

Sample Paper

Civil Engineering

Max. Marks 100

Instructions for Candidates:

Attempt all 50 questions, each question carries 02 marks. There is no negative marking. Please mark the correct answer as A/B/C/D at appropriate place, on the right hand side of the question, in blue or black ink.

- Q. 1 Manometer is used to measure
(A) Atmospheric pressure
(B) Pressure in pipes and channels
(C) Pressure in venturimeter
(D) Difference of pressures between two points in a pipe []
- Q.2 A flow in which the quantity of liquid flowing per second is constant, is called _____ flow
(A) Steady (B) Streamline
(C) Turbulent (D) Unsteady []
- Q.3 Bernoulli's theorem deals with the principle of conservation of
(A) Energy (B) Momentum
(C) Mass (D) Force []
- Q.4 The mass per unit volume of a liquid at a standard temperature and pressure is called
(A) Specific weight (B) Specific gravity
(C) Mass density (D) None of these []
- Q.5 In plan surveying
(A) The curvature of the earth is taken into consideration
(B) The curvature of the earth is not taken into consideration
(C) The survey extends over small areas
(D) The survey extend over large areas []
- Q.6 The main principle of surveying is to work from –

- (A) The part to whole (B) The whole to the part
(C) Higher to lower level (D) Lower to higher level []
- Q.7 Cross hairs in a surveying telescope are fitted
(A) In the objective glass (B) At the centre of the telescope
(C) In front of the eye piece (D) None of the above []
- Q.8 A branch of surveying in which the horizontal and vertical distances of points are obtained by instrumental observations, is known as
(A) Chain surveying (B) Plane table surveying
(C) Tachometric surveying (D) Hydrographic surveying []
- Q.9 Water logging is caused due to
(A) Inadequate drainage facilities (B) Over irrigation
(C) Presence of impermeable strata (D) All of these []
- Q.10 The line joining the points having the same elevation
(A) Contour surface (B) Contour line
(C) Contour interval (D) Contour gradient []
- Q.11 Lining of a canal is necessary
(A) To minimize the seepage losses in canal
(B) To prevent erosion of bed and sides due to high velocities
(C) To increase the discharge in canal section by increasing the velocity
(D) All of the above []
- Q.12 Irrigation canals are generally aligned along
(A) Ridge line (B) Contour line
(C) Valley line (D) Straight line []
- Q.13 The sand is mixed with lime mortar to
(A) Reduce cost (B) Reduce setting time
(C) Improve strength (D) Prevent shrinkage and cracking []
- Q.14 A server which receives discharge of a number of house servers is called a
(A) Common server (B) Trunk server

- (C) Lateral server (D) Branch server []
- Q.15 A good trap should
 (A) Not have self cleaning property
 (B) Restrict the flow of water
 (C) Provide an adequate water seal at all lines.
 (D) All of these []
- Q.16 Garbage is a
 (A) Dry waste (B) Urban waste
 (C) Liquid waste (D) None of these []
- Q.17 A water bound macadam road is an example of
 (A) Rigid pavement (B) Semi rigid pavement
 (C) Flexible pavement (D) None of these []
- Q.18 The purpose of traffic signals is to
 (A) Provide an orderly movement of traffic
 (B) Reduce the frequency of accidents of some special nature
 (C) Control speed
 (D) All of the above []
- Q.19 A camber on a pavement, is provided by
 (A) Straight line method (B) Parabolic method
 (C) Straight & Parabolic at crown (D) Straight line method []
- Q.20 Traffic engineering deals with the
 (A) Traffic operation
 (B) Design and application of control devices
 (C) Analysis of traffic characteristics
 (D) All of these []
- Q.21 In hilly roads, limiting gradient as per IRC, should not be more than -
 (A) 1 in 10 (B) 1 in 20
 (C) 1 in 50 (D) 1 in 80 []
- Q.22 The pavement width of a road depends upon -
 (A) Area through which road passes (B) Type of traffic

