

**PART A: - PROCESS OF CURRICULUM DEVELOPMENT**

**LIST OF IDENTIFIED PROFESSIONAL ROLES**

1. To apply knowledge of mathematics, science, and engineering.
2. To design and conduct experiments, as well as to analyze and interpret data.
3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
4. To function on multidisciplinary teams.
5. To identify, formulate, and solve engineering problems.
6. To understand professional and ethical responsibility.
7. To communicate effectively.
8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.
9. To engage in lifelong learning.
10. To use the techniques, skills, and modern engineering tools necessary for engineering practice.

## LIST OF SELECTED TERMINAL BEHAVIORS

1. To apply knowledge of mathematics, science, and engineering.  
TB-1 To understand principle and application of Unconventional Machining. (501)
2. To design and conduct experiments, as well as to analyze and interpret data. NIL
3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. NIL
4. To function on multidisciplinary teams. NIL
5. To identify, formulate, and solve engineering problems NIL
6. To understand professional and ethical responsibility  
NIL
7. To communicate effectively NIL
8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.  
NIL
9. To engage in lifelong learning  
  
TB-1 To perform grinding on Grinding Machine. (501)  
TB-2 To perform thread cutting on Lathe Machine. (501)  
TB-3 To perform thread cutting by Dies and Taps. (501)
10. To use the techniques, skills, and modern engineering tools necessary for engineering practice.  
NIL

## FRAMED COs FOR SELECTED TERMINAL BEHAVIORS

1. To apply knowledge of mathematics, science, and engineering.  
TB-1 To understand principle and application of Unconventional Machining. (501)  
C03: Describe the importance and types of unconventional machining processes. (501)
2. To design and conduct experiments, as well as to analyze and interpret data.  
NIL
3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.  
NIL
4. To function on multidisciplinary teams.  
NIL
5. To identify, formulate, and solve engineering problems  
NIL
6. To understand professional and ethical responsibility  
NIL
7. To communicate effectively  
NIL
8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.  
NIL
9. To engage in lifelong learning  
TB-1 : To perform grinding on Grinding Machine. (501)  
C0-4 : Explain the types of surface finishing processes. (501)  
TB-2 : To perform thread cutting on Lathe Machine. (501)  
C0-5 : Explain the thread and gear manufacturing methods. (501)  
TB-3 : To perform thread cutting by Dies and Taps. (501)  
C0-5 : Explain the thread and gear manufacturing methods. (501)
10. To use the techniques, skills, and modern engineering tools necessary for engineering practice.  
NIL

## **CO GROUPING AND COURSE FORMATION**

**COURSE NAME: - PRODUCTION TECHNOLOGY II (501)**

(Total 100 Hrs., Total 100 Marks)

### **LIST OF COs: -**

CO1: Demonstrate understanding of the mass production techniques. (20 Hrs., 20 marks)

CO2: Describe the press working operations. (20 Hrs., 20 marks)

CO3: Describe the importance and types of unconventional machining processes. (20 Hrs, 20 marks)

CO4: Explain the types of surface finishing processes. (20 Hrs., 20 marks)

CO5: Explain the thread and gear manufacturing processes. (20 Hrs., 20 marks)

## LOs FORMATION

**COURSE NAME: - PRODUCTION TECHNOLOGY II (501)**  
**(Total 100 Hrs., Total 100 Marks)**

### List of COs and Los

**CO1: Demonstrate understanding of the mass production techniques.** (20 Hrs, 20 marks)

LO1: To explain the working of Capstan and Turret lathes. (10 Hrs., 10 Marks)

LO2: To understand need and application of Jigs and Fixtures in mass production. (10 Hrs., 10 Marks)

**CO2: Describe the press working operations.** (20 Hrs, 20 marks)

LO1: To understand press working terminologies. (05 Hrs., 05 Marks)

LO2: To explain different types of Press working operations. (15 Hrs., 15 Marks)

**CO3: Describe the importance and types of unconventional machining processes** (20 Hrs, 20 marks)

LO1: To know the need, application and classification of unconventional machining processes (05 Hrs, 05 Marks)

LO2: To explain different types of unconventional machining processes. (15 Hrs., 15 Marks)

**CO4: Explain the types of surface finishing processes.** (20 Hrs, 20 marks)

LO1: To know about the grinding process. (10 Hrs., 10 Marks)

LO2: To explain different types of surface finishing processes. (10 Hrs., 10 Marks)

