

E-837

B.E.-Ist Semester Examination, Dec.-2018
Workshop Compt.
(Main Exam)

Time : Three Hours]

[Maximum Marks : 60

Note : Attempt **all** questions of **Section-A**, **four** questions from **Section-B** and **three** questions from **Section-C**.

Section-A

1×10=10

(Objective Type)

Note : Attempt **all** parts (Objective type).

1. The purpose of seasoning of wood is to:

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|---------------------------------|------------------------------------|
| (a) reduce the voids | (b) remove the curves |
| (c) reduce the moisture content | (d) change the direction of grains |

2. The Mortise gauge is a :

- | | |
|-------------------|-------------------|
| (a) Striking tool | (b) Planning tool |
| (c) boring tool | (d) marking tool |

3. The fullers are used :

- | | |
|---------------------------------|--------------------------------------|
| (a) for finishing flat surfaces | (b) for necking down a piece of work |
| (c) for panching a hole | (d) to finish the punched hole |

P.T.O.

4. The culting edge of hot chisel is about :
- (a) 30° (b) 45°
(c) 60° (d) 75°
5. In arc welding, the electric arc is produced between the work and electrode by:
- (a) Voltage (b) Flow of current
(c) Contact resistance (d) All of the above
6. The maximum flame temperature occurs :
- (a) at the outer cone (b) at the inner cone
(c) between inner and outer cone (d) at the torch tip
7. A hacksaw blade is specified by its :
- (a) Length (b) Material
(c) Width (d) Number of teeth
8. The process of beating the sheet metal into a particular shape such as sauce pan or bowl, is called:
- (a) Sinking (b) Hollowing
(c) Planishing (d) Raising
9. The lathe centres are provided with standard taper known as :
- (a) Morse taper (b) Seller's taper
(c) Chapman taper (d) Brown and Sharpe taper

10. Drilling is an example of :

- | | |
|---------------------|------------------------|
| (a) Simple culling | (b) Orthogonal cutting |
| (c) Oblique cutting | (d) None of these |

Section-B

5×4=20

(Short Answer Type)

Note: Attempt any **four** questions.

1. Sketch and describe Lap dovetail joint made in a carpentary shop.
2. Explain with the help of neat sketches the various types of files used in fitting.
3. Describe with the help of sketches, three types of oxy-acetylene flames.
4. List the various tools used in foundary. Explain any one with the help of neat sketch.
5. List the various operations that can be performed on a centre lathe. Describe briefly any four.
6. Explain the crank and slotted lever quick return motion mechanism for a shaper.

Section-C

Note: Attempt any **three** questions.

10×3=30

1. Describe briefly with neat sketches:

(i) Claw hammer	(ii) Rasp file
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2. Explain the various types of joints commonly used in welding.
3. Differentiate soft wood and hard wood. What do you mean by seasoning of wood. Describe the methods for seasoning the wood.

- 4 (i) What is working principle of a lathe machine. How a centre lathe is specified?
- (ii) What is the difference between a planer and shaper. How do you specify a shaper.
5. Write short note on the following:
- (i) TIG welding
- (ii) Cupola furnace

E-1128

B. E. 1st Semester (Main & Re) Examination, Dec. – 2019

WORKSHOP CONCEPT

Branch : (CE, ME)

Code : BME-102

Time : Three Hours]

[Maximum Marks : 60

Note : Attempt *all* questions from Section – A, *four* questions from Section – B and *three* questions from Section – C.

SECTION – A

(Objective Type Questions)

Note : You are required to answer *all* parts.

1 × 10 = 10

1. The property of the material by virtue of which it can be rolled or hammered into thin sheets is called :
 - (a) Malleability
 - (b) Plasticity
 - (c) Toughness
 - (d) Brittleness
2. The cutting tools are made from :
 - (a) Chrome steel
 - (b) Silicon steel
 - (c) High speed steel
 - (d) Nickel steel
3. Dowels are :
 - (a) Wooden Nails
 - (b) Box Nails
 - (c) Wire Nails
 - (d) None
4. Which of the following statements is wrong ?
 - (a) Mortise gauge has two scribing pins
 - (b) Gauges are chisels with a hollow shaped blades
 - (c) An auger is a planing tool
 - (d) All of the above

P. T. O.

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5. When pattern is made in three parts, top part is known as :
(a) Drag (b) Cheek
(c) Cope (d) None of the above
6. In order to deliver molten from pouring basin to gate :
(a) Riser is used (b) Sprue is used
(c) Core is used (d) Gagger is used
7. Neutral flame is obtained by supplying :
(a) Equal volume of oxygen and acetylene
(b) More volume of oxygen and less volume of acetylene
(c) More volume of acetylene and less volume of oxygen
(d) None of the above
8. The cross section of chisel is usually :
(a) Rectangular (b) Square
(c) Hexagonal (d) Octagonal
9. A process applied to sheet with the main object of stretching the metal with an improved surface is known as :
(a) Sinking (b) Hollowing
(c) Planishing (d) Raising
10. The lathe bed is made of :
(a) Mild steel (b) Alloy steel
(c) Pig Iron (d) Chilled cast iron

SECTION – B

5 × 4 = 20

(Short Answer Type Questions)

Note : Attempt any four questions.

1. What do you understand by joinery ? What are the different types of joints used in wood working ?
2. Name and explain chisels used in Fitting shop with neat sketch.
3. What are the advantages of several sources of current for arc welding ? What do you understand by the term polarity and what are the advantages and disadvantages of polarities.

(2)

4. What are common materials used for the pattern making ? Discuss their merits and demerits.
5. Write short notes on the following tools used in sheet metal workshop (a) Steel Square (b) Punches.
6. Define cutting speed, feed depth of cut for lathe machine.

SECTION – C

(Long Answer Type Questions)

Note : Answer any *three* questions.

10 × 3 = 30

1. Describe briefly with neat sketch on the following :
 - (i) Rip Saw
 - (ii) Rasp File
2. What do you understand by Gas welding ? Describe in brief the equipment required for oxy-acetylene welding. How are neutral, oxidizing and reducing flame are obtained in welding torch ?
3. Write short notes on the following :
 - (i) Fullers
 - (ii) Marking Gauge
 - (iii) Flatters
 - (iv) Swages
4. Name the various operations performed on the Centre lathe. Describe briefly the following operations :
 - (i) Facing
 - (ii) Plain Turning
 - (iii) Taper Turning
 - (iv) Drilling
5. Write short notes on the following :
 - (i) Cupola Furnace
 - (ii) Hot Working Vs Cold Working