CIVIL TEST 15-04-2017

1. Mechanical stabilization of soil is done with the help of
   a) cement
   b) lime
   c) bitumen
   d) proper grading

2. Lime stabilisation is very effective in treating
   a) sandy soils
   b) silty soils
   c) non-plastic soils
   d) plastic clayey soils

3. Phreatic line in an earthen dam is
   a) straight line
   b) parabolic
   c) circular
   d) elliptical

4. The hydrostatic pressure on the phreatic line within a dam section is
   a) less than atmospheric pressure
   b) equal to atmospheric pressure
   c) greater than atmospheric pressure
   d) none of the above

5. The ratio $\dfrac{LiquidLimit - WaterContent}{PlasticityIndex}$

   For a soil mass is called
   a) liquidly index
   b) shrinkage ratio
   c) consistency index
   d) toughness index

6. Contact pressure beneath a rigid footing resting on cohesive soil is
   a) less at edges compared to middle
   b) more at edges compared to middle
   c) uniform throughout
   d) none of the above

7. According to IS specifications, the minimum depths of foundation in sand and clay should be respectively
   a) 600 mm and 700 mm
   b) 800 mm and 900 mm
   c) 1 m and 800 mm
   d) 1 m and 1.2 m

8. Rate of consolidation
   a) increases with decrease in temperature
   b) increases with increase in temperature
   c) is independent of temperature
   d) is unaffected by permeability of soil

9. The unit of the coefficient of consolidation is
   a) cm^2/gm
   b) cm^2/sec
   c) gm/cm^2/sec
   d) gm-cm/sec

10. If the natural water content of soil mass lies between its liquid limit and plastic limit, the soil mass is said to be in
    a) liquid state
    b) plastic state
    c) semi-solid state
    d) solid state

11. The liquid medium used in oil paints is
    a) thinner
    b) alcohol
    c) linseed oil
    d) turpentine

12. The pigment in paints is mixed to give desired
    a) smoothness
    b) colour
    c) appearance
    d) durability

13. The liquid medium used in enamel paints is
    a) thinner
    b) alcohol
    c) turpentine
    d) varnish

14. The metallic oxide used in the form of powder in a paint is called
    a) extender
    b) base
    c) vehicle
    d) drier

15. The attrition test on stones is performed
    a) to determine the crushing strength of the stone
    b) for assessing the resistance of stone to the sun, rain, wind etc
    c) to ascertain the stability of the stone when exposed to acid fumes
    d) for determining the rate of wear of stone due to grinding action under traffic

16. The stone used for the construction of curved or ornamental work should be soft.
    a) Right
    b) Wrong

17. Excess of alumina in the clay
    a) makes the brick brittle and weak
    b) makes the brick crack and wrap on drying
    c) changes colour of the brick from red to yellow
    d) improves impermeability and durability of the brick

18. The standard size of a masonry brick is $20 cm \times 10 cm \times 10 cm$.
    a) Agree
    b) Disagree

19. Slate in the form of tiles is used
    a) for paving
    b) as road metal
    c) as an excellent roof covering material
    d) for the manufacture of cement

20. Granite is mainly composed of
    a) quartz and mica
    b) felspar and mica
    c) quartz and felspar
    d) quartz, felspar

21. Rate of change of bending moment is equal to
    a) Shear force
    b) Deflection
    c) Slope
    d) Rate of loading

22. The diagram is showing the variation of axial load along the span is called
    a) Shear force diagram

b)Bending moment diagram

c)Thrust diagram

d)Influence line diagram

23.The difference in ordinate of the shear curve between any two section is equal to the area under

a)Load curve between these two section

b)Shear curve between these two section

c)Bending moment curve between these two section

d)Load curve between these two section plus concentrated load applied between the section

