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Civil Test Paper 12/4/2017

1. Residual soils are formed by
 - (A) Glaciers
 - (B) Wind
 - (C) Water
 - (D) none of above
2. Water content of soil an
 - (A) Never be greater than 100%
 - (B) Take values only from 0% to 100
 - (C) Be less than 0%
 - (D) Be greater than 100%
3. Which of the following types of soil is transported by gravitational forces?
 - (A) Losses
 - (B) Talus
 - (C) Drift
 - (D) Dune sand
4. A fully saturated soil is said to be
 - (A) One phase system
 - (B) Two phase system with soil and air
 - (C) Two phase system with soil and water
 - (D) Three phase system
5. Valid range for S, the degree of saturation of soil in percentage is
 - (A) $S > 0$
 - (B) $S \leq 0$
 - (C) $0 < S < 100$
 - (D) $0 \leq S \leq 100$
6. The submerged density of soil in terms of unit weight of water γ_w , specific gravity G and voids ratio e is given by the expression
 - (A) $\gamma_w (G+1)/1+e$
 - (B) $\gamma_w (G-1)/1-e$
 - (C) $\gamma_w (G+1)/1-e$
 - (D) $\gamma_w (G-1)/1+e$
7. A soil has a bulk density of 22KN/m³ and water content 10%. The dry density of soil is
 - (A) 18.6KN/m³
 - (B) 20.0 KN/m³
 - (C) 22.0 KN/m³
 - (D) 23.2 KN/m³
8. If the voids of a soil mass are full of air only, the soil as termed as
 - (A) Air entrained soil
 - (B) Partially saturated oil
 - (C) dry soil
 - (D) Dehydrated soil
9. Valid range for n, the percentage voids, is
 - (A) $0 < n < 100$
 - (B) $0 \leq n \leq 100$
 - (C) $n > 0$
 - (D) $n \leq 0$
10. Select the correct statement
 - (A) Unit weight of dry soil is greater than unit weight of wet soil
 - (B) For dry soils, dry unit weight is less than total unit weight
 - (C) Unit weight of soil increases due to submergence in water
 - (D) Unit weight of soil decreases due to submergence in water
11. For one cubic metre of brick masonry, the number bricks required are
 - a) 400
 - b) 450
 - c) 500
 - d) 550
12. Which of the following statements is correct?
 - a) Stains used as paints have synthetic pigments
 - b) Stucco paints contain polyvinyl acetate
 - c) The solvent used in distempers is turpentine
 - d) All of the above
13. Linseed oil is rapidly soluble in
 - a) alcohol
 - b) turpentine
 - c) naphtha
 - d) all of these
14. The commonly used solvent in oil paints is
 - a) turpentine
 - b) naphtha
 - c) either a) or b)
 - d) none of these
15. Enamel paint is made by adding
 - a) white lead in varnish
 - b) bitumen in varnish
 - c) white lead in lacquer
 - d) zine white in spirit
16. Rich or fat lime
 - a) slakes rapidly with considerable evolution of heat
 - b) takes very long to develop adequate strength
 - c) has high plasticity
 - d) all of these
17. The commonly used lime for works under water or in damp situations is
 - a) fat lime
 - b) lean lime
 - c) feebly hydraulic lime
 - d) eminently hydraulic lime
18. The fuel generally used for burning limestone is
 - a) coal
 - b) charcoal
 - c) firewood
 - d) any one of these
19. The process of adding the required quantity of water to quick lime in order to convert it into hydrated lime, is known as
 - a) calcination
 - b) hydration
 - c) slaking
 - d) quenching
20. The commonly used lime in white washing is
 - a) quick lime
 - b) fat lime
 - c) lean lime
 - d) hydraulic lime
21. The bars have unit elongations in the ratio of 4:7, then the ratio of module of elasticity of the If all the dimensions of a prismatic bar are doubled. Then the maximum stress produced in it under its own weight will
 - a) Decrease
 - b) Remain unchanged
 - c) Increase to two times
 - d) Increase to four times

