Building Materials

**Question No. 01**
Which of the following has more fire resisting characteristics?

(A) Marble
(B) Lime stone
(C) Compact sand stone
(D) Granite

Answer: Option C

**Question No. 02**
The rocks which are formed due to cooling of magma at a considerable depth from earth's surface are called

(A) Plutonic rocks
(B) Hypabyssal rocks
(C) Volcanic rocks
(D) Igneous rocks

Answer: Option A

**Question No. 03**
Plywood has the advantage of

(A) Greater tensile strength in longer direction
(B) Greater tensile strength in shorter direction
(C) Same tensile strength in all directions
(D) None of the above

Answer: Option C

**Question No. 04**
Due to attack of dry rot, the timber

(A) Cracks
(B) Shrinks
(C) Reduces to powder
(D) None of these

Answer: Option C

**Question No. 05**
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: Option D
Question No. 06
Pick up the correct statement from the following:
(A) In stone arches, the stones are placed with their natural beds radial
(B) In cornices, the stones are placed with their natural beds as vertical
(C) In stone walls, the stones are placed with their natural beds as horizontal
(D) All the above
Answer: Option D

Question No. 07
The constituent of cement which is responsible for all the undesirable properties of cement is
(A) Di-calcium silicate
(B) Tri-calcium silicate
(C) Tri-calcium aluminate
(D) Tetra calcium alumino ferrite
Answer: Option C

Question No. 08
Inner part of a timber log surrounding the pitch, is called
(A) Sapwood
(B) Cambium layer
(C) Heart wood
(D) None to these
Answer: Option C

Question No. 09
For testing compressive and tensile strength of cement, the cement mortar is made by mixing cement and standard sand in the proportions of
(A) 1 : 2
(B) 1 : 3
(C) 1 : 4
(D) 1 : 6
Answer: Option B

Question No. 10
If \( P \) is the percentage of water required for normal consistency, water to be added for determination of initial setting time, is
(A) 0.70 \( P \)
(B) 0.75 \( P \)
(C) 0.80 \( P \)
(D) 0.85 \( P \)
Answer: Option D

Question No. 11
The basic purpose of a retarder in concrete is
(A) To increase the initial setting time of cement paste in concrete
(B) To decrease the initial setting time of cement paste in concrete
(C) To render the concrete more water tight
(D) To improve the workability of concrete mix
Answer: Option A

**Question No. 12**
Clay and silt content in a good brick earth must be at least

(A) 50 %
(B) 40 %
(C) 30 %
(D) 25 %
Answer: Option A

**Question No. 13**
Which of the following is the purest form of iron?

(A) Cast iron
(B) Wrought iron
(C) Mild steel
(D) High carbon steel
Answer: Option B

**Question No. 14**
If the iron ore contains clay as an impurity, the flux added during calcination, is

(A) Clay
(B) Lime stone
(C) Argillaceous iron ore
(D) All the above
Answer: Option B

**Question No. 15**
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: Option A

**Question No. 16**
The plywood

(A) Has good strength along the panel only
(B) Can be spilt in the plane of the panel
(C) Has greater impact resistance to blows than ordinary wood
(D) Cannot be bent more easily than ordinary wood of same thickness
Answer: Option C
**Question No. 17**
Pick up the correct statement from the following:
- (A) The phenol is carbolic acid
- (B) The phenol is either extracted from coal-tar or prepared from benzene
- (C) Phenol reacts with formaldehyde, to form phenol formaldehyde resin
- (D) All the above
Answer: Option D

**Question No. 18**
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: Option C

**Question No. 19**
Pick up the correct statement from the following:
- (A) Solder material is an alloy which melts at a temperature above 400°C
- (B) Brazing is done at temperature above 600°C to 1100°C
- (C) Brazing joint is stronger than the solder joint
- (D) All the above
Answer: Option D

**Question No. 20**
Assertion A: Pure lime takes a long time to develop adequate strength.
Reason R: Pure lime has slow hardening characteristics.
Select your answer according to the coding system given below:
- (A) Both A and R is true and R is correct explanation of A
- (B) Both A and R is true and R is not a correct explanation of A
- (C) A is true but R is false
- (D) A is false but R is true
Answer: Option A

**Question No. 21**
During pudding
- (A) Molten metal is kept clear of the fuel
- (B) Carbon is converted into carbonic acid gas
- (C) Silicon forms a slag
- (D) All the above
Answer: Option D

**Question No. 22**
Early attainment of strength in rapid hardening cement is mainly due to
- (A) Gypsum
Question No. 23
Pick up the correct statement from the following:
(A) Quick lime is obtained by burning pure lime stone
(B) Hydraulic lime is obtained by burning lime stone containing clay 5% to 30%
(C) Poor lime is obtained by burning lime stone containing impurities more than 5%
(D) All the above
Answer: Option D

Question No. 24
Which of the following cements contains maximum percentage of dicalcium silicate?
(A) Ordinary Portland cement
(B) Low heat cement
(C) Rapid hardening cement
(D) Sulphate resisting cement
Answer: Option B

Question No. 25
Pick up the incorrect statement from the following:
(A) Hydraulic lime is generally obtained by burning kankar
(B) Hydraulic lime sets slowly as compared to fat lime
(C) Hydraulic lime is generally used in lime mortar
(D) None of these
Answer: Option D

Question No. 26
Which of the following stresses is used for identifying the quality of structural steel?
(A) Ultimate stress
(B) Yield stress
(C) Proof stress
(D) None of the above
Answer: Option B

Question No. 27
Quick lime
(A) Generates heat when added to water
(B) Reacts with carbon dioxide
(C) May be used for white-washing
(D) All the above
Answer: Option D
Question No. 28
Assertion A: Normally turpentine oil is recommended as thinner for indoor painting.
Reason R: Turpentine oil is costlier than other thinners.
Select your answer according to the coding system given below:
(A) Both A and R is true and R is the correct explanation of A
(B) Both A and R is true but R is not the correct explanation of A
(C) A is true but R is false
(D) A is false but R is true
Answer: Option B

Question No. 29
Putty is
(A) Made with finely powdered chalk and linseed oil
(B) Used for fixing glass panes
(C) Softened by a solution of pearl ash and quick-lime soaked in water
(D) All the above
Answer: Option D

Question No. 30
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: Option C

Question No. 31
A volatile substance added to a paint to make its application easy and smooth, is known as
(A) Base
(B) Solvent
(C) Vehicle
(D) None to these
Answer: Option B

Question No. 32
Jumper is a tool used for
(A) Testing of stones
(B) Quarrying of stones
(C) Dressing of stones
(D) None of the above
Answer: Option B

Question No. 33
Pick up the volcanic rock from the following:
(A) Granite
(B) Dolerite  
(C) Basalt  
(D) All the above  
Answer: Option C

**Question No. 34**

Sapwood consists of  
(A) Innermost annular rings around the pith  
(B) Portion of timber between heartwood and cambium layer  
(C) Thin layers below the bark  
(D) Thin fibre which extends from the pith outwards and holds the annular rings together  
Answer: Option B

**Question No. 35**

Strength of cement concrete primarily depends upon  
(A) Quality of water  
(B) Quantity of aggregate  
(C) Quantity of cement  
(D) Water-cement ratio  
Answer: Option D

**Question No. 36**

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: Option A

**Question No. 37**

Cast iron  
(A) Is obtained by purifying pig iron  
(B) Is manufactured in required shapes  
(C) May contain 2 to 5 per cent of carbon with other impurities  
(D) All the above  
Answer: Option D

**Question No. 38**

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: Option B
Question No. 39
Pick up the correct statement from the following:
(A) The distinct plane of division along which a stone can easily be split, is called natural bed of stone
(B) The natural bed of sedimentary rocks is along the planes of stratification
(C) The natural bed of igneous rocks is not defined
(D) All the above
Answer: Option D

Question No. 40
Hydraulic lime is obtained by
(A) Burning of lime stone
(B) Burning of kankar
(C) Adding water to quick lime
(D) Calcination of pure clay
Answer: Option B

Question No. 41
Oil varnish generally consists of
(A) Synthetic resin and spirit
(B) Oil, wax and resin
(C) Resin, oil and turpentine
(D) Spirit, oil and wax
Answer: Option C

Question No. 42
For testing compressive strength of cement, the size of cube used is
(A) 50 mm
(B) 70.6 mm
(C) 100 mm
(D) 150 mm
Answer: Option A

Question No. 43
When a brick is immersed in water for 24 hours and then dried, if
(A) No grey or white deposits appear on the surface, the brick is free from soluble salts
(B) 10 percent surface is covered with grey or white deposits, the brick has slight efflorescence
(C) 50 percent surface is covered with grey or white deposits, the brick has serious efflorescence
(D) All the above
Answer: Option D

Question No. 44
Gypsum consists of
(A) H₂S and CO₂
(B) CaSO₄ and H₂O
(C) Lime and H₂O
(D) CO₂ and calcium
Answer: Option B

Question No. 45
For sanitary pipes and chemical stonewares,

(A) Salt glazing is used  
(B) Lead glazing is used  
(C) Opaque glazing is used  
(D) None of these  
Answer: Option A

Question No. 46
The most commonly used retarder in cement is

(A) Gypsum  
(B) Calcium chloride  
(C) Calcium carbonate  
(D) None of the above  
Answer: Option A

Question No. 47
The rocks which are formed due to cooling of magma at a relatively shallow depth from the earth's surface are called

(A) Plutonic rocks  
(B) Hypabyssal rocks  
(C) Volcanic rocks  
(D) Igneous rocks  
Answer: Option B

Question No. 48
The ratio of the thickness of web to that of flange of steel rolled structural beams and channels is

(A) Less than 1  
(B) Equal to 1  
(C) Greater than 1  
(D) Less than 1 in beams but greater than 1 in channels  
Answer: Option A

Question No. 49
Non acid-resistant asbestos is:

(A) Tremolite asbestos  
(B) Chrysotile asbestos  
(C) Amosite asbestos  
(D) None of these  
Answer: Option B
Question No. 50
The pressure acting on the stones in stone masonry construction should be
(A) Along the direction of bedding planes
(B) At 45° to the direction of bedding planes
(C) At 60° to the direction of bedding planes
(D) Perpendicular to the direction of bedding planes
Answer: Option D

Question No. 51
Pick up the constituent of good brick earth whose excess causes the raw bricks shrink and warp during drying and burning, from the following:
(A) Alumina
(B) Lime
(C) Iron-oxide
(D) Magnesia
Answer: Option A

Question No. 52
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: Option C

Question No. 53
Blister steel
(A) Is obtained by cementation process
(B) Is full of fissures and cavities
(C) Can be easily welded
(D) All the above
Answer: Option D

Question No. 54
Gypsum is a
(A) Mechanically formed sedimentary rock
(B) Igneous rock
(C) Chemically precipitated sedimentary rock
(D) Metamorphic rock
Answer: Option C

Question No. 55
Seasoning of timber is done
(A) To make it water proof
(B) To paint its surface
(C) To increase its temperature
(D) To remove water
Answer: Option D

**Question No. 56**
Which of the following is a rock?
(A) Quartz
(B) Mica
(C) Gypsum
(D) None of the above
Answer: Option C

**Question No. 57**
The tendency of a stone is to split along:
(A) Texture
(B) Fracture
(C) Cleavage
(D) Structure
Answer: Option C

**Question No. 58**
Which of the following stone is best suited for construction of piers and abutments of a railway bridge?
(A) Granite
(B) Sand stone
(C) Lime stone
(D) Quartzite
Answer: Option A

**Question No. 59**
Cast iron contains carbon approximately
(A) 1.5% to 5.5%
(B) 0.05% to 1.75%
(C) 0.250 %
(D) None to these
Answer: Option A

**Question No. 60**
Which of the following trees yields hard wood?
(A) Deodar
(B) Chir
(C) Shishum
(D) Pine
Answer: Option C
Question No. 61
Soundness of cement is tested by
(A) Vicat's apparatus
(B) Le-chatelier apparatus
(C) Compressive strength testing apparatus
(D) None of these
Answer: Option B

Question No. 62
First class timber has an average life of
(A) Less than one year
(B) 1 to 5 years
(C) 5 to 10 years
(D) More than 10 years
Answer: Option D

Question No. 63
Bitumen may be dissolved in
(A) Carbon dioxide
(B) Water
(C) Sodium chloride
(D) Carbon disulphide
Answer: Option D

Question No. 64
Which of the following ingredients of the brick earth enables the brick to retain its shape?
(A) Alumina
(B) Silica
(C) Iron
(D) Magnesia
Answer: Option B

Question No. 65
Veneering means
(A) Carving out designs on timber planks
(B) Chemically treating timber planks
(C) Thick layer of superior wood glued to inferior wood
(D) Thin layer of superior wood glued to inferior wood
Answer: Option C

Question No. 66
Number of bricks required for one cubic metre of brick masonry is
(A) 400
(B) 450
(C) 500
Question No. 67
Which one of the following is used for preparing porcelain?

