

25CE301 BUILDING MATERIALS AND CONCRETE TECHNOLOGY

UNIT –III

Part-A Objective Questions

1. Aggregates passing through 4.75 mm sieve are called:

- a) Coarse aggregates
- b) Fine aggregates
- c) Mixed aggregates
- d) Artificial aggregates

Answer: b) Fine aggregates

2. Aggregates retained on 4.75 mm sieve are called:

- a) Fine aggregates
- b) Coarse aggregates
- c) Light aggregates
- d) Heavy aggregates

Answer: b) Coarse aggregates

3. Specific gravity of aggregates indicates:

- a) Shape
- b) Density characteristics
- c) Moisture content
- d) Color

Answer: b) Density characteristics

4. Bulk density of aggregates depends upon:

- a) Particle arrangement
- b) Cement content
- c) Water content
- d) Color

Answer: a) Particle arrangement

5. Sieve analysis is conducted to determine:

- a) Toughness
- b) Grading of aggregates
- c) Water absorption
- d) Crushing strength

Answer: b) Grading of aggregates

6. Rounded aggregates provide:

- a) Less workability
- b) More workability
- c) More voids
- d) Poor finish

Answer: b) More workability

7. Angular aggregates are preferred because they provide:

- a) Less strength
- b) Better bonding

c) Lower durability

d) Smooth finish

Answer: b) Better bonding

8. Aggregate impact value test measures:

a) Hardness

b) Toughness

c) Shape

d) Density

Answer: b) Toughness

9. Crushing value test determines aggregate resistance against:

a) Wear

b) Compression

c) Impact

d) Weathering

Answer: b) Compression

10. Flakiness index test is used to determine:

a) Water absorption

b) Shape of aggregates

c) Density

d) Toughness

Answer: b) Shape of aggregates

11. Water used for concrete should preferably be:

a) Salty

b) Acidic

c) Potable

d) Muddy

Answer: c) Potable

12. Impurities in water may affect:

a) Color only

b) Strength and setting of concrete

c) Weight only

d) Size of aggregates

Answer: b) Strength and setting of concrete

13. Admixtures are added to concrete to:

a) Increase impurities

b) Modify properties

c) Reduce aggregate size

d) Increase voids

Answer: b) Modify properties

14. Plasticizers are also known as:

a) Water reducers

b) Accelerators

c) Retarders

d) Fillers

Answer: a) Water reducers

15. Super plasticizers are mainly used to:

a) Increase workability

b) Increase segregation

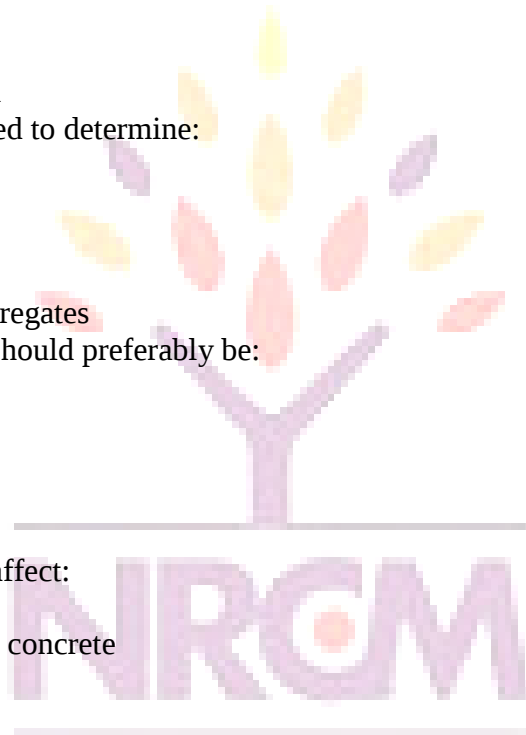
c) Reduce strength

d) Delay curing

Answer: a) Increase workability

16. Retarders are used to:

a) Speed up setting



- b) Delay setting time
 - c) Reduce density
 - d) Increase bleeding
- Answer:** b) Delay setting time

17. Accelerators help in:

- a) Delaying hydration
- b) Increasing setting speed
- c) Reducing strength
- d) Increasing shrinkage

Answer: b) Increasing setting speed

18. Air-entraining agents improve:

- a) Freeze-thaw resistance
- b) Weight of concrete
- c) Segregation
- d) Bleeding

Answer: a) Freeze-thaw resistance

19. Fly ash is an example of:

- a) Plasticizer
- b) Pozzolanic admixture
- c) Accelerator
- d) Retarder

Answer: b) Pozzolanic admixture

20. Silica fume in concrete helps to improve:

- a) Durability and strength
- b) Water absorption
- c) Bleeding
- d) Shrinkage

Answer: a) Durability and strength



Part-B Fill in the blanks

1. Cement acts as the _____ material in concrete. **Answer:** Binding
2. Fine aggregate is generally _____. **Answer:** Sand
3. Coarse aggregate size usually ranges from _____ mm. **Answer:** 10–40
4. Water-cement ratio controls the _____ of concrete. **Answer:** Strength
5. Concrete ingredients are mixed in a _____. **Answer:** Mixer
6. Slump test measures _____ of concrete. **Answer:** Workability
7. Concrete is compacted using _____. **Answer:** Vibrators
8. Curing improves concrete _____. **Answer:** Strength
9. Superplasticizers improve concrete _____. **Answer:** Workability
10. Accelerators reduce the _____ time. **Answer:** Setting
11. Retarders increase the _____ time. **Answer:** Setting
12. Air-entraining admixtures improve _____ resistance. **Answer:** Freeze-thaw
13. Honeycombing occurs due to poor _____. **Answer:** Compaction
14. Segregation separates coarse aggregate from _____. **Answer:** Mortar
15. Bleeding is the upward movement of _____. **Answer:** Water