

17618

11819

3 Hours / 100 Marks

Seat No.

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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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
- (6) Preferably, write the answers in sequential order.

Marks

1. a) Attempt any THREE of the following: 12
- (i) Write the functions of following equipments:
- (1) Wheel balancer
- (2) Cylinder honning m/c
- (ii) Give any two examples each of hand tools, special tool, measuring tools and equipments.
- (iii) List the documents which are to be maintained in automobile workshop and show the format of job card.
- (iv) State causes and remedies of “Low engine compression”.
- b) Attempt any ONE of the following: 6
- (i) Draw a layout required for Hero Honda dealer to sell 100 vehicles per month.
- (ii) Describe the scheduled maintenance procedure for heavy vehicle after 30,000 km run.

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- 2. Attempt any FOUR of the following:** **16**
- a) Explain how the preventive maintenance is better than breakdown maintenance?
 - b) State the criteria to decide whether a vehicle component is to be repaired or replaced.
 - c) What is FIP phasing and calibration?
 - d) What will happen if O₂ sensor in MPFI system doesn't work?
 - e) What does low oil pressure indicate? What are its causes?
 - f) Write any four probable causes and remedies of starting system.
- 3. Attempt any FOUR of the following:** **16**
- a) Write stepwise procedure to carry out the vacuum test for cylinder with suitable sketch.
 - b) Write stepwise procedure to conduct cylinder leakage test.
 - 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 causes and remedies.
 - e) Describe maintenance of engine cooling system.
 - f) What is the function of head light aligner? How will you set the head light focus of two wheeler?
- 4. a) Attempt any THREE of the following:** **12**
- (i) How will you carry out carburetor tune up procedure for any motor cycle?
 - (ii) What is engine tune up? Write the procedure for engine tune up with block diagram.
 - (iii) How cylinder bore inspection is carried out?
 - (iv) Write major four reasons and give remedies for a fault - "Clutch slip".

- b) **Attempt any ONE of the following:** **6**
- (i) Name the tests conducted for testing of mechanical fuel injectors. Explain any one.
 - (ii) How the adjustment of doors and lock is done? Describe.
- 5. Attempt any FOUR of the following:** **16**
- a) Write the step wise procedure for clutch pedal adjustments with neat sketch.
 - b) What are the reasons for hard gear shifting? How it can be rectified?
 - c) Write the stepwise procedure for checking differential ring gear run out.
 - d) Write any four causes and remedies for noise in propeller shaft.
 - e) Write the checking and inspecting procedure of pressure plate surface and axial spring height.
 - f) Write procedure for manual brake bleeding with neat sketch.
- 6. Attempt any FOUR of the following:** **16**
- a) Give the meaning of :
 - (i) Vulcanizing of tyre
 - (ii) Patch work
 - b) How will you enhance tyre life?
 - c) Write the procedure for wheel alignment with neat sketch.
 - d) State four causes and remedies of steering wobbling.
 - e) Describe the stepwise procedure for dent removal?
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