

Level – 2 :: Question Paper

I. Short answer questions (10 x 3 = 30 marks)

1. What are the necessary steps to take when a person gets an electric shock?
2. What are the equipment needed to establish a fitting shop?
3. Differentiate between malleability and ductility
4. What is Charpy impact test? Describe the steps involved in conducting the test.
5. How to calculate the amount of weight to be placed over a mould to prevent it from lifting or bursting?
6. Explain the causes and remedies for “run out” defect in castings
7. Explain the different methods used for welding pipes and tubes
8. Why are stiffness and rigidity required for machine tool structures?
9. Two spur gears A (90 teeth) and B(60 teeth) are in mesh. If the gear A is rotating at 150 rpm, what is the speed of gear B?
10. What are the factors that decide the suitable cutting speed of a workpiece?

II. Long answer questions: Write any 6 questions (6 x 5 = 30)

1. Describe and compare two common techniques of artificial respiration
2. Draw and explain the layout of a welding shop
3. Sketch and describe lap dovetail joint used in carpentry shop.
4. Why is sand testing necessary in foundry? Describe the common tests performed on foundry sands.
5. What are the different techniques used to achieve directional solidification in castings? Explain them with neat diagrams.
6. What are the common methods of chip breaking? Describe them in detail.
7. Sketch and describe how an angle plate is used in lathe operations
8. With the help of a block diagram, describe the working principle of a shaper.