

Msbte News

Concrete Technology Mcq Questions & Answers Pdf

1) Properties of fine aggregate

- (a) Size
- (b) Source
- (c) Shape
- (d) Specific gravity
- (e) All of the above **Answer**

2) Methods of curing

- (a) Water curing
- (b) Application of heat
- (c) Membrane curing
- (d) Miscellaneous methods
- (e) All of the above **Answer**

3) Material used for filling joints

- (a) Fibre and fibre products
- (b) Sponge rubber
- (c) Cork
- (d) All of the above **Answer**

4) Concrete gains strength due to

- (A) Chemical reaction of cement with sand and coarse aggregates
- (B) Evaporation of water from concrete
- (C) Hydration of cement **Answer**

(D) All the above

5) To determine the modulus of rupture, the size of test specimen used is

(A) $150 \times 150 \times 500$ mm

(B) $100 \times 100 \times 700$ mm

(C) $150 \times 150 \times 700$ mm **Answer**

(D) $100 \times 100 \times 500$ mm

6) Tricalcium aluminate (C3A)

(A) Reacts fast with water

(B) Generates less heat of hydration **Answer**

(C) Causes initial setting and early strength of cement

(D) Does not contribute to develop ultimate strength

7) If the various concrete ingredients i.e. cement, sand and aggregates are in the ratio of 1:3:6, the grade of concrete, is

(A) M 100 **Answer**

(B) M 150

(C) M 200

(D) M 250

8) Admixtures which cause early setting and hardening of concrete are called

(A) Workability admixtures

(B) Accelerators **Answer**

(C) Retarders

(D) Air entraining agents

9) Pick up the correct statement from the following:

- (A) Sand stones may be divided into calcareous, siliceous and ferruginous sandstone
- (B) Concrete using sand stones, cracks due to excessive shrinkage
- (C) Broken bricks produce a concrete having good fire resisting qualities
- (D) All the above **Answer**

10) Pick up the incorrect statement from the following:

- (A) Admixtures accelerate hydration **Answer**
- (B) Admixtures make concrete waterproof
- (C) Admixtures make concrete acid proof
- (D) Admixtures give high strength

11) For a reinforced concrete section, the shape of shear stress diagram is

- (A) Wholly parabolic
- (B) Wholly rectangular
- (C) Parabolic above neutral axis and rectangular below neutral axis **Answer**
- (D) Rectangular above neutral axis and parabolic below neutral axis

12) For ensuring quality of concrete, use

- (A) Single sized aggregates
- (B) Two sized aggregate
- (C) Graded aggregates **Answer**
- (D) Coarse aggregates

13) In working stress design, permissible bond stress in the case of deformed bars is more than that in plain bars by

- (A) 10 %
- (B) 20 %
- (C) 30 %

(D) 40 % **Answer**

14) Workability improved by adding

(A) Air-entraining agent

(B) Foaming agent

(C) Oily-agent

(D) All the above **Answer**

15) The maximum value of hoop compression in a dome is given by

(Where, w = load per unit area of surface of dome R = radius of curvature d = thickness of dome)

(A) $wR/4d$

(B) $wR/2d$ **Answer**

(C) wR/d

(D) $2wR/d$

16) The rock which is not calcareous, is:

(A) Limestone

(B) Chalk

(C) Laterite

(D) None of these **Answer**

17) A T-shaped retaining wall mainly consists of

(A) One cantilever

(B) Two cantilevers

(C) Three cantilevers **Answer**

(D) Four cantilevers

18) Pick up the correct statement from the following:

(A) Insufficient quantity of water makes the concrete mix harsh

- (B) Insufficient quantity of water makes the concrete unworkable
- (C) Excess quantity of water makes the concrete segregated
- (D) All the above **Answer**

19) The fineness modulus of fine aggregate is in the range of

- (A) 2.0 to 3.5 **Answer**
- (B) 3.5 to 5.0
- (C) 5.0 to 7.0
- (D) 6.0 to 8.5

20) After casting, an ordinary cement concrete on drying

- (A) Expands
- (B) Mix
- (C) Shrinks **Answer**
- (D) None of these

21) The maximum thickness of concrete floor of a cement warehouse, is

- (A) 10 cm
- (B) 15 cm
- (C) 20 cm
- (D) 25 cm **Answer**

22) Too wet concrete may cause

- (A) Weakness of concrete
- (B) Excessive laitance
- (C) Segregation
- (D) All the above **Answer**

23) Maximum percentage reinforcement in case of slabs is limited to

- (A) 2

(B) 4 **Answer**

(C) 6

(D) 8

24) The commonly used material in the manufacture of cement is

(A) Sand stone

(B) Slate

(C) Limestone **Answer**

(D) Graphite

25) According to I.S. : 456, the number of grades of concrete mixes, is

(A) 3

(B) 4

(C) 5

(D) 7 **Answer**

26) Grading of sand causes great variation in

(A) Workability of concrete

(B) Strength of concrete

(C) Durability of concrete

(D) All the above **Answer**

27) The percentage of the aggregate of F.M. 2.6 to be combined with the coarse aggregate of F.M. 6.8 for obtaining the aggregates of F.M. 5.4, is

(A) 30 %

(B) 40 %

(C) 50 % **Answer**

(D) 60 %

28) Fiber reinforced concrete

- (a) Cooling towers
- (b) Useful in canal lining, refractory lining **Answer**
- (c) Construction of special structures like atomic power stations, satellite launching stations, heavy duty runways, etc.
- (d) Thin walled structures like pardi, retaining wall etc

29) Causes of Bleeding of concrete

- (a) Use of more flaky aggregates.
- (b) Insufficient mixing of concrete.
- (c) More height of concrete placing.
- (d) Excessive or over vibration.
- (e) Both (a) & (b) **Answer**

30) Uses of Retarding Admixture

- (a) It is beneficial where rapid hardening of concrete is necessary i.e. in case of high rise structures.
- (b) It is useful where quick setting is required i.e. in underwater construction
- (c) It is useful where slow setting of concrete is required i.e. in extreme hot weather concreting **Answer**
- (d) All of the above

31) Self-compacting concrete

- (a) Useful in fabrication of precast products like pipes, boats, beams, staircase steps, wall panels etc.
- (b) Industrial floor sheds
- (c) Highly reinforced sections i.e. large bridge and machine foundations **Answer**
- (d) Bridges, ports and harbours

State whether the following statements are True or False

32) Vacuum concrete is the concrete in which entrained air and excess water from a concrete mix is taken out from a vacuum pump, called vacuum concrete.

(a) True **Answer**

(b) False

33) The concrete made up of using one or more types of fibers in the concrete mix, is known as fiber reinforced concrete.

(a) True **Answer**

(b) False

34) Self-compacting concrete is the concrete which settles down under its own weight so that it does not require any type of external vibration for its compaction.

(a) True **Answer**

(b) False

35) Rebound hammer test is used to estimate the concrete strength using Williams testing pistol and impact hammer

(a) True

(b) False **Answer**

Reason: Rebound hammer test is used To estimate the strength of concrete and comparative investigations

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