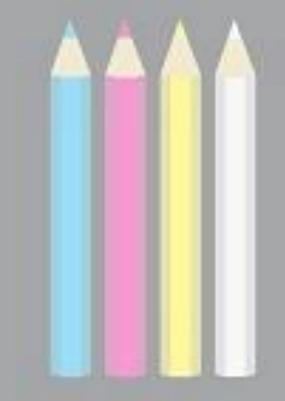
Building Construction & Materials 111+ MCQs



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Gypsum is a

- (A) Mechanically formed sedimentary rock
- (B) Igneous rock
- (C) Chemically precipitated sedimentary rock

(D) Metamorphic rock

ANSWER: (C) Chemically precipitated sedimentary rock

The type of bond provided in brick masonry for carrying heavy loads is

- (A) Single Flemish bond
- (B) Double Flemish bond
- (C) English bond
- (D) Zigzag bond

ANSWER: (C) English bond

Which of the following pairs gives a correct combination of the useful and harmful constituents respectively of a good brick earth?

- (A) Lime stone and alumina
- (B) Silica and alkalies
- (C) Alumina and iron
- (D) Alkalies and magnesium

ANSWER: (B) Silica and alkalies

The main function of alumina in brick earth is

(A) To impart plasticity

(B) To make the brick durable

(C) To prevent shrinkage

(D) To make the brick impermeable

ANSWER: (A) To impart plasticity

A mortar joint in masonry which is normal to the face of wall is known as

(A) Bed joint(B) Wall joint(C) Cross joint

(D) Bonded joint



ANSWER: (C) Cross joint

Advantage of a clamp compared to a kiln for burning bricks is that

- (A) It takes less time for burning
- (B) It gives more output of first class bricks
- (C) It has less initial cost
- (D) It is suitable when bricks are required in large numbers

ANSWER: (C) It has less initial cost

The stretcher bond in brick masonry can be used only when the thickness of wall is

(A) 90 mm
(B) 180 mm
(C) 190 mm
(D) 280 mm



ANSWER: (A) 90 mm

Clay and silt content in a good brick earth must be at least

(A) 50 %

(B) 60 %

(C) 20 %

(D) 30 %



ANSWER: (A) 50 %

Excess of alumina in brick earth makes the brick

(A) Impermeable

(B) Brittle and weak

(C) To lose cohesion

(D) To crack and warp on drying

ANSWER: (D) To crack and warp on drying

- **Gneiss is obtained from**
- (A) Sedimentary metamorphic rock
- (B) Igneous rock
- (C) Sedimentary rock
- (D) Metamorphic rock

ANSWER: (A) Sedimentary metamorphic rock

Marble is chemically known as

- (A) Aqueous rock
- (B) Sedimentary rock
- (C) Igneous rock
- (D) Metamorphic rock

ANSWER: (D) Metamorphic rock

Basalt is a

- (A) Extrusive igneous rock
- (B) Intrusive igneous rock
- (C) Metamorphic rock
- (D) Sedimentary rock

ANSWER: (A) Extrusive igneous rock

Hardest and softest rocks are respectively

- (A) Gneiss and Marble
- (B) Basalt and Talc
- (C) Diamond and Laterite
- (D) Diamond and Talc

ANSWER: (D) Diamond and Talc

A good quality stone must

- (A) Be durable
- (B) Be free from clay
- (C) Resist action of acids
- (D) All of the above

ANSWER: (D) All of the above

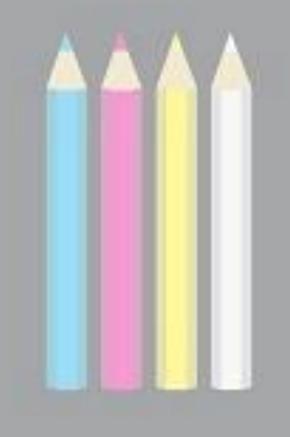
A good quality stone should not absorb water more than

(A) 25%

(B) 20%

(C) 15%

(D) 10%



ANSWER: (D) 10%

Tendency of a rock is to split along

(A) Fracture (B) Cleavage (C) Rupture

(D) Structure



ANSWER: (B) Cleavage

After cooling, molten magma gets converted into rock. It is known as

- (A) Aqueous rock
- (B) Sedimentary rock
- (C) Igneous rock
- (D) Stratified rock

