

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

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|---|---|------|
| 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
I. Connecting rod
II. Spark Plug | (10) |
| 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.

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|---|---|------|
| 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.

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| 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? And how it is work? (5)
- (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)