**CO5: Explain the thread and gear manufacturing processes.** (20 Hrs, 20 marks)

LO1: To explain different types of thread manufacturing processes. (10 Hrs., 10 Marks)

LO2: To explain different types of gear manufacturing processes. (10 Hrs., 10 Marks)

## PART B: - CURRICULUM OF PRODUCTION ENGINEERING

RGPV (Diploma Wing) Bhopal			COURSE PLAN			Format -2		Sheet No. 1/1		
Course Name		<b>PRODUCTION TECHNOLOGY II</b>				Semester		FIFTH		
Branch	PRODUCTION ENGINEERING		Course Code	<b>501</b>	No. of CO's	05	No. of LO's	10		
Total Hrs. of Teaching Learning	100	Total Marks	100	Total no. of Assessments		Types of Assessments		No. of External Assessments		
DESCRIPTION OF OUTCOMES								T-L Hrs.	Max. Marks	
CO 01	P055011	<b>Demonstrate understanding of the mass production techniques.</b>					20	20		
Los	P0550111	To explain the working of Capstan and Turret lathes.					10	10		
	P0550112	To understand need and application of Jigs and Fixtures in mass production.					10	10		
CO 02	P055012	<b>Describe the press working operations.</b>					20	20		
Los	P0550121	To understand press working terminologies.					05	05		
	P0550122	To explain different types of Press working operations.					15	15		
CO 03	P055013	<b>Describe the importance and types of unconventional machining processes</b>					20	20		
Los	P0550131	To know the need, application and classification of unconventional machining processes					05	05		
	P0550132	To explain different types of unconventional machining processes.					15	15		
CO 04	P055014	<b>Explain the types of surface finishing processes</b>					20	20		
Los	P0550141	To know about the grinding process					10	10		
	P0550142	To explain different types of surface finishing processes					10	10		
CO 05	P055015	<b>Explain the thread and gear manufacturing processes</b>					20	20		
Los	P0550151	To explain different types of thread manufacturing processes.					10	10		
	P0550152	To explain different types of gear manufacturing processes.					10	10		

RGPV (DIPLOMA WING) BHOPAL		OCB CURRICULUM FOR THE COURSE		FORMAT- 3	Sheet No. 1/2
Branch	PRODUCTION ENGINEERING		Semester	FIFTH	
Course Code	501	Course Name	PRODUCTION TECHNOLOGY II		
Course Outcome 1	<b>Demonstrate understanding of the mass production techniques.</b>			Teach Hrs	Marks
Learning Outcome 1	<b>To explain the working of Capstan and Turret lathes.</b>			10	10
CONTENT	Introduction, Difference between Center Lathe and capstan/turret lathe, Difference between capstan lathe and turret lathe, Block diagram and parts of capstan lathe and turret lathe, work holding devices, capstan & turret lathe operations, Bar feeding Mechanism, Turret indexing Mechanism, Turret tooling layout				
Method of Assessment	Paper pen test/ Practical assessment				
Learning Outcome 2	<b>To understand need and application of Jigs and Fixtures in mass production.</b>			10	10
CONTENT	Introduction, Difference between Jig & fixture, Uses of jigs and Fixtures, Design Principles of Jigs & Fixtures, Principle of Location, Methods of location, Jig & Fixture construction				
Method of Assessment	Paper pen test/ Practical assessment				
Course Outcome 2	<b>Describe the press working operations.</b>			Teach Hrs	Marks
Learning Outcome 1	<b>To understand press working terminologies.</b>			05	05
CONTENT	Introduction, Application, Types of presses, Press working terminologies				
Method of Assessment	Paper pen test				
Learning Outcome 2	<b>To explain different types of Press working Operations.</b>			15	15
CONTENT	Press tools, Selection of press, Press working operations, Types of dies, Deep drawing, Spring back				
Method of Assessment	Paper pen test				
Course Outcome 3	<b>Describe the importance and types of unconventional machining processes</b>			Teach Hrs	Marks
Learning Outcome 1	<b>To know the need, application and classification of unconventional machining processes</b>			05	05
CONTENT	Introduction, need, uses and classification of unconventional machining processes				
Method of Assessment	Paper pen test				

