**Rajasthan Institute of Engineering & Technology, Jaipur**

III Year B. Tech V Semester I Mid Term Examination, September – 2018

Branch: - Mechanical Engineering SET-A

Subject: - Automobile Engg. (5ME6.2A) Section: ALL

Time: -2 Hrs. [Maximum Marks: -20]

[Min. Passing Marks: 8]

Instructions to Candidates: -

Attempt all questions. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.

Q.1 What is chassis? Explain different types of frames and bodies for automobiles.

OR

Explain the layout of an automotive chassis with the help of diagram and explain all the major components.

Q.2 Explain types of clutches. Explain electromagnetic clutch with neat sketch.

OR

Explain the working of a single plate clutch.

Q.3 What are the different types of gear boxes? Describe constant gear box.

OR

What are the advantages of a synchromesh gear box. Explain with diagram.

Q.4 Explain the construction and working of hydraulic torque converter.

OR

Explain the working of a differential along with its applications.

**Rajasthan Institute of Engineering & Technology, Jaipur**

III Year B. Tech V Semester I Mid Term Examination, September – 2018

Branch: - Mechanical Engineering SET-B

Subject: - Automobile Engg. (5ME6.2A) Section: ALL

Time: -2 Hrs. [Maximum Marks: -20]

[Min. Passing Marks: 8]

Instructions to Candidates: -

Attempt all questions. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.

Q.1 What is chassis? Explain the different types of chassis.

OR

What are the requirements of a good clutch system.

Q.2 Explain types of clutches. Explain semi-centrifugal clutch with neat sketch.

OR

Explain the automatic clutch system with the help of a diagram.

Q.3 Explain the sliding mesh gear box system indicating each gear shift with the help of diagrams.

OR

Explain the working of a CVT of planetary gear box used in the automatic transmission system.

Q.4 Explain the Hotchkiss and torque tube drives with the help of diagrams.

OR

Explain the following:

1. Overdrive
2. Propeller shaft
3. Universal joint
4. Front wheel, rear wheel & all-wheel drive.