

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Automotive Maintenance and Safety

Subject Code: 4TE05AMS1

Branch: B.Tech (Automobile)

Semester: 5

Date: 28/03/2017

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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Q-1 Attempt the following questions: (14)

- a) What is need of maintenance?
- b) What is reactive maintenance?
- c) Prepare Inspection schedule for a two wheeler of 150cc.
- d) Enlist different types of tools used to perform the maintenance procedure and process.
- e) List various types of files.
- f) Why is wheel alignment necessary?
- g) What is torque wrench?
- h) Which gases are mainly detected in exhaust gas analyzer?
- i) What do you mean by clutch hard pedal?
- j) The tilting of the front wheels away from the vertical, when viewed from the front of the car, is called_____ (Camber/Caster)
- k) Why proper inspection is necessary after repairing braking system?
- l) Explain Function of anticorrosion and antifreeze additives.
- m) What do you mean by flushing of cooling system?
- n) What is active safety?

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions

- a) Differentiate between predictive maintenance and preventive maintenance. (07)
- b) Draw and explain vehicle maintenance check sheet used in service stations. (07)

Q-3 Attempt all questions

- a) Discuss construction and operation of tyre changer. (07)
- b) Explain engine removal and disassembly procedure (07)

Q-4 Attempt all questions

- a) Explain procedure for engine tune up. (07)
- b) What is Cylinder honing? Explain it in detail with step-by-step procedure for honing (07)



- Q-5** **Attempt all questions**
- a) Which are the common clutch problems observed in the clutch? Explain their remedy in detail. (07)
 - b) Describe common services procedure to be carried out for Differential. (07)
- Q-6** **Attempt all questions**
- a) Explain service, repair and overhaul process for suspension system. (07)
 - b) List down various symptoms and possible faults in diesel injection system. (07)
- Q-7** **Attempt all questions**
- a) Discuss On-board diagnostic system. (07)
 - b) Explain various leak detection techniques for cooling system (07)
- Q-8** **Attempt all questions**
- a) Explain briefly about air bag system. (07)
 - b) Explain collapsible steering and tiltable steering wheel with neat sketch. (07)

