

PRINCE OF SONGKLA UNIVERSITY
FACULTY OF ENGINEERING

Midterm Examination : Semester 1

Academic Year : 2004

Date : December 24 ,2004

Time : 13.30-16.30

Subject : 226-203 Machining Processes

Room : R201

ทฤษฎีในการสอบ โทษขั้นต่ำปรับตกในรายวิชานั้น
และพักการเรียน 1 ภาคการศึกษา

Instruction:

1. Answer all questions in the answer book.
2. A calculator with programming capability is allowed.
3. All notes and books are not allowed
4. Total mark is 100 (30%)

ผศ.พิจิตร พิศสุวรรณ

ผู้ออกข้อสอบ

10. What are the components which make up the carriage? What is the purpose of each of the component? (6 marks)
11. What is a turret lathe? (3 marks)
12. Differentiate between saddle-type and ram-type turret lathe? (3 marks)
13. Describe the two common types of single spindle screw machines? (4 marks)
14. Describe the universal chuck and an independent chuck. How are they used? How do they differ? (4 marks)
15. Describe the operation and function of a draw-in collet chuck. (4 marks)

23. A cutting speed of 100 ft/min has been selected to turn a 3-in. diameter bar, the cutting length is 8 in. and a feed of 0.020 in. per revolution is used. Find : (a) the rpm, (b) the time to take one cut and (c) the MRR (8 marks)
24. A tapered work piece is to be turned. It has an overall length of 12 in. and a tapered section 8 in. long. The taper section has a small diameter of 0.875 in. and a large diameter of 1.125 in. Find : (a) the taper per inch, (b) the taper per ft. and (c) the set over (8 marks)
25. Given a M24×3 thread ,find : (a) the pitch diameter, (b) the minor diameter, (c) the helix angle and (d) the depth of the thread. (8 marks)

Pichit Pitsuwan
December, 2004

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