(A) Clay
(B) Feldspar
(C) Quartz
(D) All of these

Answer: Option D

Question No. 68
The main ingredients of Portland cement are

(A) Lime and silica
(B) Lime and alumina
(C) Silica and alumina
(D) Lime and iron

Answer: Option A

Question No. 69
Pick up the correct statement from the following:

(A) Blistering may be cured by applying water paint finished with oil paint dried with a little copal varnish
(B) Cracked paints may be cured by removing paint and giving a fresh coat of paint
(C) Crawling paints may be cured by sand preparing the surface and giving a fresh coat with plenty of turps
(D) All the above

Answer: Option D

Question No. 70
After storage, the strength of cement

(A) Decreases
(B) Increases
(C) Remains same
(D) May increase or decrease

Answer: Option A

Question No. 71
A bull nose brick is not used for

(A) Rounding off sharp corners
(B) Pillars
(C) Decoration purpose
(D) Arches

Answer: Option D
Question No. 72
The most common admixture which is used to accelerate the initial set of concrete is
(A) Gypsum
(B) Calcium chloride
(C) Calcium carbonate
(D) None of the above
Answer: Option B

Question No. 73
Chlorite, a green colour mineral is mainly derived from the decomposition of
(A) Augite
(B) Biotite
(C) Hornblende
(D) All of these
Answer: Option A

Question No. 74
The ultimate tensile strength of structural mild steel is about
(A) 160 N/mm²
(B) 260 N/mm²
(C) 420 N/mm²
(D) 520 N/mm²
Answer: Option C

Question No. 75
Asbestos
(A) Is a natural fibrous mineral substance
(B) Is composed of hydrous silicates of calcium and magnesium (CaSiO₃, 3MgSiO₃)
(C) Contains iron oxide and alumina
(D) All the above
Answer: Option D

Question No. 76
A queen closer is a
(A) Brick laid with its length parallel to the face or direction of wall
(B) Brick laid with its breadth parallel to the face or direction of wall
(C) Brick having the same length and depth as the other bricks but half the breadth
(D) Brick with half the width at one end and full width at the other
Answer: Option C

Question No. 77
The percentage of alumina and silica in good fire clay vary respectively is
(A) 25, 75
(B) 30, 70
(C) 35, 65
(D) All of these
Answer: Option A

**Question No. 78**
The proportions of lime and sand in the mortar normally used in brick construction are
(A) 1 : 2
(B) 1 : 4
(C) 1 : 6
(D) 1 : 8
Answer: Option A

**Question No. 79**
Index number expressing the relative sizes of both coarse and fine aggregates, is called
(A) Proportioning of aggregates
(B) Fineness modulus
(C) Grading of aggregates
(D) None of these
Answer: Option B

**Question No. 80**
Which of the following sedimentary rocks changes into quartzite by metamorphic action?
(A) Sand stone
(B) Lime stone
(C) Shale
(D) Gypsum
Answer: Option A

**Question No. 81**
Lime putty
(A) Is made from hydraulic lime
(B) Is made by adding lime to water
(C) Can be used only upto three days
(D) All of above
Answer: Option D

**Question No. 82**
The stone suitable for rubble masonry should be.
(A) Hard
(B) Tough
(C) Heavy
(D) Light
Answer: Option A

**Question No. 83**
Pick up the correct statement from the following:
(A) Air bubbles in casting produce a dull sound by tapping their surfaces lightly with a hammer
(B) Cupola furnace is used for the manufacture of cast iron
(C) Red short iron is of no value for welding purpose
(D) All the above
Answer: Option D

Question No. 84
Spalling hammer is used for
(A) Driving wooden headed chisels
(B) Rough dressing of stones
(C) Carving of stones
(D) Breaking small projection of stones
Answer: Option B

Question No. 85
Bullet proof glass is made of thick glass sheet sandwiched by a layer of
(A) Steel
(B) Stainless steel
(C) High test plastic
(D) Chromium plate
Answer: Option C

Question No. 86
Plywood is made by bonding together thin layers of wood in such a way that the angle between grains of any layer to grains of adjacent layers is
(A) 0°
(B) 30°
(C) 45°
(D) 90°
Answer: Option D

Question No. 87
According to IS 399-1963, the weight of the timber is specified at
(A) 8% moisture content
(B) 10% moisture content
(C) 12% moisture content
(D) 14% moisture content
Answer: Option C

Question No. 88
The internal size of mould used in brick preparation is
(A) Equal to the size of a fully burnt brick
(B) Smaller than the size of a fully burnt brick
(C) Greater than the size of a fully burnt brick
(D) None of the above
Question No. 89
Pick up the correct statement from the following:
(A) The free quartz suddenly expands at a temperature lower than 600°C
(B) The lime stone resists fire up to about 800°C and at higher temperature it splits into CaO and CO₂
(C) The sand stone with silicates resist a fire in a better way
(D) All the above
Answer: Option D

Question No. 90
Quick lime is
(A) Calcium carbonate
(B) Calcium oxide
(C) Calcium hydroxide
(D) None of the above
Answer: Option B

Question No. 91
Pick up the correct statement from the following:
(A) Styrene resin is produced from ethylene which is made from petroleum
(B) Styrene resin is light in weight
(C) Styrene resin transmits ultraviolet waves of light
(D) All the above
Answer: Option D

Question No. 92
The initial setting time for ordinary Portland cement as per IS specifications should not be less than
(A) 10 minutes
(B) 30 minutes
(C) 60 minutes
(D) 600 minutes
Answer: Option B

Question No. 93
Rapid hardening cement attains early strength due to
(A) Larger proportion of lime grounded finer than normal cement
(B) Lesser proportion of lime grounded coarser than normal cement
(C) Lesser proportion of lime grounded finer than normal cement
(D) Excess percentage of gypsum
Answer: Option A
**Question No. 94**
With increase in moisture content, the bulking of sand
(A) Increases  
(B) Decreases  
(C) First increases to a certain maximum value and then decreases  
(D) First decreases to a certain minimum value and then increases  
Answer: Option C

**Question No. 95**
Plywood is normally available
(A) 1 mm thick  
(B) 2 mm thick  
(C) 2 to 3 mm thick  
(D) 3 mm to 4 mm thick  
Answer: Option D

**Question No. 96**
Compared to mild steel, cast iron has  
(i) High compressive strength  
(ii) High tensile strength  
(iii) Low compressive strength  
(iv) Low tensile strength  
The correct answer is  
(A) (i) and (ii)  
(B) (ii) and (iii)  
(C) (iii) and (iv)  
(D) (i) and (iv)  
Answer: Option D

**Question No. 97**
In a mortar, the binding material is
(A) Cement  
(B) Sand  
(C) Surkhi  
(D) Cinder  
Answer: Option A

**Question No. 98**
The vehicle used in case of enamel paints is usually
(A) Linseed oil  
(B) Water  
(C) Varnish  
(D) None of the above  
Answer: Option C
Question No. 99
In the method of condensation polymerization,
(A) Low-molecular substances are removed from the high molecular substance
(B) The reaction proceeds with an evolution of ammonia
(C) The reaction proceeds with an evolution of hydrogen chloride
(D) All of the above
Answer: Option D

Question No. 100
The slenderness ratio for masonry walls should not be more than
(A) 10
(B) 20
(C) 30
(D) 40
Answer: Option B

Question No. 101
Sand stone is
(A) Sedimentary rock
(B) Metamorphic rock
(C) Igneous rock
(D) Volcanic rock
Answer: Option A

Question No. 102
Which of the following represents a metamorphic rock?
(i) Slate
(ii) Shale
(iii) Quartzite
The correct answer is
(A) Only (iii)
(B) Both (i) and (iii)
(C) Both (ii) and (iii)
(D) All (i), (ii) and (iii)
Answer: Option B

Question No. 103
For the manufacture of Portland cement, the proportions of raw materials used, are
(A) Lime 63% ; silica 22% ; other ingredients 15%
(B) Lime 22% ; silica 63% ; other ingredients 15%
(C) Silica 40% ; lime 40% ; other ingredients 20%
(D) Silica 70% ; lime 20% ; other ingredients 10%
Answer: Option A
**Question No. 104**

A good building stone should not absorb water more than

(A) 5 %  
(B) 10 %  
(C) 15 %  
(D) 20 %  

Answer: Option A

**Question No. 105**

Good quality stones must

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

Answer: Option D

**Question No. 106**

Specific gravity for most of the building stones lies between

(A) 1.5 to 2.0  
(B) 2.0 to 2.5  
(C) 2.5 to 3.0  
(D) 3.0 to 3.5  

Answer: Option C

**Question No. 107**

Initial setting time of cement for asbestos cement products should be not less than

(A) 30 minutes  
(B) 50 minutes  
(C) 75 minutes  
(D) 90 minutes  

Answer: Option D

**Question No. 108**

The age of a tree can be known by examining

(A) Cambium layer  
(B) Annular rings  
(C) Medullary rays  
(D) Heart wood  

Answer: Option B

**Question No. 109**

Pick up the correct statement from the following:

(A) In basic Bessemer process, the steel heats the converter  
(B) In open-hearth process, the furnace heats the steel  
(C) In Siemens process, the impurities of pig iron are oxidised by the oxygen of the ore
(D) All the above
Answer: Option D

**Question No. 110**

Percentage of silica in a good brick earth lies between
(A) 5 to 10 %
(B) 20 to 30 %
(C) 50 to 60 %
(D) 70 to 80 %
Answer: Option C

**Question No. 111**

Resins are
(A) Not soluble in water
(B) Soluble in spirit
(C) Used in varnishes
(D) Left behind on evaporation of oil
Answer: Option C

**Question No. 112**

Quick lime is
(i) Slow in setting
(ii) Rapid in slacking
(iii) Good in strength
The correct answer is
(A) Only (i)
(B) Only (ii)
(C) Both (i) and (ii)
(D) Both (ii) and (iii)
Answer: Option C

**Question No. 113**

Pick up the correct statement from the following:
(A) Soft stones are required for carving
(B) Light stones are required for arches
(C) Hard stones are required to stand high pressure
(D) All the above
Answer: Option D

**Question No. 114**

As per IS specifications, the maximum final setting time for ordinary Portland cement should be
(A) 30 minutes
(B) 1 hour
(C) 6 hours
(D) 10 hours
Question No. 115
Shingle is
(A) Decomposed laterite
(B) Crushed granite
(C) Water bound pebbles
(D) Air weathered rock
Answer: Option A

Question No. 116
Proper amount of entrained air in concrete results in
(i) Better workability
(ii) Better resistance to freezing and thawing
(iii) Lesser workability
(iv) Less resistance to freezing and thawing
The correct answer is
(A) (i) and (ii)
(B) (i) and (iv)
(C) (ii) and (iii)
(D) (iii) and (iv)
Answer: Option A

