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IV Semester Diploma Examination, April/May 2013

MANUFACTURING TECH – II

[Max. Marks : 100

Hours]

QuestionsPaper.in

- (i) Section No. I is compulsory.
(ii) Answer any two full questions from sections II, III & IV.

SECTION – I

Fill in the blanks :

1 × 5 = 5

- (i) In shaper, the tool removes _____ material in backward stroke than forward stroke.
(ii) _____ attachment is used for dividing the periphery of a workpiece in milling machine.
(iii) EDM is also known as _____.
(iv) The plastics which can be softened again and again by heating are called _____.
(v) _____ is a device which holds and locates a workpiece but it does not guides the tool.

Explain the purpose of cutting fluids.

5

SECTION – II

Mention the classification of shaper.

4

Explain with a sketch crank and slotted link mechanism of shaper.

6

Write a line diagram of planer and mention its parts.

5

Explain Grit, Grade and structure of grinding wheels.

6

Explain balancing of Grinding wheels.

5

Write a short note on diamond wheels.

4

List the differences between planer and slotter.

6

With an example, write the specification of grinding wheel.

3

[Turn over

- (c) Write short note on :
- (i) Honing process
 - (ii) Polishing process

SECTION - III

5. (a) Sketch and label the parts of column and knee Milling machine.
 (b) Explain T-slot milling.
 (c) Explain angular indexing.
6. (a) Write the differences between conventional & Non-conventional methods.
 (b) Sketch and explain Abrasive jet machining.
 (c) List the advantages and disadvantages of Laser Beam Machining process.
7. (a) Mention the important differences between Up Milling & Down process.
 (b) Explain Gear Hobbing.
 (c) On what principle Ultrasonic machining works ?

SECTION - IV

8. (a) Write the differences between Jigs & Fixtures.
 (b) Mention different types of Jigs and Fixtures.
 (c) Explain with a neat sketch Diameter Jig.
9. (a) What is Polymerisation ? Explain Addition Polymerisation.
 (b) Explain with a sketch Injection Moulding process.
 (c) Explain briefly calendaring process for thermoplastic material.
10. (a) Explain with a sketch production of metal powder by Atomisation process.
 (b) Write important characteristics of metal powders suitable for metallurgy process.
 (c) What is secondary operations in powder metallurgy ?