24.The variation of the bending moment in the portion of a beam carrying linearly varying load

a)Linear

b)Parabolic

c)Cubic

d)Constant

25.The maximum bending moment due to a moving load on a fixed ended beam occurs

a)At a support

b)Always at the mid span

c)Under the load only

d)None of the above

26. In order to obtain the best workability of concrete, the preferred shape of aggregate is

    a) rounded   b) elongated

    c) angular   d) all of the above

27. Bulking of sand is maximum if moisture content is about

    a) 2%   b) 4%

    c) 6 %   d) 10%

28.Correction due to sag is

a)Always additive

b) always subtractive

c) always zero

d) sometime additive or some time subtractive

29.Normal tension is that pull which

a)Is used at the time of standardizing the tape

b)Neutralizes the effect due to pull and sag

c)Makes the correction due to sag equal to zero

d)Makes the correction due to pull equal to zero

30. Efficiency of a riveted joint, having the minimum pitch as per IS: 800, is

    (a) 40%   (b) 50%

    (c) 60%   (d) 70%

31. Bolts are most suitable to carry

    (a) shear   (b) bending

    (c) axial tension   (d) shear and bending

32. The basic perfect frame is a

(a) Triangle   (b) Rectangle

    (c) Square   (d) Hexagon

33. The isohyets is a line joining point having

    (a) Equal evaporation value

    (b) Equal base metric pressure

    (c) Equal height above the MSL

    (d) Equal rainfall depth in given duration

34. Depth area duration curves of precipitation are drawn as

(a) Minimizing envelops through the appropriate data points

(b) Maximizing envelops through the appropriate data points

(c) Best fit means causes through the appropriate data points

(d) Best fit straight line through the appropriate data points

35.Instrument used for measuring humidity is

(a) barometer   (b) thermometer

(c) hygrometer   (d) hydrometer

36. To which group do most of the Indians belong?

(a) Caucasoid   (b) Negroid

(c) Australoid   (d) Mongoloid

37. Which country has the largest cattle population?

(a) USA   (b) Australia

(c) India   (d) Denmark

38. Which country manufactures the maximum number of locomotives?

(a) USA   (b) Russia

(c) India   (d) China

39. Surti is a breed of

(a) cattle   (b) buffalo

(c) sheep   (d) goat

40. The satellite launching centre of Indian Space Research Organisation is in

(a) Thiruvananthanpuram

(b) Bengaluru

(c) Thumba

(d) Sriharikota

41. If

(i) M is the brother of N;

(ii) B is brother of N;

(iii) M is brother of D,

then which of the following statements is definitely true?

(a) N is brother of B.   (b) N is brother of D.

(c) M is brother of B.   (d) D is brother of M.

(e) None of these.

42. Q is the brother of R; P is the sister of Q; T is the brother of S; S is the daughter of R. Who are the cousins of Q?
(a) R and P   (b) P and T   (c) Q and T
(d) S and T   (e) None of these

43. A is father of C and D is son of B. E is brother of A. If C is sister of D, how is B related to E?
(a) Daughter   (b) Brother-in-law
(c) Husband   (d) Sister-in-law

44. D, the son-in-law of B, is the brother-in-law of A who is the brother of C. How is A related to B?
(a) Brother   (b) Son
(c) Father   (d) Data inadequate
 (e) None of these

45. E is the son of A. D is the son of B. E is married to C. C is B's daughter. How is D related to E?
(a) Brother   (b) Uncle
(c) Father-in-law   (d) Brother-in-law
(e) None of these

46. The absolute minimum radius of curve for safe operation for a speed of 110 kmph is
 a)110m   b) 220m
 c)440m   d)577 m

47. The maximum design gradient for vertical profile of a road is
 a)Ruling gradient
 b)Limiting gradient
 c)Exceptional gradient
 d)Minimum gradient

48.Enoscope is used to find
 a)Average speed
 b)Spot speed
 c)Space-mean speed
 d)Time-mean speed

49. The depression of water table in a well due to pumping will be maximum
 a)   At a distance R from the well
 b)   Close to the well
 c)   At a distance R/2 from the well
 d)   None of the above

50. The devices which are installed for drawing water from the sources are called
a) Aquifers   b) Aquiclude
c) filters   d) intakes