S	eat No.:	: Enrolment No		
		GUJARAT TECHNOLOGICAL UNIVERSITY		
C	1. •4	BE - SEMESTER-III(OLD) • EXAMINATION – WINTER 2016	-	
	•	Code:130903 Date:11/01/2017	/	
	-	Name:Electrical and Electronics Measuring Instruments		
		2:30 AM to 01:00 PM Total Marks: 7	U	
lī	nstruction 1			
	1. 2.	Attempt all questions.  Make suitable assumptions wherever necessary.		
	3.	Figures to the right indicate full marks.		
<b>Q.1</b>	(a)	With the help of figure explain "Taper turning by setting over compound slide	07	
	<b>(b)</b>	method".  Explain functions of basic parts of Lathe machine with neat sketch.	07	
$\alpha$	(a)	Describe various types of chucks used on lathe machine	07	
Q.2	(a) (b)	By drawing neat sketches explain following operations which are performed	07	
	(D)	On drilling machine: (1) Counter boring (2) Counter sinking (3) Spot-facing (4) Trepanning	U /	
		OR		
	<b>(b)</b>	Classify machine tools in detail. Explain types of motions in machine tools with example.	07	
Q.3	(a)	Discuss and differentiate Up milling and Down milling process.	07	
	<b>(b)</b>	Enlist different types of milling cutters. Explain any three with neat sketch.	07	
		OR		
Q.3	(a)	Draw a neat sketch of a Radial Drilling machine and discuss the important parts briefly. Also describe advantages, limitations and applications of Radial Drilling machine.	07	
	<b>(b)</b>	Classify Milling machine. Explain principal parts of Column and Knee type Horizontal Milling machine with neat sketch.	07	
Q.4	(a)	Explain principal parts of standard Planner with neat sketch. Also describe	07	
	<b>(b)</b>	various differences between Planner and Shaper.  Explain with neat sketch quick return mechanism of a Shaper machine.	07	
		OR		
Q.4	(a) (b)	Write advantages, limitations and applications of "Broaching-Machines".  Discuss Slotted disc mechanism in Slotting Machine	07 07	
Q.5	(a)	Explain following terminology of grinding wheel with suitable examples.  i. Grit material  ii. Grit Size  iii. Bond grade  iv. Structure of the wheel  v. Bond material	07	
	<b>(b)</b>	Describe Centre Less Grinding process with standard work feeding methods.	07	

## OR

Q.5	<b>(a)</b>	Explain in brief various alignment tests carried out on Lathe-Machine to	07
		Check accuracy level specified by the supplier.	
	<b>(b)</b>	With the help of neat sketch explain the "Jig Boring Machine"	07

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