

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BE
BRANCH: MECHANICAL**

**SEMESTER: VI
SESSION : SP/2020**

SUBJECT : ME6001 AUTOMOBILE ENGINEERING

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
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- Q1 (a) Define Carburation? List the functions of carburetor. [2]
(b) Explain the construction and working of a simple carburetor. [3]
- Q2 (a) Discuss the need of Injection systems in SI engine. [2]
(b) With suitable sketch describe Port injection system and Throttle body injection system? [3]
- Q3 (a) Define Air resistance. [2]
(b) Describe Gradability and Acceleration. [3]
- Q4 (a) What are the factors affecting rolling resistance? [2]
(b) With suitable graph, explain the road performance curves. [3]
- Q5 (a) List the functions of clutch. [2]
(b) With suitable sketch, Explain the construction and working of centrifugal clutch. [3]
- Q6 (a) What are the functions of transmission system? [2]
(b) Explain the construction and working of Sliding Mesh gearbox. [3]

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