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# National Testing Agency

<b>Question Paper Name :</b>	Concrete Technology 26th March 2021 Shift 1
<b>Subject Name :</b>	Concrete Technology
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<b>Display Marks:</b>	Yes

## Concrete Technology

<b>Group Number :</b>	1
<b>Group Id :</b>	864351151
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	100
<b>Is this Group for Examiner? :</b>	No

## Concrete Technology-I

<b>Section Id :</b>	864351583
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	100

<b>Number of Questions to be attempted :</b>	100
<b>Section Marks :</b>	100
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	864351654
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 86435112552 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Concrete is

1. Elastic material
2. Plastic material
3. Brittle material
4. None of the above

**Options :**

- 86435141645. 1
- 86435141646. 2
- 86435141647. 3
- 86435141648. 4

**Question Number : 2 Question Id : 86435112553 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

M15 grade concrete is categorised as

1. Ordinary concrete
2. Lean mix
3. High strength concrete
4. Good concrete

**Options :**

- 86435141649. 1

86435141650. 2

86435141651. 3

86435141652. 4

**Question Number : 3 Question Id : 86435112554 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Ingredients of concrete include

1. Cement and aggregate
2. Cement and water
3. Cement, aggregate and water
4. Aggregate and water

**Options :**

86435141653. 1

86435141654. 2

86435141655. 3

86435141656. 4

**Question Number : 4 Question Id : 86435112555 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What is the full form of PCC?

1. Plan cement concrete
2. Plain cement concrete
3. Pressed cement concrete
4. Packed cement concrete

**Options :**

86435141657. 1

86435141658. 2

86435141659. 3

86435141660. 4

**Question Number : 5 Question Id : 86435112556 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Strength of concrete

1. decreases with age of concrete
2. increases with age of concrete
3. does not depend on age of concrete
4. None of the above

**Options :**

- 86435141661. 1
- 86435141662. 2
- 86435141663. 3
- 86435141664. 4

**Question Number : 6 Question Id : 86435112557 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Concrete is

1. weak in tension
2. strong in tension
3. weak in compression
4. strong in tension but weak in compression

**Options :**

- 86435141665. 1
- 86435141666. 2
- 86435141667. 3
- 86435141668. 4

**Question Number : 7 Question Id : 86435112558 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Steel reinforcement is provided in compression zone

1. to restrict the size of concrete member
2. when member is subjected to reversal of stresses
3. both 1 and 2
4. neither 1 nor 2

**Options :**

- 86435141669. 1
- 86435141670. 2
- 86435141671. 3
- 86435141672. 4

**Question Number : 8 Question Id : 86435112559 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Cement Concrete can be defined as mixture of cement, fine aggregate, coarse aggregate and water \_\_\_\_\_

1. in some specified proportion
2. in random proportion
3. without any consideration for their proportion
4. None of the above

**Options :**

- 86435141673. 1
- 86435141674. 2
- 86435141675. 3
- 86435141676. 4

**Question Number : 9 Question Id : 86435112560 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Concrete is graded according to its

1. Shear strength
2. Tensile strength
3. Compressive strength
4. Both (1) and (2)

**Options :**

- 86435141677. 1
- 86435141678. 2
- 86435141679. 3
- 86435141680. 4

**Question Number : 10 Question Id : 86435112561 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

In M20, M refers to

1. Mix
2. Mean
3. Mortar
4. Mixer

**Options :**

- 86435141681. 1
- 86435141682. 2
- 86435141683. 3
- 86435141684. 4

**Question Number : 11 Question Id : 86435112562 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

To enable the concrete to take tensile stresses safely, reinforcement is provided in

1. tension zone only
2. compression zone only
3. tension and compression zone both
4. any zone in the structural member

**Options :**

- 86435141685. 1
- 86435141686. 2
- 86435141687. 3
- 86435141688. 4

**Question Number : 12 Question Id : 86435112563 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Cement is manufactured by

1. Wet process
2. Dry process
3. Both (1) and (2)
4. None of the above

**Options :**

- 86435141689. 1
- 86435141690. 2
- 86435141691. 3
- 86435141692. 4

**Question Number : 13 Question Id : 86435112564 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Fresh concrete is also known as

