

## Building materials

### Section 1

1. In a mortar, the binding material is

- A. cement
- B. sand
- C. surkhi
- D. cinder.

**Answer:** Option A

2. 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. contain alcohol as thinner
- E. all the above.

**Answer:** Option E

3. Wrought iron contains carbon upto

- A. 0.25%
- B. 1.0%
- C. 1.5%
- D. 2%.

**Answer:** Option A

4. Pick up the polymineralic rock from the following:

- A. Quartz sand
- B. Pure gypsum
- C. Magnesite
- D. Granite
- E. None of these.

**Answer:** Option D

5. 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. For massive concrete structures which remain continuously under water, the water cement ratio by weight should be 0.65
- E. All the above.

**Answer:** Option E

6. Ultimate strength to cement is provided by

- A. Tricalcium silicate
- B. Di-calcium silicate
- C. Tri-calcium aluminate
- D. Tetra calcium alumino ferrite.

**Answer:** Option B

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7. 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

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8. 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

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9. 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 the above.

**Answer:** Option D

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10. In the cement the compound quickest to react with water, is
- A. Tricalcium aluminate
  - B. Tetra-calcium alumino-ferrite
  - C. Tricalcium silicate
  - D. Dicalcium silicate.

**Answer:** Option A

11. The initial setting time of lime-pozzolana, is
- A. 30 minutes
  - B. 60 minutes
  - C. 90 minutes
  - D. 120 minutes.

**Answer:** Option D

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12. 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

13. 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**

14. Quartzite is a

- A. metamorphic rock
- B. argillaceous rock
- C. calcareous rock
- D. silicious rock.

**Answer:** Option **D**

15. 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**

16. Sand stone is

- A. sedimentary rock
- B. metamorphic rock
- C. igneous rock
- D. volcanic rock.

**Answer:** Option **A**

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17. 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**

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18. Stainless steel contains

- A. 18% of chromuim 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**

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19. Pick up the hypabyssal rock from the following:

- A. Granite
- B. Dolerite
- C. Basalt
- D. All the above.

**Answer:** Option B

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20. 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

21. 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

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22. The main constituent of fly-ash, is

- A. aluminium oxide
- B. silica
- C. ferrous oxide
- D. All of these.

**Answer:** Option D

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23. 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

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24. 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

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25. Kaolin is chemically classified as

- A. metamorphic rock
- B. argillaceous rock
- C. calcareous rock
- D. silicious rock.

**Answer:** Option B

26. Which one of the following is acid resistant asbestos:

- A. actinolite asbestos

- B. amosite asbestos
- C. anthophyllite asbestos
- D. crocidolite asbestos
- E. All the above.

**Answer:** Option E

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27. Due to attack of dry rot, the timber

- A. cracks
- B. shrinks
- C. reduces to powder
- D. none of these.

**Answer:** Option C

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28. Brittleness of cold is due to an excess of

- A. sulphur
- B. carbon
- C. phosphorus
- D. silicon.

**Answer:** Option C

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29. 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

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30. Asbestos cement

- A. is brittle
- B. warps due to changes in humidity
- C. strength is lowered when saturated by water
- D. all the above.

**Answer:** Option D

31. Gniess is obtained from

- A. igneous rocks
- B. metamorphic rocks
- C. sedimentary rocks
- D. sedimentary metamorphic rocks.

**Answer:** Option D

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32. The rocks formed by gradual deposition, are called

- A. sedimentary rocks
- B. igneous rocks
- C. metamorphic rocks
- D. none of these.

**Answer:** Option A

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33. Galvanising means covering iron with a thin coat of

- A. tin
- B. zinc
- C. glaze
- D. coal tar.

**Answer:** Option B

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34. 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

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35. Polymerization helps to improve the property of

- A. strength
- B. rigidity
- C. elasticity
- D. all of these.

**Answer:** Option D

36. Good quality stones must

- A. be durable
- B. be free from clay
- C. resist action of acids
- D. all the above.

**Answer:** Option D

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37. Sewer pipes are made of

- A. earthen ware
- B. stone ware
- C. refractory clay
- D. terracota
- E. all the above.

**Answer:** Option B

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38. Fibre glass

- A. retains heat-longer
- B. has a higher strength to weight ratio
- C. is shock proof and fire retardent
- D. does not decay
- E. all the above.

**Answer:** Option E

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39. 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. The expansion and contraction joints are provided if concrete structures exceed 12 m in length
- E. All the above.

**Answer:** Option E

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40. 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

41. The commonly used colour pigment in paints, is

- A. ambers
- B. carbon black
- C. iron oxide
- D. lamp black
- E. all the above.

**Answer:** Option E

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42. Varnish is a transparent or semi-transparent solution of resinuous substances in

- A. alcohol
- B. linseed
- C. turpentine
- D. all the above.

**Answer:** Option D

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43. 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

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44. 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

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45. For melting one tonne of cast iron

- A. 700 m<sup>3</sup> air is required
- B. 20 kg limestone is required
- C. one quintal coke is required
- D. all the above.

**Answer:** Option D

46. 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

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47. Plastic

- A. is an organic substance
- B. consists of natural or synthetic binders
- C. finished products are rigid and stable at normal temperature
- D. is capable of flow when necessary heat and pressure are applied
- E. All the above.

**Answer:** Option E

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48. Vanadium steel is generally used for

- A. railway switches and crossing
- B. bearing balls
- C. magnets
- D. axles and springs.

**Answer:** Option D

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49. 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



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50. 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

**Section 2**

1 The rocks in which argil (or clay) predominates, are called

- A. sillicious rocks
- B. argillaceous rocks
- C. calcareous rocks
- D. igneous rocks.