RGPV (DIPLOMA WING) BHOPAL		OCB CURRICULUM FOR THE COURSE		FORMAT- 3	Sheet No. 2/2
Branch	PRODUCTION ENGINEERING		Semester	FIFTH	
Course Code	501	Course Name	PRODUCTION TECHNOLOGY II		
Learning Outcome 2	<b>To explain different types of unconventional machining processes.</b>			15	15
CONTENT	Abrasive Jet Machining, Ultra Sonic Machining, Electro Chemical Machining, Electro Chemical Grinding, Electro Discharge Machining, Electron Beam Machining, Plasma Arc Machining, Laser Beam Machining, Ion Beam Machining				
Method of Assessment	Paper pen test				
<b>Course Outcome 4</b>	<b>Explain the types of surface finishing processes</b>			Teach Hrs	Marks
Learning Outcome 1	<b>To know about the grinding process</b>			10	10
CONTENT	Introduction, Types of Grinding, Types of Abrasives and Bonds, Selection of grinding wheels, Standard marking system for grinding wheels, Grinding machines, Wheel shapes & sizes, Glazing, Loading, Dressing, Truing and Balancing of grinding wheels				
Method of Assessment	Paper pen test/ Practical assessment				
Learning Outcome 2	<b>To explain different types of surface finishing processes</b>			10	10
CONTENT	Introduction, Lapping, Honing, Super-finishing, Polishing, Buffing, Hot dipping Electroplating, Galvanizing, Metal spraying				
Method of Assessment	Paper pen test				
<b>Course Outcome 5</b>	<b>Explain the thread and gear manufacturing processes</b>			Teach Hrs	Marks
Learning Outcome 1	<b>To explain different types of thread manufacturing processes.</b>			10	10
CONTENT	Thread Manufacturing methods, Thread milling, Thread rolling, Thread grinding, Thread cutting on lathe and capstan/turret lathe				
Method of Assessment	Paper pen test/ Practical assessment				
Learning Outcome 2	<b>To explain different types of gear manufacturing processes.</b>			10	10
CONTENT	Gear Manufacturing methods, Gear generating processes, Gear forming processes, Gear Milling, Gear shaping, Gear cutting by rack cutters, Gear Hobbing, Gear Broaching, Gear Finishing Processes				
Method of Assessment	Paper pen test				

CO1:LO1

RGPV (Diploma Wing) Bhopal	SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 01	LO Code 01	Format No. 4
COURSE NAME	PRODUCTION TECHNOLOGY II						
CO Description	Demonstrate understanding of the mass production techniques.						
LO Description	To explain the working of Capstan and Turret lathes.						
SCHEME OF STUDY							
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
1	Introduction, Difference between Center Lathe and capstan/turret lathe, Difference between capstan lathe and turret lathe, Block diagram and parts of capstan lathe and turret lathe, work holding devices, capstan & turret lathe operations, Bar feeding Mechanism, Turret indexing Mechanism, Turret tooling layout	Traditional Lecture method + Practical (Machine Shop)	Teacher will explain the contents. Teacher will conduct Progressive test/ give Assignment.	08	02	Handout, Book, Machine Shop	
SCHEME OF ASSESSMENT							
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal		
1	Paper pen test/ Practical assessment	For the given learning content, Students write answer of questions and face Practical Viva	10	Progressive test/End semester exam/ Practical file	Internal /External		
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)							
List of Practical							
<ul style="list-style-type: none"> <li>Planning of Tool Layout and job machining on turret/capstan lathe</li> </ul>							

CO1:LO2

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 01	LO Code 02	Format No. 4
COURSE NAME		PRODUCTION TECHNOLOGY II						
CO Description		Demonstrate understanding of the mass production techniques.						
LO Description		To understand need and application of Jigs and Fixtures in mass production						
SCHEME OF STUDY								
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks	
1	Introduction, Difference between Jig & fixture, Uses of jigs and Fixtures, Design Principles of Jigs & Fixtures, Principle of Location, Methods of location, Jig & Fixture construction	Traditional Lecture method + Practical (Machine Shop)	Teacher will explain the content. Teacher will conduct Progressive test/quiz so that students explain jigs/fixtures	08	02	Handout, Book, Machine Shop		
SCHEME OF ASSESSMENT								
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal			
1	Paper pen test/ Practical assessment	For the given learning content, Students write answer of questions and face Practical Viva	10	Progressive test/ End semester exam/ Practical file	Internal /External			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)								
List of Practical								
<ul style="list-style-type: none"> <li>Design and sketch a fixture for a given job</li> </ul>								

