

EXCELLENTVISION

Technical Academy Pvt. Ltd., Lucknow

Building Materials

1. Which of the following has more fire resisting characteristics?

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

Answer: Option C

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

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

04. Due to attack of dry rot, the timber

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

Answer: Option C

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

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

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

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

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

10. If 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

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

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

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

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

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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

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

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

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

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

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

21. During puddling

- (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

22. Early attainment of strength in rapid hardening cement is mainly due to

- (A) Gypsum
(B) Finer grinding
(C) Tri-calcium silicate
(D) Tri-calcium aluminate

Answer: Option B

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

24. Which of the following cement 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

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

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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

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

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

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

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

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

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

33. Pick up the volcanic rock from the following:

- (A) Granite
(B) Dolerite
(C) Basalt
(D) All the above

Answer: Option C

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 ring together

Answer: Option B

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

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

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

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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

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

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

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

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

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

44. The cement becomes unsound by the presence of excess

- (A) Sulphur
- (B) Magnesia
- (C) Lime
- (D) All of these

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

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

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

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

49. Non acid-resistant asbestos is:

- (A) Tremolite asbestos
- (B) Chrysotile asbestos
- (C) Amosite asbestos
- (D) None of these

Answer: Option B

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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

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

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

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

54. Gypsum is a

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

Answer: Option C

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

56. Which of the following is a rock?

- (A) Quartz
- (B) Mica
- (C) Gypsum
- (D) None of the above

Answer: Option C

57. The tendency of a stone is, to split along:

- (A) Texture
- (B) Fracture
- (C) Cleavage
- (D) Structure

Answer: Option C

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

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

60. Which of the following trees yields hard wood?

- (A) Deodar
- (B) Chir
- (C) Shishum
- (D) Pine

Answer: Option C

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

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

63. Bitumen may be dissolved in

- (A) Carbon dioxide
- (B) Water
- (C) Sodium chloride
- (D) Carbon disulphide

Answer: Option D

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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

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

66. Number of bricks required for one cubic metre of brick masonry is

- (A) 400
- (B) 450
- (C) 500
- (D) 550

Answer: Option C

67. Which one of the following is used for preparing porcelain?

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

Answer: Option D

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

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

70. After storage, the strength of cement

- (A) Decreases

(B) Increases

(C) Remains same

(D) May increase or decrease

Answer: Option A

71. A bull nose brick is not used for

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

Answer: Option D

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

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

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

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

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

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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

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

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

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

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

82. The stone suitable for rubble masonry should be.

- (A) Hard (B) Tough
(C) Heavy (D) Light

Answer: Option A

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

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

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

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

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

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

Answer: Option C

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 upto 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

90. Quick lime is

- (A) Calcium carbonate (B) Calcium oxide
(C) Calcium hydroxide (D) None of the above

Answer: Option B

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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

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

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

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

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

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

97. In a mortar, the binding material is

- (A) Cement
- (B) Sand
- (C) Surkhi
- (D) Cinder

Answer: Option A

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

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

100. The slenderness ratio for masonry walls should not be more than

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

Answer: Option B

101. Sand stone is

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

Answer: Option A

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

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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

104. A good building stone should not absorb water more than

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

Answer: Option A

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

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

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

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

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

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

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

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

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

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

Answer: Option D

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115. Shingle is

- (A) Decomposed laterite
- (B) Crushed granite
- (C) Water bound pebbles
- (D) Air weathered rock

Answer: Option A

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

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

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

119. Pick up the correct statement from the following:

- (A) Alexander Parkes, a Scottish chemist prepared a hard material by mixing camphor

and alcohol with nitro cellulose and called it, as Parkesite

- (B) Dr. L. Bakeland, a Belgian scientist prepared a product known as Bakelite
- (C) Pollark, an Austrian scientist prepared a substance from urea and formaldehyde and called it Plastic
- (D) All the above

Answer: Option D

120. Expansion Joints in masonry walls are provided in wall lengths usater than

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

Answer: Option D

121. Cast steel is manufactured by

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

Answer: Option B

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

123. The foliated structure is very common in

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

Answer: Option C

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

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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

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

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

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

129. Bulking of sand is caused due to

- (A) Surface moisture
- (B) Air voids
- (C) Viscosity
- (D) Clay contents

Answer: Option A

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

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

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

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

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

135. The weight of 1 m³ of brick earth, is about

- (A) 1200 kg
- (B) 1500 kg
- (C) 1800 kg
- (D) 2000 kg

Answer: Option C

136. Which of the following is a mineral?

- (A) Basalt
- (B) Granite
- (C) Quartz
- (D) Syenite

Answer: Option C

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

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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

139. Generally wooden moulds are made from

- (A) Ply wood
- (B) Shishum wood
- (C) Deodar wood
- (D) Teak wood

Answer: Option B

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

141. Bitumen is generally obtained from

- (A) Organic material
- (B) Synthetic material
- (C) Petroleum product
- (D) Coal

Answer: Option C

142. The main constituent which imparts hydraulicity to hydraulic lime is

- (A) Calcium oxide
- (B) Silica
- (C) Clay
- (D) Water

Answer: Option C

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

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

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

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

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

148. Slate is formed by metamorphic action on

- (A) Shale
- (B) Lime stone
- (C) Sand stone
- (D) Granite

Answer: Option A

149. Sea sand used in structures causes

- (A) Dampness
- (B) Efflorescence
- (C) Disintegration
- (D) All of these

Answer: Option D

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

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

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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

