

25CE301 BUILDING MATERIALS AND CONCRETE TECHNOLOGY

UNIT –V

Part-A Objective Questions

1. Nominal mix concrete is generally adopted for:

- a) Small works
- b) High-rise structures
- c) Dams
- d) Bridges

Answer: a) Small works

2. Design mix concrete is preferred for:

- a) Accurate quality control
- b) Temporary works
- c) Low strength works
- d) Flooring only

Answer: a) Accurate quality control

3. IS 10262:2019 deals with:

- a) Steel structures
- b) Concrete mix design
- c) Aggregate testing
- d) Brick classification

Answer: b) Concrete mix design

4. Target mean strength is always:

- a) Less than characteristic strength
- b) Equal to characteristic strength
- c) Greater than characteristic strength
- d) Zero

Answer: c) Greater than characteristic strength

5. Water–cement ratio affects:

- a) Only color
- b) Strength and durability
- c) Shape of concrete
- d) Air content only

Answer: b) Strength and durability

6. Workability of concrete depends on:

- a) Water content
- b) Aggregate shape
- c) Admixtures
- d) All of the above

Answer: d) All of the above

7. Air content in concrete improves:

- a) Freeze-thaw resistance
- b) Segregation
- c) Density

d) Shrinkage

Answer: a) Freeze-thaw resistance

8. Quality control in concrete ensures:

- a) Proper appearance only
- b) Desired quality and performance
- c) Excess cement use
- d) Reduced curing

Answer: b) Desired quality and performance

9. Acceptance criteria for concrete are given in:

- a) IS 456:2000
- b) IS 800
- c) IS 875
- d) IS 1893

Answer: a) IS 456:2000

10. SCC stands for:

- a) Self-Compacting Concrete
- b) Strong Cement Concrete
- c) Self-Curing Concrete
- d) Special Composite Concrete

Answer: a) Self-Compacting Concrete

11. SCC can flow without:

- a) Mixing
- b) Vibration
- c) Water
- d) Cement

Answer: b) Vibration

12. Lightweight concrete helps to:

- a) Increase dead load
- b) Reduce dead load
- c) Increase density
- d) Reduce durability

Answer: b) Reduce dead load

13. High Performance Concrete is characterized by:

- a) Low durability
- b) High strength and durability
- c) High bleeding
- d) Low workability

Answer: b) High strength and durability

14. Fiber-reinforced concrete contains:

- a) Plastic sheets
- b) Fibers for crack resistance
- c) Only steel rods
- d) Clay materials

Answer: b) Fibers for crack resistance

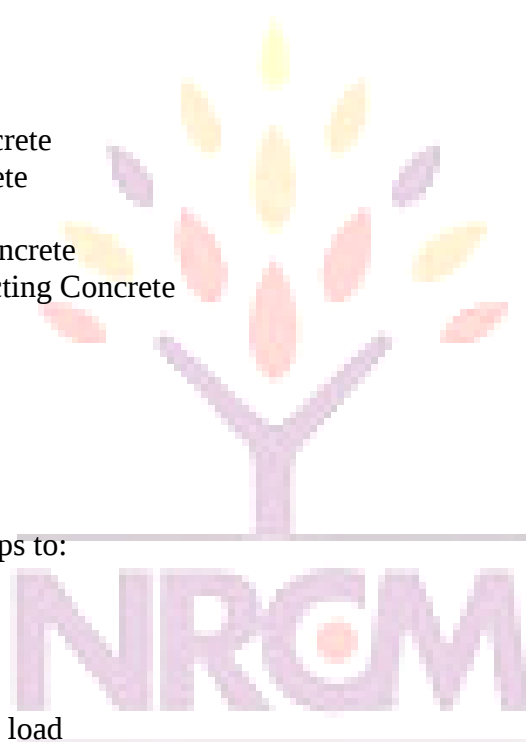
15. Steel fibers improve concrete:

- a) Brittleness
- b) Toughness
- c) Segregation
- d) Shrinkage

Answer: b) Toughness

16. Roller compacted concrete is mainly used in:

- a) Dams and pavements
- b) Brick works



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- c) Roofing
- d) Timber works

Answer: a) Dams and pavements

17. HPC generally requires:

- a) Poor aggregates
- b) Mineral admixtures
- c) Excess water
- d) Low cement content

Answer: b) Mineral admixtures

18. Mix design aims at achieving:

- a) Economy and required strength
- b) Only appearance
- c) Maximum voids
- d) Minimum cement use only

Answer: a) Economy and required strength

19. Self-compacting concrete mainly improves:

- a) Manual compaction effort
- b) Ease of placement
- c) Shrinkage
- d) Bleeding

Answer: b) Ease of placement

20. Quality assurance in concrete works includes:

- a) Inspection and testing
- b) Painting
- c) Polishing
- d) Timber seasoning

Answer: a) Inspection and testing

Part-B Fill in the blanks

1. Nominal mix is used for _____ construction. **Answer:** Ordinary
2. Design mix is based on _____ calculations. **Answer:** Laboratory
3. IS _____ is used for concrete mix design. **Answer:** 10262:2019
4. Target mean strength is greater than characteristic _____. **Answer:** Strength
5. Workability depends on water _____. **Answer:** Content
6. Acceptance criteria are given in IS _____. **Answer:** 456:2000
7. SCC stands for _____. **Answer:** Self-Compacting Concrete
8. Fibre Reinforced Concrete contains _____. **Answer:** Fibres
9. Lightweight concrete uses _____ aggregates. **Answer:** Lightweight
10. High-strength concrete has compressive strength greater than _____ MPa. **Answer:** 60
11. Roller Compacted Concrete is mainly used in _____. **Answer:** Dams
12. Geopolymer concrete reduces _____ emissions. **Answer:** Carbon
13. RMC stands for _____. **Answer:** Ready-Mix Concrete
14. Quality assurance ensures compliance with _____. **Answer:** Standards
15. Quality control helps achieve the required concrete _____. **Answer:** Strength