## CO2: LO1

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 02	LO Code 01	Format No. 4
COURSE NAME		PRODUCTION TECHNOLOGY II						
CO Description		Describe the press working operations.						
LO Description		To understand press working terminologies.						
SCHEME OF STUDY								
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LR s Requi red	Remarks	
1	Introduction, Application, Types of presses, Press working terminologies	Traditional Lecture method + Assignment	Teacher will explain the content to students. Teacher will conduct Progressive test/give assignment so that students will know about presses	05	-	Hand out, Book		
SCHEME OF ASSESSMENT								
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal			
1	Paper pen test	For the given learning content, Students write answer of questions.	05	Progressive Test paper/ End semester exam	Internal /External			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)								

CO2: LO2

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 02	LO Code 02	Format No. 4
COURSE NAME		PRODUCTION TECHNOLOGY II						
CO Description		Describe the press working operations.						
LO Description		To explain different types of Press working Operations.						
SCHEME OF STUDY								
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks	
1	Press tools, Selection of press, Press working operations, Types of dies, Deep drawing, Spring back	Traditional Lecture method + Assignment	Teacher will explain the content to students. Teacher will conduct Progressive test/give assignment so that students will know about press tools and dies.	15	-	Handout, Book		
SCHEME OF ASSESSMENT								
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal			
1	Paper pen test	For the given learning content, Students write answer of questions.	15	Progressive Test paper/ End semester exam	Internal /External			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)								

CO3:LO1

RGPV (Diploma Wing) Bhopal	SCHEME FOR LEARNING OUTCOME	Branch Code P05	Course Code 501	CO Code 03	LO Code 01	Format No. 4	
COURSE NAME	PRODUCTION TECHNOLOGY II						
CO Description	Describe the importance and types of unconventional machining processes						
LO Description	To know the need, application and classification of unconventional machining processes						
SCHEME OF STUDY							
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks
1	Introduction, need, uses and classification of unconventional machining processes	Traditional Lecture method + assignment	Teacher will explain the contents and provide handout to students. Teacher will conduct Progressive test/assignment so that students know about unconventional machining processes	5	-	Handout, Book	
SCHEME OF ASSESSMENT							
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal		
1	Paper pen test	For the given learning content, Students write answer of questions.	5	Progressive Test paper/ End semester exam	Internal /External		
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)							

CO3:LO2

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 03	LO Code 02	Format No. 4
COURSE NAME		PRODUCTION TECHNOLOGY II						
CO Description		Describe the importance and types of unconventional machining processes						
LO Description		To explain different types of unconventional machining processes.						
SCHEME OF STUDY								
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks	
1	Abrasive Jet Machining, Ultra Sonic Machining, Electro Chemical Machining, Electro Chemical Grinding, Electro Discharge Machining, Electron Beam Machining, Plasma Arc Machining, Laser Beam Machining, Ion Beam Machining	Traditional Lecture method + Assignment	Teacher will explain the contents to students. Teacher will conduct Progressive test/quiz so that students know about various unconventional machining processes	15	-	Handout, Book		
SCHEME OF ASSESSMENT								
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal			
1	Paper pen test	For the given learning content, Students write answer of questions.	15	Progressive Test paper/ End semester exam	Internal /External			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)								

CO4:LO1

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 04	LO Code 01	Format No. 4
COURSE NAME		PRODUCTION TECHNOLOGY II						
CO Description		Explain the types of surface finishing processes						
LO Description		To know about the grinding process						
SCHEME OF STUDY								
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Tea ch Hrs	Pract./ Tut Hrs.	LRs Required	Remarks	
1	Introduction, Types of Grinding, Types of Abrasives and Bonds, Selection of grinding wheels, Standard marking system for grinding wheels, Grinding machines, Wheel shapes & sizes, Glazing, Loading, Dressing, Truing and Balancing of grinding wheels	Traditional Lecture method + Practical (Machine Shop)	Teacher will explain the contents to students. The students will learn about the grinding process	08	02	Handout, Book, Machine Shop		
SCHEME OF ASSESSMENT								
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resour ces Requir ed	External / Internal			
1	Paper pen test/ Practical assessment	For the given learning content, Students write answer of questions and face Practical Viva	10	Practical file/End semester exam	Internal /External			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)								
List of Practical								
<ul style="list-style-type: none"> <li>Practice of Cylindrical grinding on Grinding Machine</li> </ul>								

