

MANUFACTURING - PRACTICES, BT-106

(WORKSHOP - GGITS, GGCT)

VIVA - QUESTIONS WITH ANSWERS

(A) FITTING SHOP

Q. 1 What are different shops in work shop.

Ans. Fitting Shop, Welding Shop, Carpentry Shop, Machine Shop and Foundry Shop. Foundry Shop, consists Pattern Shop, Moulding Shop and Casting Section.

Q. 2 What are the Fitting Shop Process.

Ans. This is BENCH Work like Material Cutting, Filing, Drilling, Threading, Assembly including Measuring and Marking.

Q. 3 What are the process of Fitting Shop.

Ans. See Ans. No. 2.

Q. 4 What is the name of Job perform in Fitting Shop.

Ans. Square with Side cut, Drill & Tapping..

Q. 5 What is the material of that Job.

Ans. Mild Steel 50x50x5 mm.

Q. 6 What is Mild Steel.

Ans. It is low carbon steel (carbon % 0.15 to 0.3)

Q. 7 What is Ferrous metal.

Ans. It is alloy of carbon & Iron called ferrous metal like cast iron, mild steel, high carbon steel, stainless steel etc..

Q. 8 What is Non ferrous metal.

Ans. Metal does not contain carbon like Gold, Silver, Copper, Aluminium.

Q. 9 What are classification of Tools in FS with example.

Ans. (a) Measuring & Marketing Tool -

Steel Rule, Try Square, Callipers, Vernier Callipers, Height Gauge, Surface plate punch.

(b) Cutting Tool -

Hacksaw Blade, File, Scriber, Die, Tap, Cutter

(c) Holding Tool -

Bench vice, Pipe vice, Pin vice

(d) Striking Tool -

Hammers, Ball pen, Cross pen, Claw hammer & sledge hammer.

Q. 10 What is Classification of File.

- Ans.
- (a) Single Cut/Double Cut (According to teeth)
 - (b) Degree of Finish - Rough, Medium - Finish Super Finish
 - (c) Length of File - Small, Medium & Large.
 - (d) Cross Section - Rectangular, Round, Half Round, Triangular etc.

- Q. 11 What is Filing.
 Ans. To remove unwanted material by rubbing.
- Q. 12 What are different type of callipers.
 Ans. Indisde, Outside, Odd leg, Vernier Callipers.
- Q. 13 What is use of Punch & its Types.
 Ans. For marking out work location, viz. Centre, Prick.
- Q. 14 What is use of Try Square.
 Ans. It is measuring Tool - Useful for checking 90° angle.
- Q. 15 What is Surface Plate.
 Ans. It is sort of marking Tool. It helps for marking and made of Grey Cast Iron.

(B) WELDING

- Q. 1 Define Welding ..
 Ans. Welding is a process to join similar or dissimilar metals by supply of heat with pressure Or No pressure and using welding Rod or no welding rod. .
- Q. 2 What are various joining Process. /
 Ans. Welding, soldering, Braging, Rivetting and Hardware Assembly.
- Q. 3 What are different types (Classification) of Welding.
 Ans. (a) Plastic or pressure welding. (b) Fusion or Non pressure welding.
- Q. 4 Give example of plastic or pressure welding..
 Ans. Forge welding, resistance welding (Here pressure is applied but not welding rod is used)..
- Q. 5 What is non pressure or fusion welding. Give example.
 Ans. In non pressure welding, pressure is not applied but welding rod is used.
 Example - Electri Arc Welding, Gas Welding, TIG, MIG Welding.
- Q. 6 What is the Arc Welding.
 Ans. In Arc welding, there is sudden voltage drop (say upto 20/22 and increase current 20/30 Amp.). That forms Arc on tip of Electrode (Welding rod) which produces Heat (3500°C).
 It is non pressure welding.
- Q. 7 What is gap between tip of Electrode & parent metal.
 Ans. Gap should be 2/3 mm in between
- Q. 8 Whate is Gas Welding.
 Ans. It is non pressure welding.
 Heat is produced by burning gases say oxygen & accetylene gas.
- Q 9 Name the types of flame in Gas Welding.
 Ans. (i) Neutral flame (Equal Qty. of both gas)
 (ii) Carburising flame (more accetylene less oxygen)
 (iii) Oxidising flame (less accetylene more oxygen)
- Q. 10 What is advantages of gas Welding
 Ans. It is useful for thin plate and sheet metal work.

