

Roll No.

OLE-3013

B. Tech. 1st Semester (Common for All Branches) Examination – April, 2021

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* question in all, selecting *one* question from each Section. Question No. 1 is *compulsory*.

1. Explain the following : 2.5 × 6 = 15
- (a) Principle of resistance welding
 - (b) Gating System
 - (c) Name any four foundry tools

- (d) Name any four welding tools
- (e) Advantages of plant layout
- (f) Principle of gas welding

SECTION – A

- 2. Explain the concept of accident and common sources of accident. How can overcome from this ? 15
- 3. Explain the concept of plant layout and its importance. Also enlist types of plant layout. 15

SECTION – B

- 4. Explain the classification of metals. Also explain the various fitting operations. 15
- 5. Describe the principle of hot working process and cold working process with the help of neat diagrams. Also give their comparison. 15

SECTION – C

6. Explain the construction and working of cupola furnace with neat diagram. Also explain the various properties of casting sand. 15
7. Explain the principle of lathe machine. Enlist major parts of lathe machine with the help of neat sketch. 15

SECTION – D

8. Describe the principle of arc welding. Also explain TIG welding and its applications with the help of neat sketch and example. 15
9. Explain the working principle of resistance welding. Also explain the various welding defects and their remedies. What precautions should be taken to avoid such welding defects ? 15