

ROLL NO:

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B.E. (FULL TIME) END SEMESTER EXAMINATION, APRIL 2019

MANUFACTURING ENGINEERING DEPARTMENT

FIFTH SEMESTER

PR8652 - PRODUCTION OF AUTOMOTIVE COMPONENTS

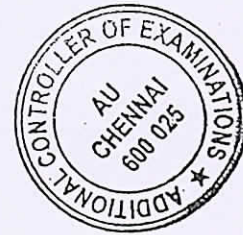
(Regulation 2012)

Time: 3 h

Max. Marks: 100

Part – A (10 X 2 = 20 Marks)

1. What are wet and dry liners?
2. What are the required properties of a piston material?
3. How piston ring are tested?
4. Compare forged Vs casted connecting rod.
5. What are various types of coatings done on engine valve?
6. Classify the different types of fuel system in petrol engine.
7. List the various components in an engine ignition system.
8. What are the materials used for clutch plates and brake shoes?
9. Mention any two robotic applications in the automotive manufacturing.
10. What is Hybrid vehicle?



Part – B (16 X 5 = 80 Marks)

11. Discuss about the materials and the production methods of cylinder block and cylinder head in detail. (16)
12. a) Describe the production processes involved in piston assembly. (16)  
(Or)  
b) Enumerate the sequence of operations in the production of crank shaft in detail. (16)
13. a) Discuss about the material, production methods of valve train assembly in detail. (16)  
(Or)  
b) Discuss the types of fuel injection pump and the production process of any one of them. (16)

14. a.i) Discuss about the types of suspension system in automobile. (8)

ii) Describe any one type of engine cooling system with a neat sketch. (8)

(Or)

b.i) Explain the working principle of braking system of an automotive in detail. (8)

ii) Discuss the production processes involved in the manufacturing of a propeller shaft. (8)

15. a) Explain the application of CAD and CAM in the manufacturing of automotive components. (16)

(Or)

b) Discuss about the modern manufacturing processes in the production of electric vehicle. (16)