1. green concrete
2. wet concrete
3. concrete in plastic stage
4. All of the above

**Options :**

- 86435141693. 1
- 86435141694. 2
- 86435141695. 3
- 86435141696. 4

**Question Number : 14 Question Id : 86435112565 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Le-Chatelier test is used for

1. Initial setting time of cement
2. Final setting time of cement
3. Fineness modulus of cement
4. soundness of cement

**Options :**

- 86435141697. 1
- 86435141698. 2
- 86435141699. 3
- 86435141700. 4

**Question Number : 15 Question Id : 86435112566 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



Workability is the property of \_\_\_\_\_

1. Hardened concrete
2. Fresh concrete
3. Cracked concrete
4. Aged concrete

**Options :**

- 86435141701. 1
- 86435141702. 2
- 86435141703. 3
- 86435141704. 4

**Question Number : 16 Question Id : 86435112567 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Rate of cooling during manufacturing and fineness of grinding \_\_\_\_\_ the properties of cement.

1. affect
2. do not affect
3. have no relationship with
4. None of the above

**Options :**

- 86435141705. 1
- 86435141706. 2
- 86435141707. 3
- 86435141708. 4

**Question Number : 17 Question Id : 86435112568 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In concrete, water is required for

1. hydration of cement
2. workability of concrete
3. curing of concrete
4. All of the above

**Options :**

- 86435141709. 1
- 86435141710. 2
- 86435141711. 3
- 86435141712. 4

**Question Number : 18 Question Id : 86435112569 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Compounds formed after the completion of process of manufacturing of cement are known as

1. Bogus compounds
2. Bogue's compounds
3. Bag's compounds
4. None of the above

**Options :**

- 86435141713. 1
- 86435141714. 2
- 86435141715. 3
- 86435141716. 4

**Question Number : 19 Question Id : 86435112570 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

About \_\_\_\_\_ % water by weight of cement is required for the hydration of cement compounds.

1. 5
2. 10
3. 15
4. 23

**Options :**

- 86435141717. 1
- 86435141718. 2
- 86435141719. 3
- 86435141720. 4

**Question Number : 20 Question Id : 86435112571 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Most important compounds responsible for strength of cement are

1.  $C_2 S$  and  $C_3 A$
2.  $C_3 S$  and  $C_2 S$
3.  $C_3 A$  and  $C_4 AF$
4. None of the above

**Options :**

- 86435141721. 1
- 86435141722. 2
- 86435141723. 3
- 86435141724. 4

**Question Number : 21 Question Id : 86435112572 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In 28 days, ordinary Portland cement achieves almost \_\_\_\_\_ % of total strength.

1. 40 %
2. 50 %
3. 70 %
4. 90 %

**Options :**

- 86435141725. 1
- 86435141726. 2
- 86435141727. 3
- 86435141728. 4

**Question Number : 22 Question Id : 86435112573 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Choose the correct statement(s) about  $C_2 S$

1. It hydrates slowly
2. It produces less heat of hydration
3. Both (1) and (2)
4. None of the above

**Options :**

- 86435141729. 1
- 86435141730. 2
- 86435141731. 3
- 86435141732. 4

**Question Number : 23 Question Id : 86435112574 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

What is the limitation of Abram's W/C ratio law?

1. Effect of entrapped air on strength of concrete ignored
2. Effect of cement content on strength of concrete ignored
3. Effect of water content on strength of concrete ignored
4. It makes concrete costly on strength concrete ignored

**Options :**

- 86435141733. 1
- 86435141734. 2
- 86435141735. 3
- 86435141736. 4

**Question Number : 24 Question Id : 86435112575 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which one is more resistant to sulphate attack?