**Answer:** Option B

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2. A badly mixed cement concrete results in

- A. segregation
- B. bleeding
- C. honey combing
- D. none to these.

**Answer:** Option C

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3. 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. Its mainly used for mass concrete work
- E. All the above.

**Answer:** Option E

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4. Chemically, marble is known as

- A. metamorphic rock
- B. argillaceous rock
- C. calcareous rock
- D. sillicious rock.

**Answer:** Option C

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5. 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

6. The filler used in plastic bitumen, is

- A. shale powder
- B. talc powder
- C. asbestos powder
- D. plastic powder
- E. none of these.

**Answer:** Option C

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7. Resins are

- A. not soluble in water
- B. soluble in spirit
- C. used in varnishes
- D. left behind on evaporation of oil
- E. all the above.

**Answer:** Option E

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8. Refractory bricks are used for

- A. retaining walls
- B. columns
- C. piers
- D. combustion chambers.

**Answer:** Option D

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9. Expanded metal is

- A. manufactured from steel sheets
- B. used for reinforced concrete in road pavements
- C. measured in term of SWM (shortway mesh) and LWM (long way mesh)
- D. all the above.

**Answer:** Option D

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10. The rock generally used for roofing, is

- A. granite
- B. basalt
- C. slate
- D. pumice.

**Answer:** Option C

11. 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

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12. 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

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13. 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

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14. Name the type of cement from the following for canal linings :

- A. sulphate resisting cement
- B. rapid hardening cement
- C. quick setting cement
- D. pozzuolana cement.

**Answer:** Option A

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15. 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

16. Black marble is generally found in the district of

- A. Jodhpur
- B. Jaipur
- C. Jabalpur
- D. Jaisalmer
- E. Pune.

**Answer:** Option B

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17. The most fire resistant paints are :

- A. enamel paints
- B. aluminium paints
- C. asbestos paints
- D. cement paints.

**Answer:** Option C

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18. 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.  $0.85 P$
- E.  $0.90 P$ .

**Answer:** Option D

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19. A pug mill is used for

- A. softening brick earth
- B. moulding brick earth
- C. tempering brick earth
- D. providing brick earth
- E. all the above.

**Answer:** Option C

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20. 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. about 5 to 6% of oxide of lime
- E. All the above.

**Answer:** Option E

21. The commonly used lime in white washing, is

- A. white lime
- B. fat lime
- C. hydraulic lime
- D. lime
- E. quick lime.

**Answer:** Option B

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22. Shingle is

- A. decomposed laterite
- B. crushed granite
- C. water bound pebbles
- D. air weathered rock.

**Answer:** Option A

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23. Pick up the plutonic rock from the following:

- A. Granite
- B. Dolerite

- C. Basalt
- D. All the above.

**Answer:** Option A

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

- A. fat lime
- B. quick lime
- C. hydraulic lime
- D. poor lime
- E. none of these.

**Answer:** Option B

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25. Seasoning is

- A. a process of removing sap
- B. creosoting
- C. painting with sodium silicate
- D. coating with tar.

**Answer:** Option A

26. Inhaling of fly-ash over a long period causes

- A. silicosis
- B. fibrosis of lungs
- C. bronchitis
- D. pneumonitis
- E. All of these.

**Answer:** Option E

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27. Minimum required water cement ratio for a workable concrete, is

- A. 0.30
- B. 0.40
- C. 0.50
- D. 0.60
- E. 1.0.

**Answer:** Option B

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28. 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

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29. The compound of Portland cement which contributes to the strength after two to three years is

- A. Tricalcium silicate
- B. Di-calcium silicate
- C. Tricalcium aluminate
- D. Tetracalcium alumino ferrite.

**Answer:** Option B

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30. 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

31. 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  $45^\circ$ , 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

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

- A. 50%
- B. 40%
- C. 30%
- D. 25%
- E. 20%.

**Answer:** Option A

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33. Bessemer process is used for the manufacture of

- A. Pig iron
- B. cast iron
- C. Wrought iron
- D. Steel.

**Answer:** Option D

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34. 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

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35. The standard size of masonry bricks, is

- A. 18 cm x 8 cm x 8 cm
- B. 19 cm x 9 cm x 9 cm
- C. 20 cm x 10 cm x 10 cm
- D. 21 cm x 11 cm x 11 cm
- E. none of these.

**Answer:** Option B

36. 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

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37. A good quality stone absorbs water less than

- A. 5%
- B. 10%
- C. 15%
- D. 20%
- E. 25%.

**Answer:** Option A

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38. 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

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39. Plywood is made from

- A. common timber
- B. bamboo fibre
- C. teak wood only
- D. asbestos sheets.

**Answer:** Option C

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40. Soundness test of cement determines

- A. quality of free lime
- B. ultimate strength
- C. durability
- D. initial setting
- E. all the above.

**Answer:** Option A

41. The slag which floats on the surface of the molten iron generally contains

- A. Lime (CaO) 45%
- B. Silica (SiO<sub>2</sub>) 35%
- C. Alumina (Al<sub>2</sub>O<sub>3</sub>) 12%
- D. MgO, CaSO<sub>4</sub>, KMnO<sub>2</sub> and FeO 8%
- E. all the above.

**Answer:** Option E

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42. Minimum of 40% of iron, is available in

- A. Magnetite
- B. Red haemetite
- C. Limonite
- D. Siderite
- E. Black band.

**Answer:** Option E

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43. 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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44. 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. it is not smooth when rubbed in between fingers
- D. a handful of cement thrown into a bucket of water does not float
- E. none of these.

**Answer:** Option E

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45. Cast steel is manufactured by

- A. Cementation process
- B. Crucible process
- C. Bessemer process
- D. Open hearth process.

