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Question Paper Code: 59713

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Mechanical Engineering

19UME302 - FUNDAMENTALS OF MANUFACTURING PROCESSES

(Regulation 2019)

Duration: One hour

Maximum: 30Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Chills are used in molds to CO1- R
(a) Achieve directional solidification (b) Increase freezing zone
(c) Reduce freezing zone (d) Smoothen metal flow for reducing spatter
2. The pattern used for mass production is CO1- U
(a) Match plate pattern (b) Split pattern
(c) Skeleton pattern (d) Single plate pattern
3. The ratio of acetylene to oxygen is approximately ____ for neutral CO2-R
flames used in gas welding.
(a) 1:1 (b) 2:3 (c) 3:2 (d) 2:5
4. Heat is created by the chemical reaction in CO2-R
(a) Resistance welding (b) Oxyacetylene welding
(c) Tungsten arc welding (d) Thermit welding
5. Good surface finish and better dimensional accuracy can be achieved in CO3- U
(a) Cold working process (b) Hot working process
(c) Both (a) and (b) (d) None of the above
6. In circular drawing process, when the depth of drawing is more than the CO3- R
diameter of the die, then the process is called as
(a) Forced drawing (b) Hollow drawing (c) Deep drawing (d) All of the above

7. Shearing the sheet into two or more pieces is known as? CO4- U
 (a) Perforating (b) Parting
 (c) Notching (d) Lancing
8. As the clearance increases, the punch force required? CO4- R
 (a) Decreases (b) Increases
 (c) Remains same (d) First increases then decrease
9. Which of the following is an example of thermoplastic material? CO5- U
 (a) Camera bodies (b) Automobile parts
 (c) Electric plugs (d) Electric insulation
10. Which of the following characteristics does not affect the properties of plastics? CO5- U
 (a) Their molecular structure (b) Their degree of polymerization
 (c) Both (a) and (b) (d) None of the above
 (e)

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Explain about various properties required for the molding sand. CO1- U (8)
12. Explain about various welding defects and explain the remedies for those defects. CO2- U (8)
13. Write a short note on Wire drawing and Tube drawing. CO3- U (8)
14. Enumerate rubber pad forming process with suitable sketch. CO4- U (8)
15. Explain about thermoforming process and its types with neat sketch CO5- U (8)