B. Tech.

(Semester-I) Theory Examination, 2012-13

MANUFACTURING PRACTICES

Time: 2 Hours] [Total Marks: 50

Note: Attempt questions from all Sections as per instructions.

Section-A

Attempt all parts of this question. Each question carries 2 marks.

2 x 5 = 10

1. (a) Mention the use of Try Square and Gauges.

(b) Mention various forging operations.

(c) Mention shearing operations.

(d) Define speed and feed in case of lathe.

(e) Mention various types of pattern.
Section B

Attempt any three parts of this question. Each part carries 5 marks. 5\times3=15

2. (a) Why seasoning of wood is required and explain what do you understand by seasoning and mention types of seasoning the wood.

(b) Define Forgeability and explain the following with relevant sketches:

(i) Upsetting

(ii) Forge Welding.

(c) Explain with neat sketch Electric Arc Welding process with advantages and applications.

(d) Explain with neat sketches the following lathe operations:

Taper turning by swivelling the compound rest method.

(e) Explain in detail the types of allowances provides to the pattern and their importance.

Section C

Attempt all questions of this Section. Each question carries 5 marks. 5\times5=25

3. Attempt any one part:

(a) Write a note on defects in Timber.

(b) Explain cross filing and draw filing.

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4. Attempt any one part:  5×1=5
   (a) Explain with neat sketches:
      (i) Seam welding
      (ii) Projection welding.
   (b) Mention various sheet metal working machines and explain Shearing machine and Wiring machine.

5. Attempt any one part:  5×1=5
   (a) With neat sketch explain the nomenclature of single point cutting tool.
   (b) Explain with relevant sketches the Gang milling and Form milling operations.

6. Attempt any one part:  5×1=5
   (a) Write short notes on Sheet metal joints and Sheet metal allowance.
   (b) With neat sketch explain Tumbler gear mechanism with respect to lathe machine tool.
7. Attempt any one part: \(5 \times 1 = 5\)

(a) What are the important factors to be considered while selecting pattern material?

(b) Write the characteristics of natural sand.

(c) Write short note on Sand Additives.