No. of Printed Pages : 2

BIME-014

B.Tech. – VIEP – MECHANICAL ENGINEERING (BTMEVI)

Term-End Examination

00095

December, 2014

BIME-014 : PRODUCTION TECHNOLOGY – II

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt any* ***five*** *questions. All questions carry equal marks.*

1. (a) Compare the merits and demerits of Turret and Capstan lathes with an engine lathe. 7

(b) Describe three important methods of holding work in a lathe. 7

2. (a) Draw the block diagram of a horizontal shaper and describe the working of its important parts. 7

(b) Explain the difference between Plain Shapers and Universal Shapers. 7

3. (a) Sketch and explain the working of a plain column and knee type milling machine. 7

(b) Describe the three types of milling cutters according to the method of mounting the cutters. 7

4. (a) Sketch and discuss a typical Internal Broach. 7

(b) With the help of a neat sketch, discuss the working of a surface broaching machine. 7

5. (a) Sketch and explain reaming, counter-boring, counter-sinking and spot facing operations. 7

(b) With the help of a neat sketch, show the different angles of a drill and explain them in brief. 7

6. (a) How is the grinding wheel selected for a particular job ? What do you mean by dressing and truing of grinding wheels ? 7

(b) Sketch and explain three methods of cylindrical grinding. 7

7. (a) Briefly describe the various components of an NC machine. 7

(b) What is an NC part programming ? Describe the sequence of using NC words in a part program. 7

8. Write short notes on any ***four*** of the following : $4 \times 3\frac{1}{2} = 14$

(a) Milling machine indexing

(b) Computer aided part programming

(c) Work holding devices of shaper machine

(d) Centreless cylindrical grinding

(e) Work holding devices in lathe machine

(f) Gear hobbing