Question No. 117
Pick up the correct statement from the following: Method of sawing timber
(A) Tangentially to annual rings, is known as tangential method
(B) In four quarters such that each board cuts annual rings at angles not less than 45°, is known as quarter sawing method
(C) Cut out of quarter logs, parallel to the medullary rays and perpendicular to annual rings, is known as radial sawing
(D) All the above
Answer: Option D

Question No. 118
Assertion A: Paints with white lead base are not recommended for painting of iron works.
Reason R: Paints with white lead base do not check rusting of iron.
Select your answer according to the coding system given below:
(A) Both A and R is true and, R is the correct explanation of A
(B) Both A and R is true but R is not the correct explanation of A
(C) A is true but R is false
(D) A is false but R is true
Answer: Option A

Question No. 119
Pick up the correct statement from the following:
Alexander Parkes, a Scottish chemist prepared a hard material by mixing camphor and alcohol with nitro cellulose and called it, as Parkesite

Dr. L. Bakeland, a Belgian scientist prepared a product known as Bakelite

Pollark, an Austrian scientist prepared a substance from urea and formaldehyde and called it Plastic

All the above

Answer: Option D

**Question No. 120**
Expansion Joints in masonry walls are provided in wall lengths shorter than

(A) 10 m  
(B) 20 m  
(C) 30 m  
(D) 40 m  

Answer: Option D

**Question No. 121**
Cast steel is manufactured by

(A) Cementation process  
(B) Crucible process  
(C) Bessemer process  
(D) Open hearth process  

Answer: Option B

**Question No. 122**
Based on the following rocks and minerals, select the correct statement, quartz, shale, basalt, granite, marble, gypsum, mica

(A) Basalt and marble are the only metamorphic rocks  
(B) There is no sedimentary rock  
(C) Granite is the only igneous rock  
(D) Quartz and mica are minerals  

Answer: Option D

**Question No. 123**
The foliated structure is very common in

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

Answer: Option C

**Question No. 124**
Cross cut saw is used for

(A) Cutting soft stones  
(B) Cutting hard stones
(C) Cutting large blocks of stones
(D) Dressing stones
Answer: Option B

**Question No. 125**
Pick up the correct statement from the following:
(A) Catalysts are added to assist and accelerate the hardening of resin
(B) The fillers are inert materials and they impart strength and hardness
(C) Fibrous fillers increase thermal resistance
(D) All the above
Answer: Option D

**Question No. 126**
A first class brick when immersed in cold water for 24 hours should not absorb water more than
(A) 15 %
(B) 20 %
(C) 22 %
(D) 25 %
Answer: Option B

**Question No. 127**
The minimum compressive strength of 2nd class bricks should be
(A) 75 kg/cm²
(B) 90 kg/cm²
(C) 100 kg/cm²
(D) 120 kg/cm²
Answer: Option A

**Question No. 128**
Which of the following bricks are used for lining of furnaces?
(A) Over-burnt bricks
(B) Under-burnt bricks
(C) Refractory bricks
(D) First class bricks
Answer: Option C

**Question No. 129**
Bulking of sand is caused due to
(A) Surface moisture
(B) Air voids
(C) Viscosity
(D) Clay contents
Answer: Option A
Question No. 130
According to IS specifications, the compressive strength of ordinary Portland cement after three days should not be less than
   (A) 7 MPa
   (B) 11.5 MPa
   (C) 16 MPa
   (D) 21 MPa
Answer: Option C

Question No. 131
Pick up the correct statement from the following:
   (A) Plastics have generally low melting point
   (B) The coefficient of thermal expansion of plastics is about three times than that of steel
   (C) The acoustical boards prepared by impregnating fibre-glass with phenolic resins has absorption coefficient of about 0.67
   (D) All the above
Answer: Option D

Question No. 132
The amount of water used for one kg of distemper is
   (A) 0.2 liter
   (B) 0.4 liter
   (C) 0.6 liter
   (D) 0.8 liter
Answer: Option C

Question No. 133
Smith’s test of stones is performed to find out
   (A) The presence of soluble matter of stone
   (B) The compressive strength of the stone
   (C) The hardness of the stone
   (D) The toughness of the stone
Answer: Option A

Question No. 134
The most important tool in brick laying for lifting and spreading mortar and for forming joints is
   (A) Trowel
   (B) Square
   (C) Bolster
   (D) Scutch
Answer: Option A

Question No. 135
The weight of 1 m$^3$ of brick earth, is about
   (A) 1200 kg
(B) 1500 kg
(C) 1800 kg
(D) 2000 kg
Answer: Option C

**Question No. 136**
Which of the following is a mineral?
(A) Basalt
(B) Granite
(C) Quartz
(D) Syenite
Answer: Option C

**Question No. 137**
Age of a tree may be ascertained by
(A) Radius of its stem
(B) Circumference of its stem
(C) Number of branches
(D) Number of annual rings
Answer: Option D

**Question No. 138**
Crushing strength of a good building stone should be more than
(A) 50 MPa
(B) 100 MPa
(C) 150 MPa
(D) 200 MPa
Answer: Option B

**Question No. 139**
Generally wooden moulds are made from
(A) Ply wood
(B) Shishum wood
(C) Deodar wood
(D) Teak wood
Answer: Option B

**Question No. 140**
The nominal size of the modular brick is
(A) 190 mm × 90 mm × 80 mm
(B) 190 mm × 190 mm × 90 mm
(C) 200 mm × 100 mm × 100 mm
(D) 200 mm × 200 mm × 100 mm
Answer: Option C
Question No. 141
Bitumen is generally obtained from
(A) Organic material
(B) Synthetic material
(C) Petroleum product
(D) Coal
Answer: Option C

Question No. 142
The main constituent which imparts hydraulicity to hydraulic lime is
(A) Calcium oxide
(B) Silica
(C) Clay
(D) Water
Answer: Option C

Question No. 143
Calcination of iron ores is done
(A) To remove moisture
(B) To remove carbonic acid
(C) By roasting in heaps
(D) All the above
Answer: Option D

Question No. 144
Which of the following cements is suitable for use in massive concrete structures such as large dams?
(A) Ordinary Portland cement
(B) Low heat cement
(C) Rapid hardening cement
(D) Sulphate resisting cement
Answer: Option B

Question No. 145
The commonly used thinner in oil paints, is
(A) Naphtha
(B) Turpentine
(C) Both (a) and (b)
(D) None the these
Answer: Option C

Question No. 146
Minimum thickness of wall where single Flemish bond can be used is
(A) Half brick thick
(B) One brick thick
(C) One and a half bricks thick
(D) Two bricks thick
Answer: Option C

**Question No. 147**
The pigment used in paints for corrosive resistance, is
(A) White lead
(B) Ferrous oxide
(C) Zinc white
(D) Red lead
Answer: Option D

**Question No. 148**
Slate is formed by metamorphic action on
(A) Shale
(B) Lime stone
(C) Sand stone
(D) Granite
Answer: Option A

**Question No. 149**
Sea sand used in structures causes
(A) Dampness
(B) Efflorescence
(C) Disintegration
(D) All of these
Answer: Option D

**Question No. 150**
The trunk of tree left after cutting all the branches is known as
(A) Log
(B) Batten
(C) Plank
(D) Baulk
Answer: Option A

**Question No. 151**
The weight of a good quality brick when immersed in water for a period of 16 hours should not exceed the weight of dry brick
(A) 20 %
(B) 15 %
(C) 10 %
(D) None of these
Answer: Option A
**Question No. 152**
Pug mill is used for  
(A) Preparation of clay  
(B) Moulding of clay  
(C) Drying of bricks  
(D) Burning of bricks  
Answer: Option A

**Question No. 153**
Pick up the synthetic resin from the following:  
(A) Urea resin  
(B) Phenolic resin  
(C) Resorcinol resin  
(D) All of these  
Answer: Option D

**Question No. 154**
Addition of pozzolana to ordinary Portland cement increases  
(A) Bleeding  
(B) Shrinkage  
(C) Permeability  
(D) Heat of hydration  
Answer: Option B

**Question No. 155**
Plastics are compounds of carbon with element  
(A) Hydrogen  
(B) Nitrogen  
(C) Oxygen  
(D) All of these  
Answer: Option D

**Question No. 156**
Paints with white lead base are suitable for painting of  
(A) Wood work  
(B) Iron work  
(C) Both wood work and iron work  
(D) None of the above  
Answer: Option A

**Question No. 157**
For a good building stone, its specific gravity should the greater than  
(A) 1.5  
(B) 1.7  
(C) 2.2
Question No. 158
Sandstone is a
(i) Sedimentary rock
(ii) Aqueous rock
(iii) Siliceous rock
The correct answer is
(A) Only (i)
(B) Both (i) and (ii)
(C) Both (i) and (iii)
(D) All (i), (ii) and (iii)
Answer: Option D

Question No. 159
The rocks having alumina or clay as their major constituents are known as
(A) Siliceous rocks
(B) Argillaceous rocks
(C) Calcareous rocks
(D) Sedimentary rocks
Answer: Option B

Question No. 160
The practical limit of moisture content achieved in air drying of timber is
(A) 5 %
(B) 15 %
(C) 25 %
(D) 35 %
Answer: Option B

Question No. 161
Glazing of clay products, is done
(A) To improve their appearance
(B) To protect them from atmospheric effect
(C) To protect them from corrosive action
(D) All the above
Answer: Option D

Question No. 162
Study the following statements.
(i) Hydraulic lime is suitable for white washing,
(ii) Fat lime is suitable for whitewashing,
(iii) Hydraulic lime is suitable for making mortar,
(iv) Fat lime is suitable for making mortar.
The correct answer is
(A) (i) and (iv)
(B) (ii) and (iii)
(C) (i) and (ii)
(D) (iii) and (iv)
Answer: Option B

**Question No. 163**
The yield strength and tensile strength of low carbon steel may be improved by the addition of
(A) Manganese
(B) Chromium
(C) Nickel
(D) Vanadium
Answer: Option D

**Question No. 164**
Three basic raw materials which are needed in large quantities for production of steel are
(A) Iron ore, coal and sulphur
(B) Iron ore, carbon and sulphur
(C) Iron ore, coal and lime stone
(D) Iron ore, carbon and lime stone
Answer: Option C

**Question No. 165**
To give a brilliant finish, the type of varnish used, is
(A) Water varnish
(B) Spirit varnish
(C) Turpentine varnish
(D) Oil varnish
Answer: Option B

**Question No. 166**
Which of the following should be used for hearting of thicker walls?
(A) Headers
(B) Stretchers
(C) Brick bats
(D) Queen closer
Answer: Option A

**Question No. 167**
Asbestos
(A) Is an excellent insulator for heat and electricity
(B) Is fire-proof and acid proof
(C) Has sp. gravity equal to 3.10
(D) All the above
Question No. 168
A heavy stone is suitable for
(A) Arches
(B) Rubble masonry
(C) Roads
(D) Retaining walls
Answer: Option D

Question No. 169
Pick up the correct statement from the following:
(A) Blisters in the finished wrought iron, are caused due to the reaction between oxide of iron and carbon
(B) The edges of a finished wrought iron are rough due to red shortage
(C) Pig iron (charcoal) is manufactured from magnetic ore (Fe₂O₄)
(D) All the above
Answer: Option D

Question No. 170
The percentage of alumina in a good brick earth lies between
(A) 5 to 10 %
(B) 20 to 30 %
(C) 50 to 60 %
(D) 70 to 80 %
Answer: Option B

Question No. 171
Pig iron made from haematite ores free from sulphur, phosphorus and copper, is known as
(A) Bessemer pig
(B) Grey or foundry pig
(C) White or forge pig
(D) Mottled pig
Answer: Option A

Question No. 172
Le-Chatelier's device is used for determining the
(A) Setting time of cement
(B) Soundness of cement
(C) Tensile strength of cement
(D) Compressive strength of cement
Answer: Option B

Question No. 173
Red short iron cracks when bent due to the presence of
Question No. 174
Percentage of carbon content in mild steel is
(A) Less than 0.25
(B) Between 0.25 and 0.7
(C) Between 0.7 and 1.5
(D) Greater than 1.5
Answer: Option A

