

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019

Course Code: AU466

Course Name: AUTOMOBILE MANUFACTURING TECHNOLOGY

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any three full questions, each carries 10 marks.

Marks

- 1 (a) Explain the material selection and manufacturing methods for Piston and Cylinder Block (10)
- 2 (a) Describe the advantages and disadvantages of Casting and Forging (10)
- 3 (a) What are the factors to be considered for the material selection for (10)
 - I. Connecting rod
 - II. Spark Plug
- 4 (a) Give notes on materials and manufacturing methods for the production of crankshaft (10)

PART B

Answer any three full questions, each carries 10 marks.

- 5 (a) Illustrate the functions of differential, gear and clutch lining also write the manufacturing methods for same. (10)
- 6 (a) Write the factors to be considered for the material selection of Fasteners, differential gears and bearings (10)
- 7 (a) Please make an idea about gear hobbing with the help of neat diagram. (5)
(b) Describe the working of gear shaping machine (5)
- 8 (a) Classify the gear manufacture methods. (5)
(b) What are the different manufacturing methods used in industries enumerate by the help of neat sketches (5)

PART C

Answer any four full questions, each carries 10 marks.

- 9 (a) How can we select the vehicle chassis materials for two wheelers (5)
(b) Why we selected those material for the chassis components make sure the advantage factors of the materials. (5)
- 10 (a) Enumerate the material selection and manufacturing methods for chassis (10)
- 11 (a) Describe the materials used for the axle used automobiles (6)

- (b) Write the advantages of the materials used in axles (4)
- 12 (a) Robots are emerged in world wide applications, how robots are helps in auto industries by means of body shop welding. (5)
- (b) Make a chart about the application of robots in automobile industry. (5)
- 13 (a) Catalytic converters are reduces the pollution rate is the statement is correct? (5)
And how it is work?
- (b) What are the components in catalytic converter, also mention the materials used for these components for manufacturing the catalytic converter. (5)
- 14 (a) Latest automobile trend will move to green engineering as per the part of this a lot of emission control systems are build in automobiles, write some of the emission control systems used in automobiles (4)
- (b) Draw and explain hydro forming of exhaust manifold (6)