**Answer:** Option B

46. 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

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47. 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%
- E. 5%.

**Answer:** Option C

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48. 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

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49. Geologically, marble is known as

- A. sedimentary rock
- B. igneous rock
- C. metamorphic rock
- D. stratified rock.

**Answer:** Option C

### Section 3

1. The commonly used drying oil for oil paints, is

- A. olive oil
- B. linseed oil
- C. kerosine oil
- D. acetate of lead.

**Answer:** Option D

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2. 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

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3. The foliated structure is very common in

- A. sedimentary rocks
- B. igneous rocks
- C. metamorphic rocks
- D. none of these.

**Answer:** Option C

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4. Turpentine oil is used in paints as
- A. thinner
  - B. vehicle
  - C. base
  - D. drier.

**Answer:** Option A

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5. The hardest rock is
- A. marble
  - B. diamond
  - C. talc
  - D. quartz.

**Answer:** Option B

6. The silica is used for preparing
- A. silica bricks
  - B. coke oven
  - C. lining for glass furnaces
  - D. all of these.

**Answer:** Option D

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7. Wrought iron is manufactured from pig iron by
- A. refining
  - B. puddling
  - C. shingling
  - D. rolling
  - E. all the above.

**Answer:** Option E

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8. 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. The plastics prepared from phenol-formaldehyde are used for paints, varnishes, w.c. seats
  - E. All the above.

**Answer:** Option E

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9. Fibre boards can be

- A. distempered
- B. painted
- C. painted and distempered
- D. used for furniture.

**Answer:** Option D

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10. 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

11. Portland pozzolana cement possesses

- A. higher resistance to chemical attack
- B. lower heat of hydration
- C. lower shrinkage on drying
- D. water tightness
- E. all the above.

**Answer:** Option E

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12. Iron ore may contain

- A. carbon
- B. silicon
- C. sulphur
- D. phosphorus and maganese
- E. all the above.

**Answer:** Option E

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13. 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

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14. The timber having maximum resistance against white ants, is obtained from

- A. chir
- B. shisham
- C. sal

D. teak.

**Answer:** Option C

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15. 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

16. 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

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17. 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

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18. Bituminous felts are used for

- A. covering A.C. sheets
- B. covering sloping roofs
- C. D.P.C.
- D. none to these.

**Answer:** Option A

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19. The minimum compressive strength of IInd class bricks should be

- A. 75 kg/cm<sup>2</sup>
- B. 90 kg/cm<sup>2</sup>
- C. 100 kg/cm<sup>2</sup>
- D. 120 kg/cm<sup>2</sup>
- E. 150 kg/cm<sup>2</sup>.

**Answer:** Option A

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20. Stucco paints are suitable for

- A. stone masonry
- B. brick walls
- C. both (a) and (b)
- D. neither (a) nor (b).

**Answer:** Option C

21. 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 gal-venised to protect iron from corrosion by rust
- D. Corrugated sheets are generally used on slanting roofs
- E. all the above.

**Answer:** Option E

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22. 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
- E. none of these.

**Answer:** Option C

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23. Duco is one of the patent forms of

- A. emulsion paints
- B. plastic paints
- C. bituminous paints
- D. aluminium paints
- E. cellulose paints.

**Answer:** Option E

---

24. 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. A polymetric material consists of a large number of long-chain molecules
- E. All the above.

**Answer:** Option E

---

25. Bulking of sand is caused due to

- A. surface moisture
- B. air voids
- C. viscosity
- D. clay contents
- E. all the above.

**Answer:** Option A

26. The normal curing period for lime mortar, is:

- A. one day

- B. 3 days
- C. 7 days
- D. 10 days
- E. 14 days.

**Answer:** Option C

---

27. The type of steel used for precision levelling staff, is

- A. Titanium steel
- B. Carbon steel
- C. Invar
- D. Stainless steel.

**Answer:** Option C

---

28. 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. metal is heated by the burning of gases
- E. all the above.

**Answer:** Option E

---

29. 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
- E. brass, silver and zinc.

**Answer:** Option C

---

30. 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

31. 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

---

32. Quartzite, a metamorphic stone is

- A. hard
- B. brittle
- C. crystalline
- D. compact
- E. All the above.

**Answer:** Option E

---

33. 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

---

34. Dextrin is

- A. animal glue
- B. starch glue
- C. albumin glue
- D. rubber based adhesive
- E. none to these.

**Answer:** Option D

---

35. Formula for quick lime, is

- A.  $\text{CaCO}_3$
- B.  $\text{CaO}$
- C.  $\text{CO}_3\text{CO}_2$
- D. none to these.

**Answer:** Option B

36. For the manufacture of stainless steel, steel is mixed with

- A. chromium
- B. nickel
- C. tungsten
- D. none of these.

**Answer:** Option A

---

37. Stones used for ornamental work must be

- A. soft
- B. hard
- C. light
- D. heavy.

**Answer:** Option A

---

38. 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

---

39. 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

---

40. 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

41. 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

---

42. 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

---

43. In paints, the pigment is responsible for

- A. durability
- B. colour
- C. smoothness
- D. glassy face
- E. none of these.

**Answer:** Option B

---

44. 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

---

45. 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

46. 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

---

47. Dry rot

- A. cracks the timber
- B. reduces the strength of timber
- C. reduces the timber to powder
- D. shrinks the timber
- E. spoils the appearance of timber.

**Answer:** Option C

---

48. 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

---

49. The weight of 1 m<sup>3</sup> of brick earth, is about

- A. 1200 kg
- B. 1500 kg
- C. 1800 kg
- D. 2000 kg.

**Answer:** Option C

---

50. 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

#### Section 4

Mastic asphalt is normally used for

- A. sound insulation
- B. water proofing
- C. fire proofing
- D. none to these.

