

Seat No. **OCT-NOV 2025 WINTER EXAMINATION****1154 B.Tech. CBCS****Sub. Name: Automobile Engineering****Sub. Code: 67506/83717/83952****Day and Date: Monday ,08-12-2025****Total Marks: 70****Time: 02:30 PM To 05:00 PM**

- Instructions:**
1. All questions are compulsory
 2. Assume suitable data wherever necessary and mention it boldly
 3. Draw neat labelled diagrams wherever necessary
 4. Figures to the right indicate full marks

- Q1)** Attempt any two from the following. **[12]**
- a) Draw the layout of the automobile vehicle in general showing important components.
 - b) Which are the different types of chassis? What are the materials used for chassis frames?
 - c) Explain types of frames and Sub frames
- Q2)** Attempt any two from the following. **[12]**
- a) Write different types clutches used in automobiles. Explain centrifugal clutch with neat sketch
 - b) Explain Synchromesh gear box in detail
 - c) Explain the working of Differential in detail.
- Q3)** Attempt any two from the following. **[12]**
- a) Which are two types of steering mechanism? Explain any one of them with neat sketch
 - b) Explain in detail power steering system.
 - c) Explain telescopic shock absorber
- Q4)** Attempt any two from the following. **[12]**
- a) Explain with layout sketch working of ABS list advantages
 - b) What is need of wheel alignment? Which parameters are checked in wheel alignment.
 - c) What are various types of brakes? Compare drum brakes with disc brakes
- Q5)** Attempt any two from the following. **[12]**
- a) Explain the principle and operation of lead - acid battery
 - b) What is the function of Alternator explain with neat sketch
 - c) Draw a neat circuit diagram of automobile starting system.
- Q6)** Attempt any two from the following. **[10]**
- a) Explain Air, Rolling and Gradient resistance to the vehicle motion

- b) Explain different sensors used in automobile
- c) Explain Gradability and draw bar pull

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (101) Bachelor of Engineering (83952) Automobile Engineering Part 4 SEM 7
- 2] (101) Bachelor of Engineering (67506) Automobile Engineering Part 4 SEM 7
- 3] (1154) B.Tech. CBCS (83717) Automobile Engineering Part 4 SEM 7