INDIAN INSTITUTE OF TECHNOLOGY GOA

SCHOOL OF MECHANICAL SCIENCES

WRITTEN TEST

COURSE CODE: ME 321
COURSE TITLE: MANUFACTURING PROCESSES LAB
MARKS (Part B): 15
DURATION: 40 minutes
UPLOADING TIME: 05 minutes

PART B

Start Time: 3.45 pm
End Time: 4.25 pm
Upload by: 4.30 pm

- Questions 1 to 5 are short questions having 1 mark each.
- Questions 6 to 10 are long questions having 2 marks each.

Question 1:	What happens to MRR and SR with increase in current and pulse on time in EDM?
Question 2:	What is the function of clapper box? Provide more details about it.
Question 3:	Explain how to determine the power consumption using milling tool dynamometer.
Question 4:	Explain how ED machining is different from conventional machining.
Question 5:	Why continuous chips are not always desirable?
Question 6:	Explain the parallelism test in lathe alignment.
Question 7:	Explain thread cutting operation on lathe. What is pitch in thread cutting and how it is measured?
Question 8:	It was observed that with zero rake single point cutting tool, the measured cutting and thrust forces are 200 N and 100 N , then what would be the value of friction angle and friction force?
Question 9:	What are serrated chips? Under what circumstances they are formed? How such chips formation can be avoided?
Question 10:	Calculate the simple indexing using (using Brown and Sharpe Dividing Head) for the following divisions: 37, 41, 22, 34, 120 **Standard Brown and Sharp Index Plates:** No. 1 : 15, 16, 17, 18, 19, 20 No .2 : 21, 23, 27, 31, 33 No. 3 : 37, 39, 41, 43, 47, 49