1.  $C_3 S$
2.  $C_2 S$
3.  $C_3 A$
4.  $C_4 AF$

**Options :**

- 86435141737. 1
- 86435141738. 2
- 86435141739. 3
- 86435141740. 4

**Question Number : 25 Question Id : 86435112576 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Workability of concrete depends on

1. Water content
2. Shape, size & grading of aggregate
3. Use of admixtures
4. All of the above

**Options :**

- 86435141741. 1
- 86435141742. 2
- 86435141743. 3
- 86435141744. 4

**Question Number : 26 Question Id : 86435112577 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The argillaceous materials used in manufacturing cement are

1. Shale and clay
2. Clay and Laterite
3. Laterite and shale
4. Clay, shale and Laterite

**Options :**

- 86435141745. 1
- 86435141746. 2
- 86435141747. 3
- 86435141748. 4

**Question Number : 27 Question Id : 86435112578 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The property of concrete which determines the amount of useful internal work/energy necessary to produce full compaction is called

1. Strength of concrete
2. Permeability of concrete
3. Workability of concrete
4. Impact value of concrete

**Options :**

- 86435141749. 1
- 86435141750. 2
- 86435141751. 3
- 86435141752. 4

**Question Number : 28 Question Id : 86435112579 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The clinker after cooling is ground to fine power with addition of \_\_\_\_\_ % gypsum.

1. 5 - 10
2. 2 - 3
3. 10 - 15
4. 15 - 20

**Options :**

- 86435141753. 1
- 86435141754. 2
- 86435141755. 3
- 86435141756. 4

**Question Number : 29 Question Id : 86435112580 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

For a given water content if quantity of cement is reduced, it will

1. lead to less workable concrete
2. lead to more workable concrete
3. make no change in workability of concrete
4. increase the heat of hydration

**Options :**

- 86435141757. 1
- 86435141758. 2
- 86435141759. 3
- 86435141760. 4

**Question Number : 30 Question Id : 86435112581 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Colour to cement is provided by

1. Alumina
2. Iron oxide
3. Silica
4. Lime

**Options :**

- 86435141761. 1
- 86435141762. 2
- 86435141763. 3
- 86435141764. 4

**Question Number : 31 Question Id : 86435112582 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



High aggregate cement ratio in concrete mix will produce \_\_\_\_

1. lean mix
2. rich mix
3. fat mix
4. strong mix

**Options :**

- 86435141765. 1
- 86435141766. 2
- 86435141767. 3
- 86435141768. 4

**Question Number : 32 Question Id : 86435112583 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

During manufacturing of cement, which one is responsible for lowering of clinkering temperature?

1. Alumina
2. Lime
3. Silica
4. Alkalies

**Options :**

- 86435141769. 1
- 86435141770. 2
- 86435141771. 3
- 86435141772. 4

**Question Number : 33 Question Id : 86435112584 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

For given volume of aggregate, with the increase in size of aggregate \_\_\_\_\_

1. workability of concrete increases
2. workability of concrete decreases
3. workability of concrete remains unchanged
4. workability of concrete becomes zero

**Options :**

- 86435141773. 1
- 86435141774. 2
- 86435141775. 3
- 86435141776. 4

**Question Number : 34 Question Id : 86435112585 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The degree of grinding of cement is called

1. Grindness
2. Fineness
3. Soundness
4. Roughness

**Options :**

- 86435141777. 1
- 86435141778. 2
- 86435141779. 3
- 86435141780. 4

**Question Number : 35 Question Id : 86435112586 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

By using rounded shape aggregate in concrete, there is

1. increase in workability and strength both
2. increase in workability but decrease in strength
3. decrease in workability but increase in strength
4. decrease in workability & strength both

**Options :**

- 86435141781. 1
- 86435141782. 2
- 86435141783. 3
- 86435141784. 4

**Question Number : 36 Question Id : 86435112587 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which cement is more suitable for marine works?

1. Ordinary Portland cement
2. Rapid Hardening Portland cement
3. Low Heat Portland cement
4. Sulphate Resisting cement

**Options :**

- 86435141785. 1
- 86435141786. 2
- 86435141787. 3
- 86435141788. 4

**Question Number : 37 Question Id : 86435112588 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Workability of concrete can be measured by

1. Slump Test and Flow test
2. Compaction Factor test and Flow test
3. Slump test and compaction factor test
4. Slump test, Compaction Factor test and Flow test

**Options :**

- 86435141789. 1
- 86435141790. 2
- 86435141791. 3
- 86435141792. 4

**Question Number : 38 Question Id : 86435112589 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which cement is more suitable for repairing the damaged concrete surfaces?

