

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fifth semester B.Tech degree examinations (S) September 2020

Course Code: AU402**Course Name: TWO AND THREE WHEELERS**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any three full questions, each carries 10 marks.*

Marks

- | | | |
|---|---|------|
| 1 | a) Explain the symmetrical port timing with the help of diagram. | (5) |
| | b) Discuss the advantages and disadvantages of SI engine over CI engine. | (5) |
| 2 | a) What do you mean by scavenging? | (2) |
| | b) Explain any two types of scavenging process with suitable sketches. | (8) |
| 3 | a) With the help of neat sketches explain splash and pump lubrication system. | (8) |
| | b) What are the advantages of lubrication system? | (2) |
| 4 | With the help of neat diagram, explain flywheel magneto system. What are the advantages of CDI? | (10) |

PART B*Answer any three full questions, each carries 10 marks.*

- | | | |
|---|---|------|
| 5 | a) What are the requirements of good clutch? | (4) |
| | b) Explain the construction details of centrifugal clutch with sketch. | (6) |
| 6 | What is the purpose of gear box? Explain the construction and working of constant mesh gear box with neat sketch. | (10) |
| 7 | a) Explain the rear suspension used in three wheelers with sketch. | (6) |
| | b) Explain the construction details of chain drive. | (4) |
| 8 | Explain diamond frame and cradle frame with suitable sketches. | (10) |

PART C*Answer any four full questions, each carries 10 marks.*

- | | | |
|----|---|------|
| 9 | a) With the help of neat cross section explain conventional tyre with tube. | (6) |
| | b) Describe the components of cast wheel with the aid of sketch. | (4) |
| 10 | With the help of neat diagram explain directional indicators layout for three wheelers. | (10) |

- 11 a) What is the importance of steering geometry? (2)
b) State the advantages of perfect steering geometry. (2)
c) Explain Caster angle and king pin inclination. (6)
- 12 Explain various components of a two wheelers with the help of a diagram. (10)
- 13 a) How two wheelers are classified? (5)
b) List out the maintenance steps following for daily inspection before going on for drive in the case of a two wheeler. (5)
- 14 a) Explain the features of pick up van with suitable diagram. (7)
b) What is running in period and state its importance. (3)