ANSWER: (C) Igneous rock

Art of converting rock into desired shape is called as

(A) Splitting

(B) Dressing

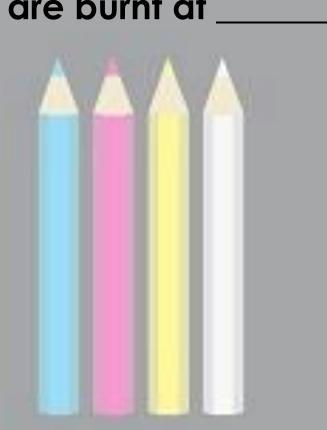
(C) Seasoning

(D) None of the above

ANSWER: (A) Splitting

Argillaceous and calcareous materials in cement manufacturing process are burnt at _____ ° C

- (A) 350
- (B) 2100
- (C) 140
- (D) 1450



ANSWER: (D) 1450

Addition of water to cement causes

(A) The heat to evolve
(B) The chemical reaction
(C) Formation of paste
(D) All of the above

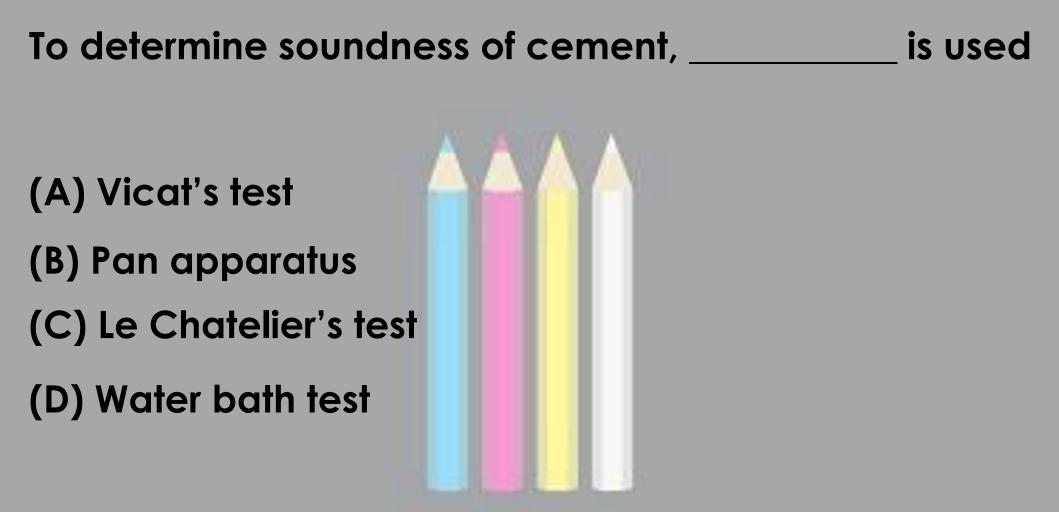
ANSWER: (D) All of the above

Final setting time for Ordinary Portland Cement should be

(A) 1 hour
(B) 24 hours
(C) 10 hours
(D) 30 minutes



ANSWER: (C) 10 hours



ANSWER: (C) Le Chatelier's test

Chief constituents of Portland cement are

(A) Silica and Alumina

(B) Only Alumina

(C) Only Silica

(D) Lime and silica

ANSWER: (D) Lime and silica

Compressive strength of OPC after 3 days should not be less than

(A) 16 MPa

(B) 28 MPa

(C) 10 MPa

(D) 9 MPa



ANSWER: (A) 16 MPa

Excess lime in Portland cement causes

(A) Decrease in strength
(B) Increase in strength
(C) Increase in initial setting time
(D) Unsoundness

ANSWER: (D) Unsoundness

Initial setting of cement is caused by

- (A) Tricalcium aluminate
- (B) Dicalcium silicate
- (C) Calcium silicate
- (D) Tetracalcium silicate

