



SE-8129

B. E. - II (Sem. - III) (Mech.) Examination

May / June - 2011

Manufacturing Process - I

(New Course)

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दृष्टावेव निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. E. - 2 (SEM. - 3) (MECH.)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="MANUFACTURING PROCESS - 1 (NEW COURSE)"/>	<input type="text"/>
Subject Code No. : <input type="text" value="8"/> <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="9"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	
Student's Signature	

- (2) Attempt **all** questions.
- (3) Explain with a neat sketch/Fig. wherever necessary.
- (4) Figures to the **right** indicate full marks.

1 Answer the following : 20

- (a) Explain different operations performed with the help of a lathe machine.
- (b) Explain different operations performed with the help of a drilling machine.
- (c) Explain speed, feed and depth of cut parameters in a lathe.
- (d) Explain different factors affecting the tool life.

2 Answer any **three** : 15

- (a) Explain the difference between orthogonal and oblique cutting.
- (b) Calculate the percentage change in cutting speed required to give 60 percent reduction in tool life. Take  $n = 0.22$ .
- (c) Explain classification of machine tools.
- (d) Explain different paper turning methods in brief.
- (e) Calculate the time taken to face a work piece of 80 mm diameter. The spindle speed is 90 r.p.m. and cross feed is 0.3 mm/revolution.

- 3** Answer any **three** : **15**
- (a) What is a twist drill ? Make a neat sketch of a twist drill and show its different parts on it.
  - (b) What do you understand by term 'drilling', 'reaming' and 'boring' ? How do they differ from each other ?
  - (c) Explain different types of mandrels used in a lathe.
  - (d) Define speed and feed with reference to drilling machine with a neat sketch.
  - (e) Explain how threading is made in a lathe machine.
- 4** Answer the following questions : **20**
- (a) Write difference between shaper machine and planner machine.
  - (b) Write advantage and disadvantage of broach.
  - (c) Write difference between upmilling and down milling.
  - (d) Explain working principle of surface grinder machine.
- 5** Answer the following questions : (any **three**) **15**
- (a) What is the difference between wheel dressing and wheel trueing ?
  - (b) Explain different types of milling cutters.
  - (c) Explain different types of saw bands in sawing machine.
  - (d) Explain the cutting action in grinding.
  - (e) Explain five milling machine operations.
- 6** Answer the following questions : (any **three**) **15**
- (a) Explain universal milling machine with sketch.
  - (b) Explain reciprocating sawing machine with sketch.
  - (c) Explain tool and cutter grinder with sketch.
  - (d) List out super finishing processes and explain any one.
  - (e) Explain crank and slotted quick return mechanism of shaper machine.
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