

**INDIAN MARITIME UNIVERSITY**  
(A Central University, Government of India)

**December 2016 End Semester Examinations**  
**B.Tech. (Marine Engineering) First Semester**

**Workshop Technology (UG11T1106/ UG11T2106)**

**Date : 27.12.2016**

**Time: 3 Hrs**

**Maximum Marks: 100**

**Pass Marks : 50**

Note: (i) Section –A is compulsory  
(ii) Answer any five from Section B

**Section – A**  
**(Compulsory Questions)**

(10 x 3 = 30 marks)

1. a) Mention the various types of files used in the workshop & Draw any one of them.
- b) Draw and explain the uses of Ball peen hammer and a Mallet.
- c) Mention few marking tools and write down the importance of job marking.
- d) What is the purpose of cutting fluid usage in metal cutting?
- e) Define a Turret in a lathe.
- f) Explain the purpose behind the operation of Honing & Lapping.
- g) Draw and explain the uses of a feeler gauge.
- h) Who is considered as children and not to be employed as per factory act?
- i) Mention the various PPEs used in a workshop.
- j) Differentiate between soldering and brazing.

**Section B**  
**(Answer Any 5 Questions)**

(5 x 14 = 70 marks)

2. Draw and explain the uses of external caliper, try square, surface plate and pipe vice. (14 Marks)
3. Draw a Lathe and label the parts. (14 Marks)
4. a) Explain about the properties of materials used for metal cutting tool. (7 Marks)  
b) What are the defects that occur in a metal cutting tool? (7 Marks)
5. Draw a Vernier Caliper and label the parts. Explain the various measurements taken using its various measuring edges. Write down the precautions taken in handling and storing the precision measuring instrument. (14 Marks)

6. Write in detail about the factory act regulations. (14 Marks)
7. Draw a reducing valve and label the parts. (14 Marks)
8. With the help of necessary sketches explain the various defects in welding. (14 Marks)

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