CO4:LO2

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 04	LO Code 02	Format No. 4
COURSE NAME		PRODUCTION TECHNOLOGY II						
CO Description		Explain the types of surface finishing processes						
LO Description		To explain different types of surface finishing processes						
SCHEME OF STUDY								
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks	
1	Introduction, Lapping, Honing, Super-finishing, Polishing, Buffing, Hot dipping Electroplating, Galvanizing, Metal spraying	Traditional Lecture method	Teacher will explain the contents to students. The students will learn about the various surface finishing processes	10		Handout, Book		
SCHEME OF ASSESSMENT								
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal			
1	Paper pen test	For the given learning content, Students write answer of questions and face Practical Viva	10	Progressive Test paper/ End semester exam	Internal /External			
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)								

CO5:LO1

RGPV (Diploma Wing) Bhopal	SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 05	LO Code 01	Format No. 4
COURSE NAME	PRODUCTION TECHNOLOGY II						
CO Description	Explain the thread and gear manufacturing processes						
LO Description	To explain different types of thread manufacturing processes.						
SCHEME OF STUDY							
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks
1	Thread Manufacturing methods, Thread milling, Thread rolling, Thread grinding, Thread cutting on lathe and capstan/turret lathe	Traditional Lecture method + Assignment + Quiz + Practical (Machine Shop)	Teacher will explain the contents to students. Students will learn about various thread manufacturing processes	08	02	Handout, Book, Machine Shop	
SCHEME OF ASSESSMENT							
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal		
1	Paper pen test/ Practical assessment	For the given learning content, Students write answer of questions,	10	Practical file /Assignment / End semester exam	Internal /External		
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)							
<b>List of Practicals</b> <ul style="list-style-type: none"> <li>• Practice of Thread Cutting on Lathe Machine</li> <li>• Practice of Thread Cutting by Dies and Taps</li> </ul>							

CO5:LO2

RGPV (Diploma Wing) Bhopal	SCHEME FOR LEARNING OUTCOME		Branch Code P05	Course Code 501	CO Code 05	LO Code 02	Format No. 4
COURSE NAME	PRODUCTION TECHNOLOGY II						
CO Description	Explain the thread and gear manufacturing processes						
LO Description	To explain different types of gear manufacturing processes.						
SCHEME OF STUDY							
S. No.	Learning Content	Teaching– Learning Method	Description of T-L Process	Teach Hrs.	Pract./ Tut Hrs.	LRs Required	Remarks
1	Gear Manufacturing methods, Gear generating processes, Gear forming processes, Gear Milling, Gear shaping, Gear cutting by rack cutters, Gear Hobbing, Gear Broaching, Gear Finishing Processes	Traditional Lecture method	Teacher will explain the contents to students. Students will learn about various Gear manufacturing processes	10	--	Handout, Book	
SCHEME OF ASSESSMENT							
S. No	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal		
1	Paper pen test	For the given learning content, Students write answer of questions and face Practical Viva	10	Progressive Test paper/ End semester exam	Internal / External		
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)							

## Reference Books:

- 1 Workshop Technology Vol. I & II by Hajra & Chaudhary
- 2 Production Technology by R. K. Jain (Khanna Publishers, Delhi).
- 3 Machine Tool Shilp Vigyan (Hindi) by P N Vijayvargiya (Deepak Prakashan, Morar Gwalior)
- 4 Workshop Technology Vol. I and II by B. S. Raghuvanshi (Dhanpat Rai & Sons)
- 5 Manufacturing Technology by P. N. Rao (TMH).
- 6 Production Technology – HMT Handbook (HMT)
- 7 Workshop Technology Vol. II by Bawa H. S. (TMH).
- 8 Manufacturing Science and Technology Vol. I & II. by Suresh Dalela (Umesh Publication).
- 9 Production Technology by Jain Gupta, (Khanna Publishers, New Delhi)
- 10 Manufacturing Processes by Begeman Amstead, (Wiley.)
- 11 Workshop Technology Vol. I, II and III by W.A.J. Chapman, (ELBS)
- 12 Manufacturing Processes & Systems by Phillip F. Ostwald & Jairo Minoz (John Willey & Sons.)
- 13 Manufacturing Processes by Rusinoff, (Tata McGraw Hill Publishing Co. Ltd.)
- 14 Advanced Manufacturing Technology by Kalpakjian (Addison Wesley)