

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech., Winter 2019 - 20 Examination

Semester: 5
Subject Code: 03102330
Subject Name: Automotive Certification and Homologation

Date: 05/12/2019
Time: 10:30 am to 1:00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 ObjectiveTypeQuestions. (15)

1. ARAI standfor.....
2. India stand..... rank in the largest manufacturing of car around theworld.
3. NCAP standfor.....
4. 1 horsepower =.....kW.
5. BMEP stands for.....
6. Full form of ECE.....
7. Friction material used in brake pad is made up of?
8. Does homologation destroy the vehicle duringtest?
9. Define: Unladen weight
10. Full form of SRS.....
11. Coefficient of Adhesion of the track for coast down test is
 (A) 0.8 (B) 0.4 (C) 1 (D) 0.6
12. In brake test, the force is applied at from the end of brake lever in 2 wheeler.
 (A) 45mm (B) 50mm (C) 25mm (D) 10mm
13. A vehicle is weighed in?
 (A) Newton (B) Tonne (C) Kilogram (D) Pound
14. What would be measured by using plungertest?
 (A) Wear of tyre (B) Strength of tyre (C) Life of tyre (D) Reliability of tyre
15. What is a telltale of hazard light?
 (A) Red (B) Green (C)Yellow (D) Blue

Q.2 Answer the following questions. (Attempt any three) (15)

- A) Classify different types of dynamometers and explain any one.
- B) Explain vehicle weighment test.
- C) Explain evaporative emissions of vehicle.
- D) Give the classification of vehicles.

Q.3 A) List down various crash test and explain any two with neat diagrams. (07)

- B) Explain active and passive safety systems. (08)

OR

- B) Explain pass-by noise test. (08)

Q.4 A) Explain headlamp alignment test with diagram. (07)**OR**

- A) Explain types of seat belts with neat sketch. (07)

- B) Write a note on CMVR. (08)