

315377

12526

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
- (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following :** **10**
- a) State the requirements of automobile bodies.
- b) Define Aerodynamic drag.
- c) List types of glasses and give its application in automobile bodies.
- d) List any four body parts that are made up of plastic.
- e) State two power tools used in body repair work along with their purpose.
- f) State four minor body repairs.
- g) State any two security systems used in modern car.

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- 2. Attempt any THREE of the following :** **12**
- a) Describe classification of four wheeler auto bodies according to shape.
 - b) Explain with neat sketch the effect of the aerodynamic drag on vehicle performance.
 - c) Describe types of sheet metal used in body construction along with its characteristics.
 - d) Explain the use of general purpose tools with relevant justification.
- 3. Attempt any THREE of the following :** **12**
- a) State the use of following materials in paints :-
 - i) Pigments
 - ii) Binder
 - iii) Thinner
 - iv) Additives
 - b) State general safety rules and measures in body shop.
 - c) Describe with sketches the damages in car body due to front end collision.
 - d) State the situations to replacement of panels with justification.
- 4. Attempt any THREE of the following :** **12**
- a) Explain the method of fiber glass repair.
 - b) Describe the basic design considerations for auto body safety.
 - c) State safety ratings of any four wheeler with relevant justification.
 - d) Explain Hot Dip Galvanization treatment.
 - e) Explain working of dual stage air bags.

5. Attempt any TWO of the following :**12**

- a) Select the body for truck and justify its use.
- b) Describe the following body refinishing materials with justification :
 - i) Fillers
 - ii) Primers
 - iii) Sealers
 - iv) Additives
- c) Select relevant method for removing a dent of a car body with justification.

6. Attempt any TWO of the following :**12**

- a) Explain the use of electric power tools with relevant justification.
 - b) Describe repainting procedure of old vehicle and state major equipments required for it.
 - c) State the legal and technical requirements for building a new auto body workshop.
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