

QUIZ NO: 801

TOPIC: REINFORCED CEMENT CONCRETE

DATE: 29/02/2024

1. As per LSM, the maximum strain in the tension reinforcement should not be less than

[A] $f_y/E_s + 0.002$

[B] $0.67f_y/E_s + 0.0035$

[C] $f_y/1.15E_s + 0.002$

[D] $0.36f_y/E_s + 0.0035$

Answer: C

2. In a balanced section

[A] Concrete will crush and steel will yield simultaneously

[B] Concrete will crush before steel yields

[C] Steel will yield before concrete crushes

[D] None of the above

Answer: A

3. LSM stands for

- [A] Load Safety Method
- [B] Load State Method
- [C] Limit Safety Method
- [D] Limit State Method

Answer: D

4. As per LSM,

P: Concrete in tension zone is neglected in design

Q: Partial safety factor for reinforcement is 1.15

R: Plane sections normal to the axis remain plane even after bending

- [A] Only P and Q
- [B] Only P and R
- [C] Only Q and R
- [D] All P, Q and R

Answer: D

5. A balanced RCC section reinforced with mild steel will have its limiting depth of neutral axis at a depth of

- [A] 0.53 times the effective depth from extreme tension fibre
- [B] 0.46 times the effective depth from extreme tension fibre
- [C] 0.53 times the effective depth from extreme compression fibre
- [D] 0.46 times the effective depth from extreme tension fibre

Answer: C

6. The design method adopted for the design of RCC structures as per IS 456-2000 is

- [A] Working Stress Method
- [B] Ultimate Load method
- [C] Limit State Method
- [D] Unit Load Method

Answer: C

7. The safest section is

- [A] Balanced section
- [B] Under reinforced section
- [C] Over reinforced section
- [D] Any of the above

Answer: B

8. For HYSD bar Fe-415 grade, the ratio of maximum depth of neutral axis to effective depth will be

- [A] 0.53
- [B] 0.50
- [C] 0.46
- [D] None of these

Answer: D

9. In an under reinforced section,

P: Maximum permissible stress of steel reaches first, before concrete

Q: Failure cracks will form as warning before collapse

R: Actual Neutral axis lies below critical Neutral axis

Which of the above statements are correct

[A] Only P and Q

[B] Only P and R

[C] Only Q and R

[D] All P, Q and R

Answer: A

10. As per LSM, the maximum strain in the tension reinforcement should
not be less than

[A] $0.67f_y/E_s + 0.002$

[B] $0.87f_y/E_s + 0.0035$

[C] $0.87f_y/E_s + 0.002$

[D] $0.67f_y/E_s + 0.0035$

Answer: C

Join our social media platforms

