

B.Tech. SEM -IV Production 2014 Course (CBCS) : WINTER - 2018

SUBJECT: MACHINING TECHNOLOGY

Day: Wednesday
Date: 14/11/2018

W-2018-2363

Time: 02.30 PM TO 05.30 PM
Max Marks.: 60

N.B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Assume suitable data if necessary.

- Q.1 a)** How are the cutting tools classified? **(05)**
b) Explain the mechanism of chip formation. **(05)**

OR

- Q.1** What are the types of cutting tool materials? Explain them in detail. **(10)**

- Q.2** Describe Merchant's circle diagram with various forces acting in orthogonal cutting in detail. Also explain forces acting on a chip in orthogonal cutting. **(10)**

OR

- Q.2 a)** What are thermal cracking and softening, mechanical chipping? Explain. **(05)**
b) What are the qualities of a good cutting fluid? **(05)**

- Q.3** What are the different parts of lathe machine? Explain them in detail. **(10)**

OR

- Q.3 a)** Explain Bar feeding Mechanism. **(05)**
b) Differentiate between turret lathe and engine lathe. **(05)**

- Q.4** How do you classify different types of drilling machines? Explain Radial drilling machine in detail. **(10)**

OR

- Q.4** Sketch and describe different types of milling cutters. **(10)**

- Q.5** What do you understand from Grain, Grade, Abrasive and Bond? Explain **(10)**

OR

- Q.5 a)** Explain metal spraying process with suitable sketch. **(05)**
b) Describe super finishing in detail. **(05)**

- Q.6** What is Broaching? Explain broach Geometry in detail. **(10)**

OR

- Q.6** Describe NC machine tool system in detail. **(10)**

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