

Roll No.

3013

**B. Tech. 1st Semester (Common for All
Branches)
Examination – December, 2022**

WORKSHOP TECHNOLOGY

Paper : ESC-ME-102-G

Time : Three hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is ***compulsory***. All questions carry equal marks.

1. Explain the following : **$2.5 \times 6 = 15$**

- (a) First Aid
- (b) Punching and Blanking
- (c) Casting defects
- (d) Pattern
- (e) TIG welding
- (f) Fitting tools

UNIT – I

2. Explain the manufacturing processes. Also discuss different types of plant layouts and their advantages. 15
3. What do you mean by Industrial Safety ? Discuss the common sources of accidents. 15

UNIT – II

4. Discuss the basic principle of hot and cold working. Explain the hot rolling in detail. 15
5. Discuss in detail the types of timber and defects in timber. Briefly explain the fitting operations. 15

UNIT – III

6. Explain cupola furnace in details with the help of neat and clean diagram. 15
7. What do you mean by CNC Machining ? Briefly explain the different operations which we can perform on shaper machine ? 15

UNIT – IV

8. Explain the principle of arc welding. Explain TIG and MIG welding in detail. 15

9. Explain :

5 × 3 = 15

- (a) Classification of welding
 - (b) Resistance welding
 - (c) Welding defects
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