

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BVOC - SEMESTER-VI EXAMINATION – SUMMER 2022

Subject Code:1160102

Date:04-06-2022

Subject Name:Auto NVH - II

Time:10:30 AM TO 12:30 PM

Total Marks: 50

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

Q.1 (a) Define Noise, Vibration and Harshness. **05**

(b) Discuss the types of NVH with examples. **05**

Q.2 (a) What is Structure borne and Air borne sound? Differentiate them. **05**

(b) Differentiate Simple rubber and Hydro- elastic engine mounts. **05**

OR

(b) Give difference between semi-active and Active mounts. **05**

Q.3 (a) What is acoustics? Also define Plane wave propagation. **05**

(b) Write a short note on spherical wave propagation with near and far field acoustics. **05**

OR

Q.3 (a) Write the effects of reflecting surfaces on sound propagation. **05**

(b) Why NVH is necessary? Also define various NVH Sources. **05**

Q.4 (a) Discuss the application of NVH test equipments. **05**

(b) How tire noise can be identified? Give some solutions to prevent it. **05**

OR

Q.4 (a) Write a short note on brake noise. **05**

(b) What are the advantages of reducing NVH? Discuss it. **05**

Q.5 (a) What are the types of Vibration? Also discuss vibration isolation. **05**

(b) Write a short note on noise from stationary vehicles. **05**

OR

Q.5 (a) Explain Catalytic converter with neat sketch. **05**

(b) Write a short note on Intake and Exhaust noise from vehicles. **05**