1. Hydrophobic cement
2. Oil well cement
3. Expanding cement
4. Quick setting cement

**Options :**

- 86435141793. 1
- 86435141794. 2
- 86435141795. 3
- 86435141796. 4

**Question Number : 39 Question Id : 86435112590 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The slump can be measured only in the case of

1. Shear slump
2. True slump
3. Collapse slump
4. All of the above

**Options :**

- 86435141797. 1
- 86435141798. 2
- 86435141799. 3
- 86435141800. 4

**Question Number : 40 Question Id : 86435112591 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Aggregates are classified based on

1. source of aggregates
2. size of aggregates
3. shape of aggregates
4. All of the above

**Options :**

- 86435141801. 1
- 86435141802. 2
- 86435141803. 3
- 86435141804. 4

**Question Number : 41 Question Id : 86435112592 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In slump test, the metallic mould is in the form of

1. Cylinder
2. Frustum of cone
3. Square
4. Rectangle

**Options :**

86435141805. 1  
86435141806. 2  
86435141807. 3  
86435141808. 4

**Question Number : 42 Question Id : 86435112593 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Increase in volume of a given weight of sand caused by the presence of moisture is termed as

1. bulking of sand
2. wetting of sand
3. reduction of sand
4. sweating of sand

**Options :**

86435141809. 1  
86435141810. 2  
86435141811. 3  
86435141812. 4

**Question Number : 43 Question Id : 86435112594 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Compaction factor test apparatus consists of

1. Two cylinders and a hopper
2. Two hoppers and a cylinder
3. One hopper and a cylinder
4. Three hoppers

**Options :**

- 86435141813. 1
- 86435141814. 2
- 86435141815. 3
- 86435141816. 4

**Question Number : 44 Question Id : 86435112595 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

For aggregate sample of 20 mm mean size, any particle of this sample having its length greater than \_\_\_\_\_ will be designated as elongated aggregate.

1. 36 mm
2. 28 mm
3. 12 mm
4. 4 mm

**Options :**

- 86435141817. 1
- 86435141818. 2
- 86435141819. 3
- 86435141820. 4

**Question Number : 45 Question Id : 86435112596 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Separation of ingredients of concrete mix is called

1. Bleeding
2. Segregation
3. Aggregation
4. Adhesion

**Options :**

- 86435141821. 1
- 86435141822. 2
- 86435141823. 3
- 86435141824. 4

**Question Number : 46 Question Id : 86435112597 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Strength of hardened concrete is affected by

1. Water cement ratio
2. Aggregate shape
3. Age of concrete
4. All of the above

**Options :**

- 86435141825. 1
- 86435141826. 2
- 86435141827. 3
- 86435141828. 4

**Question Number : 47 Question Id : 86435112598 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**



Factor/(s) responsible for bleeding is/are

1. Highly wet mix with insufficient mixing
2. Over-compaction of concrete
3. Over-troweling of concrete
4. All of the above

**Options :**

- 86435141829. 1
- 86435141830. 2
- 86435141831. 3
- 86435141832. 4

**Question Number : 48 Question Id : 86435112599 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Abrams Law gives relationship of

1. water cement ratio and compressive strength
2. Aggregate content and compressive strength
3. Aggregate content and tensile strength
4. None of the above

**Options :**

- 86435141833. 1
- 86435141834. 2
- 86435141835. 3
- 86435141836. 4

**Question Number : 49 Question Id : 86435112600 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Factor/(s) which govern/(s) the choice of workability of concrete is/are

1. Shape & size of section
2. Amount of reinforcement
3. Type of compacting equipment available
4. All of the above

**Options :**

86435141837. 1  
86435141838. 2  
86435141839. 3  
86435141840. 4

**Sub-Section Number :** 2  
**Sub-Section Id :** 864351655  
**Question Shuffling Allowed :** Yes

**Question Number : 50 Question Id : 86435112601 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Compressive strength of concrete depends on gel/space ratio.

1. True
2. False

**Options :**

86435141841. 1  
86435141842. 2

**Sub-Section Number :** 3  
**Sub-Section Id :** 864351656  
**Question Shuffling Allowed :** Yes

**Question Number : 51 Question Id : 86435112602 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The storing arrangement of cement should be such that

1. cement delivered first can be used first
2. cement delivered in the last can be used first
3. cement delivered first can be used in the last
4. delivery and use of cement has no relationship

**Options :**

86435141843. 1

86435141844. 2

86435141845. 3

86435141846. 4

**Sub-Section Number :**

4

**Sub-Section Id :**

864351657

**Question Shuffling Allowed :**

Yes

**Question Number : 52 Question Id : 86435112603 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Surface saturated dry aggregate is the aggregate which neither adds any water to the mix nor absorbs water from the mix.

