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***B.Tech. Degree III Semester Examination in
Marine Engineering December 2018***

**MRE 1303 WORKSHOP TECHNOLOGY
(2013 Scheme)**

Time: 3 Hours

Maximum Marks: 100

(5 × 20 = 100)

- I. (a) Describe different types of Calipers. (10)
(b) Write notes on heat generation and temperature in cutting process. (10)
OR
- II. (a) Describe different types of chips formed during machining process. What information they give about the property of material being to machined? (10)
(b) List and sketch different types of tools commonly used for carpentry work. (10)
- III. (a) Differentiate between Capstan and Turret lathes. (10)
(b) Describe the different methods for taper turning process on a center lathe. (10)
OR
- IV. (a) What are the different types of quick return mechanisms used in shaper machine? (10)
(b) Differentiate between Jigs and Fixtures. (10)
- V. (a) Explain principles of interchangeability. (10)
(b) Describe optical methods of measurement. (10)
OR
- VI. (a) Explain micrometer in detail. (10)
(b) Write notes on:
(i) Feeler gauge
(ii) Wire gauge
(iii) Dial gauge
- VII. (a) Explain bedding of bearings. (10)
(b) What is a source of danger? How can we prevent accidents? (10)
OR
- VIII. With the help of a neat sketch, show the construction details of a steam stop valve. (20)
- IX. (a) Explain welding defects? (10)
(b) Differentiate between Arc welding and Resistance welding. (10)
OR
- X. Explain soldering and brazing in detail. (20)