ANSWER: (A) Tricalcium aluminate

Upon storage, cement

(A) Gains strength

(B) Loses strength

(C) Loses soundness

(D) None of the above

ANSWER: (B) Loses strength

To obtain hydraulic lime

- (A) Lime stone is added to water
- (B) Quick lime is added to water
- (C) Lime stone is burnt
- (D) Kankar is burnt

ANSWER: (D) Kankar is burnt

Chemically, quick lime is

(A) Calcium bicarbonate

(B) Calcium carbonate

(C) Calcium oxide

(D) Calcium dioxide

ANSWER: (C) Calcium oxide

Hydraulicity is imparted to hydraulic lime by

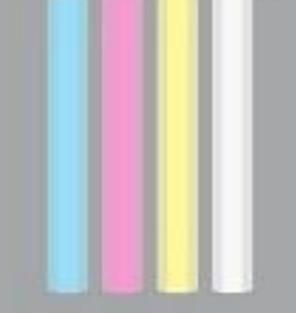
(A) Water (B) Clay (C) Surkhi (D) Alumina



ANSWER: (B) Clay

Underwater construction uses

(A) Quick lime
(B) Limestone
(C) Pure lime
(D) Hydraulic lime



ANSWER: (D) Hydraulic lime

When added with water, quick lime

(A) Generates heat

(B) Forms slaked lime

(C) Only (A)

(D) Both (A) and (B)

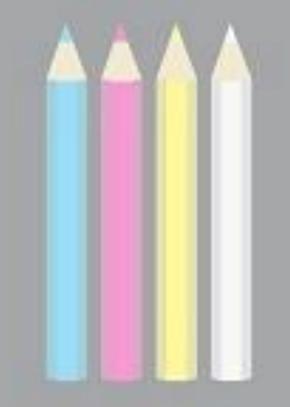
ANSWER: (D) Both (A) and (B)

For white washing _____ is used (A) Pure lime (B) Fat lime (C) Lime stone (D) Hydraulic lime

ANSWER: (B) Fat lime

Normal curing period for lime mortar is

(A) 24 hours
(B) 3 days
(C) 7 days
(D) 10 days



ANSWER: (C) 7 days

For hydraulic lime, initial setting time is

(A) 30 minutes
(B) 120 minutes
(C) 1 hour
(D) 3 hours



ANSWER: (B) 120 minutes

Choose the correct statement out of given

(A) Hydraulic lime is used generally in lime mortar
(B) Hydraulic lime is used for underwater applications
(C) Lime concrete is used for flooring at ground level
(D) All of the above

ANSWER: (D) All of the above

Seasoning of timber is necessary

- (A) To remove moisture/sap
- (B) To minimize shrinkage, splitting of timber
- (C) To increase strength
- (D) All of the above

ANSWER: (D) All of the above

gives age of the tree

(A) Fiber arrangement

(B) Annular rings

(C) Cortex

(D) Medullary sheath

ANSWER: (B) Annular rings

Choose correct option regarding sap wood

- (A) It possesses high strength
- (B) It has closer annular rings
- (C) It is weak in strength and easily attacked by insects
- (D) None of the above

ANSWER: (C) It is weak in strength and easily attacked by insects

Workability of timber refers to

- (A) Proper seasoning of the timber
- (B) Ease in sawing/cutting
- (C) Getting smooth surface after cutting it
- (D) All of the above

ANSWER: (D) All of the above

Due to shrinkage of interior parts because of aging of timber, defect caused in timber is

(A) Star shakes

(B) Cup shakes

(C) Rind galls

(D) Heart shakes

ANSWER: (D) Heart shakes

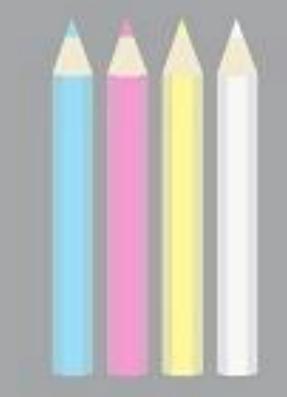
A well seasoned timber has moisture content upto

