

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III (New) EXAMINATION – WINTER 2018

Subject Code: 2132501**Date: 28/11/2018****Subject Name: Machining Processes****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks

	MARKS
Q.1 (a) Differentiate between machine and machine tool.	03
(b) Give the function of bed, head stock, tail stock and tool post in lathe machine.	04
(c) Enlist thread cutting and drilling operation on drilling machine with neat sketch.	07
Q.2 (a) Explain the working motion in shaper and grinding machine.	03
(b) Enlist the accessories of lathe machine and give the function of Lathe Centers, rests.	04
(c) Differentiate between capstan and turret lathe.	07
OR	
(c) A taper pin of length 90 mm has a taper of 62 mm. The larger diameter is 95 mm and the smaller diameter is 85 mm. Determine (i) taper in mm/meter and in degree (ii) the angle to which the compound rest should be set-up (iii) the tail stock setting over.	07
Q.3 (a) Define cutting speed, feed and depth of cut.	03
(b) Explain the half nut mechanism in lathe machine.	04
(c) Enlist the taper turning operation on lathe machine and describe any two method of taper turning.	07
OR	
Q.3 (a) Explain the deep hole drilling machine.	03
(b) Enlist the various alignment tests which are conducted on lathe machine and explain any two.	04
(c) Enlist the various cutting operations carried out on drilling machine and explain any four with neat sketch.	07
Q.4 (a) Classify milling machine.	03
(b) Explain the types of milling processes.	04
(c) Explain radial drilling with neat sketch.	07
OR	
Q.4 (a) Give the function of principal parts of standard planer.	03
(b) Explain quick return mechanism with neat sketch.	04
(c) Enlist the milling operation and explain it.	07
Q.5 (a) Explain the working principle of broaching machine.	03
(b) Describe various advantage and limitations of broaching machine.	04
(c) Differentiate between shaper and planner machine.	07
OR	
Q.5 (a) State classification of grinding machine.	03
(b) Explain truing and dressing of grinding wheel with neat sketch.	04
(c) Explain any three alignment tests which are conducted on grinding machine.	07
