

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

P. Pages : 2

Time : Three Hours



**GUG/S/23/14067**

Max. Marks : 80

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- Notes :
1. All questions carry equal marks.
  2. Diagrams and chemical equation should be given wherever necessary.
  3. Illustrate your answers wherever necessary with the help of neat sketches.
  4. 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.

1. a) Explain open die forging operation with neat sketch and state its applications. **8**
- b) State and explain various stages in cup drawing operation with neat sketch. Enlist various defects found during deep drawing operation. **8**

**OR**

2. a) Classify Metal Forming operation. Explain upsetting operation. **8**
- b) State the difference between wire drawing and Rod drawing operation with respect to initial stock size & operating stages. **8**
3. a) Classify cutting fluids. State functions and characteristics of cutting fluids. **8**
- b) What are the various sources of heat generation in machining process. **8**

**OR**

4. a) Explain the economics of metal cutting operations. **8**
- b) Enlist the temperature measurement techniques in machining. Give any three applications of cutting fluids. **8**
5. a) Explain Gear hobbling process. Give it's advantages & limitations. **8**
- b) Enlist Gear finishing processes and explain any one. **8**

**OR**

6. a) State and explain various methods used for cutting external and internal threads. **8**
- b) Discuss briefly **8**
- i) Specification of screw thread.
- ii) Thread tapping.

7. a) Explain production planning and control functions in detail. **8**
- b) Discuss: **8**
- i) Regression Analysis.
- ii) Sales forecasting.

**OR**

8. a) What do you understand by the term Economical Batch Quantity. **8**
- b) Discuss: **8**
- i) Types of production.
- ii) Inventory control.
9. a) What is Break even point analysis? **8**
- b) Explain the reasons for Machine tool replacement. **8**

**OR**

10. Discuss: **16**
- i) Return on investment.
- ii) Economics of tool selection.
- iii) Economic Lot Size
- iv) Minimum cost analysis.

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