Question No. 175
The method of addition polymerization is used for obtaining:
(A) Polystyrene
(B) Polypropylene
(C) Polyvinylchloride
(D) All of these
Answer: Option D

Question No. 176
Which of the following metamorphic rocks has the most weather resisting characteristics?
(A) Marble
(B) Quartzite
(C) Slate
(D) Lime stone
Answer: Option B

Question No. 177
To retard the initial setting time of cement, the compound responsible, is
(A) Tri-calcium silicate
(B) Gypsum
(C) Di-calcium silicate
(D) Tri-calcium aluminate
Answer: Option B

Question No. 178
Seasoning of timber is done for
(A) Increasing moisture content
(B) Decreasing moisture content
(C) Increasing strength of timber
(D) None to these
Answer: Option B
Question No. 179
The steel used for the manufacture of rails, is
(A) Bessemer steel
(B) Mild steel
(C) Cast steel
(D) Stainless steel
Answer: Option A

Question No. 180
Durability of building stone is affected by its
(A) Chemical composition
(B) Texture
(C) Resistance to atmosphere
(D) All the above
Answer: Option D

Question No. 181
Pick up the most favourable condition for the rapid growth of fungus for dry rot from the following:
(A) Absence of sun light
(B) Dampness
(C) Presence of sap
(D) All the above
Answer: Option D

Question No. 182
Crushing strength of a first class brick should not be less than
(A) 3.5 N/mm²
(B) 7.0 N/mm²
(C) 10.5 N/mm²
(D) 14.0 N/mm²
Answer: Option C

Question No. 183
Pick up the correct statement from the following:
(A) Rust is due to formation of oxides
(B) Cast iron oxidises less
(C) Steel oxidises most
(D) All the above
Answer: Option D

Question No. 184
The main constituent of cement which is responsible for initial setting of cement is
(A) Di-calcium silicate
(B) Tri-calcium silicate
(C) Tri-calcium aluminate
(D) All of the above
Answer: Option C

Question No. 185
Pick up the correct statement from the following:
(A) The low voltage porcelain is prepared by wet process
(B) The high voltage porcelain is prepared by dry process
(C) The low voltage porcelain is prepared by dry process
(D) None of the above
Answer: Option C

Question No. 186
In brick masonry the bond produced by laying alternate headers and stretchers in each course is known as
(A) English bond
(B) Double Flemish bond
(C) Zigzag bond
(D) Single Flemish bond
Answer: Option B

Question No. 187
In stone masonry, if stones are so placed that their layers are parallel to the direction of load, they
(A) Split easily
(B) Are affected by moisture
(C) Both (A) and (B)
(D) None of these
Answer: Option C

Question No. 188
Granite is not suitable for ordinary building purpose because
(A) It cannot be polished
(B) It is not a fire proof material
(C) It is costly
(D) It has less crushing strength
Answer: Option C

Question No. 189
Lacquer paints
(A) Are generally applied on structural steel
(B) Are less durable as compared to enamel paints
(C) Consist of resin and nitro-cellulose
(D) All the above
Answer: Option D
Question No. 190

Glazing is used to make earthenware
(A) Hard
(B) Soft
(C) Porous
(D) Impervious
Answer: Option D

Question No. 191

In the cement the compound quickest to react with water, is
(A) Tri-calcium aluminate
(B) Tetra-calcium alumino-ferrite
(C) Tri-calcium silicate
(D) Di-calcium silicate
Answer: Option A

Question No. 192

Which of the following gradients exerts maximum influence on properties of steel?
(A) Iron
(B) Carbon
(C) Manganese
(D) Sulphur
Answer: Option B

Question No. 193

Stainless steel contains
(A) 18% of chromium and 8% nickel
(B) 8% of chromium and 18% of nickel
(C) 12% of chromium and 36% of nickel
(D) 36% of chromium and 12% of nickel
Answer: Option A

Question No. 194

Excess of silica in brick earth results in
(A) Cracking and warping of bricks
(B) Loss of cohesion
(C) Enhancing the impermeability of bricks
(D) None of the above
Answer: Option B

Question No. 195

Which one of the following is acid resistant asbestos?
(A) Actinolite asbestos
(B) Amosite asbestos
(C) Anthophylite asbestos
Question No. 196
The slump recommended for mass concrete is about
(A) 25 mm to 50 mm
(B) 50 mm to 100 mm
(C) 100 mm to 125 mm
(D) 125 mm to 150 mm
Answer: Option A

Question No. 197
For preparing porcelains, the clay should be
(A) Sufficiently pure
(B) Of high degree of tenacity
(C) Of good plasticity
(D) All the above
Answer: Option D

Question No. 198
For melting one tonne of cast iron
(A) 700 m$^3$ air is required
(B) 20 kg limestone is required
(C) One quintal coke is required
(D) All the above
Answer: Option D

Question No. 199
Pick up the correct statement regarding low heat cement from the following:
(A) It possesses less compressive strength
(B) Its initial setting time is about one hour
(C) Its final setting time is about 10 hours
(D) All the above
Answer: Option D

Question No. 200
Quick lime (or caustic lime)
(A) Is obtained by the calcination of pure lime stone
(B) Has great affinity to moisture
(C) Is amorphous
(D) All the above
Answer: Option D

Question No. 201
The commonly used lime in white washing, is
(A) White lime  
(B) Fat lime  
(C) Hydraulic lime  
(D) Quick lime  
Answer: Option B

**Question No. 202**
For slaking of 10 kg of CaO, the theoretical amount of water is  
(A) 2.2 kg  
(B) 1.5 kg  
(C) 3.2 kg  
(D) None of these  
Answer: Option C

**Question No. 203**
Plywood is made from  
(A) Common timber  
(B) Bamboo fibre  
(C) Teak wood only  
(D) Asbestos sheets  
Answer: Option C

**Question No. 204**
A 1st class brick immersed in water for 24 hours, should not absorb water (by weight) more than  
(A) 10 %  
(B) 15 %  
(C) 20 %  
(D) 25 %  
Answer: Option C

**Question No. 205**
The preparation of surface of stone to obtain plain edges or to obtain stones of required size and shape is known as  
(A) Quarrying of stones  
(B) Blasting of stones  
(C) Seasoning of stones  
(D) Dressing of stones  
Answer: Option D

**Question No. 206**
The hardest rock is  
(A) Marble  
(B) Diamond  
(C) Talc  
(D) Quartz
**Question No. 207**

Wrought iron is used for

(A) Structural works in beams
(B) Small sized water pipes
(C) Columns and struts
(D) None to these

Answer: Option B

**Question No. 208**

Pick up the correct statement from the following:

(A) Corrugated sheet iron is made by passing plain sheets between grooved rollers
(B) Strength and stiffness of corrugated sheets are considerably increased
(C) Corrugated sheets are generally used on slanting roofs
(D) All the above

Answer: Option D

**Question No. 209**

The process of mixing clay, water and other ingredients to make brick is known as

(A) Kneading
(B) Moulding
(C) Pugging
(D) Drying

Answer: Option A

**Question No. 210**

The type of steel used for precision levelling staff, is

(A) Titanium steel
(B) Carbon steel
(C) Invar
(D) Stainless steel

Answer: Option C

**Question No. 211**

Formula for quick lime, is

(A) CaCO\(_3\)
(B) Ca(OH)\(_2\)
(C) CO\(_2\)CO\(_2\)
(D) None to these

Answer: Option A

**Question No. 212**

The process of decarbonising the pig iron completely and then adding proper percentage of carbon for manufacturing steel, is called
(A) Cementation process
(B) Crucible process
(C) Bessemer process
(D) Open hearth process

Question No. 213
The maximum quantity of calcium chloride used as an accelerator in cement in percentage by weight of cement is
(A) 1
(B) 2
(C) 3
(D) 4
Answer: Option B

Question No. 214
Which one of the following polymers is obtained from condensation polymerization?
(A) Phenol formaldehyde
(B) Carbamide
(C) Melamine-formaldehyde
(D) All of these
Answer: Option D

Question No. 215
The portion of a brick cut to form angles other than right angles in plan, is known as
(A) Queen closer
(B) King closer
(C) Closer
(D) Squint brick
Answer: Option D

Question No. 216
The moisture content in a well seasoned timber is
(A) 4 % to 6 %
(B) 10 % to 12 %
(C) 15 % to 20 %
(D) 100 %
Answer: Option B

Question No. 217
The cement becomes unsound by the presence of excess
(A) Sulphur
(B) Magnesia
(C) Lime
(D) All of these
Question No. 218
For one cubic metre of brick masonry, number of bricks required, is
(A) 400
(B) 425
(C) 450
(D) 500
Answer: Option D

Question No. 219
Rapid hardening cement contains
(A) Tri-calcium silicate
(B) Tri-calcium aluminate
(C) Tetra-calcium alumino-ferrite
(D) Di-calcium silicate
Answer: Option A

Question No. 220
In order of increasing percentage of silica, the correct sequence is
(A) Sandy clay, calcareous clay, pure clay
(B) Calcareous clay, pure clay, sandy clay
(C) Pure clay, sandy clay, calcareous clay
(D) None of these
Answer: Option B

Question No. 221
Which of the following timbers is suitable for making sports goods?
(A) Mulberry
(B) Mahogany
(C) Sal
(D) Deodar
Answer: Option A

Question No. 222
The stones obtained by blasting are used as
(A) Ballast in railways
(B) Aggregates for concrete
(C) Road metal
(D) All the above
Answer: Option D

Question No. 223
Pick up the correct statement from the following:
(A) Acid test is done to find out the weathering quality of stones
Attrition test is done to find out the rate of wear of stones which are used in road construction.
Crushing test is done to find out the compressive strength of the stone.
All the above.
Answer: Option D

**Question No. 224**
Mastic asphalt is
(A) Water proof
(B) Fire proof
(C) Elastic
(D) All the above
Answer: Option D

**Question No. 225**
Pick up the correct statement from the following:
(A) Lime is available in Free State
(B) Lime is available by dissolving calcium carbonate in water
(C) Lime is available by calcining calcium carbonate at 900°C
(D) Lime is nothing but calcium chloride
Answer: Option C

**Question No. 226**
The frog of the brick in a brick masonry is generally kept on
(A) Bottom face
(B) Top face
(C) Shorter side
(D) Longer side
Answer: Option B

**Question No. 227**
Pick up the correct statement from the following:
(A) Roasting is not necessary if iron ore is an oxide
(B) Impurities float on the molten iron as slag
(C) The slag contains lime about 45%
(D) All the above
Answer: Option D

**Question No. 228**
For obtaining vinyl chloride acetate, the method used, is
(A) Addition polymerization
(B) Condensation polymerization
(C) Co-polymerization
(D) None of these
Answer: Option C
**Question No. 229**
Whitworth compressed steel is obtained when molten steel is subjected to a pressure of
(A) 5 kg/mm$^2$
(B) 9 kg/mm$^2$
(C) 13 kg/mm$^2$
(D) 15 kg/mm$^2$
Answer: Option B

**Question No. 230**
The normal consistency of ordinary Portland cement is about
(A) 10 %
(B) 20 %
(C) 30 %
(D) 40 %
Answer: Option C

**Question No. 231**
Lacquer is
(A) Oil paint
(B) Distemper
(C) Spirit varnish
(D) None to these
Answer: Option C

**Question No. 232**
Plaster of Paris is obtained by calcining
(A) Bauxite
(B) Gypsum
(C) Lime stone
(D) None of these
Answer: Option B

**Question No. 233**
Pick up the correct statement from the following:
(A) The lime in excess makes the cement unsound and causes the cement to expand and disintegrate
(B) The silica in excess makes the cement stronger but its setting time also increases
(C) The excess amount of alumina weakens the cement
(D) All the above
Answer: Option D

**Question No. 234**
Priming consists of
(A) One part of white lead, 8 parts of chalk and four parts of twice boiled linseed oil
(B) 8 parts of white lead, one part of chalk and four parts of twice boiled linseed oil
(C) One part of white lead, 8 parts of chalk and one part of linseed oil
(D) None to these
Answer: Option A