1. True
2. False

**Options :**

86435141847. 1

86435141848. 2

**Sub-Section Number :**

5

**Sub-Section Id :**

864351658

**Question Shuffling Allowed :**

Yes

**Question Number : 53 Question Id : 86435112604 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

One bag of cement weighs

1. 35 Kg
2. 40 Kg
3. 45 Kg
4. 50 Kg

**Options :**

- 86435141849. 1
- 86435141850. 2
- 86435141851. 3
- 86435141852. 4

**Question Number : 54 Question Id : 86435112605 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

With increase in aggregate/cement ratio, strength of concrete

1. increases
2. decreases
3. sometimes increases and sometimes decreases
4. None of the above

**Options :**

- 86435141853. 1
- 86435141854. 2
- 86435141855. 3
- 86435141856. 4

**Question Number : 55 Question Id : 86435112606 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

To prevent air setting, cement bags should be stored in

1. wet and damp environment
2. dry and damp environment
3. dry and damp free environment
4. any environment

**Options :**

- 86435141857. 1
- 86435141858. 2
- 86435141859. 3
- 86435141860. 4

**Question Number : 56 Question Id : 86435112607 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The effect of size of aggregate on strength of concrete is more prominent in case of

1. low strength concrete
2. high strength concrete
3. Both (1) and (2)
4. None of the above

**Options :**

- 86435141861. 1
- 86435141862. 2
- 86435141863. 3
- 86435141864. 4

**Question Number : 57 Question Id : 86435112608 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

To prevent the possibility of lumping up under pressure height of stack should be restricted to

1. 25 bags
2. 15 bags
3. 35 bags
4. 45 bags

**Options :**

86435141865. 1  
86435141866. 2  
86435141867. 3  
86435141868. 4

**Sub-Section Number :** 6  
**Sub-Section Id :** 864351659  
**Question Shuffling Allowed :** Yes

**Question Number : 58 Question Id : 86435112609 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Aggregate which are in dry condition may absorb water from the concrete mix and change the water/cement ratio.

1. True
2. False

**Options :**

86435141869. 1  
86435141870. 2

**Sub-Section Number :** 7  
**Sub-Section Id :** 864351660  
**Question Shuffling Allowed :** Yes

**Question Number : 59 Question Id : 86435112610 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

At the large construction site where a large quantity of cement is required, it is preferred to store cement in

1. stacks of cement bags
2. silos
3. buckets
4. All of the above

**Options :**

86435141871. 1  
86435141872. 2  
86435141873. 3  
86435141874. 4

**Sub-Section Number :**

8

**Sub-Section Id :**

864351661

**Question Shuffling Allowed :**

Yes

**Question Number : 60 Question Id : 86435112611 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Aggregate/cement ratio does not affect the strength of concrete.

1. True
2. False

**Options :**

86435141875. 1  
86435141876. 2

**Question Number : 61 Question Id : 86435112612 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

For preparation of concrete, cement may be measured either by weight or by volume.

1. True
2. False

**Options :**

86435141877. 1

86435141878. 2

**Sub-Section Number :**

9

**Sub-Section Id :**

864351662

**Question Shuffling Allowed :**

Yes

**Question Number : 62 Question Id : 86435112613 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

For preparation of concrete water may be measured

1. by volume only
2. by weight only
3. either by volume or by weight
4. All of the above

**Options :**

86435141879. 1

86435141880. 2

86435141881. 3

86435141882. 4

**Sub-Section Number :**

10

**Sub-Section Id :**

864351663

**Question Shuffling Allowed :**

Yes

**Question Number : 63 Question Id : 86435112614 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**



If coarse aggregate is measured by volume, the gauge box should be filled loosely i. e. without applying any compaction effort.

