



Aldel Education Trust's  
St. John College of Engineering & Management, Palghar  
Department of Civil Engineering



Sample Question paper  
**Part 01**

- 1. The rate of payment is made for 100 cu m (per % cu m) in case of**
  - (A) Half brick wall
  - (B) D.P.C
  - (C) Tile flooring
  - (D) Earth work in excavation
  
- 2. The rate of an item of work depends on**
  - (A) Sinking fund
  - (B) Contractor charges
  - (C) Design of work
  - (D) Depression value
  
- 3. Pick up the correct statement from the following:**
  - (A) The estimated value of the work excluding the amount for contingencies, work charged establishment, tool and plants, is called work value
  - (B) The actual expenditure involved to complete a work including incidental, establishment and travelling charges, is called parent cost
  - (C) The informal acceptance by the administrative department for incurring an expenditure on the work, is called administrative approval
  - (D) The estimated value of the work including the amount for contingencies, work charged establishment, tool and plants, is called work value
  
- 4. The plinth area of a building not includes**
  - (A) Area of the walls at the floor level
  - (B) Internal shaft for sanitary installations up to 2 sq m. in area
  - (C) Lift and wall including landing
  - (D) Area of cantilevered porch
  
- 5. If the formation level of a highway has a uniform gradient for a particular length, and the ground is also having a longitudinal slope, the earthwork may be calculated by**
  - (A) long wall short wall formula
  - (B) centre line method
  - (C) Prismoidal formula
  - (D) Book value formula
  
- 6. While estimating a reinforced cement structure, the omitted cover of concrete is assumed**
  - (A) At the end of reinforcing bar, less than 25 mm or the diameter of the bar
  - (B) In thin slabs, 12 mm minimum or diameter of the bar whichever is less
  - (C) For reinforcing longitudinal bar in a beam 10 mm minimum or diameter of the largest bar which is less
  - (D) For reinforcing longitudinal bar in a beam 25 mm minimum or diameter

of the largest bar which is more

**7. While estimating the quantities for the construction of a building, the correct metric unit is**

- (A) Meter for length
- (B) Cubic metre for area
- (C) Square meters for volume
- (D) Liter for capacity

**8. Pick up the incorrect statement from the following:**

- (A) Lead is the average horizontal straight distance between the borrow pit and the place of spreading soil
- (B) The lead is calculated for each block of the excavated area
- (C) The unit of lead is 50 m for a distance upto 500 m
- (D) The unit of lead is 1 km where the lead exceeds 2 km

**9. The assumption on which the trapezoidal formula for volumes is based, is**

- (A) The middle sections are parallel planes
- (B) The mid-area of a pyramid is equal to the average area of the ends
- (C) The area of the Prismoidal is over-estimated and hence a Prismoidal correction is applied
- (D) The volume of the Prismoidal is over-estimated and hence a Prismoidal correction is applied

**10. In the mid-section formula**

- (A) The mean depth is the average of depths of three consecutive sections
- (B) The area of mid-sections is calculated by using depth of each section
- (C) The volume of the earth work is calculated by multiplying the mid area by the distance between the two original sections
- (D) The volume of the earth work is calculated by multiplying the mid-section area by the distance between the two original sections

**11. Pick up the correct statement regarding the centre line method of estimating a building**

- (A) Product of the centre line of the walls and volume of cross-section of any item, gives total quantity of the item
- (B) The centre line is worked out total for different sections of walls of a building
- (C) The centre line length is increased by half the layer of main wall joining the partition wall
- (D) The centre line is worked out separately for different sections of walls of a building

**12. According to Indian Standards Institute, the actual size of modular bricks is**

- (A) 23 cm × 11.5 cm × 7.5 cm
- (B) 25 cm × 13 cm × 7.5 cm
- (C) 19 cm × 9 cm × 9 cm
- (D) 20 cm × 10 cm × 10 cm

**13. The following item of earth work is measured separately.**

- (A) Setting out of works
- (B) Site clearance
- (C) Steps in deep excavation
- (D) Brickwork in foundation

**14. The measurement is made in square metre in case of**

- (A) Cement concrete in foundation
- (B) R.C.C. structure
- (C) Hollow concrete block wall
- (D) Half Brick wall in superstructure

**15. Cost of fittings and their fixing is specified for the following sanitary fittings**

- (A) Water supply pipe
- (B) Electrification pipes
- (C) Dado
- (D) Water closets

**16. Pick up the correct statement from the following:**

- (A) Pointing is measured in Cu.m
- (B) Plastering is measured in R.m
- (C) Glazing is measured in per unit
- (D) Glazing is measured in sq.m

**17. Pick up the incorrect statement from the following:**

- (A) If the bed level is above N.S.L. the canal is called fully in banking and the berms are designed as  $3d$  where  $d$  is full supply depth of water (F.S.D.)
- (B) Area of canal in cutting =  $BD + Sd^2$  where  $B$  = bed width,  $d$  = depth of cutting and  $S$  is the side slope
- (C) If F.S.L. is above N.S.L the canal is called partly in cutting and partly in filling and berms are designed as  $2d$  where  $d$  is full supply depth
- (D) If the bed level is above N.S.L. the canal is called fully in cutting and the berms are designed as  $2d$  where  $d$  is full supply depth of water (F.S.D.)

**18. Pick up the incorrect statement from the following:**

- (A) No deduction is made for the volume occupied by reinforcement
- (B) No deduction is made for the openings upto 0.1 sq.m
- (C) No deduction is made for volumes occupied by pipes, not exceeding 100 sq.cm in cross-section
- (D) No deduction is made for the openings upto 3 sq.m

**19. In long and short wall method of estimation, the length of long wall is the centre to centre distance between the walls and**

- (A) Breadth of the wall
- (B) Half breadth of wall on each side
- (C) One fourth breadth of wall on each side
- (D) Half wall breadth on one side

**20. The total length of a cranked bar through a distance ( $d$ ) at  $45^\circ$  in case of a beam of effective length  $L$ , is**

- (A)  $L + 0.42d$

- (B)  $L + (2 \times 0.42d)$
- (C)  $L - (0.42d)$
- (D)  $L - (2 \times 0.4d)$

## Part 02

### Q. 2 answer for any four

1. Write the steps to be followed in rate analyze
2. Explain different types of contract
3. Write specification for R.C.C component
4. Explain Belting method of valuation
5. List out tender documents

### Q. 3 answer for any One

1. Calculate quantities of earth work in cutting banking for a portion of road 120m length for given details Formation width of road is 9m formation level at starting point is 171.7m. Road surface can be given a falling gradient of 1 in 110. Side slope in Cutting 1V:1.5H Side slope in Banking 1V:2H Use Mid sectional area method

Chainage	0	20	40	60	80	100	120
R.L Of Ground	171.7	170.9	170.6	171.3	171.80	172.1	172.4

### 2. Prepare Bar bending schedule for beams