Question No. 235
The coefficient of hardness of stones used in road work should be greater than
(A) 10
(B) 12
(C) 15
(D) 17
Answer: Option D

Question No. 236
Manganese steels
(A) Are non-magnetic
(B) Possess high electrical resistance
(C) Possess low coefficient of expansion
(D) All the above
Answer: Option D

Question No. 237
The most commonly used base for timber painting, is
(A) Red lead
(B) Zinc white
(C) White lead
(D) Titanium white
Answer: Option C

Question No. 238
Pick up the correct statement from the following:
(A) Adding 5% to 6% of moisture content by weight, increases the volume of dry sand from 18% to 38%
(B) The bulking of fine sand is more than that of coarse sand
(C) If the percentage content of moisture exceeds 10%, increase in bulk of sand starts increasing
(D) All the above
Answer: Option D

Question No. 239
Pick up the correct statement from the following:
(A) For thin structures subjected to wetting and drying, the water cement ratio should be 0.45
(B) For mass concrete structures subjected to wetting and drying, the water ratio should be 0.55
(C) For thin structures which remain continuously under water, the water-cement ratio by weight should be 0.55
(D) All the above
Answer: Option D
**Question No. 240**

Quartzite is a

(A) Metamorphic rock  
(B) Argillaceous rock  
(C) Calcareous rock  
(D) Siliceous rock  
Answer: Option D

**Question No. 241**

The plastics made from cellulose resin

(A) Are as clear as glass  
(B) Are tough and strong  
(C) Possess excellent electrical properties  
(D) All the above  
Answer: Option D

**Question No. 242**

Polymerization helps to improve the property of

(A) Strength  
(B) Rigidity  
(C) Elasticity  
(D) All of these  
Answer: Option D

**Question No. 243**

For filling cracks in masonry structures, the type of bitumen used, is

(A) Cut-back bitumen  
(B) Bitumen-emulsion  
(C) Blown bitumen  
(D) Plastic bitumen  
Answer: Option D

**Question No. 244**

Expanded metal is

(A) Manufactured from steel sheets  
(B) Used for reinforced concrete in road pavements  
(C) Measured in term of SWM (short way mesh) and LWM (long way mesh)  
(D) All the above  
Answer: Option D

**Question No. 245**

Pick up the plutonic rock from the following:

(A) Granite  
(B) Dolerite  
(C) Basalt
(D) All the above  
Answer: Option A

**Question No. 246**  
The portion of the brick without a triangular corner equal to half the width and half the length, is called  
(A) Closer  
(B) Queen closer  
(C) King closer  
(D) Squint brick  
Answer: Option C

**Question No. 247**  
Cement is said to be of good quality if  
(A) Its colour is not greenish grey  
(B) One feels cool by thrusting one’s hand in the cement bag  
(C) A handful of cement thrown into a bucket of water does not float  
(D) None of these  
Answer: Option D

**Question No. 248**  
The silica is used for preparing  
(A) Silica bricks  
(B) Coke oven  
(C) Lining for glass furnaces  
(D) All of these  
Answer: Option D

**Question No. 249**  
The timber having maximum resistance against white ants, is obtained from  
(A) Chir  
(B) Shishum  
(C) Sal  
(D) Teak  
Answer: Option B

**Question No. 250**  
Duco is one of the patent forms of  
(A) Emulsion paints  
(B) Plastic paints  
(C) Bituminous paints  
(D) Cellulose paints  
Answer: Option D
**Question No. 251**
Quartzite, a metamorphic stone is
(A) Hard
(B) Brittle
(C) Crystalline
(D) All the above
Answer: Option D

**Question No. 252**
If water required for 1 bag of cement is 30 litres, the water cement ratio is:
(A) 0.40
(B) 0.50
(C) 0.60
(D) None of these
Answer: Option C

**Question No. 253**
A piece of timber whose thickness and width are respectively 5 cm and 10 cm is called
(A) Slate
(B) Plank
(C) Board
(D) Strip
Answer: Option D

**Question No. 254**
The percentage of water for normal consistency, is
(A) 5% to 15%
(B) 10% to 25%
(C) 15% to 25%
(D) 20% to 30%
Answer: Option C

**Question No. 255**
Pick up the correct statement from the following:
(A) The baked earth is called terra-cotta
(B) The articles prepared from clay which is burnt at low temperature and cooled down slowly, are called earthen-ware
(C) The articles prepared from refractory clays which as mixed with stone and crushed pottery, are called stone ware
(D) All the above
Answer: Option D

**Question No. 256**
In a rock calcium carbonate predominates. State whether it is:
(A) Siliceous rock
(B) Argillaceous rock
(C) Calcareous rock
(D) None of these
Answer: Option C

**Question No. 257**
The cracks which extend from bark towards the sap wood in the cross section of a tree, are called

(A) Radial shakes
(B) Star shakes
(C) Heart shakes
(D) Cup shakes
Answer: Option B

**Question No. 258**
The steel used for rails under heavy traffic and on sharp curves, is

(A) Nickel steel
(B) Chrome steel
(C) Manganese steel
(D) Vanadium steel
Answer: Option C

**Question No. 259**
The steel used in R.C.C. work is

(A) Stainless steel
(B) Mild steel
(C) High carbon steel
(D) Wrought iron
Answer: Option B

**Question No. 260**
Pick up the rock which is not a sedimentary rock from the following:

(A) Gravel
(B) Sand stone
(C) Gypsum
(D) Dolerite
Answer: Option D

**Question No. 261**
Acrylic is the name of

(A) Cellulose resin
(B) Alkyd resin
(C) Methyl methacrylate
(D) Cumarone-indene
Answer: Option C
**Question No. 262**
The PVC doors and windows are preferred as they are
(A) Rust proof  
(B) Rot proof  
(C) Water proof  
(D) All of these  
Answer: Option D

**Question No. 263**
The sequence of refractory materials according to increasing melting points is:
(A) Dolomite, Magnesia, Bauxite, Chromites  
(B) Bauxite, Chromites, Dolomite, Magnesia  
(C) Magnesia, Bauxite, Dolomite, Chromites  
(D) None of these  
Answer: Option B

**Question No. 264**
Upto a maximum of 72% of iron, is available in
(A) Magnetite  
(B) Limonite  
(C) Siderite  
(D) Iron pyrites  
Answer: Option A

**Question No. 265**
The melting point of silica is:
(A) 1570°C  
(B) 1630°C  
(C) 1730°C  
(D) 1850°C  
Answer: Option C

**Question No. 266**
Lime stones are generally known as
(A) Aqueous rocks  
(B) Sedimentary rocks  
(C) Stratified rocks  
(D) All the above  
Answer: Option D

**Question No. 267**
Stones used for rubble masonry must be
(A) Soft  
(B) Hard  
(C) Light
Question No. 268
The property by virtue of which lime sets under water, is known as
   (A) Slacking
   (B) Setting
   (C) Hydraulicity
   (D) Calcining
Answer: Option C

Question No. 269
Porcelain is used as:
   (A) Sanitary wares
   (B) Electric insulators
   (C) Storage vessels
   (D) Reactor chambers
Answer: Option D

Question No. 270
The lime which contains high percentage of calcium oxide, is generally called
   (A) Fat lime
   (B) Rich lime
   (C) White lime
   (D) None of these
Answer: Option D

Question No. 271
Second class bricks
   (A) Are of dark brown colour
   (B) Produce a metallic sound when struck
   (C) Are well burnt
   (D) Are under burnt
Answer: Option B

Question No. 272
Wrought iron contains carbon upto
   (A) 0.25 %
   (B) 1.0 %
   (C) 1.5 %
   (D) 2 %
Answer: Option A

Question No. 273
The variety of pig iron used for manufacture of wrought iron, is
(A) Bessemer pig
(B) Grey or foundry pig
(C) White forge pig
(D) Mottled pig
Answer: Option C

**Question No. 274**

Koal is chemically classified as

(A) Metamorphic rock
(B) Argillaceous rock
(C) Calcareous rock
(D) Siliceous rock
Answer: Option B

**Question No. 275**

Sewer pipes are made of

(A) Earthen ware
(B) Stone ware
(C) Refractory clay
(D) All the above
Answer: Option B

**Question No. 276**

The process of manufacturing steel by heating short lengths of wrought iron bars mixed with charcoal in fire clay crucibles and collecting the molten iron into moulds, is known as

(A) Cementation process
(B) Crucible process
(C) Bessemer process
(D) Open hearth process
Answer: Option B

**Question No. 277**

The rock generally used for roofing, is

(A) Granite
(B) Basalt
(C) Slate
(D) Pumice
Answer: Option C

**Question No. 278**

The lime which contains mainly calcium oxide and slacks with water, is

(A) Fat lime
(B) Quick lime
(C) Hydraulic lime
(D) Poor lime
Question No. 279

The standard size of masonry bricks, is
(A) 18 cm × 8 cm × 8 cm
(B) 19 cm × 9 cm × 9 cm
(C) 20 cm × 10 cm × 10 cm
(D) 21 cm × 11 cm × 11 cm
Answer: Option B

Question No. 280

The proportions of charcoal, saltpetre and sulphur in gun powder by weight, are respectively:
(A) 15, 75, 10
(B) 75, 10, 15
(C) 10, 15, 75
(D) 10, 75, 15
Answer: Option A

Question No. 281

Knots in timber are
(A) Defects caused by crushing fibres
(B) Splits radiating from the centre
(C) Speckled strains
(D) Signs of branches cut off
Answer: Option D

Question No. 282

Pick up correct statement from the following:
(A) Fibre boards are used for thermal and acoustic control
(B) Fibre boards are used for light weight standing members
(C) Fibre boards are obtained by impregnating a resin product on fibres
(D) All the above
Answer: Option D

Question No. 283

Portland cement manufactured from pure white chalk and clay but free from iron-oxide, is known as
(A) Quick setting cement
(B) Rapid hardening cement
(C) White cement
(D) Low heat Portland cement
Answer: Option C

Question No. 284

Pick up the correct statement from the following:
(A) Slaked lime contains calcium hydroxide
(B) Quick lime contains calcium oxide
(C) Slaked lime may be obtained from quick lime
(D) All the above
Answer: Option D

Question No. 285
The minimum compressive strength of 1st class bricks should be
(A) 75 kg/cm²
(B) 90 kg/cm²
(C) 100 kg/cm²
(D) 120 kg/cm²
Answer: Option C

Question No. 286
The cast iron when heated to red heat with powdered red haematite in an oven for increasing its
toughness, is converted to
(A) Grey cast iron
(B) White cast iron
(C) Mottled cast iron
(D) Toughed cast iron
Answer: Option C

Question No. 287
A well seasoned timber may contain moisture up to
(A) 4 to 6 %
(B) 6 to 8 %
(C) 8 to 10 %
(D) 10 to 12 %
Answer: Option D

Question No. 288
The usual percentages of clay and metal in cermet are:
(A) 50%, 50%
(B) 60%, 40%
(C) 70%, 30%
(D) 80%, 20%
Answer: Option D

Question No. 289
Pick up the correct statement from the following:
(A) The plastic bottles are made by the process of blowing
(B) The application of thermo-setting resins on sheets of paper, is called laminating process
(C) The plastic articles made by placing raw material in the desired moulds, is known as
    moulding process
Question No. 290
The specific gravity of marble, is
(A) 2.50
(B) 2.60
(C) 2.66
(D) 2.72
Answer: Option D

Question No. 291
Plastic asphalt is
(A) Used as a water proofing layer over roof
(B) A mixture of cement and asphalt
(C) A natural asphalt
(D) A refinery product
Answer: Option B

Question No. 292
Pick up the correct statement from the following:
(A) Rusting is caused due to combined action of air, moisture and carbon dioxide
(B) During rusting, first ferrous bicarbonates are formed
(C) On further oxidation ferrous bicarbonates get converted to ferric bicarbonates
(D) All the above
Answer: Option D

