

# CBCS SCHEME

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18AU743

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022

## Two and Three Wheeled Vehicles

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain the layout of a moped with neat sketch. (08 Marks)  
b. Why scooters are not preferred for long journeys. Also explain layout of scooter. (06 Marks)  
c. Briefly explain basic system used to build a four wheeler. (06 Marks)

OR

- 2 a. Explain factors affecting vehicle stability. (08 Marks)  
b. Which are the various performance measurement carried out for two wheelers. (08 Marks)  
c. Define aerodynamics. Explain phenomena of drag. (04 Marks)

### Module-2

- 3 a. State the limitation of a simple carburetor. Also explain various circuits used in modern carburetors. (10 Marks)  
b. Explain construction and working of radiation with neat sketch. (06 Marks)  
c. What are the desired properties of good lubricating oil? Explain. (04 Marks)

OR

- 4 a. Explain electronic ignition system with neat sketch. (08 Marks)  
b. With neat sketch, explain construction and working of spark plug. (08 Marks)  
c. Write short note on headlight Reflectors. (04 Marks)

### Module-3

- 5 a. Explain construction and working of multiplate clutch, with neat diagram. (10 Marks)  
b. Explain constant mesh gearbox with ball lock type mechanism. (10 Marks)

OR

- 6 a. Explain with neat sketch hand operated gear shifting mechanism. (08 Marks)  
b. Explain construction and working of shaft drive. (08 Marks)  
c. Explain importance of Cush drive. (04 Marks)

### Module-4

- 7 a. Draw a neat diagram showing various components of a conventional frame. Also explain their functions. (08 Marks)  
b. Why frame is necessary? Explain various loads acting on the frame. (04 Marks)  
c. Explain construction and working of shock absorber. (08 Marks)

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OR

- 8 a. Explain various components of disc brake with neat sketch. (08 Marks)  
b. Explain the hand operated mechanical brake with neat sketch. (08 Marks)  
c. Which are the basic requirements of tyre? Explain. (04 Marks)

Module-5

- 9 a. Explain layout of passenger auto rickshaw with neat diagram. (08 Marks)  
b. Classify loading auto rickshaws. Also explain characteristics of each layout. (12 Marks)

OR

- 10 Write short note on : (20 Marks)  
i) Decarburizing procedure of engine/silencer  
ii) Periodic inspection of two wheelers  
iii) Trouble diagnosis charts of two wheeler  
iv) Lubrication charts.

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