



Register Number:.....

B.E DEGREE EXAMINATIONS: MAY 2015

(Regulation 2013)

Third Semester

AUTOMOBILE ENGINEERING

U13AUT303: Automotive Manufacturing Technology

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Organic binders mainly used for _____
2. Permeability refers to
 - a) Avoiding the air to flow through sand
 - b) Permitting the air to flow through sand
 - c) Restricting the air flow through sand
 - d) Minimum of air flow through sand
3. In arc welding, the electric arc is produced between the work and the electrode by _____
4. The Hot working is carried out _____ times the melting point temperature
5. The operation of cutting a number of holes evenly spaced in a regular pattern on a sheet of metal is
 - a) notching
 - b) Perforating
 - c) lancing
 - d) trimming
6. Sintering can be defined as
 - a) bonding of adjacent surfaces of particles
 - b) process of converting loose powder into a green size
 - c) to obtain uniform distribution of particle size
 - d) none of the above
7. 0.0025 mm accuracy obtained from _____ machine
8. Injection moulding is more suitable for
 - a) Thermosetting plastics
 - b) Thermoplastics
 - c) Resin
 - d) Both a & b
9. In abrasive jet machining process, the filtered gas is supplied under a pressure of _____
10. The most common and accurate method of production of gear is by _____

- a) machining
- b) casting
- c) extruding
- d) injection moulding

PART B (10 x 2 = 20 Marks)

(Not more than 40 words)

- 11. What are the uses of runner and riser?
- 12. What are the properties of moulding sand?
- 13. What are the equipments used in the TIG welding?
- 14. List the different weld defects.
- 15. Define feed and depth of cut.
- 16. What is the purpose of dividing head in a milling machine?
- 17. What is the difference between a bloom and a billet?
- 18. What are the general advantages of forging as a manufacturing process?
- 19. What is thermoforming?
- 20. Define Plasticizers and Stabilizers.

PART C (5 x 14 = 70 Marks)

(Not more than 400 words)

- 21. a) (i) Enumerate the casting types. (4)
(ii) Explain the methods of to make the expendable casting. (10)
- 22. a) Explain the die casting process with neat sketch.
(OR)
b) Enumerate the working principle of thermit welding. Mention its applications.
- 23. a) (i) Explain the construction and working priciple of shaper with neat sketch. (10)
(ii) List the differences between shaper and planer. (4)
(OR)
b) Explain Electric Discharge Machining process with neat sketch.
- 24. a) Discuss the Injection Molding principle with neat sketch.
(OR)
b) Discuss the plastic Extrusion principle with neat sketch.

25. a) Brief the following with simple sketch.
a) Rolling, (b) Forging, (c) Extrusion, (d) Drawing

(OR)

- b) Discuss the conventional P/M process sequence with neat schematic diagram.
