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17AU754

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

**Two and Three Wheeled Vehicle**

Time: 3 hrs.

Max. Marks: 100

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

**Module-1**

- 1 a. What is IC engine? List out the difference between two stroke and four stroke engine. (10 Marks)  
b. With the aid of sketch, explain the construction of a 2 stroke engine. (10 Marks)

**OR**

- 2 a. Draw and explain port timing diagram of two stroke engine. (10 Marks)  
b. Explain the power system of a electric bike with simple block diagram. (10 Marks)

**Module-2**

- 3 a. Explain the Fuel supply system with help of layout in two wheeled vehicles. (08 Marks)  
b. Explain various types of carburetors used in two wheelers. (08 Marks)  
c. Compare Air cooling Vs water cooling system. (04 Marks)

**OR**

- 4 a. Explain the construction of a spark plug with a neat sketch. (10 Marks)  
b. Explain the construction and working of a magneto ignition system adopted in two wheeler engines. (10 Marks)

**Module-3**

- 5 a. List out the primary drives and briefly explain. (10 Marks)  
b. Sketch and explain the working of multi-plate clutch. (10 Marks)

**OR**

- 6 a. Explain the construction and working of constant Mesh gear box with neat sketch. (10 Marks)  
b. List out the types of gears used in motor cycle transmission, specify the gear ratio. (10 Marks)

**Module-4**

- 7 a. Discuss the constructional detail of different frames used for 2 and 3 wheeled vehicle. (10 Marks)  
b. Discuss the following terms : (10 Marks)  
i) Shock absorber construction  
ii) Controls on handle bar.

**OR**

- 8 a. What are the advantages and disadvantages of disc brakes and drum brakes? (10 Marks)  
b. Explain the type of wheels and loads acting on wheels. (10 Marks)

**Module-5**

- 9 a. Write the advantages and disadvantages of front mounted engine in three wheeler. (08 Marks)  
b. Write a short note on : i) Autorickshaw ii) Engine location for 3-wheeler iii) Pickup van. (12 Marks)

**OR**

- 10 a. List the types of maintenance. Explain the importance of maintenance. (08 Marks)  
b. Write the decarburizing procedure for engine and silencer. (08 Marks)  
c. What are the points consider for the maintenance scheduling. (04 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.