

Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
SEVENTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

**Course Code: CE409**

**Course Name: QUANTITY SURVEYING AND VALUATION**

Max. Marks: 100

Duration: 3 Hours

*(Any missing data may suitably assumed)*

**PART A**

*Answer any two full questions, each carries 10 marks.*

Marks

- 1 a) Briefly explain the detailed specification of Earthwork excavation for foundation in ordinary soil (6)
- b) Write the unit of measurement of (i) Carpentry fittings (ii) Pointing of Brick wall (4)
- 2 Work out the unit rate for P.C.C work in 1:6 Cement sand mortar For 10 m<sup>3</sup> (10)  
(Broken stone 12.5 m<sup>3</sup> @800/ m<sup>3</sup>, river sand 4.2 m<sup>3</sup> @1200/ m<sup>3</sup>. Cement 1000kg @ Rs 8000/ ton, 12.5 mason @ Rs. 750/Each, 10.5 man @ Rs. 650 /Each and 11 woman @ Rs. 550/ Each).
- 3 (a) Calculate the amount required for carriage of 1500no's brick to be brought from a source of 12km away from the site. The vehicle access to the construction site is 60m away. (6)  
CPWD data are as follows for mechanical transport of 1000nos of bricks at 1km@Rs.209.80; 2km@Rs.237.86; 5km@Rs.318.22; beyond 5km upto 10km per km @Rs.23.15; beyond 10km upto 20km per km @ Rs.19.0 ; and for transport of 1000nos of brick by manual labour Rs.216.40/- for first 50meters and Rs.47.12/- for every additional 50metre or part thereof. (All rate given are inclusive of profit & overhead)
- (b) What is mean by overhead charges? Give the percentage adopted for the contractor's profit and overhead in CPWD DSR 2016 rate analysis. (4)

**PART B**

*Answer any two full questions, each carries 25 marks.*

- 4 a) Calculate the quantity of RCC and Prepare a bar bending schedule of the slab of size 330cm x 550cm (internal dimensions) shown in the figure. (All dimensions are in Centimetres) (20)



- (d) Painting for walls, doors(D1-100x210; D2 80x210) and windows (W2-100x150; W3-150x150;KW1-50x100;KW2-100x100); V(90x60).

All dimensions are in centimetres. Any missing data may be suitably assumed.

- 6 a) Prepare a detailed estimate of brick work for a hexagonal building of internal side length 3.00m. wall thickness 40cm. All five sides are provided with window of size 110cm x 150cm and one side with a door of size 120cm x 210cm. Height of the wall 3.50. A all round lintel of 15cm thick was provided. (5)
- b) Estimate the quantity of earthwork for a portion of a district road for 400m length with following data. Formation width 10m side slopes in banking 2:1 , side slope in cutting 1.5:1, downward gradient is 1in200, formation level at chainage 0 in 150.000 (20)

Chainage	0	40	80	120	160	200	240	280	320	360	400
RL	149.0	148.90	148.50	148.80	148.60	148.70	149.20	149.40	149.30	149.0	148.60

### PART C

*Answer any two full questions, each carries 15 marks.*

- 7 a) Discuss about different methods for finding valuation (5)
- b) A building is situated by the side of a main road of Mumbai city on a land of 500 sq m .The built up portion is 20m x 15 m. The building is first class type and provided with water supply, sanitary and electrical fittings, and the age of the building is 30 years. Workout the valuation of the property. (10)
- 8 a) Discuss about the different types of values and the term obsolescence (7)
- b) An old building has been purchased by a person at a cost of Rs. 30,000 excluding the cost of the land. Calculate the amount of annual sinking fund at 4% interest assuming the future life of the building as 20 years and the scrap value of the building as 10% of the cost of purchase. (8)
- 9 a) Discuss the importance of valuation in civil engineering. (7)
- b) A three storied building is standing on a plot of land measuring 800 sq m. The plinth area of each storey is 400 sq m .The is on RCC framed structure and the future life may taken as 70 years , The building fetches a gross rent of Rs 1500 per month , work out the capitalized value of the property on the basis of 6% net yield .For sinking fund 3% compound interest may be assumed . Cost of the land may be taken as Rs 40 per sq m . The other data may assumed suitably (8)

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