**Answer:** Option B

---

2. Lime stone is not a

- A. sedimentary rock
- B. stratified rock
- C. aqueous rock
- D. metamorphic rock.

**Answer:** Option D

---

3. The size of modular bricks, is

- A. 10 x 10 x 9 cm
- B. 19 x 9 x 9 cm
- C. 22.5 x 10 x 8.5 cm
- D. 22.5 x 8.0 x 9 cm.

**Answer:** Option B

---

4. 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

---

5. Pig iron is manufactured from the ores by

- A. dressing
- B. calcination and roasting
- C. smelting
- D. all the above.

**Answer:** Option D

6. Quick lime

- A. generates heat when added to water

- B. reacts with carbon dioxide
- C. may be used for white-washing
- D. when mixed with water forms slaked lime
- E. all the above.

**Answer:** Option E

---

7. 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

---

8. 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

---

9. 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. Slaked lime is obtained by adding water to quick lime
- E. All the above.

**Answer:** Option E

---

10. Plywood is obtained by gluing wooden sheets at

- A. 100 to 150 N/cm<sup>2</sup>
- B. 100 to 130°C
- C. both (a) and (b)
- D. Neither (a) nor (b).

**Answer:** Option C

11. The low voltage porcelain is mainly used for

- A. switch block
- B. insulating tubes
- C. lamp sockets
- D. All of these.

**Answer:** Option D

---

12. 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

---

13. The initial setting time of hydraulic lime, is

- A. 30 minutes
- B. 60 minutes
- C. 90 minutes
- D. 120 minutes
- E. 150 minutes.

**Answer:** Option D

---

14. PVC stands for

- A. plastic very compact
- B. polythene vinyl chloride
- C. polythene vinyl carbon
- D. polythene vanadium carbide.

**Answer:** Option B

---

15. Generally wooden moulds are made from

- A. ply wood
- B. shisham wood
- C. deodar wood
- D. teak wood
- E. hard wood.

**Answer:** Option B

16. Cement paints usually

- A. contain hydrated lime
- B. contain 5% to 10% colour pigments
- C. are prepared with white cement
- D. contain 5% sodium chloride
- E. all the above.

**Answer:** Option E

---

17. The cement becomes unsound by the presence of excess

- A. sulphur
- B. magnesia
- C. lime
- D. All of these.

**Answer:** Option D

---

18. 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

---

19. The minimum compressive strength of 1st class bricks should be

- A. 75 kg/cm<sup>2</sup>
- B. 90 kg/cm<sup>2</sup>
- C. 100 kg/cm<sup>2</sup>
- D. 120 kg/cm<sup>2</sup>
- E. 130 kg/cm<sup>2</sup>.

**Answer:** Option C

---

20. 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

21. The percentage of water for normal consistency, is

- A. 5% to 15%
- B. 10% to 25%
- C. 15% to 25%
- D. 20% to 30%
- E. 25% to 35%.

**Answer:** Option E

---

22. 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. The plywoods are light in weight
- E. All the above.

**Answer:** Option E

---

23. The main ingredient of a good quality brick earth, is

- A. magnesia
- B. lime
- C. silica
- D. alumina.

**Answer:** Option D

---

24. Bitumen is generally obtained from

- A. organic material
- B. synthetic material
- C. petroleum product
- D. coal.

**Answer:** Option C

---

25. For one cubic metre of brick masonry, number of bricks required, is

- A. 400
- B. 425
- C. 450
- D. 500
- E. 550.

**Answer:** Option D

26. 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

---

27. Pick up the volcanic rock from the following:

- A. Granite
- B. Dolerite
- C. Basalt
- D. All the above.

**Answer:** Option C

---

28. 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
- E. None of these.

**Answer:** Option A

---

29. The most durable varnish is

- A. water varnish
- B. spirit varnish
- C. turpentine varnish
- D. oil varnish
- E. none of these.

**Answer:** Option D

---

30. Softer variety of steel may be obtained by

- A. Cementation process
- B. crucible process
- C. Bessemer process
- D. Open hearth process.

**Answer:** Option C

31. 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. The articles prepared from fine earthen ware which is white, thin and semi-transparent, are called procelain
- E. All the above.

**Answer:** Option E

---

32. Calcination of iron ores is done

- A. to remove moisture
- B. to remove carbonic acid
- C. by roasting in heaps
- D. after dressing
- E. all the above.

**Answer:** Option E

---

33. 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

---

34. Rapid hardening cement contains

- A. Tri-calcium silicate
- B. Tri-calcium aluminate
- C. Tetra-calcium alumino-ferrite
- D. Dicalcium silicate.

**Answer:** Option A

---

35. 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

36. The cast iron when heated to red heat with powdered red haemetite 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

---

37. Jhumb bricks are
- A. under burnt
  - B. over burnt
  - C. kutchra
  - D. none of these.

**Answer:** Option B

---

38. Plastic bitumen is generally used for
- A. road pavements
  - B. expansion joints
  - C. crack fillings
  - D. none to these.

**Answer:** Option C

---

39. 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

---

40. The commonly used thinner in oil paints, is
- A. naphtha
  - B. turpentine
  - C. both (a) and (b)
  - D. neither (a) nor (b)
  - E. none the these.

**Answer:** Option C

41. 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. is remelted in a cupola furnace
- E. all the above.

**Answer:** Option E

---

42. Asbestos is

- A. corrugated sheet used for roofing
- B. an incombustible fire proof material
- C. an organic substance
- D. a bad insulator for sound and heat
- E. all the above.

**Answer:** Option E

---

43. In a rock calcium carbonate predominates. State whether it is :

- A. Silicious rock
- B. Argillaceous rock
- C. Calcareous rock
- D. None of these.