(A) 2-4 %

(B) 10-12 %

(C) 12-14 %

(D) 6-8 %



ANSWER: (B) 10-12 %

Wounds left after branches are cut off in an irregular pattern are known as

(A) Knots

(B) Ruptures

(C) Swelling

(D) Rind galls

ANSWER: (D) Rind galls



Timber can be made fire proof to some extent by

- (A) Seasoning
- (B) Charring
- (C) Painting with bitumen
- (D) Soaking it into ammonium sulphate

ANSWER: (D) Soaking it into ammonium sulphate

Following process is used for preservation of timber

(A) Painting or spraying
(B) Charring
(C) Dipping
(D) All of the above

ANSWER: (D) All of the above

imparts color to the paint

- (A) Driver
- (B) Pigment
- (C) Vehicle
- (D) Thinner



ANSWER: (B) Pigment

Formation of bubbles below paint surface is

(A) Crawling
(B) Cracking
(C) Blistering
(D) None of the above



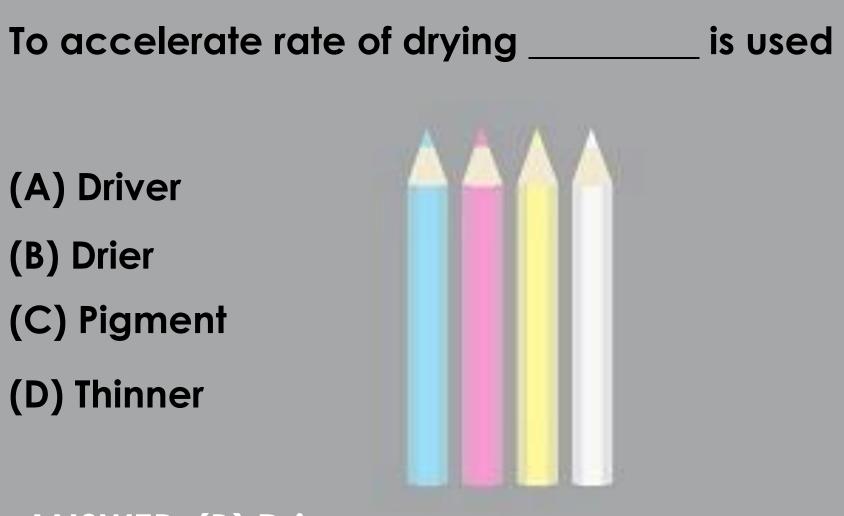
ANSWER: (C) Blistering

Turpentine is a

(A) Driver
(B) Thinner
(C) Pigment
(D) Adulterant



ANSWER: (B) Thinner



ANSWER: (B) Drier

For obtaining a protective surface, which paint is used?

(A) Plastic paint
(B) Varnish
(C) Oil paint
(D) Bitumen paint



To reduce the cost and weight of paint _____ is used

- (A) Thinner
- (B) Additive
- (C) Filler
- (D) Adulterant

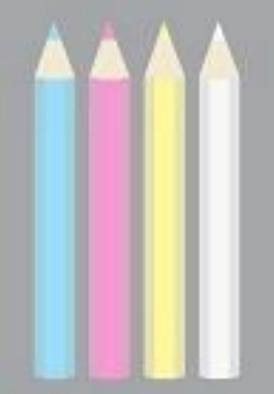


ANSWER: (D) Adulterant

The material which helps the paint to spread over a surface is called as

(A) Driver (B) Vehicle (C) Varnish

(D) Base



ANSWER: (B) Vehicle

is added in paint to obtain corrosive resistance

(A) Ferrous oxide
(B) Ferric oxide
(C) Red lead
(D) Zinc

ANSWER: (C) Red lead

Following is a fire resisting paint

(A) Bitumen paint

(B) Cement paint

(C) Cellulose paint

(D) Asbestos paint

ANSWER: (D) Asbestos paint

Facts associated with black cotton soil is/are

(A) It shrinks when it dries

(B) It undergoes volume changes

(C) It swells when it gets wet

(D) All of the above

ANSWER: (D) All of the above

has highest bearing capacity

(A) Clayey soil(B) Sandy soil(C) Soft rock(D) Hard rock



ANSWER: (D) Hard rock

Maximum permissible differential settlement in case of foundation on sandy soil is limited to