- (C) Number of lanes (D) All of the above []
- Q.23 The broad gauge is____wide
 (A) 0.6096 m (B) 0.762 m
 (C) 1.00 m (D) 1.676m []
- Q.24 The sound which continues even after its source is cutoff, is called
 (A) Reverberation (B) Echo
 (C) Intensity of sound (D) Interference []
- Q.25 The ratio of the volume of voids to the total volume of soil mass is called
 (A) Water content ratio (B) Porosity
 (C) Void ratio (D) Degree of saturation []
- Q.26 The hydraulic gradient provided at the downstream called
 (A) Downstream gradient (B) Tail water gradient
 (C) Exit gradient (D) Any one of these []
- Q.27 The lowest part of a structure which transmits the load to the soil is known as
 (A) Super structure (B) Plinth
 (C) Foundation (D) Basement []
- Q.28 A black cotton soil is unsuitable for foundation because if
 (A) Undergoes volumetric changes with change of atmospheric conditions
 (B) Swells excessively when wet
 (C) Shrinks excessively when dry
 (D) All of the above []
- Q.29 The failure of foundation of a building is due to
 (A) Withdrawal of subsoil moisture (B) Unequal settlement of soil
 (C) Lateral escape of supporting material (D) All of these []
- Q.30 The arrangement of supports provided underneath the existing structure without disturbing its stability is known as
 (A) Underpinning (B) Scaffolding
 (C) Shoring (D) Jacking []
- Q.31 A pycnometer is used to determine

- (A) Void ratio (B) Alum
(C) Dry density (D) Density index []
- Q.32 A type of bond in a brick masonry consisting of alternate course of headers and stretchers, is called
(A) English bond (B) Flemish bond
(C) Stretching bond (D) Heading bond []
- Q.33 Maximum pitch in any staircase is
(A) 25° (B) 35°
(C) 40° (D) 45° []
- Q.34 The strength and durability of concrete depends upon
(A) Size of aggregate (B) Grading of aggregates
(C) Moisture contents of aggregates (D) All of these []
- Q.35 Bulking of sand is
(A) Compacting of sand
(B) Segregating sand of particular size
(C) Increase in volume of sand due to presence of moisture upto certain extent
(D) None of these []
- Q.36 The admixtures are added to concrete to
(A) Accelerate the rate of setting and hardening of cement
(B) Make the concrete water proof, acid proof etc.
(C) Reduce the bleeding and segregation of concrete mix
(D) All of above []
- Q.37 Vicats apparatus is used to perform the test of
(A) Fineness (B) Consistency
(C) Soundness (D) Compressive strength []
- Q.38 The bulk density of aggregates depends upon its
(A) Shape (B) Grading
(C) Compaction (D) All of these []
- Q.39 Nominal mix M15 concrete represent of ingredients ratio as
(A) 1:3:6 (B) 1:2:4

- (C) 1:1.5:3 (D) 1:1:2 []
- Q.40 The shear force and bending moment zero at the free end of a cantilever beam, if it carries a
 (A) Point load at the free end
 (B) Point load at the middle of its length
 (C) Uniformly distributed load over the whole length
 (D) None of the above []
- Q.41 In a three hinged, the bending momentbe zero
 (A) At right hinge only (B) At left hinge only
 (C) At right & left hinge only (D) At all the three hinges []
- Q.42 The necessary condition for equilibrium of body is
 (A) $\sum H = 0$ (B) $\sum V = 0$
 (C) $\sum M = 0$ (D) All of the above []
- Q.43 In a slab, the minimum reinforcement provided, is
 (A) 0.10% of its gross sectional area
 (B) 0.12% of its gross sectional area
 (C) 0.15% of its gross sectional area
 (D) None of the above []
- Q.44 The advantage of concrete pile over a timber pile is
 (A) No decay due to termites (B) No restriction on length
 (C) Higher bearing capacity (D) All of the above []
- Q.45 The members which support covering material of a sloping roof, are
 (A) Rafters (B) Purlins
 (C) Battens (D) Struts []
- Q.46 The gross diameter of a rivet is the diameter of
 (A) Cold rivet measured before driving (B) Rivet measured after driving
 (C) Rivet hole (D) None the above []
- Q.47 Normal standard process of applying chlorine to water
 (A) Plain chlorination (B) Pre chlorination
 (C) Post chlorination (D) Double chlorination []
- Q.48 For maximum alkalinity of water, pH value should be
 (A) 0 (B) 10

- (C) 14 (D) <7 []
- Q.49 Disinfection of drinking water is carried out to remove
(A) Turbidity (B) Colour
(C) Odour (D) Bacteria []
- Q.50 The most common coagulant is
(A) Magnesium sulphate (B) Water content
(C) Chlorine (D) Bleaching powder []