Question No. 293
The commonly used base for iron and steel work, is
(A) Red lead
(B) Zinc white
(C) White lead
(D) Titanium white
Answer: Option A

Question No. 294
For high grade instruments the steel preferred to, is
(A) Cast steel
(B) Bessemer steel
(C) Mild steel
(D) Whitworth compressed steel
Answer: Option A

Question No. 295
Bitumen felt is used for
(A) Water proofing
(B) Damp proofing
(C) Both (A) and (B)
(D) Neither (A) nor (B)
Answer: Option C

Question No. 296
The most important constituent of an oil paint, is
(A) Thinner
(B) Vehicle
(C) Pigment
(D) All the above
Answer: Option D

Question No. 297
Acrylic sheets
(A) Possess 10 to 17 times greater breakage resistance than that of glass of equivalent thickness
(B) Are generally unaffected by most household detergents
(C) Possess the light transmission rate of 93%
(D) All the above
Answer: Option D

Question No. 298
Brass is an alloy of
(A) Copper and zinc
(B) Zinc and lead
(C) Tin and silver
(D) Zinc and nickel
Answer: Option A

Question No. 299
Pick up the polyminalic rock from the following:
(A) Quartz sand
(B) Pure gypsum
(C) Magnesite
(D) Granite
Answer: Option D

Question No. 300
Pick up the hypabyssal rock from the following:
(A) Granite
(B) Dolerite
(C) Basalt
(D) All the above
Answer: Option B
Question No. 301
The rocks formed by gradual deposition, are called
(A) Sedimentary rocks  
(B) Igneous rocks  
(C) Metamorphic rocks  
(D) None of these
Answer: Option A

Question No. 302
Plastic
(A) Is an organic substance  
(B) Consists of natural or synthetic binders  
(C) Finished products are rigid and stable at normal temperature  
(D) All the above
Answer: Option D

Question No. 303
A piece of sawn timber whose cross-sectional dimensions exceed 5 cm, in one direction and 20 cm in the other direction, is called a
(A) Cant  
(B) Deal  
(C) Baulk  
(D) Strip
Answer: Option C

Question No. 304
Rocks formed due to alteration of original structure due to heat and excessive pressure are called
(A) Sedimentary rocks  
(B) Igneous rocks  
(C) Metamorphic rocks  
(D) None of these
Answer: Option C

Question No. 305
Geologically, marble is known as
(A) Sedimentary rock  
(B) Igneous rock  
(C) Metamorphic rock  
(D) Stratified rock
Answer: Option C

Question No. 306
Iron ore may contain
(A) Carbon  
(B) Silicon
(C) Phosphorus and manganese
(D) All the above
Answer: Option D

**Question No. 307**
Pick up the incorrect statement from the following:

(A) Plastics are chemical resistant
(B) Plastics are durable
(C) Plastics are ductile
(D) Plastics are excellent electric insulators
Answer: Option C

**Question No. 308**
The cracks caused by shrinkage of the exterior surface of the wood exposed to atmosphere, are called:

(A) Radial shakes
(B) Heart shakes
(C) Wind cracks
(D) Twisted fibres
Answer: Option C

**Question No. 309**
Pig iron is manufactured from the ores by

(A) Dressing
(B) Calcination and roasting
(C) Smelting
(D) All the above
Answer: Option D

**Question No. 310**
Pick up the correct statement from the following:

(A) The plywoods do not split or crack due to changes in atmosphere
(B) The commercial plywoods are available upto 150 cm wide and upto 300 cm long
(C) The plywoods possess uniform tensile strength in all directions
(D) All the above
Answer: Option D

**Question No. 311**
Jhumb bricks are

(A) Under burnt
(B) Over burnt
(C) Kutcha
(D) None of these
Answer: Option B
**Question No. 312**

Pick up the correct statement from the following:

(A) Steel produced by open hearth process is milder than that obtained by the Bessemer process

(B) Engineers prefer open hearth steel for structural purpose as it is more homogenous

(C) Basic Bessemer process is suitable for converting poor ore containing a large proportion of sulphur and phosphorus into steel

(D) All the above

Answer: Option D

**Question No. 313**

Refractory bricks resist

(A) High temperature

(B) Chemical action

(C) Dampness

(D) All the above

Answer: Option A

**Question No. 314**

The thermosetting plastic

(A) Becomes rigid when moulded at suitable pressure and temperature

(B) At 127°C to 177°C permanently set and further application of heat does not soften it

(C)Chars at 343°C

(D) All the above

Answer: Option D

**Question No. 315**

Commonly used thinner in

(A) Lacquer paints, is alcohol

(B) Cellulose paints is ethyl acetate

(C) Oil paints, is naphtha

(D) All the above

Answer: Option D

**Question No. 316**

The curved swellings from the growth of layers or wounds left after branches are cut off in an irregular manner are known as

(A) Knots

(B) Rindgalls

(C) Burls

(D) None of these

Answer: Option B

**Question No. 317**

Bitumen completely dissolves in
(A) Carbon bisulphide
(B) Chloroform
(C) Coal tar
(D) All of these
Answer: Option D

Question No. 318
A stone is rejected if it absorbs water more than
(A) 5 %
(B) 10 %
(C) 15 %
(D) 20 %
Answer: Option B

Question No. 319
The most commonly used synthetic abrasive is
(A) Aluminium carbide
(B) Boric acid
(C) Silicon
(D) All of these
Answer: Option D

Question No. 320
During smelting process, the combination of fuel in the furnace
(A) Forms carbon dioxide
(B) Carbon dioxide with carbon forms carbon mono-oxide
(C) Carbon mono-oxide reacts with Fe₂O₃ to form iron and liberates CO₂
(D) All the above
Answer: Option D

Question No. 321
According to ISI, bitumen is classified into
(A) 2 grades
(B) 4 grades
(C) 8 grades
(D) 10 grades
Answer: Option D

Question No. 322
Basalt is
(A) Sedimentary rock
(B) Metamorphic rock
(C) Extrusive igneous rock
(D) Intrusive igneous rock
Answer: Option C
Question No. 323
The size of mould for bricks, is generally kept
   (A) A little large to specified size
   (B) A little small to specified size
   (C) Equal to specified size
   (D) 10% larger than specified size
Answer: Option A

Question No. 324
For construction of structures under water, the type of lime used, is
   (A) Hydraulic lime
   (B) Fat lime
   (C) Quick lime
   (D) Pure lime
Answer: Option A

Question No. 325
French polish is
   (A) Oil paint
   (B) Distemper
   (C) Spirit varnish
   (D) None to these
Answer: Option C

Question No. 326
Ultimate strength to cement is provided by
   (A) Tri-calcium silicate
   (B) Di-calcium silicate
   (C) Tri-calcium aluminate
   (D) Tetra calcium alumino ferrite
Answer: Option B

Question No. 327
Wrought iron contains carbon about
   (A) 1.5% to 5.5%
   (B) 0.5% to 1.75%
   (C) 0.1% to 0.25%
   (D) None to these
Answer: Option C

Question No. 328
Galvanising means covering iron with a thin coat of
   (A) Tin
   (B) Zinc
   (C) Glaze
Question No. 329
The rocks in which argil (or clay) predominates, are called
(A) Siliceous rocks
(B) Argillaceous rocks
(C) Calcareous rocks
(D) Igneous rocks
Answer: Option B

Question No. 330
Name the type of cement from the following for canal linings:
(A) Sulphate resisting cement
(B) Rapid hardening cement
(C) Quick setting cement
(D) Pozzolana cement
Answer: Option A

Question No. 331
Seasoning is
(A) A process of removing sap
(B) Creosoting
(C) Painting with sodium silicate
(D) Coating with tar
Answer: Option A

Question No. 332
Soundness test of cement determines
(A) Quality of free lime
(B) Ultimate strength
(C) Durability
(D) Initial setting
Answer: Option A

Question No. 333
Turpentine oil is used in paints as
(A) Thinner
(B) Vehicle
(C) Base
(D) Drier
Answer: Option A

Question No. 334
Stucco paints are suitable for
(A) Stone masonry  
(B) Brick walls  
(C) Both (A) and (B)  
(D) Neither (A) nor (B)  
Answer: Option C

**Question No. 335**  
Stones used for ornamental work must be  
(A) Soft  
(B) Hard  
(C) Light  
(D) Heavy  
Answer: Option A

**Question No. 336**  
Lime stone is not a  
(A) Sedimentary rock  
(B) Stratified rock  
(C) Aqueous rock  
(D) Metamorphic rock  
Answer: Option D

**Question No. 337**  
Pick up the correct statement from the following:  
(A) The heating of a material to redness in contact with air, is known as calcination  
(B) The property of lime by which it sets or hardens in damp places having no free circulation of air is called setting  
(C) The product that remains after calcination of limestone, is called lime  
(D) All the above  
Answer: Option D

**Question No. 338**  
Pick up the correct statement from the following:  
(A) The average crushing strength of hand moulded bricks is 6000 t/m²  
(B) The average tensile strength of hand moulded brick is 200 t/m²  
(C) The average shearing strength of hand moulded brick is 600 t/m²  
(D) All the above  
Answer: Option D

**Question No. 339**  
Snowcrete is one of the patent forms of  
(A) Distempers  
(B) Water proof cement paints  
(C) Enamel paints  
(D) Cellulose paints
Question No. 340
Cast iron is used for
(A) Structural works in beams
(B) Small sized water pipes
(C) Columns and struts
(D) None to these
Answer: Option C

Question No. 341
Pick up the correct statement from the following:
(A) The percentage of absorption for firebricks varies from 5 to 10
(B) The percentage of silica in silica bricks is to the extent of about 95 to 97 percent
(C) Roughly 1 to 2 percent of lime in silica bricks is added to act as binding material
(D) All the above
Answer: Option D

Question No. 342
Good quality cement contains higher percentage of
(A) Tri-calcium silicate
(B) Di-calcium silicate
(C) Tri-calcium aluminate
(D) Tetra calcium alumino ferrite
Answer: Option A

Question No. 343
Laterite is a/an
(A) Volcanic rock
(B) Argillaceous rock
(C) Calcareous rock
(D) Siliceous rock
Answer: Option B

Question No. 344
Seasoning of timber is essential to remove
(A) Knots from timber
(B) Sap from timber
(C) Twisted fibre from timber
(D) Roughness of timber
Answer: Option B

Question No. 345
The term frog means
(A) An apparatus to lift the stone
(B) A depression on a face of brick  
(C) Vertical joint in a brick work  
(D) Soaking brick in water  
Answer: Option B

**Question No. 346**

The presence of sand in brick earth prevents:

(A) Cracking of bricks  
(B) Shrinkage of bricks  
(C) Warping of bricks  
(D) None of these  
Answer: Option C

**Question No. 347**

Refractory bricks are

(A) Neutral refractory bricks  
(B) Acid refractory bricks  
(C) Basic refractory bricks  
(D) All the above  
Answer: Option D

**Question No. 348**

A prime coat is given to steel work with

(A) An oxide of iron paint  
(B) A mixture of white lead and lead paint  
(C) A special paint  
(D) Cement paint  
Answer: Option B

**Question No. 349**

Teak wood is suitable for

(A) Sports articles  
(B) Furnitures  
(C) Railway sleepers  
(D) All the above  
Answer: Option B

**Question No. 350**

Elastomers can extend upto

(A) Five times their original dimensions  
(B) Seven times their original dimensions  
(C) Ten times their original dimensions  
(D) Three times their original dimensions  
Answer: Option C
**Question No. 351**

Bitumen in
(A) Solid state, is called asphalt
(B) Semi fluid state, is called mineral tar
(C) Fluid state, is called petroleum
(D) All the above
Answer: Option D

**Question No. 352**

Varnish is a transparent or semi-transparent solution of resinous substances in
(A) Alcohol
(B) Linseed
(C) Turpentine
(D) All the above
Answer: Option D

