

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

Question Paper Code: 41372

B.E. / B.Tech. DEGREE EXAMINATION, NOVEMBER 2015

Third Semester

Mechanical Engineering

14UME302 – MANUFACTURING TECHNOLOGY - I

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Core print is the part of the

- (a) Core (b) Pattern (c) Gate (d) Moulding tool

2. The function of riser is

- (a) Feed the molten metal to the cavity
(b) Provide strength
(c) Remove oxide formation
(d) Reservoir of molten metal to make up for the shrinkage

3. The welding process used for weld the non metal is

- (a) Gas welding (b) Arc welding
(c) Ultrasonic welding (d) Resistance welding

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. Annealing leads to

(a) Relieve internal stress	(b) Improve surface finish
(c) Improve hardness	(d) Improve strength

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 (5 x 2 = 10 Marks)

11. What are the causes for the formation of blow holes in the sand casting?
12. What is the principle of Thermit welding?
13. What is meant by fullering?
14. What is the spring back effect in sheet metal component?
15. What is film blowing?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain the steps required to carry out green sand moulding. (16)

Or

(b) Illustrate about the lost wax method of moulding to cast quality product. Also state their advantages and disadvantages. (16)

17. (a) Compare and contrast TIG and MIG welding by explaining their principles of operation with necessary sketches. (16)

Or

(b) What are the special features of resistance welding methods? Explain all the methods in detail with neat sketches. (16)

18. (a) List out various extruding operations to make hollow tubes with necessary sketches. (16)

Or

(b) Enumerate the various hammers used for forging operations. (16)

19. (a) (i) Explain the basic nomenclature of tube banding with a simple sketch. (6)

(ii) Discuss super plastic forming with necessary sketches. (10)

Or

(b) (i) What is meant by stretch forming? Explain. (8)

(ii) Explain with a neat sketch the principle and operation of magnetic pulse forming. (8)

20. (a) Explain briefly with neat sketches, commercially used method of blow moulding for blowing of plastics bottles and mention their specific advantages. (16)

Or

(b) Illustrate about the various methods of injection moulding in the processing of plastics. (16)

