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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S8 (S,FE) (FT/WP) Examinations September 2026 (2019 Scheme)

Course Code: CET402
Course Name: QUANTITY SURVEYING AND VALUATION

Max. Marks: 100 Duration: 3 Hours

PART A

Answer any two questions, each carries 10 marks. Marks

1 (a) Mention any five purposes of Estimation (5)

(b) Explain the following terms (5)

i) Centage Charge ii) Prime Cost iii) Provisional Quanties

iv) Bill Of Quantities v)Work charged establishment

2 Workout the unit rate for cement concrete 1:2:4 using (10)

Materials	cum
Stone ballast 40mm gauge	0.88@Rs1000/m^3
sand coarse	0.44 @ Rs 1600/m3
Cement	0.22@Rs 11520/m3
Labour	Nos
Mistri	0.03@Rs1000 /each
Mason	0.2 @Rs 800 /each
Mazdoor	1.2 @Rs 500 /each
Women	2 @Rs 400 /each
Bhisti	0.6 @Rs 300 /each

3 (a) Explain the detailed specification for Earth work excavation in Foundation (5)

(b) Write down the units for measurement (3)

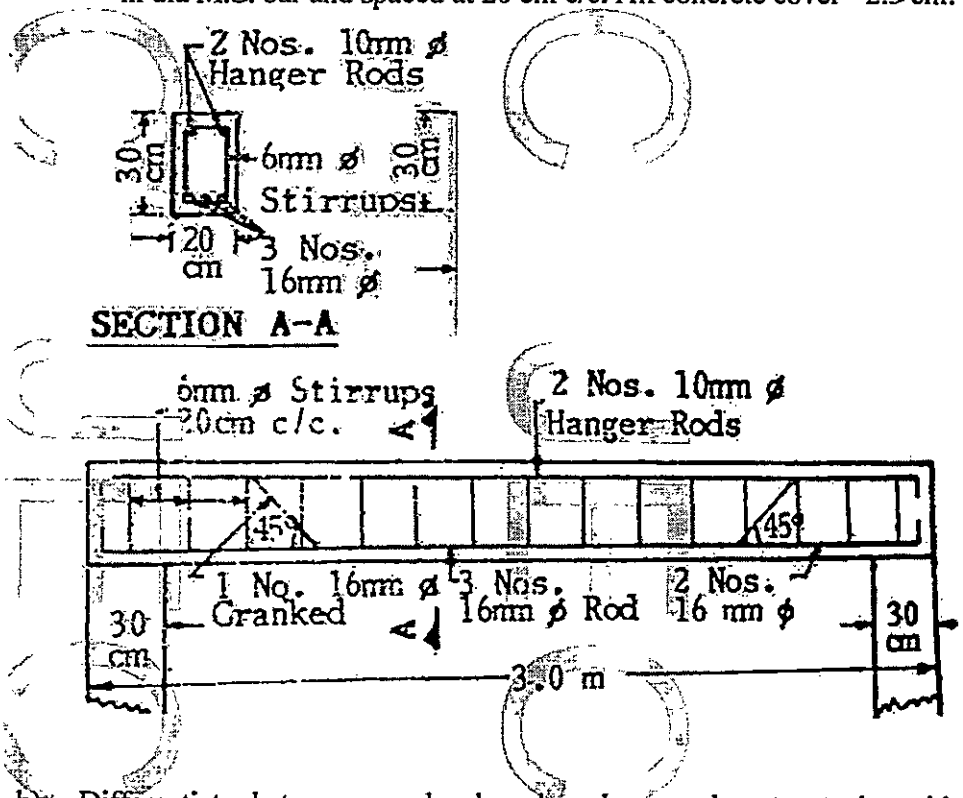
i) Brick work ii) Plastering iii) Skirting

(c) List any two important contract documents of Civil Engineering project (2)

PART B

Answer any two full question , each carries 25 marks.