**Question No. 353**

Refractory bricks are used for
(A) Retaining walls
(B) Columns
(C) Piers
(D) Combustion chambers
Answer: Option D

**Question No. 354**

Minimum required water cement ratio for a workable concrete, is
(A) 0.30
(B) 0.40
(C) 0.50
(D) 0.60
Answer: Option B

**Question No. 355**

Minimum of 40% of iron, is available in
(A) Magnetite
(B) Red haematite
(C) Limonite
(D) Black band
Answer: Option D

**Question No. 356**

Portland pozzolana cement possesses
(A) Higher resistance to chemical attack
(B) Lower heat of hydration
(C) Lower shrinkage on drying


(D) All the above
Answer: Option D

Question No. 357
Dextrin is
(A) Animal glue
(B) Starch glue
(C) Albumin glue
(D) Rubber based adhesive
Answer: Option D

Question No. 358
Mastic asphalt is normally used for
(A) Sound insulation
(B) Water proofing
(C) Fire proofing
(D) None to these
Answer: Option B

Question No. 359
The steel which contains fissures and cavities, is manufactured by
(A) Cementation process
(B) Crucible process
(C) Bessemer process
(D) Open hearth process
Answer: Option A

Question No. 360
Based on flow quality, the sequence of pipes is
(A) A.C. pipes, G.I. pipes, C.I. pipes, PVC pipes
(B) C.I. pipes, G.I. pipes, A.C. pipes, PVC pipes
(C) C.I. pipes, G.I. pipes, PVC pipes, A.C. pipes
(D) None of these
Answer: Option B

Question No. 361
Pick up the correct statement from the following:
(A) Hornblende mineral is brittle
(B) Muscovite is also known as white mica and potash mica
(C) Biotite is also known as black-mica
(D) All the above
Answer: Option D

Question No. 362
Good quality sand is never obtained from
(A) River
(B) Lake
(C) Sea
(D) Gravel powder
Answer: Option C

**Question No. 363**
Lime mortar is generally made with
(A) Quick lime
(B) Fat lime
(C) Hydraulic lime
(D) Plain lime
Answer: Option C

**Question No. 364**
Pick up the compound responsible for early strength of cement from the following:
(A) Tetra-calcium alumino-ferrite
(B) Tri-calcium silicate
(C) Tri-calcium aluminate
(D) Di-calcium silicate
Answer: Option B

**Question No. 365**
Linseed oil is used in paints as
(A) Thinner
(B) Vehicle
(C) Base
(D) Drier
Answer: Option D

**Question No. 366**
Asphalt is obtained from
(A) Petroleum distillation
(B) Bitumen distillation
(C) Plastic distillation
(D) None of these
Answer: Option A

**Question No. 367**
Percentage content of silica in window glass, is
(A) 40 to 45
(B) 50 to 55
(C) 60 to 65
(D) 70 to 75
Answer: Option D
**Question No. 368**
Most commonly used solvent in oil paints, is
(A) Petroleum  
(B) Spirit  
(C) Coal tar  
(D) Turpentine
Answer: Option A

**Question No. 369**
The harmonious mixing of the clay ingredients, is known as
(A) Weathering  
(B) Blending  
(C) Tempering  
(D) None of these
Answer: Option B

**Question No. 370**
Bitumen felt
(A) Is used as water proofing material  
(B) Is used as damp proofing material  
(C) Is made from bitumen and hessian fibres  
(D) All the above
Answer: Option D

**Question No. 371**
The initial setting time of lime-pozzolana, is
(A) 30 minutes  
(B) 60 minutes  
(C) 90 minutes  
(D) 120 minutes
Answer: Option D

**Question No. 372**
The clay to be used for manufacturing bricks for a large project, is dugout and allowed to weather throughout
(A) The monsoon  
(B) The winter  
(C) The summer  
(D) None of these
Answer: Option A

**Question No. 373**
If the furnace is provided with insufficient fuel at low temperatures, the type of pig iron produced, is called
(A) Bessemer pig
(B) Grey or foundry pig
(C) White or forge pig
(D) Mottled pig
Answer: Option C

**Question No. 374**
Depending on the chemical composition and mechanical properties, iron may be classified as
(A) Cast iron
(B) Wrought iron
(C) Steel
(D) All the above
Answer: Option D

**Question No. 375**
The main constituent of fly-ash, is
(A) Aluminium oxide
(B) Silica
(C) Ferrous oxide
(D) All of these
Answer: Option D

**Question No. 376**
Brittleness of cold is due to an excess of
(A) Sulphur
(B) Carbon
(C) Phosphorus
(D) Silicon
Answer: Option C

**Question No. 377**
Asbestos cement
(A) Is brittle
(B) Warps due to changes in humidity
(C) Strength is lowered when saturated by water
(D) All of the above
Answer: Option D

**Question No. 378**
Gneiss is obtained from
(A) Igneous rocks
(B) Metamorphic rocks
(C) Sedimentary rocks
(D) Sedimentary metamorphic rocks
Answer: Option D
**Question No. 379**
Fibre glass
- (A) Retains heat longer
- (B) Has a higher strength to weight ratio
- (C) Is shock proof and fire retardant
- (D) All the above
Answer: Option D

**Question No. 380**
Pick up the correct statement from the following:
- (A) The theory of formation of concrete is based on the phenomena of formation of voids
- (B) The bulking of sand is taken into account while volumetric proportioning of the aggregates
- (C) The dry sand and the sand completely flooded with water, have practically the same volume
- (D) All the above
Answer: Option D

**Question No. 381**
The commonly used colour pigment in paints, is
- (A) Ambers
- (B) Carbon black
- (C) Iron oxide
- (D) All the above
Answer: Option D

**Question No. 382**
The variety of pig iron used for the manufacture of steel by Bessemer process, is
- (A) Bessemer pig
- (B) Grey pig
- (C) White forge pig
- (D) Mottled pig
Answer: Option A

**Question No. 383**
Vanadium steel is generally used for
- (A) Railway switches and crossing
- (B) Bearing balls
- (C) Magnets
- (D) Axles and springs
Answer: Option D

**Question No. 384**
A badly mixed cement concrete results in
- (A) Segregation
- (B) Bleeding
- (C) Honey combing
(D) None of these
Answer: Option C

**Question No. 385**
Chemically, marble is known as
(A) Metamorphic rock
(B) Argillaceous rock
(C) Calcareous rock
(D) Siliceous rock
Answer: Option C

**Question No. 386**
The filler used in plastic bitumen, is
(A) Shale powder
(B) Talc powder
(C) Asbestos powder
(D) Plastic powder
Answer: Option C

**Question No. 387**
Mastic asphalt is generally used for
(A) Damp proof course
(B) Water proof layer
(C) Partition walls
(D) Both (A) and (B)
Answer: Option D

**Question No. 388**
The most fire resistant paints are:
(A) Enamel paints
(B) Aluminium paints
(C) Asbestos paints
(D) Cement paints
Answer: Option C

**Question No. 389**
A pug mill is used for
(A) Softening brick earth
(B) Moulding brick earth
(C) Tempering brick earth
(D) Providing brick earth
Answer: Option C

**Question No. 390**
A good brick earth should contain:
(A) About 20% to 30% of alumina  
(B) About 50% to 60% of silica  
(C) Not more than 5% of lime  
(D) All the above  
Answer: Option D

Question No. 391  
The compound of Portland cement which contributes to the strength after two to three years is  
(A) Tri-calcium silicate  
(B) Di-calcium silicate  
(C) Tri-calcium aluminate  
(D) Tetra-calcium alumino ferrite  
Answer: Option B

Question No. 392  
Bessemer process is used for the manufacture of  
(A) Pig iron  
(B) Cast iron  
(C) Wrought iron  
(D) Steel  
Answer: Option D

Question No. 393  
Which one of the following is an air binding material?  
(A) Gypsum  
(B) Acid-resistant cement  
(C) Quick lime  
(D) All of these  
Answer: Option D

Question No. 394  
A good quality stone absorbs water less than  
(A) 5 %  
(B) 10 %  
(C) 15 %  
(D) 25 %  
Answer: Option A

Question No. 395  
The slag which floats on the surface of the molten iron generally contains  
(A) Lime (CaO) 45%  
(B) Silica (SiO₂) 35%  
(C) Alumina (Al₂O₃) 12% and MgO, CaSO₄, KMnO₂, and FeO 8%  
(D) All the above  
Answer: Option D
Question No. 396
For the manufacture of plywood, veneers are placed so that grains of adjacent veneers
(A) Run at right angles
(B) Parallel
(C) Inclined at 45°
(D) Inclined at 60°
Answer: Option A

Question No. 397
The commonly used drying oil for oil paints, is
(A) Olive oil
(B) Linseed oil
(C) Kerosene oil
(D) Acetate of lead
Answer: Option D

Question No. 398
Initial setting of cement is caused due to
(A) Tri-calcium silicate
(B) Di-calcium silicate
(C) Tri-calcium aluminate
(D) Tetra calcium alumino ferrite
Answer: Option C

Question No. 399
Wrought iron is manufactured from pig iron by
(A) Refining
(B) Pudding
(C) Shingling
(D) All the above
Answer: Option D

Question No. 400
Fibre boards can be
(A) Distempered
(B) Painted
(C) Painted and distempered
(D) Used for furniture
Answer: Option D

Question No. 401
Lime concrete is generally used for
(A) Wall foundations
(B) Flooring at ground level
(C) Both (A) and (B)
(D) Neither (A) nor (B)
Answer: Option B

**Question No. 402**

**Bituminous fells are used for**

(A) Covering A.C. sheets  
(B) Covering sloping roofs  
(C) D.P.C.  
(D) None to these
Answer: Option A

**Question No. 403**

**Quick setting cement is produced by adding**

(A) Less amount of gypsum in very fine powdered form  
(B) More amount of gypsum in very fine powdered form  
(C) Aluminium sulphate in very fine powdered form  
(D) Pozzolana in very fine powdered form
Answer: Option C

**Question No. 404**

**Pick up the correct statement from the following:**

(A) The substance which consists of one primary chemical, is known as monomer  
(B) The polymer consists of thousands of monomers joined together  
(C) The polymer molecule is called macro-molecule  
(D) All the above
Answer: Option D

**Question No. 405**

**The normal curing period for lime mortar, is:**

(A) 1 day  
(B) 3 days  
(C) 7 days  
(D) 10 days
Answer: Option C

**Question No. 406**

**German silver is an alloy of**

(A) Zinc, lead and nickel  
(B) Silver, gold and lead  
(C) Copper, nickel and zinc  
(D) Copper, brass and zinc
Answer: Option C

**Question No. 407**

**For the manufacture of stainless steel, steel is mixed with**
(A) Chromium
(B) Nickel
(C) Tungsten
(D) None of these
Answer: Option A

**Question No. 408**
The presence of original rounded surface on the manufactured piece of timber, is called
(A) Wane
(B) Torn grain
(C) Diagonal grain
(D) Chipmark
Answer: Option A

**Question No. 409**
In paints, the pigment is responsible for
(A) Durability
(B) Colour
(C) Smoothness
(D) Glassy face
Answer: Option B

**Question No. 410**
The operation of removal of impurities or clay adhering to iron ores, is known as
(A) Dressing
(B) Calcination
(C) Roasting
(D) Smelting
Answer: Option A

**Question No. 411**
Dry rot
(A) Cracks the timber
(B) Reduces the strength of timber
(C) Reduces the timber to powder
(D) Spoils the appearance of timber
Answer: Option C

**Question No. 412**
Pozzolana (or surkhi) is used in lime
(A) To impart hydraulicity
(B) To prevent shrinkage
(C) To decrease the cost of construction
(D) To decrease the setting time
Answer: Option A
Question No. 413
The size of modular bricks, is
(A) 10 × 10 × 9 cm
(B) 19 × 9 × 9 cm
(C) 22.5 × 10 × 8.5 cm
(D) 22.5 × 8.0 × 9 cm
Answer: Option B

