

**PARUL UNIVERSITY**  
**FACULTY OF AGRICULTURE**  
**B.Tech.(FoA) Winter 2019 - 20 Examination**

**Semester: 1**  
**Subject Code: 20104110**  
**Subject Name: Workshop Practice**

**Date: 25/11/2019**  
**Time: 10:30 am to 12:30 pm**  
**Total Marks: 50**

**Instructions**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1****A) Fill in the blanks (Each of 0.5 Mark)****(05)**

1. Specific function of heat treatment process is \_\_\_\_\_.
2. Bench vice is used to \_\_\_\_\_.
3. Function of Triangular file is to \_\_\_\_\_.
4. \_\_\_\_\_ is used as safety device for eyes during welding process.
5. \_\_\_\_\_ liquid solution is used during soldering.
6. Claw hammer is generally used to \_\_\_\_\_.
7. While changing the shape of rod into circular ring through forging, firstly keep the component on \_\_\_\_\_ and start hammering to change the shape.
8. Make safety a \_\_\_\_\_.
9. To measure the diameter of wire \_\_\_\_\_ is used.
10. Fixtures are generally used to \_\_\_\_\_.

**B) Multiple Choice Questions (Each of 0.5 Mark)****(10)**

1. Which one of the following is used to separate the connection without disturbing the pipe line?  
a) Union      b) Plug      c) Socket      d) Cross
2. \_\_\_\_\_ is not considered as arc welding process.  
a) TIG      b) MIG      c) SMAW      d) Spot Welding
3. Plug gauge is used during the inspection of \_\_\_\_\_.  
a) Hole      b) Shaft      c) Both      d) None of these
4. Hacksaw blade is specified by its \_\_\_\_\_.  
a) Length      b) width      c) pitch      d) a b & c
5. Which among the following methods is generally used to cut threads on G.I. pipe?  
a) By center lathe      b) By thread rollers  
c) By tap sets      d) By die and stock
6. \_\_\_\_\_ is not used for indirect measurement.  
a) Outside caliper      b) Inside caliper      c) Odd leg caliper      d) Vernier caliper
7. \_\_\_\_\_ operation is not possible on Lathe machine.  
a) Turning      b) Facing      c) Threading      d) Milling
8. Which among the following is not a type of Workshop ?  
a) Production      b) Training      c) Service      d) None of these
9. The accuracy of micrometers, calipers, dial indicators can be checked by a \_\_\_\_\_.  
a) feeler gauge      b) slip gauge      c) ring gauge      d) plug gauge
10. Which of the following is not used in wood working ?  
a) Hand saw      b) Hack saw      c) Jack Plane      d) None of these
11. \_\_\_\_\_ is used as primary material in fitting practice.  
a) M.S. rod      b) M.S. bar      c) M.S. flat      d) M.S. sheet
12. \_\_\_\_\_ is generally used in Carpentry shop.

- a) Ball pin hammer    b) Cross Pin Hammer    c) Mallet    d) None of these
13. \_\_\_\_\_ is not a heat treatment process.  
 a) Hardening    b) Normalizing    c) Tempering    d) Turning
14. Which one of the following is used to close the end of a pipe line?  
 a) Union    b) Plug    c) Socket    d) Cross
15. Which of the following is not correct about jig?  
 a) It is used to hold the work  
 b) It is used to position the work the work  
 c) It is used to guide the cutting tool  
 d) None of the mentioned
16. In TIG Welding \_\_\_\_\_ is used as electrode.  
 a) Tungsten    b) Titanium    c) Tin    d) None of these
17. \_\_\_\_\_ gas is not used as shielding gas in welding.  
 a) O<sub>2</sub>    b) CO<sub>2</sub>    c) Ar    d) None of these
18. With the use of Jigs and fixture total cost of production .  
 a) Increases    b) Decreases  
 c) Remains same    d) Jigs are not used in any production process
19. Which of the following is not grouped under the surface finishing process?  
 a) sawing    b) tapping    c) buffing    d) polishing
20. In which machining process, removed metal is negligible?  
 a) surface finishing    b) metal removal  
 c) none of the mentioned    d) both surface finishing and metal removal

## Q.2

**A) Define the following (Any five out of seven questions) (05)**

- (1) What do you mean by Welding?
- (2) What is the full form of CNC?
- (3) What is the difference between hot working and cold working?
- (4) List out instruments used in Smithy shop.
- (5) Define Drilling operation.
- (6) Define Workshop.
- (7) Define Pattern.

**B) Answer the following (Any five out of seven questions) (05)**

- (1) What do you mean by speed, feed and depth of cut?
- (2) What is the function of Try Square?
- (3) What is hardenability?
- (4) Which are the different types of chisels?
- (5) "Full form of G.I. pipe is Galvanic Iron." True or False
- (6) "Accidents are generally due to faulty equipment and machinery or negligence on the part of workers." True or False
- (7) "Ring gauge is used to measure the dimension of the component." True or False

**Q.3 Write Short notes (Any five out of six questions) (10)**

- (1) What do you mean by least count? Find the least count of Vernier caliper if main scale has 1 division of 0.5 mm and no. of divisions on Vernier scale is 50.
- (2) What do you mean by accident? Explain cost of accident in brief.
- (3) What are the applications of filler gauge, slip gauges and bevel protractor?
- (4) Describe the following pipe fittings with neat sketch:  
 a. Equal tee    b. elbow    c. reducer    d. cross
- (5) Write a short note on grinding machine.
- (6) Explain about the role of engineer in the workshop.

**Q.4 Long Questions (Any three out of four questions) (15)**

- (1) Explain Micrometer screw gauge with neat sketch. If barrel graduation is 0.5 mm

and no. of divisions on thimble is 50, what is the least count of micrometer?

- (2) List out different types of files used in workshop. Explain the functions of each file with neat sketch.
- (3) Explain Annealing and Normalizing Process in detail.
- (4) List out operations performed on lathe machine. Explain any three with neat sketch.