Q. 11 What are equipment in Arc Welding.

- (i) Welding M/c (i.e. step down transformer).
- (ii) Cable
- (iv) Welding Rod Holder
- (v) Welding Table
- (vi) Earthing system
- (vii) Chipping Hammer

For Safety - Goggle, hand gloves, Apron are used while Welding.

Q. 12 Why Goggle or Head shield is used in Arc Welding.

Ans. In Arc Welding, ultra violet rays are produced that harm eyes. Goggle is used for eye's safety.

Q. 13 What are advantages of welding ?

- Ans.
- (i) It is simple to join.
 - (ii) No need of skilled worker.
 - (iii) Weld joint has higher strength
 - (iv) It takes less time to join.
 - (v) It is economical and fast.
 - (vi) Do weld at any position (i.e. overhead)

Q. 14 What are disadvantages of welding ?

- Ans.
- (i) It is rigid.
 - (ii) Welding members may distorted.
 - (iii) More safety precautions are required.
 - (iv) Fluctuating Voltage

Q. 15 What are Welding Defects.

- Ans.
- (i) Formation of Blow Hole (porosity).
 - (ii) Crack or hair crack between joints.
 - (iii) Distortion of thin plate.
 - (iv) Undercut

Q. 16 What are different type of welding joints.

Ans. "V" Butt joint, Lap Joint, T-joint, Corner Joint etc.

Q. 17 What is "V" Bult Joint.

Ans. Members (material) Placed side by side and in between there is V type groove.

Q. 18 What is Lap Joint.

Ans. Members (metal) placed one to another i.e. overlapped.

Q. 19 What is "T" joint.

Ans. One member Horizontal another vertical at centre of Horizontal one.

(C) CARPENTRY SHOP

Q. 1 What IS carpentry shop.

Ans. It is shop where wood work is carried out of using carpentry tools and process.

Q. 2 What Type of job are made in carpentry shop.

Ans. Normally joints like "T" joint mortise & tenon joint, Dove tail in our shop we have also made duster for black board.

Q. 3 What type of wood used in Job.

Ans. Teak Wood.

Q. 4 What are other type of woods used in carpentary work.

Ans. Apart teak, other wood like Sisam, Beeza, Sarai, Mango etc.

Q. 5 What is seasoning of wood.

Ans. It is process to remove the moisture content of raw wood.

Q. 6 What are different type of seasoning -

Ans. (i) Artificial (ii) Natural

Q. 7 What are different tools used in CS Give Example.

Ans. (a) **Marking & Measuring Tool -**

Steel; Rule, Try Square, Marking Gauge, Mortize Gauge

(b) **Holding Tools -**

Carpentary vice, Bench stopper

(c) **Cutting Tools -**

(i) Planner - Metal jack plane, trying plane, rebate plane, Rasp cut file.

(ii) Saw - Rip Saw, Cross cut Saw, Compass Sow, Coping Saw

(ii) Chisel - Fimer chisel, mortize chisel , devetail chisel

(d) **Striking Tool -**

(i) Mallet - (Wooden)

(ii) Claw Hammer

Q. 8 What is difference between Rip Saw and Cross Cut Saw.

Ans. Rip saw is used for cutting wood along its grain.

Cross cut saw is used for cutting wood across the grain.

Q. 9 What are main operation in CS.

Ans. Measuring and Marking -

Sawing, Planning, Chiseling, Boring, Drilling filling etc.

Q. 10 What is planning.

Ans. It is process to make wood smooth. Also to make the surfaces perpendicular to each other to get the required dimension.