**Answer:** Option C

---

44. 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

---

45. 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

46. 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

---

47. 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

---

48. Invar contains
- A. 12% of nickel
  - B. 24% of nickel
  - C. 30% to nickel
  - D. 36% of nickel.

**Answer:** Option D

---

49. 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

#### Section 5

1. The pigment used in paints for corrosive resistance, is
- A. white lead
  - B. ferrous oxide
  - C. zinc white
  - D. red lead
  - E. gypsum.

**Answer:** Option D

---

2. 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

---

3. The stones obtained by blasting are used as
- A. ballast in railways
  - B. aggregates for concrete

- C. roadmetal
- D. All the above.

**Answer:** Option D

---

4. 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

---

5. 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

6. Pick up the correct statement from the following:
- A. The average crushing strength of hand moulded bricks is  $6000 \text{ t/m}^2$
  - B. The average tensile strength of hand moulded brick is  $200 \text{ t/m}^2$
  - C. The average shearing strength of hand moulded brick is  $600 \text{ t/m}^2$
  - D. All the above.

**Answer:** Option D

---

7. 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

---

8. Sea sand used in structures causes

- A. dampness
- B. efflorescence
- C. disintegration
- D. All of these.

**Answer:** Option D

---

9. 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

---

10. Refractory bricks resist

- A. high temperature
- B. chemical action
- C. dampness
- D. all the above.

**Answer:** Option A

11. 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 per cent surface is covered with grey or white deposits, the brick has slight efflorescence
- C. 50 per cent surface is covered with grey or white deposits, the brick has serious efflorescence
- D. All the above.

**Answer:** Option D

---

12. In arches, stratified stones are placed so that their planes are

- A. parallel
- B. perpendicular
- C. radial
- D. none of these.

**Answer:** Option C

---

13. Pick up the correct statement from the following:

- A. Acid test is done to find out the weathering quality of stones
- B. Attrition test is done to find out the rate of wear of stones which are used in road construction
- C. Crushing test is done to find out the compressive strength of the stone
- D. Impact test is done to determine toughness of a stone
- E. All the above.

**Answer:** Option E

---

14. The fire clay contains pure

- A. lime
- B. oxide of iron
- C. hydrated aluminium silicate
- D. magnesium.

**Answer:** Option C

---

15. 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/cm<sup>2</sup>
- D. Its hardness is 5 to 6
- E. All the above.

**Answer:** Option E

16. 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

---

17. The steel used for rails under heavy traffic and on sharp curves, is

- A. Nickel steel
- B. Chrome steel
- C. Magnese steel
- D. Vanadium steel.

**Answer:** Option C

---

18. 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

---

19. Snowcrete is one of the patent forms of

- A. distempers
- B. water proof cement paints
- C. enamel paints
- D. cellulose paints.

**Answer:** Option B

---

20. 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

21. Pick up the correct statement from the following:

- A. Horn blende mineral is brittle
- B. Muscovite is also known as white mica and potashmica
- C. Biotite is also known as blackmica
- D. All the above.

**Answer:** Option D

---

22. 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. Ignoeous rocks.

**Answer:** Option B

---

23. The base material for distemper, is
- A. chalk
  - B. lime
  - C. lime putty
  - D. cement wash.

**Answer:** Option A

---

24. 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. charrs at 343°C
  - D. All the above.

**Answer:** Option D

---

25. Pick up the synthetic resin from the following:
- A. Malamine resin
  - B. Phenolic resin
  - C. Resorcinol resin
  - D. Urea resin
  - E. All of these.

**Answer:** Option E

26. 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

---

27. 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

---

28. Mastic asphalt is

- A. water proof
- B. fire proof
- C. elastic
- D. all the above.

**Answer:** Option D

---

29. Non acid-resistant asbestos is :

- A. tremolite asbestos
- B. chrysolite asbestos
- C. amosite asbestos
- D. none of these.

**Answer:** Option B

---

30. Stones used for the construction of retaining walls must be

- A. soft
- B. hard
- C. light
- D. heavy.

**Answer:** Option D



31. 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

---

32. Plastics are compounds of carbon with element

- A. hydrogen
- B. nitrogen
- C. oxygen
- D. All of these.

**Answer:** Option D

---

33. Pick up the correct statement from the following:

- A. The plastic bottles are made by the process of blowing
- B. The plastic sheets are made by the calendering process in which the plastic material is allowed to pass between cylindrical rollers
- C. The application of thermo-setting resins on sheets of paper, is called laminating process
- D. The plastic articles made by placing raw material in the desired moulds, is known as moulding process
- E. All the above.

**Answer:** Option E

---

34. 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. Ironoxide
- D. Magnesia.

**Answer:** Option A

---

35. 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

36. Stainless steel resists corrosion due to

- A. carbon
- B. sulphur
- C. vanadium
- D. chromium
- E. maganese.

**Answer:** Option D

---

37. Commonly used thinner in

- A. lacquer paints, is alcohol
- B. cellulose paints is ethyle acetate
- C. oil paints, is naptha
- D. distemper, is water
- E. all the above.

**Answer:** Option E

---

38. Good quality sand is never obtained from

- A. river
- B. nala
- C. sea
- D. gravel powder.

**Answer:** Option C

---

39. Pick up the rock which is not a sedimentary rock from the following:

- A. gravel
- B. sand stone

C. gypsum

D. dolerite

E. lignite.

**Answer:** Option D

---

40. 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

41. Blister steel

A. is obtained by cementation process

B. is full of fissures and cavities

C. can not be forged

D. can be easily welded

E. all the above.

**Answer:** Option E

---

42. The most important constituent of varnish, is

A. drier

B. solvent

C. resin

D. all the above.

**Answer:** Option D

---

43. A ferrous metal is

A. cast iron

B. wrought iron

C. steel

D. all the above.

**Answer:** Option D

---

44. 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

---

45. 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
- E. None of these.

