No. of Printed Pages : 2

BIME-014

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B.Tech. MECHANICAL ENGINEERING (BTMEVI)

Term-End Examination

June, 2013

BIME-014 : PRODUCTION TECHNOLOGY - II

Time : 3 hours *Maximum Marks : 70*

Note: *Answer **any five** questions only. Assume suitable data if any missing. All questions carry **equal** marks.*

1. (a) Why are engine lathes called by that name ? Explain five main parts of a lathe. 7

   (b) List and describe commonly used lathe attachments on lathe machines. 7

2. (a) Briefly explain the classification of shapers. With a simple sketch explain table feed mechanism of shaper. 7

   (b) Differentiate between shaping, planing and slotting, as regards with tool and work motions. 7

3. (a) What are the salient differences between a plain and universal milling machine ? Name common work holding devices used in milling machines. 7

   (b) Explain the difference between up milling and down milling with fig. 7

4. (a) What are the principle types of broaching machines ? Why roboust fixtures are required to support jobs to be broached ? 7

(b) Describe continuous type broaching machine. How a broaching machine is specified ? 7

5. (a) Sketch and describe the essential elements of a twist drill. How drill sizes are designated ? 7

(b) Describe the constructional features of a horizontal boring machine. 7

6. (a) What are the various factors to be considered in selection of grinding wheel ? Discuss each in detail. 7

(b) Describe the various types of abrasives. What are the differences between wheel dressing and wheel trueing. 7

7. (a) Describe the working principle of CVC machine with the help of a block diagram. 7

(b) List the most common part programming languages. Describe any one of them in brief. 7

8. Write short notes on ***any four*** of the following : **3½x4=14**

(a) Thread cutting operation

(b) Turret lathe

(c) Face milling

(d) Broaching tools

(e) Gear hobbing

(f) Work holding devices in Drilling machine