

Sample Test Paper – I

Course Name : Diploma in Automobile Engineering

Course Code : AE

Semester : Sixth

Subject : Vehicle System Maintenance

Marks : 25

17618

Time: 1 Hrs.

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**Instructions:**

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.

**Q.1 Attempt any THREE of the following**

**09 Marks**

- a) List the general tools required for garage.(Any six)
- b) State the function of
  - i) Cylinder bore gauge ii) Engine analyzer iii) Torque wrench
- c) What is the necessity of maintenance? List types of maintenance.
- d) What is the importance of vehicle history sheet in auto workshop?

**Q.2 Attempt any TWO of the following**

**08 Marks**

- a) Draw the layout required for Two Wheeler dealers workshop to sell 150 vehicles per Month.  
Show the garage facilities which are necessary.
- b) Differentiate between preventive maintenance and breakdown maintenance.
- c) Write at least four causes and remedies for engine overheating.

**Q.3 Attempt any TWO of the following**

**08 Marks**

- a) Engine emits blue smoke. Suggest probable causes and its remedies.
- b) Write the procedure for checking cylinder block.
- c) State at least four causes and its remedies for engine developing less power.

Sample Test Paper – II

Course Name : Diploma in Automobile Engineering

Course Code : AE

Semester : Sixth

Subject : Vehicle System Maintenance

Marks : 25

17618

Time: 1 Hrs.

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**Instructions:**

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.

**Q.1 Attempt any THREE of the following**

**09 Marks**

- a) Write four major causes and remedies for excessive oil consumption.
- b) What will happen if radiator pressure cap is **not** fitted?
- c) Write important four causes and remedies for noise in differential gear box?
- d) State reasons and give remedies of air bubble entering in to the hydraulic brake fluid line.

**Q.2 Attempt any TWO of the following**

**08 Marks**

- a) State names of run-out checking methods for clutch plates? Describe any one with neat sketch.
- b) Write any four causes and remedies for noise in Gear Box.
- c) Write the procedure for dynamic wheel balancing.

**Q.3 Attempt any TWO of the following**

**08 Marks**

- a) Write the repainting procedure for car.
- b) Describe the door adjustment procedure.
- c) Write major four causes and remedies for vehicle pulling to one side.

Sample Question Paper

Course Name : Diploma in Automobile Engineering

Course Code : AE

Semester : Sixth

Subject : Vehicle System Maintenance

Marks : 100

17618

Time: 3 Hrs.

**Instructions:**

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.

**Q.1 (A) Attempt any Three of the following**

**12 Marks**

- a) Write function of following equipments
  - i) FIP Calibration machine.
  - ii) Valve grinder
  - iii) Head Light aligner
  - iv) Cylinder Honning machine.
- b) State general safety precautions and procedures to be followed in auto workshop.
- c) Prepare Scheduled maintenance for passenger car.
- d) Describe the inspection procedure for cylinder bore.

**Q.1 (B) Attempt any ONE of the following**

**06 Marks**

- a) Draw a layout required for a garage servicing different makes of 20 passenger cars per day.  
List important generalized and specialized equipments required for the same.
- b) Describe the scheduled maintenance procedure for heavy vehicle after 30,000 KM run.

**Q.2 Attempt any Four of the following**

**16 Marks**

- a) List the documents which are to be maintained in automobile workshop and show the format of job card.
- b) State the criterion to decide whether a vehicle component is to be repaired or replaced.
- c) State various tests conducted for mechanical fuel injector. Describe any one test with neat sketch.
- d) What will happen if O<sub>2</sub> Sensor in MPFI System does not work?
- e) What are major four probable causes and remedies for Low oil pressure in engine?
- f) Write any four probable causes and remedies for 'soot in exhaust'

**Q.3 Attempt any Four of the following**

**16 Marks**

- a) Write stepwise procedure to carry out the vacuum test for cylinder with suitable sketch.
- b) Write stepwise inspection procedure for radiator leakage.
- c) What is vapor lock in petrol engine? How vapor lock can be removed?

- d) If a milk tanker is not climbing hilly section. Write probable any four important causes and remedies.
- e) Engine does not start in winter condition, state probable at least four reasons and give its remedies

**Q.4 (A) Attempt any three of the following**

**12 Marks**

- a) Write inspection procedure for lubrication system.
- b) What is engine tune up? Write the procedure for engine tune up with help of block diagram.
- c) How cylinder head inspection is carried out?
- d) Write major four reasons and give remedies for clutch slippage.

**Q.4 (B) Attempt any One of the following**

**06 Marks**

- a) What is calibration of FIP? How calibration is carried out on FIP test bench?
- b) Write procedure for wheel alignment with neat sketch.

**Q.5 Attempt any Four of the following**

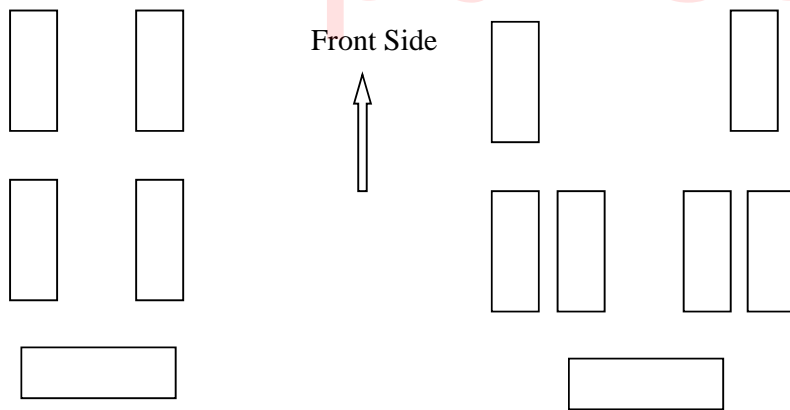
**16 Marks**

- a) Write major four causes and remedies of humming noise from differential.
- b) What is the necessity of bearing preload? Write its procedure?
- c) Write stepwise procedure for checking differential ring gear run out.
- d) Write any four causes and remedies for noise in propeller shaft.
- e) Write step wise procedure for clutch pedal adjustment with neat sketch.
- f) What are the types of brake bleeding? Write procedure for manual bleeding with neat sketch

**Q.6 Attempt any Four of the following**

**16 Marks**

- a) Suggest the tyre rotation in wheel arrangements shown in fig. and draw the same.



**Four Wheeler with spare wheel**

**Six Wheeler with spare wheel**

- b) How will you enhance tyre life?
- c) Write any four painting defects with neat sketch.
- d) Describe frame alignment procedure with neat sketch.
- e) Describe stepwise procedure for dent removal.