**Answer:** Option C

46. Water paint is a

- A. white wash
- B. colour wash
- C. whiting
- D. distemper
- E. all the above.

**Answer:** Option E

---

47. 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

---

48. The specific gravity of marble, is

- A. 2.50
- B. 2.60
- C. 2.66
- D. 2.72
- E. 3.00.

**Answer:** Option D

---

49. 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
- E. igneous rocks.

**Answer:** Option B

---

50. 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

#### Section 6

1. 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. The compressive strength of silica bricks is about  $150 \text{ kg/cm}^2$
- E. All the above.

**Answer:** Option E

---

2. Spirit varnish generally consists of

- A. oil, wax and resin
- B. alcohol, wax and turpentine
- C. pigment and synthetic resin
- D. spirit and shellac
- E. none of these.

**Answer:** Option D

---

3. 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. The molten iron is made to run, in a long channel formed in sand called 'sow'
  - E. All the above.

**Answer:** Option E

---

4. The tendency of a stone is, to split along:
- A. texture
  - B. fracture
  - C. cleavage
  - D. structure
  - E. all the above.

**Answer:** Option C

---

5. Acrylic is the name of
- A. cellulose resin
  - B. alkyd resin
  - C. methyl metha crylate
  - D. cumarone-indene.

**Answer:** Option C

6. 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

---

7. Lime mortar is generally made with
- A. quick lime
  - B. fat lime
  - C. hydraulic lime
  - D. plain lime
  - E. none of these.

**Answer:** Option C

---

8. Duco paints are
- A. plastic paints
  - B. cellulose paints
  - C. emulsion paints
  - D. bituminous paints
  - E. oil paints.

**Answer:** Option E

---

9. 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. The plastics made from melamine formaldehyde resin, are used for electrical insulators
  - E. All the above.

**Answer:** Option E

---

10. Steel contains carbon approximately
- A. 1.50% to 5.6%

B. 0.05% to 1.75%

C. 0.25%

D. none to these.

**Answer:** Option B

11. 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

---

12. 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

---

13. 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

---

14. 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

E. tungsten.

**Answer:** Option D



---

15. Bitumen completely dissolves in

- A. carbon bisulphide
- B. chloroform
- C. benzol
- D. coaltar
- E. All of these.

**Answer:** Option E

16. Good quality cement contains higher percentage of

- A. Tricalcium silicate
- B. Di-calcium silicate
- C. Tri-calcium aluminate
- D. Tetra calcium alumino ferrite
- E. all the above.

**Answer:** Option A

---

17. Soundness of cement is tested by

- A. Vicat's apparatus
- B. Le-chatelier apparatus
- C. compressive strength testing apparatus
- D. none of the these.

**Answer:** Option B

---

18. The PVC doors and windows are preferred as they are

- A. rust proof
- B. rot proof
- C. termile proof
- D. water proof
- E. all of these.

**Answer:** Option E

---

19. Based on its dry weight, a freshly felled tree may contain water

- A. 25%
- B. 50%
- C. 75%
- D. 100%.

**Answer:** Option D

---

20. Forge pig may be converted to wrought iron by

- A. rolling
- B. puddling
- C. shingling
- D. refining.

**Answer:** Option B

21. To give a brilliant finish, the type of varnish used, is

- A. water varnish
- B. spirit varnish
- C. turpentine varnish
- D. oil varnish
- E. none of these.

**Answer:** Option B

---

22. Pick up the correct statement from the following:

- A. Bull's trench kiln a trench excavated in ground
- B. Hoffman's kiln is constructed overground
- C. Tunnel Kiln is constructed as a tunnel
- D. All the above.

**Answer:** Option D

---

23. The softest rock is

- A. marble
- B. diamond
- C. talc

D. quartz.

**Answer:** Option C

---

24. Bitumen may be dissolved in

A. carbondioxide

B. water

C. sodium chloride

D. carbon disulphide

E. none of these.

**Answer:** Option D

---

25. 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. Ultimately hydrated ferric oxide is formed during rusting and carbon dioxide gets liberated

E. All the above.

**Answer:** Option E

26. Whitworth compressed steel is obtained when molten steel is subjected to a pressure of

A. 5 kg/mm<sup>2</sup>

B. 9 kg/mm<sup>2</sup>

C. 13 kg/mm<sup>2</sup>

D. 15 kg/mm<sup>2</sup>

E. 10 kg/mm<sup>2</sup>.

**Answer:** Option B

---

27. 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. is smooth like glass and silk

E. All the above.

**Answer:** Option E

---

28. 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

---

29. The sequence of refractory materials according to increasing melting points is :

- A. Dolomite, Magnesia, Bauxite, Chromite
- B. Bauxite, Chromite, Dolomite, Magnesia
- C. Magnesia, Bauxite, Dolomite, Chromite.

**Answer:** Option B

---

30. 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

31. Laterite is a/an

- A. volcanic rock
- B. argillaceous rock
- C. calcareous rock
- D. silicious rock.

**Answer:** Option B

---

32. A stone is rejected if it absorbs water more than

- A. 5%

- B. 10%
- C. 15%
- D. 20%
- E. 25%.

**Answer:** Option B

---

33. The most valuable timber may be obtained from

- A. chir
- B. shisham
- C. sal
- D. teak.

**Answer:** Option D

---

34. 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 ( $\text{Fe}_3\text{O}_4$ )
- D. For the manufacture of wrought iron, non-sulphurous fuel is not necessary
- E. All the above.

