NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Reinforced Concrete Road Bridges (course)

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Unit 3 - Week 2

Week 2 Assignment 2

The due date for submitting this assignment has passed. Due on 2019-09-11, 23:59 IST. As per our records you have not submitted this assignment.

1) An under-reinforced section means

(a) Steel is provided at the under side only
(b) Steel provided is insufficient
(c) Steel provided on one face only
(d) Steel will yield first

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)

2) Design of RCC simply supported beams carrying uniformly distributed load is based on the resultant bending moment at

(a) Supports
(b) Mid span
(c) Every section
(d) Quarter span

(a)
3) The shear reinforcement in reinforced concrete beams is provided to resist

(a) vertical shear
(b) diagonal compression
(c) horizontal shear
(d) diagonal tension

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b) 1 point

4) The basic assumption in effective width method is:

(a) Slab prevails two way action
(b) Slab prevails one way action
(c) Slab may prevail both one way and two way action
(d) None of these

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d) 1 point

5) The effective span of a simply supported deck slab is computed as

(a) clear span + effective depth
(b) clear span + bearing width
(c) maximum of (a) and (b)
(d) minimum of (a) and (b)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b) 1 point
6) The structure built at the ends of a bridge span whereon the bridge’s superstructure rests is called

(a) Deck  
(b) Girder  
(c) Abutment  
(d) Crash barrier

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
(d)

7) The modular ratio is the ratio of

(a) Young’s modulus of steel to Young’s modulus of concrete  
(b) Young’s modulus of concrete to Young’s modulus of steel  
(c) load carried by concrete to load carried by steel and concrete  
(d) load carried by concrete to load carried by steel

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
(c)

8) For $\sigma_{c} = 7.0 \, N/mm^2$ and $\sigma_{st} = 230 \, N/mm^2$, according to working stress method, the modular ratio will be

(a) 13.33  
(b) 16.00  
(c) 18.67  
(d) 21.33

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
(b)
9) **1 point**

For \( \sigma_{c,c} = 7.0 \text{ N/mm}^2 \) and \( \sigma_{st} = 230 \text{ N/mm}^2 \), the ratio of neutral axis from compression fiber and depth for balanced section is

- (a) 0.144
- (b) 0.216
- (c) 0.289
- (d) 0.361

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

10) **1 point**

For \( \sigma_{c,c} = 7.0 \text{ N/mm}^2 \) and \( \sigma_{st} = 230 \text{ N/mm}^2 \), width, \( b = 350mm \), effective depth, \( d = 550mm \) moment of resistance of the balanced section is

- (a) 72.506kNm
- (b) 96.674kNm
- (c) 120.843kNm
- (d) 145.011kNm

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)