

B.E. Mechanical Engineering (Model Curriculum) Sem-V  
**HSMC3012 : Production Technology**

P. Pages : 2

Time : Three Hours



**GUG/W/22/14067**

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.
  4. Illustrate your answers wherever necessary with the help of neat sketches.
  5. Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10.
  6. Diagrams and Chemicals equation should be given wherever necessary.

1. a) Discuss in detail. 8
- i) Rolling
- ii) Extrusion

- b) Explain the effect of variables on metal forming processes. 8

**OR**

2. a) Classify metal forming process and explain any one process. 8
- b) Explain: Drawing Operation. 8
3. a) What are the sources of heat generation in machining and it's effects? 8
- b) Explain the temperature measurement techniques in machining. 8

**OR**

4. a) Explain the types of cutting fluids and their functions. 8
- b) Discuss: 8
- i) Characteristic of cutting fluid.
- ii) Applications of cutting fluids.

5. a) Explain Gear hobbing. Give advantages and disadvantages. 8
- b) What are different gear finishing operation? Explain any one in detail. 8

**OR**

6. a) Enlist the various thread manufacturing methods and explain thread milling. 8
- b) Explain: 8
- 1) Gear Finishing Processes
- 2) Types of threads

7. a) What are the objectives & principles of production planning and control? 8
- b) What do you understand by sales forecasting? What are the different methods involved in it? 8

**OR**

8. Explain: 16
- i) Economic batch quantity
  - ii) Dispatching
  - iii) Scheduling
  - iv) Inventory control
9. a) Explain break even point analysis. 8
- b) What is the concept of return on investment? 8

**OR**

10. Explain **any two**: 16
- i) Minimum cost analysis
  - ii) Economics of tool selection
  - iii) Machine tool replacement.

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