(A) 10 mm (B) 25 mm (C) 20 mm

(D) 30 mm

ANSWER: (B) 25 mm

In case of soil having low bearing capacity, foundation provided is

(A) Mat footing

(B) Raft footing

(C) Grillage footing

(D) All of the above

ANSWER: (D) All of the above

Pile that supports the load by friction as well as by resting on hard stratum is known as

- (A) Bearing pile
- (B) Friction pile
- (C) Simplex pile
- (D) Friction bearing pile

ANSWER: (D) Friction bearing pile

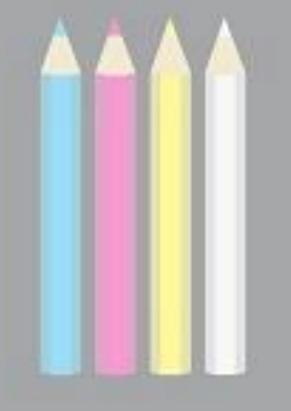
Bearing capacity of soil can be increased by

- (A) Using piles
- (B) Draining sub soil water
- (C) Ramming aggregate into soil
- (D) All of the above

ANSWER: (D) All of the above

Eccentricity of load should not exceed ______ for rectangular foundation of width 'b'

(A) b/6
(B) b/2
(C) b/3
(D) b/4



ANSWER: (A) b/6

Which of the following pile has bulb at its bottom

(A) Vibro pile

(B) Bearing pile

(C) Simplex pile

(D) Mac Arthur pile

ANSWER: (D) Mac Arthur pile

Advantages of pre stressed concrete pile are

(A) It is lightweight
(B) It is durable
(C) It is easy to handle
(D) All of the above

ANSWER: (D) All of the above

Generally, stretcher bond is used for

(A) Single brick wall
(B) Half brick wall
(C) Lintels
(D) Reveals

ANSWER: (B) Half brick wall

To ensure sound proofing, damp proofing and heat insulation,

(A) DPC is used

(B) Double brick wall is used

(C) Cavity wall is used

(D) None of the above

ANSWER: (C) Cavity wall is used

Expansion joints are provided in masonry wall when wall length exceeds

(A) 30 m

(B) 15 m

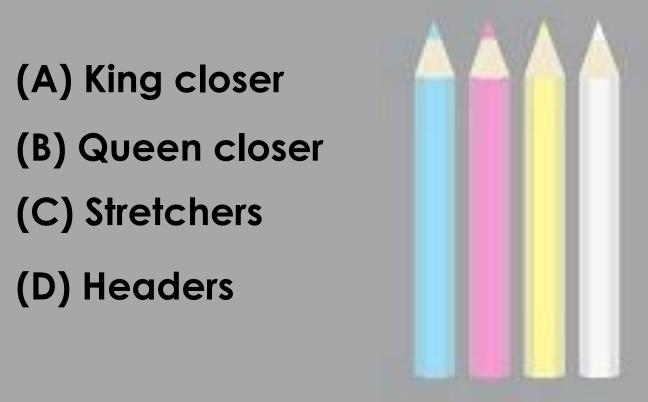
(C) 20 m

(D) 40 m



ANSWER: (D) 40 m

shall be used for hearting of thicker walls



ANSWER: (D) Headers

Layer of concrete placed on exposed top of external wall is called

- (A) Coning
- (B) Cornice
- (C) Coping
- (D) None of the above



ANSWER: (C) Coping

Slenderness ratio for masonry wall should not be more than

(A) 5

(B) 10

(C) 40

(D) 20



ANSWER: (D) 20

Stretcher bond is used in brick masonry when the wall thickness is

(A) 200 mm
(B) 180 mm
(C) 110 mm
(D) 90 mm



ANSWER: (D) 90 mm

In the wall face, the 19 x 9 side of the brick is known as

(A) Header
(B) Front face
(C) Stretcher
(D) Closer



ANSWER: (C) Stretcher

Vertical wall face of an opening that supports the frame is known as

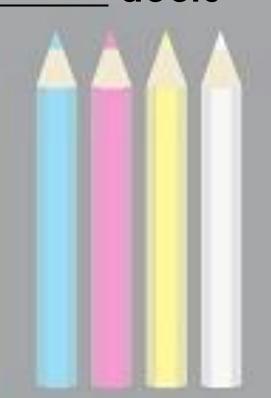
- (A) Rebate
- (B) Reveal
- (C) Mullion
- (D) Jamb