1. True
2. False

**Options :**

86435141883. 1  
86435141884. 2

**Sub-Section Number :** 11  
**Sub-Section Id :** 864351664  
**Question Shuffling Allowed :** Yes

**Question Number : 64 Question Id : 86435112615 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Volume batching has uncertainties with regard to

1. bulking
2. non uniform filling of gauge box
3. both (1) and (2)
4. none of the above

**Options :**

86435141885. 1  
86435141886. 2  
86435141887. 3  
86435141888. 4

**Question Number : 65 Question Id : 86435112616 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In mix design, quantities of different ingredients are obtained by

1. weight for one cubic meter of concrete
2. volume for one cubic meter of concrete
3. weight for 100 cubic meter of concrete
4. volume for 100 cubic meter of concrete

**Options :**

- 86435141889. 1
- 86435141890. 2
- 86435141891. 3
- 86435141892. 4

**Question Number : 66 Question Id : 86435112617 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Hand mixing of ingredients may be used for

1. large and important works
2. small or less important works
3. both (1) and (2)
4. any type of work

**Options :**

- 86435141893. 1
- 86435141894. 2
- 86435141895. 3
- 86435141896. 4

**Question Number : 67 Question Id : 86435112618 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Mix proportion for M20 concrete is

1. 1:1:3
2. 1:1.5:3
3. 1:2:4
4. 1:3:6

**Options :**

- 86435141897. 1
- 86435141898. 2
- 86435141899. 3
- 86435141900. 4

**Question Number : 68 Question Id : 86435112619 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Characteristic strength is defined as the strength of concrete below which not more than \_\_\_\_\_ of the test result one expected to fall.

1. 10%
2. 15%
3. 5%
4. 7%

**Options :**

- 86435141901. 1
- 86435141902. 2
- 86435141903. 3
- 86435141904. 4

**Question Number : 69 Question Id : 86435112620 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Concrete grade lower than \_\_\_\_\_ can not be used in pre-tensioned pre-stressed concrete.

1. M20
2. M25
3. M40
4. M50

**Options :**

- 86435141905. 1
- 86435141906. 2
- 86435141907. 3
- 86435141908. 4

**Question Number : 70 Question Id : 86435112621 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Factors governing the choice of mix proportion of concrete are

1. Strength and quality of concrete
2. durability and workability of concrete
3. both (1) and (2)
4. none of the above

**Options :**

- 86435141909. 1
- 86435141910. 2
- 86435141911. 3
- 86435141912. 4

**Question Number : 71 Question Id : 86435112622 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

RCC stands for

1. Right cement concrete
2. Rough cement concrete
3. Reinforced cement concrete
4. Road cement concrete

**Options :**

86435141913. 1

86435141914. 2

86435141915. 3

86435141916. 4

**Sub-Section Number :**

12

**Sub-Section Id :**

864351665

**Question Shuffling Allowed :**

Yes

**Question Number : 72 Question Id : 86435112623 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Correct Marks : 1 Wrong Marks : 0**

Quality of concrete depends on quality of aggregate

1. True
2. False

**Options :**

86435141917. 1

86435141918. 2

**Sub-Section Number :**

13

**Sub-Section Id :**

864351666

**Question Shuffling Allowed :**

Yes

**Question Number : 73 Question Id : 86435112624 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No  
Correct Marks : 1 Wrong Marks : 0**

HYSB bars mean

1. High yield strength deformed bars
2. Heavy yield strength deformed bars
3. Heavy yield strength double bars
4. Low yield strength deformed bars

**Options :**

- 86435141919. 1
- 86435141920. 2
- 86435141921. 3
- 86435141922. 4

**Sub-Section Number :**

14

**Sub-Section Id :**

864351667

**Question Shuffling Allowed :**

Yes

**Question Number : 74 Question Id : 86435112625 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Fe 415 is mild steel.

1. True
2. False

**Options :**

- 86435141923. 1
- 86435141924. 2

**Question Number : 75 Question Id : 86435112626 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Segregation is essential for good concrete.

1. True
2. False

**Options :**

86435141925. 1  
86435141926. 2

**Question Number : 76 Question Id : 86435112627 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Workability is the property of concrete in hardened stage

1. True
2. False

**Options :**

86435141927. 1  
86435141928. 2

**Sub-Section Number :** 15  
**Sub-Section Id :** 864351668  
**Question Shuffling Allowed :** Yes

**Question Number : 77 Question Id : 86435112628 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Tensile strength of concrete is generally taken as \_\_\_\_\_ of the compressive strength.

