

REVISED COURSE

TIME:-3HRS

Total marks: 80

N.B. (1). Question no. 1 is compulsory

(2). Attempt any three questions out of remaining five questions.

(3). Draw neat sketches to justify your answer.

1. (a) Explain the following with load path :- (10)
 - (i) Closed integral structures
 - (ii) Open Structures
 - (iii) Flat punt structures.
- (b) Stepwise explain the overall design criteria for vehicle comparison of same class. (10)
2. (a) What is preliminary design? Explain weight distribution of a passenger car. (10)
- (b) With neat sketches Explain the following layout: - (10)
 - (i) Normal Control
 - (ii) Forward Control
 - (iii) Semi forward Control
 - (iv) Underfloor engine
3. (a) what are the different material used in construction of the following:- (10)
 - (i) Passenger car
 - (ii) luxury Bus
- (b) Explain latest trend in manufacturing of automobiles. (10)
4. (a) Explain the different loads to which the Chassis frame is subjected. (10)
- (b) Explain the design requirement of driver's and passenger's seats. (10)
5. (a) Explain the effect of aerodynamics forces acting on the vehicles. (10)
- (b) Draw and explain different car body style. (10)
6. Write Short notes :- (20)
 - (a) Master model
 - (b) Ergonomics
 - (c) Spot welding
 - (d) Body Painting