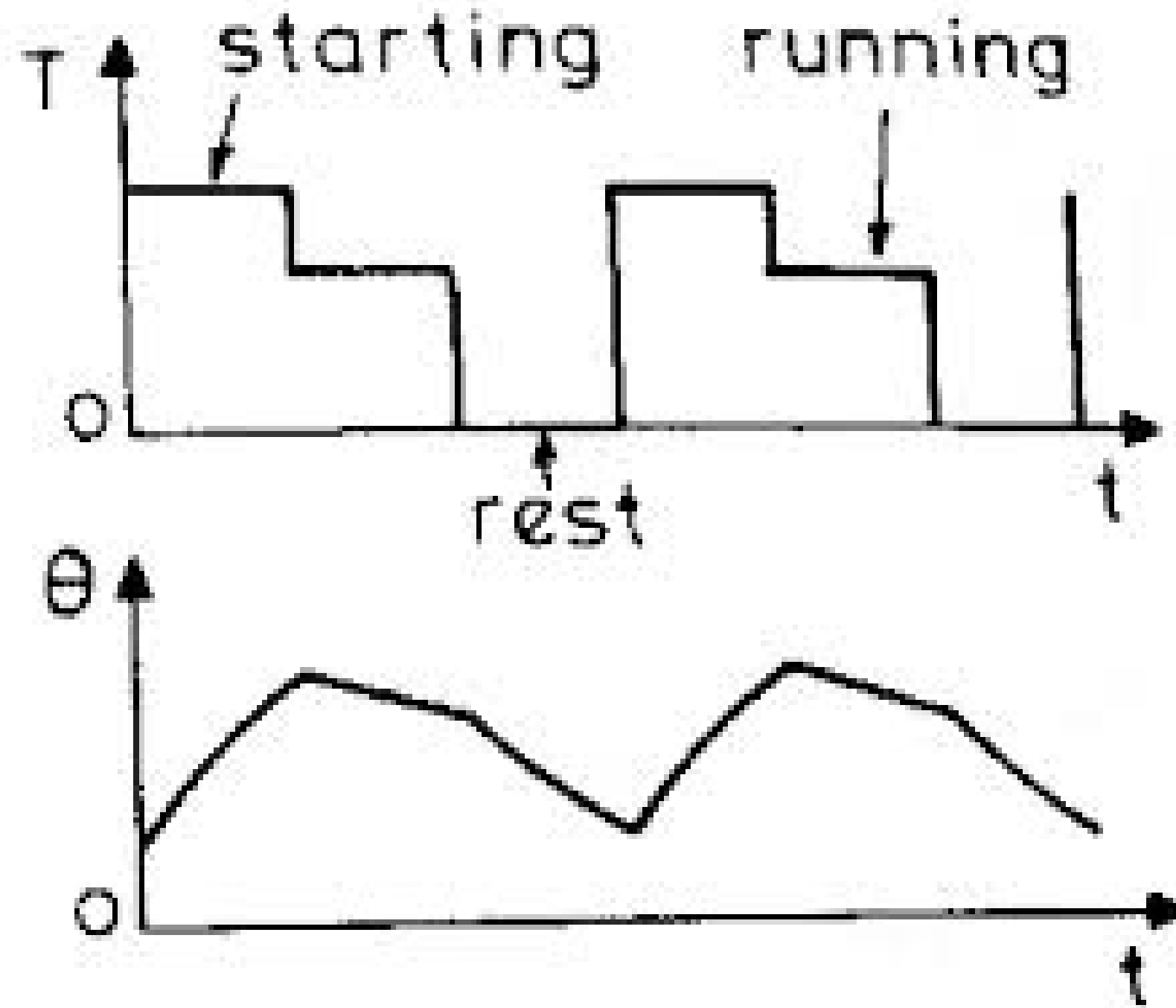




• Continuous duty with periodic speed changes

- This duty of a period of running at one load and speed, and another period of running at different speed and load again both operating periods are too short for respective steady-state temperatures to be attained.
- Here there is no period of rest.







ASSESSMENT



REFERENCE



- D.P.Kothari and I.J.Nagrath, “Basic Electrical Engineering”, Tata McGraw Hill publishing company ltd, second edition, 2007
- S.K.Pillai, “ A First Course on Electrical Drives” New age publishing Ltd, 1989. (UNIT I, IV,V)



THANK YOU!!