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Question Paper Code: 77211

B.E/B.Tech DEGREE EXAMINATION, APRIL/MAY 2015.

Third semester

Automobile Engineering

ME- 6352 MANUFACTURING TECHNOLOGY

(Common to Aeronautical Engineering and also common to

Fourth semester Mechatronics Engineering)

(Regulation 2013)

Time: Three hours

maximum: 100 marks

Answer all questions

PART A – (10× 2 =20 marks)

1. What do you understand by core prints?
2. What is meant by skin dries mould/
3. Sketch the different oxy-acetylene gas welding flames.
4. What are the advantages and application of limit welding process?
5. What is difference between feed rod and lead screw?
6. What is the principle of ultrasonic machining?
7. How is foam drinking cups produced?
8. If a polymers is in form of a thin sheet, is it thermo-set or thermo –plastic?
Why?
9. What do you understand by “Roll Piercing”?
10. What is relative density of sintered components?

PART B- (5×16=80 marks)

- 11.(a) (1) Describe the expandable mould casting process and explain ,how the surface finish can be improves.(10)

(2) Compare the advantages of expendable mould casting with other process and its applications. (6)

Or

(b) (1) compare the true and semi centrifugal casting with respect to the process and application.(12)

(2) Mention the causes and remedies of blow holes, hot tears and misruns.(6)

12.(a) (1) Explain the coding method used for electrode used in SMAW.(6)

(2) What are the parameters that control weld quality in SMAW? (6)

(3) Discuss the advantages of AC equipments over DC equipments in arc welding. (4)

Or

(b) (1) describe the various laser power sources, its advantages and working of laser welding process. (12)

(2) What are defects and its remedies in laser welding? (4)

13.(a) (1) Describe the machine tool and fixtures essential for machining base ball from a wooden stock.(10)

(2) Highlight the difference between the straddle milling and form milling. (6)

Or

(b) (1) Describe the capabilities and potential of Electric Discharge machining. (12)

(2) Why is Kerf important in wire EDM? (4)

14. (a)(1) Describe the process that could be used to fabricate any one of the plastic components present in automobile.(12)

(2) What are the processes that are reasonable for making small production run of plastic components?(4)

Or

(b) (1) Describe the difference among the three major types of compression moulding. (8)

(2) Outline the precautions to be taken in shaping reinforces plastics. (8)

15.(a) (1) Explain with sketch the difference between direct and indirect extrusion.(8)

(2) Make a comparison between extrusion and rolling. (8)

Or

(b) Discuss in detail the steps involved in powder metallurgy route of preparing a component. (16)