1. 20%
2. 10%
3. 30%
4. 25%

**Options :**

- 86435141929. 1
- 86435141930. 2
- 86435141931. 3
- 86435141932. 4

**Question Number : 78 Question Id : 86435112629 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Bond strength of concrete depends on

- 1. Compressive strength of concrete
- 2. Surface characteristics of steel bars
- 3. both (1) and (2)
- 4. none of the above

**Options :**

- 86435141933. 1
- 86435141934. 2
- 86435141935. 3
- 86435141936. 4

<b>Sub-Section Number :</b>	16
<b>Sub-Section Id :</b>	864351669
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 79 Question Id : 86435112630 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Bond strength of concrete increases by use of deformed bars.

- 1. True
- 2. False

**Options :**



86435141937. 1

86435141938. 2

**Sub-Section Number :**

17

**Sub-Section Id :**

864351670

**Question Shuffling Allowed :**

Yes

**Question Number : 80 Question Id : 86435112631 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Shear strength of concrete is about \_\_\_\_\_ of the compressive strength.

1. half
2. double
3. one-third
4. one-fourth

**Options :**

86435141939. 1

86435141940. 2

86435141941. 3

86435141942. 4

**Sub-Section Number :**

18

**Sub-Section Id :**

864351671

**Question Shuffling Allowed :**

Yes

**Question Number : 81 Question Id : 86435112632 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Dense and strong concrete has better durability in extreme weather conditions.

1. True
2. False

**Options :**

86435141943. 1

86435141944. 2

**Sub-Section Number :** 19  
**Sub-Section Id :** 864351672  
**Question Shuffling Allowed :** Yes

**Question Number : 82 Question Id : 86435112633 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Impermeable concrete can be obtained by using

1. Low water cement ratio
2. Dense and well graded aggregate
3. Proper compaction and sufficient curing
4. All of the above

**Options :**

- 86435141945. 1
- 86435141946. 2
- 86435141947. 3
- 86435141948. 4

**Sub-Section Number :** 20  
**Sub-Section Id :** 864351673  
**Question Shuffling Allowed :** Yes

**Question Number : 83 Question Id : 86435112634 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In a mixer, mixing time has inverse relationship with capacity of drum.

1. True
2. False

**Options :**

- 86435141949. 1
- 86435141950. 2

**Sub-Section Number :**

21

**Sub-Section Id :**

864351674

**Question Shuffling Allowed :**

Yes

**Question Number : 84 Question Id : 86435112635 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Mixing of concrete using machine mixer involves the following operations:

- A. Installing the mixer
- B. Mixing of Ingredients
- C. Discharging the mix
- D. Charging of mixer

The correct sequence of operations is

- 1. A, B, C, D
- 2. A, D, B, C
- 3. D, A, C, B
- 4. A, D, C, B

**Options :**

86435141951. 1

86435141952. 2

86435141953. 3

86435141954. 4

**Question Number : 85 Question Id : 86435112636 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Size of a machine mixer is defined by

1. time taken in mixing a batch of concrete
2. number of revolutions of the drum of the mixer
3. Weight of the mixer
4. total volume of concrete that can be mixed in a batch

**Options :**

86435141955. 1

86435141956. 2

86435141957. 3

86435141958. 4

**Question Number : 86 Question Id : 86435112637 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Process of consolidating concrete mix after placing it in position is called as

1. consolidation of concrete
2. compaction of concrete
3. aeration of concrete
4. densification of concrete

**Options :**

86435141959. 1

86435141960. 2

86435141961. 3

86435141962. 4

**Question Number : 87 Question Id : 86435112638 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Which one is a method of curing of concrete?

1. Curing by ultraviolet radiation
2. Electrical curing of concrete
3. Supersonic curing of concrete
4. Curing by sublimation

**Options :**

- 86435141963. 1
- 86435141964. 2
- 86435141965. 3
- 86435141966. 4

**Sub-Section Number :** 22  
**Sub-Section Id :** 864351675  
**Question Shuffling Allowed :** Yes

**Question Number : 88 Question Id : 86435112639 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Steam curing is preferred for precast concrete products.

