

Question Bank (I Scheme)

Name of Course: Maintenance and Repairs of Structures
Semester: Sixth

Subject code: 22602
Programme: Civil Engineering

Unit test II

Unit 4: Maintenance and Repair Methods for Masonry

2 Marks Questions

1. List any four causes of crack formation in wall.
2. Write any four techniques used to reduce the rate of dampness in building.
3. Explain any one stage of repair in case of masonry wall.
4. Define: grouting, shotcreting.
5. State any four harmful effects of dampness.
6. State any four causes of foundation settlement.

4 Marks Questions

7. Enlist eight probable locations of occurrence of cracks in buildings.
8. Explain with cause and sketch any 2 commonly observed crack locations in masonry.
9. Explain repairing of cracks using grouting.
10. Explain repairing of cracks using patch spalling replacement.

11. Explain repairing of cracks using epoxy injection.
12. Explain repairing of cracks using shotcreting.
13. Explain the procedure for repair of major cracks in masonry.
14. Explain any one repair technique against dampness.
15. Explain any one soil improvement technique in detail.
16. Suggest any two materials necessary to repair the following: i) Dampness of RCC roof slab. ii) Dampness in the exterior brick wall iii) repair of 0.4 mm wide crack for total depth of a RCC slab iv) Concrete surface protection.

Unit 5: Maintenance and Repair Methods for RCC

2 Marks Questions

17. State any four common locations/reasons of crack occurrence in RCC structures.
18. Enlist any four causes of failure of RCC structures.
19. State any two causes of dampness in roof slab.
20. Differentiate between guniting and shotcreting.
21. List any two materials that can be used as corrosion resistant reinforcement.

4 Marks Questions

22. Write the step by step procedure for the following repair methods: i) Gunitting ii) Jacketing.
23. List out any four systems of waterproofing. Explain any one in detail.
24. State the step by step procedure of repair of crack in RCC slab by using epoxy injection method and also draw suitable sketch.
25. State any two reasons of reinforcement corrosion and explain the repair technique of it using rebar.
26. Enlist any four methods of preventing/repairing corrosion in reinforcement. Explain any one method in detail.

Unit 6: Structural Audit and Budget

2 Marks Questions

27. State the meaning of structural audit and budget estimation.
28. State any four points due to which structural audit is necessary.
29. State the importance of carrying out structural audit.
30. State the objectives of distress survey.
31. Define budget estimate.

4 Marks Questions

32. Illustrate the steps involved while performing structural audit.

33. Prepare the format involve any eight information data of building for structural audit.
34. Write a note on municipal regulations on structural audit.
35. Write the necessity and limitation of doing structural audit. As per Government of Maharashtra. State the necessary frequencies of structural audit upto 30 years building age and for building age above 30 years.
36. State the objectives of preparing budget estimate.