**Answer:** Option E

---

35. Pick up the compound responsible for early strength of cement from the following:

- A. Tetra-calcium alumino-ferrite
- B. Tricalcium silicate
- C. Tricalcium aluminate
- D. Dicalcium silicate.

**Answer:** Option B

36. Mastic asphalt is

- A. acid resisting material
- B. non-corrosive material
- C. corrosive material

D. heating-resisting material.

**Answer:** Option B

---

37. Which one of the following is used for preparing porcelain

- A. clay
- B. feldspar
- C. quartz
- D. minerals
- E. All of these.

**Answer:** Option E

---

38. 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

---

39. Laterite is found in

- A. U.P.
- B. Punjab
- C. West Bengal
- D. Kerala.

**Answer:** Option A

---

40. Lacquer is

- A. oil paint
- B. distemper
- C. spirit varnish
- D. none to these.

**Answer:** Option C

41. Upto a maximum of 72% of iron, is available in

- A. Magnetite
- B. Red haemetite
- C. Limonite
- D. Siderite
- E. Iron pyrites.

**Answer:** Option A

---

42. For lime concrete,
- A. slump is 50 to 75 mm
  - B. flexural strength at 90 days is  $0.2 \text{ N/mm}^2$
  - C. compressive strength at 90 days is  $1.5 \text{ N/mm}^2$
  - D. compressive strength at 26 days is  $1.2 \text{ N/mm}^2$
  - E. all the above.

**Answer:** Option E

---

43. Pig iron made from heamatite 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
  - E. All the above.

**Answer:** Option A

---

44. 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

---

45. The material generally not used as extender in paints, is

- A. powdered silica
- B. gypsum
- C. talc
- D. zinc white.

**Answer:** Option D

46. 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

---

47. The most commonly used synthetic abrasive is

- A. aluminium carbide
- B. boric acid
- C. silicon
- D. All of these.

**Answer:** Option D

---

48. 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

---

49. 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



---

50. The melting point of silica is :

- A. 1570°C
- B. 1630°C
- C. 1730°C
- D. 1850°C.

**Answer:** Option C

**Section 7**

1. A bull nose brick is not used for

- A. rounding off sharp corners
- B. pillars
- C. decoration purpose
- D. arches.

**Answer:** Option D

---

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

- A. sulphur
- B. carbon
- C. phosphorus
- D. silicon.

**Answer:** Option A

---

3. Linseed oil is used in paints as

- A. thinner
- B. vehicle
- C. base
- D. drier.

**Answer:** Option D

---

4. Plaster of Paris is obtained by calcining

- A. bauxite
- B. gypsum
- C. kankar

- D. lime stone
- E. none of these.

**Answer:** Option B

---

5. 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

6. 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

---

7. The plastics prepared from Vinyl resin are
- A. odourless
  - B. non-toxic
  - C. transparent
  - D. colourless
  - E. all of these.

**Answer:** Option E

---

8. Chlorite, a green colour mineral is mainly derived from the decomposition of
- A. augite
  - B. biotite
  - C. horn blende
  - D. All of these.

**Answer:** Option A

---

9. 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  $\text{Fe}_2\text{O}_3$  to form iron and liberates  $\text{CO}_2$
  - D. all the above.

**Answer:** Option D

---

10. Lime stones are generally known as
- A. aqueous rocks
  - B. sedimentary rocks
  - C. stratified rocks
  - D. all the above.

**Answer:** Option D

11. The method of addition polymerization is used for obtaining:
- A. polythylene
  - B. polypropylene
  - C. polyvinylchloride
  - D. polystyrene
  - E. All of these.

**Answer:** Option E

---

12. 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. The addition of gypsum increases the initial setting time of cement
  - E. All the above.

**Answer:** Option E

---

13. A rock contains only one mineral. It is called
- A. homogeneous
  - B. non-homogeneous

C. monomineralic

D. polymineralic.

**Answer:** Option C

---

14. Asbestos

A. is a natural fibrous mineral substance

B. is composed of hydrous silicates of calcium and magnesium ( $\text{CaSiO}_3$ ,  $3\text{MgSiO}_3$ )

C. contains iron oxide and alumina

D. all the above.

**Answer:** Option D

---

15. Pegmatite is a/an

A. intrusive igneous rock

B. extrusive igneous rock

C. sedimentary rock

D. metamorphic rock.

**Answer:** Option A

16. 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

---

17. 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

---

18. Asphalt is obtained from

- A. petroleum distillation
- B. bitumen distillation
- C. plastic distillation
- D. none of these.

**Answer:** Option A

---

19. To retard the initial setting time of cement, the compound responsible, is

- A. Tricalcium silicate
- B. Gypsum
- C. Di-calcium silicate
- D. Tri calcium aluminate.

**Answer:** Option B

---

20. 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

21. Stones used for rubble masonry must be

- A. soft
- B. hard
- C. light
- D. heavy.

**Answer:** Option B

---

22. 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

---

23. Dolomite is a lime stone which contains carbonate of magnesia upto

- A. 15%
- B. 20%
- C. 25%
- D. 35%
- E. 45%.

**Answer:** Option E

---

24. 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

---

25. 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
- E. none of these.

**Answer:** Option B

26. 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

---

27. Bitumen felt is used for

- A. water proofing
- B. damp proofing
- C. both (a) and (b)
- D. neither (a) nor (b).

**Answer:** Option C

---

28. According to ISI, bitumen is classified into

- A. 2 grades
- B. 4 grades
- C. 6 grades
- D. 8 grades.
- E. 10 grades.

**Answer:** Option E

---

29. 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. may be obtained from drying lime water mix passing through IS sieve No. 300
- E. all of above.

