


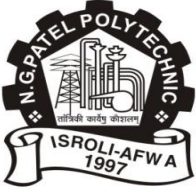



This document is a part of Main Course File		Document No.: CFM – 8
	<b>SARDAR VALLABHBHAI PATEL EDUCATION SOCIETY MANAGED</b> <b>N. G. PATEL POLYTECHNIC</b>	
	<b>ELECTRICAL ENGINEERING DEPARTMENT</b>	
<b>ASSIGNMENTS</b>		
<b>Course Name (With Code):</b> ELECTRICAL DRIVES (4360905)		
<b>Semester / Year:</b> Sixth/Third		
<b>Assignment Number:</b> 1		
<b>Assignment CO Number:</b> 4360905.1		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	Explain Electric Drive with block diagram?	
2	Explain factors affecting the selection of electrical drives.	
3	Explain heating and cooling curve for finding temperature rise in a drive.	
4	Compare AC and DC drives.	
5	Explain motor duty class.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	Explain factors influencing choice of electric drive?	
2	Explain continuous, short time, intermittent periodic with industry relevant example.	
3	Give the difference between a.c drive and d.c. drive	
4	Explain selection of electric drive for applications: agricultural pumps, steel mills.	
5	Explain selection of electric drive for applications: paper mills, rolling mills, spinning mills.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	Explain classes of motor duty?	
2	What is an Electrical drive? Draw the block diagram of Electrical drives and Explain it. Also discuss its advantages and disadvantages	
3	Write the brief note on the source employed in electrical drives	
Mr. Rakesh. H. Maisuriya:		Mr.Nilesh P.Prajapati
<b>Prepared By: (Name of Faculty (ies)) with signature</b>		<b>Signature of Head of Department</b>

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<b>ASSIGNMENTS</b>		
<b>Course Name (With Code):</b> ELECTRICAL DRIVES (4360905)		
<b>Semester / Year:</b> Sixth/Third		
<b>Assignment Number:</b> 2		
<b>Assignment CO Number:</b> 4360905.2		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	Write types of braking. Explain regenerative braking?	
2	Describe the dynamics method of electrical drives.	
3	Briefly describe the plugging.	
4	Explain steady state load Torque speed characteristics.	
5	Describe the basic concept of various control loops used in electrical drives.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	Explain multi quadrant operation of electric drive?	
2	List of close loop control of electrical drive and explain any one.	
3	Briefly describe regenerative braking.	
4	Explain Current limit control and Close loop torque control	
5	Explain Close loop speed control and Close loop speed control of multi motor drive	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	Enlist close loop control of drive. Explain classes any two?	
2	Explain operation of electrical drive in all four quadrants.	
3	Explain V/F speed control method of 3 phase induction motor.	
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<b>ASSIGNMENTS</b>		
<b>Course Name (With Code):</b> ELECTRICAL DRIVES (4360905)		
<b>Semester / Year:</b> Sixth/Third		
<b>Assignment Number:</b> 3		
<b>Assignment CO Number:</b> 4360905.3		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	What is DC drive? Discuss DC-DC converter fed drive?	
2	Give the different method of speed control of d.c motor and explain any one	
3	Explain Solid state speed control of single phase DC drive with half wave converter.	
4	Explain Solid state speed control of single phase DC drive with full wave converter.	
5	Explain Solid state speed control of single phase DC drive with semi converter.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	Enlist solid state speed control of DC drive. Explain Dual converter?	
2	Write and explain methods of speed control of DC motor.	
3	Compare current source inverter and voltage source inverter.	
4	Write Advantages and disadvantages of d.c drives.	
5	Explain Solid state speed control of single phase DC drive with Dual converter.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	Describe the speed control of chopper controlled DC drive.	
2	Explain any one method for solid state speed control of 3-phase DC drive.	
3	Explain any one method for solid state speed control of 1-phase DC drive.	
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<b>ASSIGNMENTS</b>		
<b>Course Name (With Code): ELECTRICAL DRIVES (4360905)</b>		
<b>Semester / Year: Sixth/Third</b>		
<b>Assignment Number: 4</b>		
<b>Assignment CO Number:4360905.4</b>		
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>	
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>	
1	Explain soft starter for Induction motor.	
2	Write the application of electrical drive.	
3	Advantages and disadvantages of a.c drives	
4	Explain basic principle of 3 phase induction motor drive.	
5	Enlist speed control methods of a 3-phase induction motor.	
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>	
1	Explain speed control of IM using DIAC and TRIAC.	
2	Explain static Kramer drive for induction motor	
3	Explain any one method for solid state speed control of 3-phase drive	
4	Explain Stator voltage control of 3 phase AC voltage controller.	
5	Explain Speed Control of motor using PLC.	
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>	
1	Explain slip recovery scheme using static Kramer drive.	
2	Why are used voltage source inverters (VSI) in induction motor control?	
3	Explain the static rotor resistance control for induction motor	
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<b>Course Name (With Code): ELECTRICAL DRIVES (4360905)</b>			
<b>Semester / Year: Sixth/Third</b>			
<b>Assignment Number: 5</b>			
<b>Assignment CO Number:4360905.5</b>			
<b>Sr. No.</b>	<b>Questions related to Course Outcomes</b>		
<b>Part – A</b>	<b>Questions carrying 3 Marks</b>		
1	Explain working of brushless DC motor.		
2	Explain construction working of Stepper motor Drive		
3	Write advantage and disadvantage of stepper motor.		
4	Write applications of servo Motor drive.		
5	Enlist various advance electrical machines drives.		
<b>Part – B</b>	<b>Questions carrying 4 Marks</b>		
1	Explain servo motor drive.		
2	Discuss Drive for switched reluctance motor.		
3	Explain the D.C. drive chopper control for electrical vehicle.		
4	Explain Servo Motor drive.		
5	Explain the working of solar powered pump drives.		
<b>Part – C</b>	<b>Questions carrying 7 Marks</b>		
1	Explain DC drives with chopper control for electrical vehicle.		
2	Explain the working of battery powered electrical vehicles		
3	Describe the list of various advance electrical machine drives and explain any one.		
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