

**BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT**

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code 

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Fifth Semester B.E. Degree Examinations, April/May 2024

**PRODUCTION TECHNOLOGY-II**

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions choosing ONE full Question from each Module.  
2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO:PI)</u>
<b><u>Module-1</u></b>			
1.	a. Sketch and explain the single point cutting tool nomenclature.	08	(2 :1:1.6.1)
	b. Distinguish between orthogonal cutting and oblique cutting process.	12	(2 :1:1.6.1)
<b>(OR)</b>			
2.	a. Derive the Merchant circle diagram for orthogonal cutting.	12	(2 :1:1.6.1)
	b. Explain the (any three) cutting tool materials and their applications.	08	(2 :1:1.6.1)
<b><u>Module-2</u></b>			
3.	a. Sketch and explain the operations carried out on lathe.	10	(2 :2:1.6.1)
	b. Sketch and explain the working principle of horizontal milling machine.	10	(2 :2:1.6.1)
<b>(OR)</b>			
4.	a. Sketch and explain the up milling and down milling methods.	08	(2 :2:1.6.1)
	b. Define indexing. Explain any one type of indexing methods.	12	(2 :2:1.6.1)
<b><u>Module-3</u></b>			
5.	a. Explain the effect of process parameters on tool life.	10	(2 :3:1.6.1)
	b. What is machinability index? Discuss the factors affecting machinability.	10	(2 :3:1.6.1)
<b>(OR)</b>			
6.	a. Define tool wear? Discuss the various types of tool wear.	10	(2 :3:1.6.1)
	b. What you mean by tool life? Describe Taylor's tool life equation.	10	(2 :3:1.6.1)
<b><u>Module-4</u></b>			
7.	a. With neat sketch explain cylindrical grinding process.	10	(2 :4:1.6.1)
	b. Write a short note on types of abrasives, honing and lapping.	10	(2 :4:1.6.1)
<b>(OR)</b>			
8.	a. With neat sketch explain electroplating process for coating.	10	(2 :4:1.6.1)
	b. Explain galvanizing process for coating the surface with neat sketch.	10	(2 :4:1.6.1)
<b><u>Module-5</u></b>			
9.	a. What is smart manufacturing? Discuss the future scope of smart	05	(2 :5:1.6.1)
	b. Sketch and explain the stereo-lithography.	10	(2 :5:1.6.1)
	c. Distinguish between jigs and fixtures.	05	(2 :5:1.6.1)
<b>(OR)</b>			
10	a. Explain the generic process of the additive manufacturing.	08	(2 :5:1.6.1)
	b. Discuss the benefits and applications of additive manufacturing.	06	(2 :5:1.6.1)
	c. Distinguish between CNC and Additive manufacturing process.	06	(2 :5:1.6.1)

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