**Answer:** Option E

---

30. The minimum percentage of silica, alumina and ferric oxide in lime for white washing, is

- A. 20
- B. 15
- C. 10
- D. 5
- E. 0.

**Answer:** Option E

31. 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
- E. 25 litres.

**Answer:** Option D

---

32. 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

---

33. The property by virtue of which lime sets under water, is known as

- A. slacking
- B. setting
- C. hydraulicity
- D. calcining.

**Answer:** Option C

---

34. 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

---

35. 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

36. 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

---

37. The steel used for the manufacture of rails, is

A. Bessemer steel

B. mild steel

C. cast steel

D. stainless steel.

**Answer:** Option A

---

38. Slump test for concrete is carried out, to determine

A. strength

B. durability

C. workability

D. water content.

**Answer:** Option C

---

39. Basalt is

A. sedimentary rock

B. metamorphic rock

C. extrusive igneous rock

D. intrusive igneous rock.

**Answer:** Option C

---

40. 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**

41. The most important constituent of an oil paint, is

- A. thinner
- B. vehicle
- C. pigment
- D. base
- E. all the above.

**Answer:** Option **E**

---

42. Granite mainly composed of quartz and felsper particles, is obtained from

- A. sedimentary rocks
- B. metamorphic rocks
- C. igneous rocks
- D. all the above.

**Answer:** Option **C**

---

43. 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**

---

44. Pig iron obtained from the furnance 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
- E. None of the above.

**Answer:** Option B

---

45. Refractory bricks are
- A. neutral refractory bricks
  - B. acid refractory bricks
  - C. basic refractory bricks
  - D. all the above.

**Answer:** Option D

46. Porcelain is used as :
- A. sanitary wares
  - B. electric insulators
  - C. storage vessels
  - D. reactor chambers
  - E. All of the above.

**Answer:** Option E

---

47. Durability of building stone is affected by its
- A. chemical composition
  - B. texture
  - C. resistance to atmosphere
  - D. location in structure
  - E. all the above.

**Answer:** Option E

---

48. Magnese steels
- A. are non-magnetic
  - B. possess high electrical resistance
  - C. possess low coefficient of expansion
  - D. are used for the manufacture of rails

E. all the above.

**Answer:** Option E

---

49. Pick up the metal refractory from the following:

A. Molyblendum

B. Tungsten

C. Zirconium

D. All of these.

**Answer:** Option D

---

50. 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

#### Section 8

1. 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

E. 20% larger than specified size.

**Answer:** Option A

---

2. Most commonly used solvent in oil paints, is

A. petroleum

B. spirit

C. coaltar

D. turpentine.

**Answer:** Option A

---

3. 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. are available in various shapes
  - E. all the above.

**Answer:** Option E

---

4. With storage, strength of cement
- A. increases
  - B. decreases
  - C. remains the same
  - D. none to these.

**Answer:** Option B

---

5. The commonly used raw material in the manufacture of cement, is
- A. slate
  - B. sand stone
  - C. lime stone
  - D. basalt.

**Answer:** Option C

6. 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 CO<sub>2</sub>
  - C. The sand stone with silicates resist a fire in a better way
  - D. The argillaceous stone though poor in strength can resist fire quite weak
  - E. All the above.

**Answer:** Option E

---

7. The most commonly used base for timber painting, is
- A. red lead
  - B. zinc white

- C. white lead
- D. titanium white.

**Answer:** Option C

---

8. 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. stagnant air
- E. All the above,

**Answer:** Option E

---

9. The rocks formed from molten magma, are called

- A. sedimentary rocks
- B. igneous rocks
- C. metamorphic rocks
- D. none of these.

**Answer:** Option B

---

10. Bitumen paints offer

- A. pleasing surface
- B. hard surface
- C. smooth surface
- D. protective surface
- E. rough surface.

**Answer:** Option D

11. 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. Styrene resin is used to manufacture utensils which are unaffected by chemicals

E. All the above.

**Answer:** Option E

---

12. The lime which contains high percentage of calcium oxide, is generally called

A. fat lime

B. rich lime

C. white lime

D. All of these.

**Answer:** Option D

---

13. For construction of structures under water, the type of lime used, is

A. hydraulic lime

B. fat lime

C. quick lime

D. pure lime

E. none of these.

**Answer:** Option A

---

14. 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. Wrought iron oxidises moderately

E. All the above.

**Answer:** Option E

---

15. 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

16. 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

---

17. The harmonious mixing of the clay ingredients, is known as
- A. weathering
  - B. blending
  - C. tempering
  - D. None of these.

**Answer:** Option B

---

18. Brass is an alloy of
- A. copper and zinc
  - B. zinc and lead
  - C. tin and silver
  - D. zinc and nickel
  - E. tin and lead.

**Answer:** Option A

---

19. The wedging is adopted for quarrying costly stratified rock such as
- A. laterite
  - B. marble
  - C. limestone
  - D. sandstone
  - E. All the above.

**Answer:** Option E

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20. 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. larger proportion of lime grounded coarser than normal cement
- E. excess percentage of gypsum.

**Answer:** Option A

21. The colour of statuary marble used for sculptor's work, is

- A. red
- B. blue
- C. white
- D. green
- E. yellow

**Answer:** Option C

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22. 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

---

23. 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

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24. 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. The volume of fully saturated sand equals that of dry sand

E. All the above.

**Answer:** Option E

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25. Teak wood is suitable for

A. sports articles

B. furnitures

C. railway sleepers

D. all the above.

**Answer:** Option B

26. 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

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27. French polish is

A. oil paint

B. distemper

C. spirit varnish

D. none to these.

**Answer:** Option C

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28. 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

