

B.TECH. SEM -IV PRODUCTION 2014 COURSE (CBCS) :

SUMMER - 2018

SUBJECT: MACHINING TECHNOLOGY

Day: **Tuesday**
Date: **05/06/2018**

S-2018-2307

Time: **10.00 AM TO 01.00 PM**
Max. Marks 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Neat diagram must be drawn **WHEREVER** necessary.

- Q.1** a) Describe different types of cutting tool materials. (06)
b) Give the classification of cutting tools. (04)

OR

- a) Explain with suitable sketches types of metal cutting process (10)

- Q.2** Describe the geometry of single point cutting tool with different angles provided on single point tools. (10)

OR

What is tool dynamometers and its characteristics? Explain strain gauge type dynamometer with suitable sketch. (10)

- Q.3** a) Explain with neat sketches following operations performed on center lathe (06)
i) Taper Turning ii) Boring and counter boring iii) Grooving and parting off
b) Discuss specification of lathe machine. (04)

OR

How automatic machines are classified? Explain bar feeding mechanism of automatic lathe. (10)

- Q.4** What is a twist drill? Make a neat sketch of a twist drill and show different parts on it. (10)

OR

What are the different types of milling operations? Explain them with suitable sketches. (10)

- Q.5** a) What do you understand from Grade, Grid, Bond, Abrasive and Structure of grinding wheel? Explain in detail. (06)
b) Explain the terms loading and glazing as applied to grinding wheels. (04)

OR

Write a note on- (10)
i) Lapping ii) Honing iii) Metal spraying iv) Buffing

- Q.6** a) Describe with suitable sketches broach geometry. (06)
b) How a push broach differs from a pull broach. (04)

OR

- a) What is a NC machine tool system? What are its main elements? Explain. (06)
b) What are the common Motion control systems in NC machine tools? (04)

* * * * *