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Register !	No.:			

April 2018

<u>Time - Three hours</u> (Maximum Marks: 75)

- [N.B: (1) Q.No. 8 in PART A and Q.No. 16 in PART B are compulsory.

 Answer any FOUR questions from the remaining in each PART A and PART B
 - (2) Answer division (a) or division (b) of each question in PART C.
 - (3) Each question carries 2 marks in PART A, 3 marks in Part B and 10 marks in PART C.]

PART - A

- 1. Define kerb weight.
- 2. What is limousine?
- 3. What is articulated bus?
- 4. What is tanker body?
- 5. What is neck in a seat?
- 6. Define pitching.
- 7. What is peeling?
- 8. Mention the uses of metal sections.

PART - B

- 9. Write any six necessity of motor vehicle body.
- 10. Write down the regulation for front visibility of passenger vehicle.
- 11. Explain the advantages of integral bus body construction.
- 12. Write short notes on drivers cabin design.
- 13. Write about towing jaws.
- 14. Explain about the effect of side winds.
- 15. Explain about soldering.
- 16. Explain defects of spray painting.

[Turn over....

PART - C

17. (a) Explain with the sketches the various types of car bodies and their special features.

(Or)

- (b) (i) Explain the various method of improving visibility.
 - (ii) Explain the crash testing for prototype auto vehicle.
- 18. (a) Explain the step by step procedure of bus body construction.

(Or)

- (b) (i) Explain all body construction with sketch.
 - (ii) Explain chassis construction.
- 19. (a) (i) Explain the types of heavy commercial vehicle bodies with necessary diagrams.
 - (ii) Explain the flat platform body construction.

(Or)

- (b) Explain seat design and seat angles for various commercial vehicle with suitable diagrams.
- 20. (a) Mention the objectives of aerodynamics and explain various types of vehicle drag.

(Or)

- (b) (i) Explain scale model testing.
 - (ii) Explain the optimization technique for minimum drag in vehicle body.
- 21. (a) Describe about various body building materials used for construction. State their merits and demerits.

(Or)

- (b) (i) Explain about vacuum coating.
 - (ii) Describe electrostatic painting.

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