

## ASSIGNMENT NO: 04

1. The change in slope between any two points on the elastic curve equals the area of M/EI diagram between both end points of beam.  
State whether the above statement is true or false.
  - a) True
  - b) False
2.  $\theta_{B/A}$  refers to:-
  - a) Angle of tangent at B measured wrt the tangent at A
  - b) Angle of tangent at A measured wrt the tangent at B
  - c) Angle of tangent at A measured wrt x axis
  - d) Angle of tangent at A measured wrt y axis
3. If area of M/EI diagram between points A and B is -ve, then angle from tangent A to tangent B will be measured :-
  - a) Counterclockwise
  - b) Clockwise
  - c) Can be anything
  - d) Angle will be 0
4. What is the dimension of  $\theta_{B/A}$  if area is measured in SI unit:-
  - a) Degree
  - b) Radian
  - c) Dimensionless
  - d) Can be any of them
5. The vertical deviation is measured along (if first point is A and second point is B):-
  - a) A vertical line passing through centre of A and B
  - b) A vertical line passing through A
  - c) A vertical line passing through B
  - d) A vertical line passing through either of the end points
6. The vertical deviation of tangent at point say A on the elastic curve with respect to the tangent extended from another point say B equals the “moment” of the area under the M/EI diagram between the two points about point :-
  - a) A
  - b) B
  - c) Between A and B
  - d) One of the end points
7. -ve M/EI area means tangent at A is:-
  - a) Higher than that extended from B
  - b) Lower than that extended from B
  - c) Can't say
  - d) Both are equal
8. In general  $t_{A/B}$  implies:-
  - a) Vertical deflection of tangent at B wrt that at A
  - b) Vertical deflection of tangent at A wrt that at B
  - c) Vertical deflection of extended tangent at B wrt tangent at A
  - d) Vertical deflection of tangent at A wrt extended tangent at B
9.  $T_{A/B}$  and  $t_{B/A}$  are:-
  - a) Always equal

- b) Always unequal
  - c) Can't say
  - d) One of them is zero
10. -ve moment bends the beam convex down.  
State whether the above sentence is true or false.
- a) True
  - b) False