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**Question Paper Code: 43702**

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

Third Semester

Mechanical Engineering

14UME302 – MANUFACTURING TECHNOLOGY - I

(Regulation 2014)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. In green sand moulding process, uniform ramming leads to
  - (a) Less chance of gas porosity
  - (b) Uniform flow of molten metal into the mould cavity
  - (c) Greater dimensional stability of casting
  - (d) Less sand expansion type of casting defect
  
2. Chills are used in moulds to
  - (a) Achieve directional solidification
  - (b) Increase freezing zone
  - (c) Reduce freezing zone
  - (d) Smoothen metal flow for reducing spatter
  
3. High speed electron Beam of EBW is focused on the weld spot using
  - (a) Vacuums lens
  - (b) Inert gas lens
  - (c) Optical lens
  - (d) Magnetic lens

4. TIG welding uses
- (a) Bare consumable electrode                      (b) Non consumable electrode  
(c) Coated consumable electrode                      (d) Flux coated electrode
5. Recrystallisation temperature is
- (a) Melting temperature                      (b) Above melting temperature  
(c) Below melting temperature                      (d) Solidification temperature
6. Blanking is one of the
- (a) Welding operations                      (b) Forging operations  
(c) Casting methods                      (d) Plastic processing
7. In which process the wall thickness of a drawn cup is made constant
- (a) Deep drawing                      (b) Ironing                      (c) Embossing                      (d) Redrawing
8. Press forging means
- (a) Repeated blow                      (b) Continuous squeezing  
(c) Bending                      (d) To make a hole
9. Plasticizer used for
- (a) To improve the viscosity of polymer                      (b) To enhance the colour  
(c) To enhance the polymerization                      (d) To improve strength
10. Parison is the term used in
- (a) Injection moulding                      (b) Shell moulding  
(c) Compression moulding                      (d) Blow moulding

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Explain the ceramic moulding process with neat sketches. Also state its merits and demerits. (8)
12. Explain the TIG welding process. Give its application. (8)

13. Enumerate the various hammers used for forging operations. (8)
14. Describe shearing operation in a sheet metal work with a neat sketch. (8)
15. Explain briefly with neat sketches, commercially used method of blow moulding for blowing of plastics bottles and mention their specific advantages. (8)