



HARYANA VISHWAKARMA SKILL UNIVERSITY

ROLL NO.....

SEMESTER : FIRST  
NAME OF THE COURSE : B.SC. (AUTOMOTIVE MECHATRONICS)  
NAME OF THE SUBJECT : MANUFACTURING TECHNOLOGY  
SUBJECT CODE : BME-101  
DURATION : 3 HOURS  
MAXIMUM MARKS : 35

**Instructions to the examinee:** This question paper consists of 2 sections.

1. **Section-I** has 10 objective type questions and each question carries one marks. All questions are compulsory. (1x10=10)
2. **Section-II** has 6 long answer type questions out of which students need to do any 5. Each question carries 5 marks. (5x5=25)

**SECTION-I (OBJECTIVE TYPE QUESTIONS)**

- Q1. Which flame is suitable for cutting operations?
- (a) Carburizing flame
  - (b) Oxidizing flame
  - (c) Neutral flame
  - (d) None of the above
- Q2. In arc welding, arc initiation voltage is of the order
- (a) 100-140 V
  - (b) 60-100 V
  - (c) 20-60 V
  - (d) 140-180 V

- Q3. The heat generated (H) in resistance welding is expressed by
- (a)  $IR_2t$
  - (b)  $I^2Rt$
  - (c)  $IRt_2$
  - (d)  $2IRT$
- Q4. The ability of the moulding sand to withstand the heat of melt without showing any sign of softening is called as
- (a) Adhesiveness
  - (b) Collapsibility
  - (c) Refractiveness
  - (d) Strength or Cohesiveness
- Q5. A model of casting, constructed to use for forming a mould in sand, is called as
- (a) Cover
  - (b) Pattern
  - (c) Sand construction
  - (d) None of the above
- Q6. The pattern which are made in two or more pieces are called as
- (a) Loose piece pattern
  - (b) None of the these
  - (c) Solid pattern
  - (d) Split pattern
- Q7. The function of the taper turning on lathe machine is to
- (a) Reduce the diameter of a workplace along its length
  - (b) Reduce the diameter by removing material about an axis offset from the axis of workpiece
  - (c) Remove the material from end surface of a workplace
  - (d) All of the above

Q8. What is the function of cone pulley drive in lathe machines?

- (a) Drive the tail-stock
- (b) Change the spindle speed
- (c) Drive the lead screw
- (d) All of the above

Q9. Good surface finish and better dimensional accuracy can be achieved in

- (a) Hot working process
- (b) Cold working process
- (c) Both a. and b.
- (d) None of the above

Q10. Thermosetting materials are

- (a) the plastics which can be softened even after they have set and hardened
- (b) the plastics which require heat and pressure to mould them into shape
- (c) Both a. and b.
- (d) None of the above

## SECTION-II (LONG ANSWER TYPE QUESTIONS)

- Q1. Define metal casting and explain different types of patterns.
- Q2. Explain single point cutting tool and its geometry.
- Q3. Write a detail note on purpose and type of cutting fluids.
- Q4. Discuss the process of TIG and MIG with diagram.
- Q5. What is meant by forging of metals? Discuss different type of extrusion of metals.
- Q6 Discuss the injection moulding process used in plastic industries.

**'END OF PAPER'**