

## ***B. Tech Degree IV Semester Examination in Marine Engineering July 2010***

### **MRE 402 PRODUCTION TECHNOLOGY**

Time : 3 Hours

Maximum Marks : 100

(All questions carry **EQUAL** marks)

- I. (a) Describe different types of Calipers. Mention its use.  
(b) Write notes on :  
(i) Chisels  
(ii) Hammers  
(iii) Marking Tools.
- OR**
- II. (a) Explain different types of chip formation during metal cutting.  
(b) With the help of neat sketch explain various angles in a single point cutting tool.
- III. (a) Differentiate between Jigs and Fixtures.  
(b) Describe a Broach and Broaching operation.
- OR**
- IV. (a) What are the different types of quick-return mechanism used in a shaper?  
Explain *any two* in detail.  
(b) Write notes on :  
(i) Horning  
(ii) Lapping  
(iii) Grinding
- V. (a) Explain Limit, Fit and Tolerance.  
(b) Explain the principle of Interchangeability.
- OR**
- VI. (a) With the help of a neat sketch explain a Vernier Caliper.  
(b) How optical methods can be used for measurement?
- VII. (a) Explain different kinds of personal safety devices.  
(b) Explain various packing materials.
- OR**
- VIII. (a) With a neat sketch show the construction details of a wheel valve.  
(b) What is bedding of bearings?
- IX. (a) Explain Gas Welding. What are the different types of fuel gas used?  
Sketch the details of a welding torch.  
(b) What is Brazing? Explain the process.
- OR**
- X. (a) Explain Arc Welding in detail.  
(b) What are the major welding defects? Explain *any five*.