ANSWER: (D) Jamb

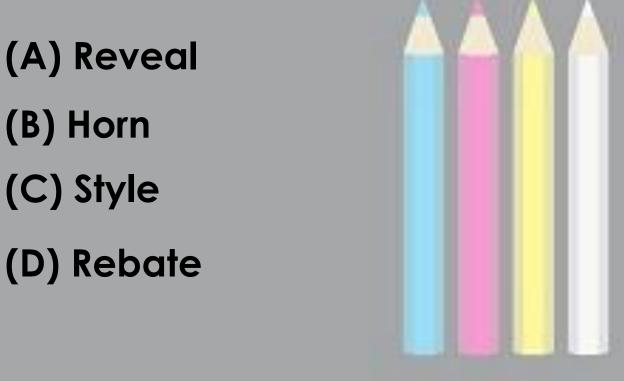
Places that have air conditioning and continuous visitors, adopt _____ doors

- (A) Sliding
- (B) Revolving
- (C) Louvered
- (D) Wire gauged



ANSWER: (B) Revolving

Depression or cut provided in the door frame to receive the door shutter is called as



ANSWER: (D) Rebate

_____ is the vertical outside member of shutter of door/window.

(A) Head
(B) Horn
(C) Style
(D) Lock rail



ANSWER: (C) Style

To subdivide a window or a door vertically, this vertical member is used

(A) Hold fast (B) Rail (C) Mullion

(D) Head



ANSWER: (C) Mullion

Places where additional light in the room and visibility from outside of the room is required use

- (A) Glazed or sash door
- (B) Flush door
- (C) Louvered door
- (D) None of the above

ANSWER: (A) Glazed or sash door

window is provided on sloping roof of a building to provide ventilation, light and improve appearance

(A) Lantern
(B) Gable
(C) Corner
(D) Bay



ANSWER: (B) gable

Lowermost horizontal part of a window frame is called as

(A) Sill

(B) Bottom rail

(C) Transom

(D) None of the above



ANSWER: (A) Sill

External jamb of a door or a window opening at right angles to the wall face is called

(A) Reveal
(B) Transom
(C) Hold fast
(D) Mullion



ANSWER: (C) Reveal

Horizontal and vertical portion of a step are respectively called as

- (A) Tread and riser
- (B) Tread and rise
- (C) Going and rise
- (D) Going and riser



ANSWER: (A) Tread and riser

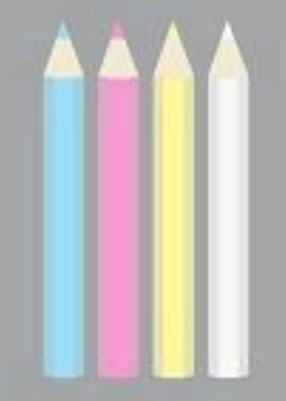
A levelled platform at the top or bottom of flight between the floors to facilitate change of direction is called as

(A) Pitch(B) Landing(C) Going(D) Soffit

ANSWER: (B) Landing

Projected portion of the tread beyond riser face is called

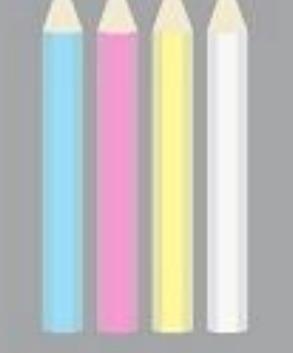
(A) Nosing
(B) Soffit
(C) String
(D) Post



ANSWER: (A) Nosing

Vertical member made up of wood or metal supporting the hand rail is called

- (A) Newel post
- (B) Baluster
- (C) Header
- (D) Soffit



ANSWER: (B) Baluster

Location where space is limited and to provide emergency exit stairway for a building _____ staircases are adopted

