CBCS SCHEME

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17MT44

Fourth Semester B.E. Degree Examination, June/July 2019
Manufacturing Technology

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. Define manufacturing process and explain the primary and secondary manufacturing process. **(10 Marks)**

b. What is pattern? List different types of patterns and explain in detail various allowances given to patterns and reasons to provide the allowances. **(10 Marks)**

OR

2 a. Write a short note on Binders and additives and give examples for each. **(08 Marks)**

b. Draw a neat sketch of gating system and explain all the elements and their functions. **(12 Marks)**

Module-2

3 a. Write classification of metal working process and list advantages and limitations of metal working processes. **(10 Marks)**

b. What is rolling process? Explain different types of rolling mills with suitable diagram. **(10 Marks)**

OR

4 a. Define forging process, list the different types of forging processes and explain any one forging process. **(10 Marks)**

b. Write and explain with the neat sketch lever spring Hammer and gravity drop hammers in forging process. **(10 Marks)**

Module-3

5 a. Give the classification of extrusion process and explain hydrostatic extrusion process with a neat sketch. **(10 Marks)**

b. Explain compound dies and progressive dies processes with a suitable diagrams. **(10 Marks)**

OR

6 a. Explain with a neat sketch Submerged Arc Welding (SAW) process. List its advantages. **(10 Marks)**

b. Briefly explain with a neat sketch the principle of laser beam machining process and write its applications. **(10 Marks)**

Module-4

7 a. With a neat sketch briefly explain the arrangement of working principle of Abrasive jet machining. List its advantages. **(10 Marks)**

b. Briefly explain with a neat sketch the electron beam machining process and list its advantages. **(10 Marks)**

OR

8 a. Briefly explain with a neat sketch the arrangement and principle of operation of water jet machining process. **(10 Marks)**

b. With a neat sketch briefly explain the working principle of Plasma Arc Welding (PAW) process. List its applications. **(10 Marks)**

Module-5

9 a. List different types of CNC machining centres and explain working of any 2 machining centres. **(10 Marks)**

b. What are the advantages and disadvantages of CNC machining centers and explain it briefly. **(10 Marks)**

OR

10 a. Explain the basic principle of CNC machine operation. **(10 Marks)**

b. Prepare the manual part programming to drill the holes for the part shown in Fig.Q10(b). **(10 Marks)**

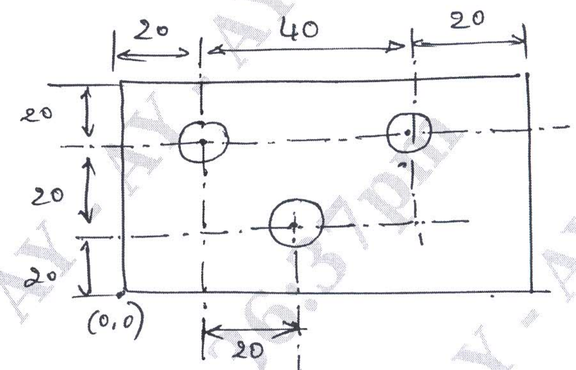

Fig.Q10(b)

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