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

154. Addition of pozzolana to ordinary Portland cement increases

- (A) Bleeding
- (B) Shrinkage
- (C) Permeability
- (D) Heat of hydration

Answer: Option B

155. Plastics are compounds of carbon with element

- (A) Hydrogen
- (B) Nitrogen
- (C) Oxygen
- (D) All of these

Answer: Option D

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

157. For a good building stone, its specific gravity should be greater than

- (A) 1.5
- (B) 1.7
- (C) 2.2
- (D) 2.7

Answer: Option D

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

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

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

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

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

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

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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

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

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

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

Answer: Option D

168. A heavy stone is suitable for

- (A) Arches
- (B) Rubble masonry
- (C) Roads
- (D) Retaining walls

Answer: Option D

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 (Fe_3O_4)
- (D) All the above

Answer: Option D

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

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

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

173. Red short iron cracks when bent due to the presence of

- (A) Sulphur
- (B) Carbon
- (C) Phosphorus
- (D) Silicon

Answer: Option A

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

175. The method of addition polymerization is used for obtaining:

- (A) Polystyrene
- (B) Polypropylene
- (C) Polyvinylchloride
- (D) All of these

Answer: Option D

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

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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

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

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

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

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

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

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

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

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

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

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

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

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

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190. Glazing is used to make earthenware

- (A) Hard
- (B) Soft
- (C) Porous
- (D) Impervious

Answer: Option D

191. In the cement the compound quickest to react with water, is

- (A) Tri-calcium aluminate
- (B) Tetra-calcium aluminato-ferrite
- (C) Tri-calcium silicate
- (D) Di-calcium silicate

Answer: Option A

192. Which of the following gradients exerts maximum influence on properties of steel?

- (A) Iron
- (B) Carbon
- (C) Manganese
- (D) Sulphur

Answer: Option B

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

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

195. Which one of the following is acid resistant asbestos?

- (A) Actinolite asbestos
- (B) Amosite asbestos
- (C) Anthophyllite asbestos
- (D) All the above

Answer: Option D

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

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

198. For melting one tonne of cast iron

- (A) 700 m³ air is required
- (B) 20 kg limestone is required
- (C) One quintal coke is required
- (D) All the above

Answer: Option D

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

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

201. The commonly used lime in white washing, is

- (A) White lime
- (B) Fat lime
- (C) Hydraulic lime
- (D) Quick lime

Answer: Option B

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

203. Plywood is made from

- (A) Common timber
- (B) Bamboo fibre
- (C) Teak wood only
- (D) Asbestos sheets

Answer: Option C

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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

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

206. The hardest rock is

- (A) Marble
- (B) Diamond
- (C) Talc
- (D) Quartz

Answer: Option B

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

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

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

- (A) Kneading
- (B) Moulding
- (C) Puging
- (D) Drying

Answer: Option A

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

211. Formula for quick lime, is

- (A) CaCO_3
- (B) Ca(OH)_2
- (C) CO_3CO_2
- (D) None to these

Answer: Option A

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

Answer: Option A

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

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

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

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

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217. Gypsum is a

- A) mechanically formed sedimentary rock
- B) igneous rock
- C) chemically precipitated sedimentary rock
- D) metamorphic rock

Ans: C

218. Which of the following sedimentary rocks changes into quartzite by metamorphic action ?

- A) sand stone B) lime stone
- C) shale D) gypsum

Ans: A

219. 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)

Ans: B

220. Quartzite is a

- A) silicious rock B) argillaceous rock
- C) calcareous rock D) aqueous rock

Ans: A

221. Which of the following is a mineral ?

- A) basalt B) granite
- C) quartz D) syenite

Ans: C

222. Slate is formed by metamorphic action on

- A) shale B) lime stone
- C) sand stone D) granite

Ans: A

223. Sandstone is a

- i) sedimentary rock
- ii) aqueous rock
- iii) silicious rock

The correct answer is

- A) only (i) B) both (i) and (ii)
- C) both (i) and (iii) D) all (i), (ii) and (iii)

Ans: D

124. Which of the following trees yields hard wood ?

- A) deodar B) chir C) shishum D) pine

Ans: c

225. Which of the following is a rock ?

- A) quartz B) mica
- C) gypsum D) none of the above

Ans: C

226. 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

Ans: D

227. A heavy stone is suitable for

- A) arches B) rubble masonry
- C) roads D) retaining walls

Ans: D

228. The stone suitable for rubble masonry should be.

- A) hard B) tough
- C) heavy D) light

Ans: A

229. Which of the following metamorphic rocks has the most weather resisting characteristics?

- A) marble B) quartzite
- C) slate D) lime stone

Ans: b

230. A good building stone should not absorb water more than

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

Ans: A

231. Which of the following has more fire resisting characteristics ?

- A) marble B) lime stone
- C) compact sand stone D) granite

Ans: D

232. Jumper is a tool used for

- A) testing of stones
- B) quarrying of stones
- C) dressing of stones
- D) none of the above

Ans: B

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233. The important test to be conducted on a stone used in docks and harbours is-

- A) hardness test
- B) workability test
- C) weight test
- D) toughness test

Ans: C

234. The predominant constituent which is responsible for strength in granite is

- A) quartz
- B) felspar
- C) mica
- D) none of the above

Ans: A

235. Granite is not suitable for ordinary building purpose because

- A) it can not be polished
- B) it is not a fire proof material
- C) it is costly
- D) it has less crushing strength

Ans: C

236. 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

Ans: A

137. 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

Ans: B

238. 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

Ans: D

239. Crushing strength of a good building stone should be more than

- A) 50 MPa

B) 100 MPa

C) 150 MPa

D) 200 MPa

Ans: B

240. 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

Ans: C

241. 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

Ans: B

242. Cross cut saw is used for

- A) cutting soft stones
- B) cutting hard stones
- C) cutting large blocks of stones
- D) dressing stones

Ans: B