(A) Circular

(B) Dog legged

(C) Bifurcated

(D) Quarter turn

ANSWER: (A) Circular

provides assistance for using stairway

- (A) Balustrade
- (B) Hand rail
- (C) Nosing
- (D) None of the above



ANSWER: (B) Hand rail

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ANSWER: (D) 25° to 40°

(D) 25° to 40°

(C) 40° to 50°

(A) 15° to 20°

(B) 30° to 40°

Generally, pitch of the stair is kept between

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Normally adopted width of staircase for residential building is

(A) 70 cm (B) 50 cm (C) 60 cm (D) 90 cm



ANSWER: (D) 90 cm

For comfortable ascent and descent, product of rise and going should be in the range of

(A) 350 to 400
(B) 400 to 450
(C) 450 to 500

(D) 500 to 550

ANSWER: (B) 400 to 450

- Arches are constructed where
- (A) Loads are heavy
- (B) Span is more
- (C) Strong abutment is available
- (D) All of these

ANSWER: (D) All of the above

Bearing of the lintel should be

(A) Height of lintel
(B) 1/10 to 1/12 span of lintel

(C) 10 cm

(D) Minimum of (A)(B)(C)

ANSWER: (D) Minimum of (A), (B) and (C)

is a row of arches in continuation

(A) Voussoirs
(B) Springing line
(C) Spandril
(D) Arcade

ANSWER: (D) Arcade

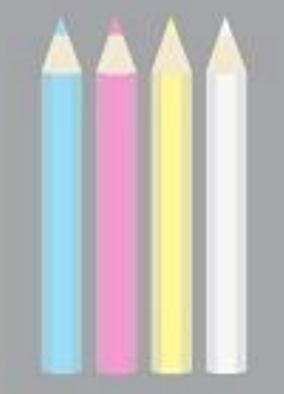
Wedge shaped units of masonry that form an arch are called

(A) Key

(B) Voussoirs

(C) Spandril

(D) Skew back



ANSWER: (B) Voussoirs

An arch may fail because of

(A) Crushing of the masonry
(B) Sliding of the voussoirs
(C) Uneven settlement of the pier
(D) Any of (A), (B) or (C)

ANSWER: (D) Any of (A), (B) or (C)

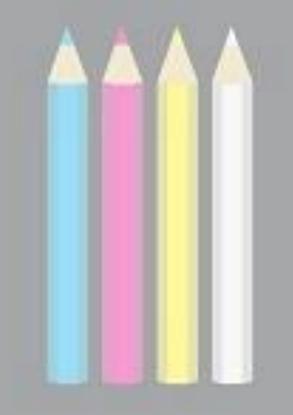
Inner and outer curves of an arch are called _____ & _ respectively

- (A) Skew in, skew out
- (B) Intrados, extrados
- (C) Inpost, outpost
- (D) None of the above

ANSWER: (B) Intrados, extrados

Highest part of the extrados is called as

(A) Crown
(B) Key
(C) Top
(D) Soffit



ANSWER: (A) Crown

Brick lintel can be used when loads are light and opening is less than

(A) 1.5 m (B) 2 m

(C) 3 m

(D) 1 m



ANSWER: (D) 1 m

- To ensure stability of arch
 - (A) Abutment should be strong
 - (B) Symmetry of the arch should be maintained
 - (C) Voussoirs of more height should be provided
 - (D) All of these



For heavy engineering works, which type of rocks are used?

- (A) Igneous rock
- (B) Sedimentary rock
- (C) Metamorphic rock
- (D) None of these

ANSWER: (A) Igneous rock

In stone masonry joints, when dressed edges of two adjacent stones are placed side to side the joint is called

(A) Lapped joint
(B) Bed joint
(C) Cramp joint
(D) Butt joint

ANSWER: (D) Butt joint

For lifting stone, which of the following tool/s is/are used?