4 a) Prepare a bar bending schedule and find quantities of RCC and reinforcement of the given RCC rectangular beam (1:2:4) 20 cm wide x 30 cm deep x 3.0 m, overall length is reinforced with tor steel bar 3 nos. 16 mm dia two outer bar straight and hooked at ends and the inner bar bent up at 45° at appropriate places with hooked at ends. At top two outer hanger bar are 10 mm dia straight and hooked at ends. Stirrups are 6 mm in dia M.S. bar and spaced at 20 cm c/c. All concrete cover =2.5 cm. (20)



b) Differentiate between overhead and underground water tanks with their advantages. (5)

5 5 a) The figure shows details of a residential building. Calculate the quantities of the following items. (25)

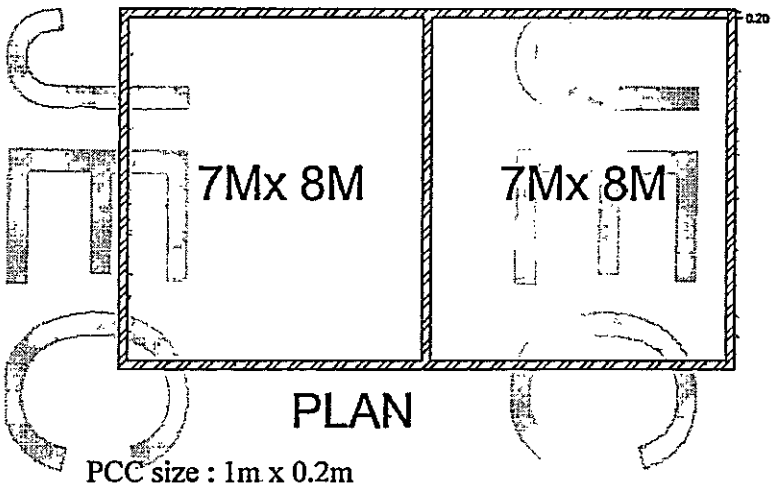
i) Earthwork excavation for foundation

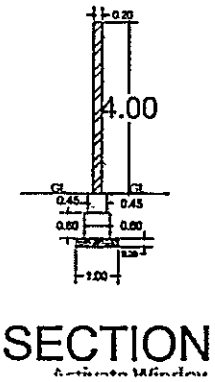
ii) P C C (1:4:8) for foundation

iii) Rubble masonry up to the foundation level

iv) Brick work for superstructure

v) Plastering inside and outside the rooms





PCC size : 1m x 0.2m

R R masonry 1: 0.6m x 0.6m

R R masonry 2: 0.45m x 0..45m

Wall thickness is 0.2 m

6 a) List the components of a domestic water supply system and explain any two. (5)

b) Determine the quantity of earthwork for the portion of a road for 400 m length from the following data. Formation width of the road is 10 m. Side slopes are 2:1 in banking, 1.5:1 in cutting. (20)

Station	Distance (m)	RL of ground	RL of formation
25	1000	51.00	52
26	1040	50.90	Downward gradient
27	1080	50.50	of 1 in 200
28	1120	50.80	
29	1160	50.60	
30	1200	50.70	
31	1240	51.20	
32	1280	51.40	
33	1320	51.30	
34	1360	51.00	
35	1400	50.60	

PART C

Answer any two full question, each carries 15 marks.

7 a) Explain the following (5)

i-)Sinking Fund ii)Valuation iii) Year's Purchase

iv) Capital cost v) Net income

b) A building has been purchased by a person at a cost of Rs. 50,00,000/- excluding the cost of the land. Calculate the amount of annual sinking fund at 4% interest assuming the future life of the building as 75 years and the scrap value of the building as 10% of the cost of purchase. (5)

c) What are Outgoings . List any four Outgoings (5)

8 a) A real estate agent purchases a vacant land of extent 10,0000 m2 at a cost of Rs 300 per m2. He divides the land into building plots of 900m2 area after leaving 25% of the land for roads; parks etc. expense for the development is at Rs 1500 per m2 and technical charges at 8 % of cost price. Work out the selling price of each plot if the agent expects 20% profit of his investment (10)

b) Explain with suitable examples the terms Cost, Price and Value (5)

9 a) A newly constructed building cost was Rs. 55,00,000/-. The life of the building is 80 years. Determine the depreciated cost in the 40th year of life by constant percentage method and Straight line method. The scrap value of the building is 10% of its construction cost. (10)

b) Explain Freehold and Lease Hold property (5)

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