

CE8404 CONCRETE TECHNOLOGY

Important 13 Mark Questions

Part-B

1. Explain in detail the Hydration mechanism of cement. Also explain how you determine the reactivity of any cementation's material.
2. Compare the physical properties of 33,43, and 53 grades of concrete?
3. Discuss the requirements of physical and mechanical properties of good aggregate for concreting?
4. What is the effect of water cement ratio on strength and durability of concrete?
5. Examine the various type of plasticizers used in concrete and discuss the action in detail.
6. Differentiate between accelerators and retarders with suitable examples and also how you can determine dosage of admixtures?
7. Explain in detail about any four IS testing procedure for coarse aggregates?
8. Explain in detail about any four IS testing procedure for cement?
9. Explain physical properties of OPC.
10. What are initial and final setting time of cement and explain its importance.
11. Briefly describe about test on aggregate Specific gravity test crushing test and Impact test.
12. Define is super plasticizers? What are the classifications of super plasticizers?
13. What are chemical admixtures and Explain any four.
14. Explain the effects of GGBS and fly ash in concrete
15. Explain briefly about accelerators and retarders and water proofers.
16. Explain any five types of cement
17. Explain the types of chemical admixtures.
18. Briefly explain about properties of Aggregates.
19. Explain the mix design procedure for Concrete as per IS method. What is workability of concrete and Write its importance & significance of Workability.
20. Explain the procedure of any 3 tests Conducted on workability of concrete.
21. Explain the factors affecting the workability of concrete.
22. Describe the testing procedure for Conducting slump test in detail.

23. Discuss the role of various major compounds of cement and its hydrated products in the properties of cement?
24. Explain the Initial and final setting time of cement? What is their Importance?
25. Discuss the characteristics of good aggregate?
26. Examine the various type of plasticizers used in concrete and discuss the action in detail
27. Differentiate between accelerators and retarders with suitable examples and also how you can determine dosage of admixtures?
28. Explain about the fly ash? Write its characteristics and its effect briefly?
29. Explain the effect of concrete properties while adding silica fume and GGBS.
30. Explain the factors affecting proportioning of concrete mix? Discuss each in detail.
31. Explain the properties of concrete related to the mix design.
32. Explain the Physical properties of materials required for mix design.
33. Explain the requirements of concrete mix design.
34. Experiment with the procedure of compaction factor and slump cone test for testing workability of fresh concrete.
35. Experiment with the procedure of compressive and flexural strength test conducted on cement concrete element with neat sketch.
36. What are the effect of concrete properties while adding Ground granulated blast furnace slag and silica fume?
37. Illustrate the requirements of concrete mix design.
38. Demonstrate the Physical properties of materials required for mix design.
39. Explain the properties of concrete related to the mix design.
40. Explain the factors affecting proportioning of concrete mix? Discuss each in detail.
41. Explain about flexural and compressive strength test conducted on cement concrete element with neat sketch
42. Explain about compaction factor and slump cone test for testing workability of fresh concrete.
43. Explain with the procedure of Flow table test on fresh concrete and corrosion test on hardened concrete element with neat sketch.
44. Explain Shrinkage, Segregation and Bleeding.
45. Explain the factors influencing the Durability of concrete?
46. Explain the factors influencing the strength of concrete?
47. Examine about Vacuum concrete.
48. Examine about Fibre reinforced concrete.

49. Examine about Light weight concrete.
50. Examine about Self compacting Concrete.
51. Explain with the procedure of Bleeding test on fresh concrete and flexural strength test conducted on hardened concrete element with neat sketch.
52. Explain with the procedure of Corrosion test and Split tensile strength test conducted on cement concrete element with neat sketch.
53. Examine about High strength concrete.
54. Examine about High-Performance concrete.
55. Explain detailed about Light weight concrete and its types.
56. Explain the various properties of SIFCON concrete.
57. What meant by Ready Mix Concrete? Explain their advantages and disadvantages.
58. What is Shotcrete? Explain the procedure Shotcrete surface.
59. Explain the following of High strength geopolymer Concrete.
60. Explain in detail about the production, Application and advantages of polymer concrete.
61. What is mean by fiber reinforced concrete? Explain its method of production and materials used?