(A) Chain lewis
(B) Chain dog
(C) Nippers
(D) All of these

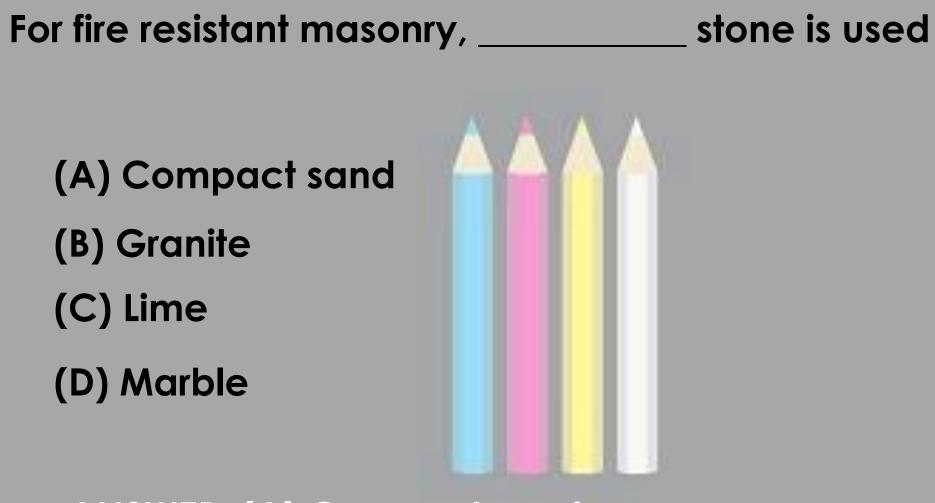


ANSWER: (D) All of these

Roughly dressed or undressed blocks of stones are used in

- (A) Ashlar masonry
- (B) Rubble masonry
- (C) Lapped masonry
- (D) None of the above

ANSWER: (B) Rubble masonry



ANSWER: (A) Compact sand

Finest type of stone masonry work is done in

(A) Ashlar masonry

(B) Rubble masonry

(C) Stepped masonry

(D) None of the above

ANSWER: (A) Ashlar masonry

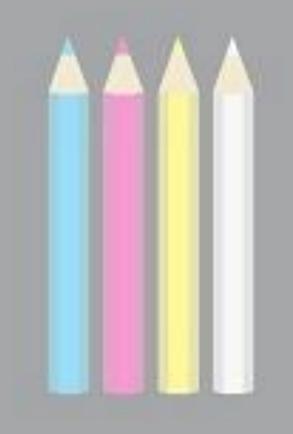
Ashlar rough tooled masonry is also known as

(A) Bastard ashlar
(B) Ashlar facing
(C) Ashlar chamfered
(D) None of the above

ANSWER: (A) Bastard ashlar

Tool used to split the stone is

(A) Mallet(B) Gad(C) Drag(D) Gouge



ANSWER: (B) Gad

Roughest and cheapest form of stone masonry is

- (A) Square rubble
- (B) Ashlar chamfered
- (C) Dry rubble
- (D) Random rubble

ANSWER: (D) Random rubble

Pitched roofs are suitable in

- (A) High rainfall region
- (B) Low rainfall region
- (C) Hot regions
- (D) All of the above

ANSWER: (A) High rainfall region

Flat roofs are suitable in

(A) Hot regions

(B) Low rainfall regions

(C) No snowfall regions

(D) All of the above

ANSWER: (D) All of the above

In this type of pitched roof slope on only 1 side is provided

(A) Gable roof(B) Lean to roof(C) Hip roof(D) Gambrel roof



ANSWER: (B) Lean to roof

In pitched roofs, the vertical distance between top of the ridge and the wall plate is called

(A) Span

(B) Rise

(C) Pitch

(D) Verge



ANSWER: (B) Rise

Ridge formed by the intersection of two sloping surfaces where exterior angle is greater than 180° is called

(A) Verge
(B) Hip
(C) Valley
(D) Eaves



ANSWER: (B) Hip

Four sloping surfaces in four directions make

(A) Gable roof

(B) Lean to roof

(C) Hip roof

(D) Gamble roof



ANSWER: (C) Hip roof

Purlins are used to support

(A) Ridge

(B) Common rafter

(C) Ridge beam

(D) Deck

ANSWER: (B) Common rafter

is used as roof truss when span is 5 m to 8 m

(A) King post truss
(B) Queen post truss
(C) Mansard roof truss
(D) Any of (A), (B) and (C)

ANSWER: (A) King post truss

Combination of king post truss and queen post truss can support roof upto a span of

(A) 10 m (B) 12 m (C) 15 m (D) 18 m



ANSWER: (D) 18 m