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22. The elongation of a conical bar under its own weight is equal to
- That of a prismatic bar of same length
 - One half that of a prismatic bar of same length
 - One third that of a prismatic bar of same length
 - One fourth that of a prismatic bar of same length
23. If a material has identical properties in all directions, it is said to be
- Homogeneous
 - Isotropic
 - Elastic
 - Orthotropic
24. Two bars of different materials are of the same size and are subjected to same tensile force. If two materials is
- 7:4
 - 4:7
 - 4:17
 - 16:49
25. If a composite bar of steel and copper is heated, then the copper bar will be under
- Tension
 - Compression
 - Shear
 - Torsion
26. The branch of science which deals with study of properties of water is called as
- Dynamics
 - Kinetics
 - Hydraulics
 - Pneumatics
27. The viscosity of a gas
- Decrease with increase in temperature
 - Increase with increase in temperature
 - Is independent of temperature
 - Is independent of pressure for very high pressure intensities
28. To determine the modulus of rupture, the size of test specimen used is
- 150*150*500 mm
 - 100*100*700 mm
 - 150*150*700 mm
 - 100*100*500 mm
29. Approximate value of shrinkage strain in concrete, is
- 0.003
 - 0.0003
 - 0.00003
 - 0.03
30. 'Ranging' is the process of
- Fixing ranging rods on the extremities of the area
 - Aligning the chain in a straight line between two extremities
 - Taking offsets from a chain line
 - Chaining over a range of mountains
31. The main difference between an optical square and a prism square is
- Difference in principle of working
 - That optical square is more accurate than prism square
 - That no adjustment is required in a prism square since the angle between the reflecting surface cannot be changed
 - All of the above
32. Two structural members may be temporarily connected by
- welded connection
 - riveted
 - bolted
 - Pin connection
33. The size of rivet is expressed by the
- type of head
 - diameter of shank
 - length of shank
 - none
34. The strength of a riveted lap joint is equal to
- bearing strength
 - shearing strength
 - tearing strength
 - least of (a), (b) and (c)
35. The percentage of total quality of water that is saline is about
- 31%
 - 71%
 - 67%
 - 97%
36. The percentage of total quality of fresh water in the world available in liquid form is about
- 30%
 - 70%
 - 11%
 - 51%
37. The shape of the camber, best suited for cement concrete pavements, is
- straight line
 - parabolic
 - elliptical
 - combination of straight and parabolic
38. For water bound macadam roads in localities of heavy rainfall, the recommended value of camber is
- 1 in 30
 - 1 in 36
 - 1 in 48
 - 1 in 60
39. The per capita consumption of a locality is affected by
- Climatic conditions
 - Quality of water
 - Distribution pressure
- The correct answer is
- Only (I)
 - Both (I) and (II)
 - Both (I) and (III)
 - All (I), (II) and (III)

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40. The hourly variation factor is usually taken as (a) 354 (b) 468 (c) 548 (d) 554
a) 1.5 (b) 1.8
c) 2.0 (d) 2.7
41. Where is Secretariat of SAARC located?
(a) Delhi (b) Kathmandu
(c) Lahore (d) Colombo
42. World Development Report' is an annual publication of
(a) United Nations Development Programme (UNDP)
(b) International Bank for Reconstruction and Development (IBRD)
(c) World Trade Organisation (WTO)
(d) International Monetary Fund (IMF)
43. Which of the following is not a member of SAARC?
(a) Bhutan (b) Bangladesh
(c) Myanmar (d) Maldives
44. The first month of Indian National Calendar is
(a) Phalguna (b) Magha
(c) Jaishtha (d) Chaitra
45. The National Anthem of India (Jana Gana Mana) was first sung in
(a) 1912 (b) 1919
(c) 1929 (d) 1911
46. Which fraction comes next in the sequence
 $\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}$
(a) $\frac{9}{32}$ (b) $\frac{10}{32}$
47. Find the missing term in the series: 3, 20, 63, 144, 275, ?
48. ATTRIBUTION, TTRIBUTIO, RIBUTIO, IBUTI, ?
(a) IBU (b) UT (c) UTI
(d) BUT (e) None of these
49. A, CD, GHI, ?, UVWXY
(a) LMNO (b) MNO
(c) MNOP (d) NOPQ
50. Which term comes next in the series: YEB, WFD, UHG, SKI, ?
(a) QOL (b) QGL (c) TOL (d) QNL

For answer key contact
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- (a) $\frac{9}{32}$
- (b) $\frac{10}{32}$
- (c) $\frac{11}{34}$
- (d) $\frac{12}{35}$

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