1. True
2. False

**Options :**

- 86435141967. 1
- 86435141968. 2

**Sub-Section Number :** 23  
**Sub-Section Id :** 864351676  
**Question Shuffling Allowed :** Yes

**Question Number : 89 Question Id : 86435112640 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

In chemical curing of concrete ----- is sprayed over the concrete surface.

1. Sodium Silicate solution
2. Sodium Chloride solution
3. Sodium Sulphate solution
4. Sodium Hydroxide solution

**Options :**

86435141969. 1  
86435141970. 2  
86435141971. 3  
86435141972. 4

**Sub-Section Number :** 24  
**Sub-Section Id :** 864351677  
**Question Shuffling Allowed :** Yes

**Question Number : 90 Question Id : 86435112641 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Delayed curing does not affect the strength of concrete.

1. True
2. False

**Options :**

86435141973. 1  
86435141974. 2

**Sub-Section Number :** 25  
**Sub-Section Id :** 864351678  
**Question Shuffling Allowed :** Yes

**Question Number : 91 Question Id : 86435112642 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

The levelling operation that removes humps and hollows and give a true uniform concrete surface is called

1. floating
2. screeding
3. trowelling
4. levelling

**Options :**

- 86435141975. 1
- 86435141976. 2
- 86435141977. 3
- 86435141978. 4

**Sub-Section Number :** 26  
**Sub-Section Id :** 864351679  
**Question Shuffling Allowed :** Yes

**Question Number : 92 Question Id : 86435112643 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Construction joints are not required if a provision is made to take up the shrinkage stresses by reinforcement.

1. True
2. False

**Options :**

- 86435141979. 1
- 86435141980. 2

**Sub-Section Number :** 27  
**Sub-Section Id :** 864351680  
**Question Shuffling Allowed :** Yes

**Question Number : 93 Question Id : 86435112644 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Formwork may be stripped from the bottom of beams and arch ribs over 6 m span after

1. 3 days
2. 7 days
3. 14 days
4. 21 days

**Options :**

- 86435141981. 1
- 86435141982. 2
- 86435141983. 3
- 86435141984. 4

**Question Number : 94 Question Id : 86435112645 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Heavy weight concrete is used for construction of

1. atomic power plants
2. residential buildings
3. high rise buildings
4. bridges

**Options :**

- 86435141985. 1
- 86435141986. 2
- 86435141987. 3
- 86435141988. 4

**Question Number : 95 Question Id : 86435112646 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**



Air entrained concrete is prepared by mixing \_\_\_\_\_ in it.

1. Sodium
2. Lime
3. Aluminum
4. Nitrogen

**Options :**

86435141989. 1  
86435141990. 2  
86435141991. 3  
86435141992. 4

**Question Number : 96 Question Id : 86435112647 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

Ferro-cement consists of

1. wire mesh and cement mortar
2. wire mesh and cement concrete
3. steel fibres and cement
4. carbon fibres and cement mortar

**Options :**

86435141993. 1  
86435141994. 2  
86435141995. 3  
86435141996. 4

**Question Number : 97 Question Id : 86435112648 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0**

RMC stands for

1. Road Making Concrete
2. Roof Making Concrete
3. Right Mix Concrete
4. Ready Mix Concrete

**Options :**

86435141997. 1

86435141998. 2

86435141999. 3

86435142000. 4

**Sub-Section Number :**

28

**Sub-Section Id :**

864351681

**Question Shuffling Allowed :**

Yes

**Question Number : 98 Question Id : 86435112649 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Tremie method is used for under water concreting.

1. True

2. False

**Options :**

86435142001. 1

86435142002. 2

**Sub-Section Number :**

29

**Sub-Section Id :**

864351682

**Question Shuffling Allowed :**

Yes

**Question Number : 99 Question Id : 86435112650 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

Road Note 4 method is a method of

1. transportation of concrete
2. placing of concrete
3. storage of ingredients of concrete
4. concrete mix design

**Options :**

86435142003. 1

86435142004. 2

86435142005. 3

86435142006. 4

**Question Number : 100 Question Id : 86435112651 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0**

**Options :**

86435142007. 1

86435142008. 2

86435142009. 3

86435142010. 4