Question No. 414
Plywood is obtained by gluing wooden sheets at
(A) 100 to 150 N/cm$^2$
(B) 100 to 130°C
(C) Both (A) and (B)
(D) Neither (A) nor (B)
Answer: Option C

Question No. 415
The low voltage porcelain is mainly used for
(A) Switch block
(B) Insulating tubes
(C) Lamp sockets
(D) All of these
Answer: Option D

Question No. 416
The initial setting time of hydraulic lime, is
(A) 30 minutes
(B) 60 minutes
(C) 90 minutes
(D) 120 minutes
Answer: Option D

Question No. 417
PVC stands for
(A) Plastic very compact
(B) Polythene vinyl chloride
(C) Polythene vinyl carbon
(D) Polythene vanadium carbide
Answer: Option B

Question No. 418
Cement paints usually
(A) Contain hydrated lime
(B) Contain 5% to 10% colour pigments
(C) Contain 5% sodium chloride
Question No. 419
The kiln which may work throughout the year, is
(A) Clamp
(B) Bull's kiln
(C) Hoffman's kiln
(D) None of these
Answer: Option C

Question No. 420
The main ingredient of a good quality brick earth, is
(A) Magnesia
(B) Lime
(C) Silica
(D) Alumina
Answer: Option D

Question No. 421
In stone masonry, stones (stratified rocks) are so placed that the direction of pressure to the plane of bedding is
(A) Right angles
(B) 45°
(C) 60°
(D) Parallel
Answer: Option A

Question No. 422
The most durable varnish is
(A) Water varnish
(B) Spirit varnish
(C) Turpentine varnish
(D) Oil varnish
Answer: Option D

Question No. 423
Softer variety of steel may be obtained by
(A) Cementation process
(B) Crucible process
(C) Bessemer process
(D) Open hearth process
Answer: Option C
Question No. 424
Bitumen emulsion is
(A) A liquid containing bitumen in suspension
(B) A paint
(C) Used as anti-corrosive paint
(D) All the above
Answer: Option D

Question No. 425
Plastic bitumen is generally used for
(A) Road pavements
(B) Expansion joints
(C) Crack fillings
(D) None to these
Answer: Option C

Question No. 426
Asbestos is
(A) Corrugated sheet used for roofing
(B) An incombustible fire proof material
(C) An organic substance
(D) All the above
Answer: Option D

Question No. 427
The rocks which are formed due to pouring of magma at the earth's surface are called
(A) Plutonic rocks
(B) Hypabyssal rocks
(C) Volcanic rocks
(D) Igneous rocks
Answer: Option C

Question No. 428
Invar contains
(A) 12% of nickel
(B) 24% of nickel
(C) 30% to nickel
(D) 36% of nickel
Answer: Option D

Question No. 429
Distemper is
(A) A paint consisting of powdered chalk, pigments and water
(B) A water proofing agent
(C) A paint consisting of coloured cement and water
(D) A drying agent
Answer: Option A

**Question No. 430**
The compound of Portland cement which reacts immediately with water and also sets first is
(A) Tri-calcium silicate
(B) Di-calcium silicate
(C) Tri-calcium aluminate
(D) Tetra calcium alumino ferrite
Answer: Option C

**Question No. 431**
In arches, stratified stones are placed so that their planes are
(A) Parallel
(B) Perpendicular
(C) Radial
(D) None of these
Answer: Option C

**Question No. 432**
The fire clay contains pure
(A) Lime
(B) Oxide of iron
(C) Hydrated aluminium silicate
(D) Magnesium
Answer: Option C

**Question No. 433**
Pick up the correct characteristic of Pyroxene from the following:
(A) It forms octagonal crystals
(B) It converts to chlorine by hydration
(C) Its density is 2.3 to 3.6 g/cm²
(D) All the above
Answer: Option D

**Question No. 434**
The base material for distemper, is
(A) Chalk
(B) Lime
(C) Lime putty
(D) Cement wash
Answer: Option A

**Question No. 435**
Slacking of lime is affected by
(A) Keeping it exposed to air
(B) Immersing the lime in water
(C) Crushing the lime lumps
(D) None of these
Answer: Option B

**Question No. 436**
Stones used for the construction of retaining walls must be
(A) Soft
(B) Hard
(C) Light
(D) Heavy
Answer: Option D

**Question No. 437**
Permanent magnets are made of high carbon steel and
(A) 15% of cobalt
(B) 20% of cobalt
(C) 35% of cobalt
(D) 45% of cobalt
Answer: Option D

**Question No. 438**
Stainless steel resists corrosion due to
(A) Carbon
(B) Sulphur
(C) Vanadium
(D) Chromium
Answer: Option D

**Question No. 439**
The most important constituent of varnish, is
(A) Drier
(B) Solvent
(C) Resin
(D) All the above
Answer: Option D

**Question No. 440**
A ferrous metal is
(A) Cast iron
(B) Wrought iron
(C) Steel
(D) All the above
Answer: Option D
Question No. 441
For making fly-ash building bricks, the following mix of fly-ash, sand and lime, is
(A) 80 : 13 : 7
(B) 70 : 20 : 10
(C) 60 : 35 : 5
(D) None of these
Answer: Option A

Question No. 442
Water paint is a
(A) White wash
(B) Colour wash
(C) Whiting
(D) All the above
Answer: Option D

Question No. 443
Spirit varnish generally consists of
(A) Oil, wax and resin
(B) Alcohol, wax and turpentine
(C) Pigment and synthetic resin
(D) Spirit and shellac
Answer: Option D

Question No. 444
Duco paints are
(A) Plastic paints
(B) Cellulose paints
(C) Emulsion paints
(D) Oil paints
Answer: Option D

Question No. 445
Pick up the correct statement from the following:
(A) Melamine is obtained from calcium carbide
(B) Formaldehyde is prepared synthetically from methane
(C) The melamine when reacted with formaldehyde forms the melamine-formaldehyde resin
(D) All the above
Answer: Option D

Question No. 446
Steel contains carbon approximately
(A) 1.50% to 5.6%
(B) 0.05% to 1.75%
(C) 0.25%
Question No. 447
Based on its dry weight, a freshly felled tree may contain water
(A) 25 %
(B) 50 %
(C) 75 %
(D) 100 %
Answer: Option D

Question No. 448
Forge pig may be converted to wrought iron by
(A) Rolling
(B) Pudding
(C) Shingling
(D) Refining
Answer: Option B

Question No. 449
Pick up the correct statement from the following:
(A) Bull's trench kiln a trench excavated in ground
(B) Hoffman's kiln is constructed over ground
(C) Tunnel Kiln is constructed as a tunnel
(D) All the above
Answer: Option D

Question No. 450
The softest rock is
(A) Marble
(B) Diamond
(C) Talc
(D) Quartz
Answer: Option C

Question No. 451
Mild steel is used for
(A) Structural works in beams, joints and girders
(B) Small sized water pipes
(C) Columns and struts
(D) None of these
Answer: Option A

Question No. 452
The most valuable timber may be obtained from

(D) None to these
Answer: Option B
(A) Chir
(B) Shishum
(C) Sal
(D) Teak
Answer: Option D

**Question No. 453**

Mastic asphalt is
(A) Acid resisting material
(B) Non-corrosive material
(C) Corrosive material
(D) Heating-resisting material
Answer: Option B

**Question No. 454**

For lime concrete,
(A) Slump is 50 to 75 mm
(B) Flexural strength at 90 days is 0.2 N/mm²
(C) Compressive strength at 90 days is 1.5 N/mm²
(D) All the above
Answer: Option D

**Question No. 455**

The material generally not used as extender in paints, is
(A) Powdered silica
(B) Gypsum
(C) Talc
(D) Zinc white
Answer: Option D

**Question No. 456**

Pick up the non-inflammable plastic from the following:
(A) Cellulose acetate plastics
(B) Polyvinyl chloride plastics
(C) Phenol formaldehyde plastic
(D) Urea formaldehyde plastic
Answer: Option B

**Question No. 457**

For light and ornamental casting, the most unsuitable pig iron, is
(A) Bessemer pig
(B) Grey or foundry pig
(C) White or forge pig
(D) Mottled pig
Answer: Option D
**Question No. 458**
If the ore impurities is
(A) Clay, lime stone is used as flux
(B) Lime stone, clay is used as flux
(C) Quartz, lime stone and argillaceous iron ores are used as flux
(D) All the above
Answer: Option D

**Question No. 459**
The plastics prepared from Vinyl resin are
(A) Odourless
(B) Non-toxic
(C) Transparent
(D) All of these
Answer: Option D

**Question No. 460**
A rock contains only one mineral. It is called
(A) Homogeneous
(B) Non-homogeneous
(C) Monomineralic
(D) Polymineralic
Answer: Option C

**Question No. 461**
Pegmatite is a/an
(A) Intrusive igneous rock
(B) Extrusive igneous rock
(C) Sedimentary rock
(D) Metamorphic rock
Answer: Option A

**Question No. 462**
Dorry's testing machine is used for
(A) Crushing test of stone
(B) Hardness test of stone
(C) Impact test of stone
(D) Water absorption test
Answer: Option B

**Question No. 463**
Dolomite is a lime stone which contains carbonate of magnesia upto
(A) 15 %
(B) 20 %
(C) 25 %
(D) 45 %
Answer: Option D

**Question No. 464**
The portion of the brick cut across its width and having its length equal to that of a full brick, is known as
(A) Closer
(B) Queen closer
(C) King closer
(D) Prince closer
Answer: Option B

**Question No. 465**
The minimum percentage of silica, alumina and ferric oxide in lime for white washing, is
(A) 20
(B) 15
(C) 5
(D) 0
Answer: Option D

**Question No. 466**
For a 50 kg cement bag water required, is
(A) 16.5 litres
(B) 18.5 litres
(C) 20.5 litres
(D) 22.5 litres
Answer: Option D

**Question No. 467**
Slump test for concrete is carried out, to determine
(A) Strength
(B) Durability
(C) Workability
(D) Water content
Answer: Option C

**Question No. 468**
The frog of a brick is normally made on its
(A) Top face
(B) Bottom face
(C) Longer face
(D) Shorter side
Answer: Option A
**Question No. 469**
Granite mainly composed of quartz and feldspar particles, is obtained from
- (A) Sedimentary rocks
- (B) Metamorphic rocks
- (C) Igneous rocks
- (D) All the above
Answer: Option C

**Question No. 470**
Pig iron obtained from the furnace which is properly provided with fuel at a very high temperature, is called
- (A) Bessemer pig
- (B) Grey or foundry pig
- (C) White or forge pig
- (D) Mottled pig
Answer: Option B

**Question No. 471**
Pick up the metal refractory from the following:
- (A) Molybdenum
- (B) Tungsten
- (C) Zirconium
- (D) All of these
Answer: Option D

**Question No. 472**
With storage, strength of cement
- (A) Increases
- (B) Decreases
- (C) Remains the same
- (D) None to these
Answer: Option B

**Question No. 473**
The commonly used raw material in the manufacture of cement, is
- (A) Slate
- (B) Sand stone
- (C) Lime stone
- (D) Basalt
Answer: Option C

**Question No. 474**
The rocks formed from molten magma, are called
- (A) Sedimentary rocks
- (B) Igneous rocks
(C) Metamorphic rocks
(D) None of these
Answer: Option B

**Question No. 475**

Bitumen paints offer
(A) Pleasing surface
(B) Hard surface
(C) Smooth surface
(D) Protective surface
Answer: Option D

**Question No. 476**

Ground glass
(A) Is made by grinding its one side
(B) Is made by melting powdered glass paints surface
(C) Is used for getting light without transparency
(D) All the above
Answer: Option D

**Question No. 477**

The wedging is adopted for quarrying costly stratified rock such as
(A) Laterite
(B) Marble
(C) Limestone
(D) All the above
Answer: Option D

**Question No. 478**

The colour of statuary marble used for sculptor's work, is
(A) Red
(B) Blue
(C) White
(D) Green
Answer: Option C