

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)

IV B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH-2023
ESTIMATING, SPECIFICATIONS AND CONTRACTS
(CE Branch)

Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-AAnswer **any three** questions in Part-A (3X12=36M)

Q.No.	Questions	Marks	CO	KL																									
1.	a) Explain about detailed and abstract estimation?	[6M]	1	1																									
	b) Prepare the approximate estimate of a proposal construction of a building with the following data: (a) plinth area = 116m ² (b) cost per unit area = Rs.1800/- per m ² (c) Electrification @ = 7% of building cost (d) Formation of roads and lawns at 5% building cost (e) P.S. charges at 3% building cost	[6M]	1	3																									
2.	a) Prepare the data sheet and calculate the cost of the items given below, using the lead statements of (a) Plastering with C.M (1:5) 20mm thick – 10sq.m 0.21 cu.m C.M(1:5) 0.33 Nos. Mason 1 st class 0.77 Nos. Mason 2 nd class 0.50 Nos. Man mazdoor L.S Sundries	[6M]	2	2																									
	b) Brick masonry with country bricks in C.M (1:8) – 1cu.m 512 Nos Bricks 0.20 cu.m CM (1:6) 0.42 cu.m Mason 1 st class 0.98 Nos Mason 2 nd class L.S Sundries Lead statement of materials <table border="1"> <thead> <tr> <th>S.no</th><th>material</th><th>Rate of source</th><th>Leads in Km</th><th>Conveyance charges per kg per cum</th></tr> <tr> <th></th><th></th><th></th><th>ST CT MT</th><th></th></tr> </thead> <tbody> <tr> <td>1</td><td>Bricks</td><td>Rs. 1600/- 1000nos</td><td>- 4 25</td><td>Upto 20 km Rs.209/- Beyond 20 km Rs.8/- per km</td></tr> <tr> <td>2</td><td>Sand</td><td>Rs.250/- cum</td><td>2 3 10</td><td>For 20 km Rs.160/-</td></tr> <tr> <td>3</td><td>Cement</td><td>Rs. 3400/- per 1MT</td><td>- - -</td><td>At site</td></tr> </tbody> </table> Labour charges: Mason 1 st class Rs.160/- per day Mason 2 nd class Rs.140/- per day Man mazdoor Rs.110/- per day Women mazdoor Rs.110/- per day Mixing charges for C.M Rs. 20/- per cum.	S.no	material	Rate of source	Leads in Km	Conveyance charges per kg per cum				ST CT MT		1	Bricks	Rs. 1600/- 1000nos	- 4 25	Upto 20 km Rs.209/- Beyond 20 km Rs.8/- per km	2	Sand	Rs.250/- cum	2 3 10	For 20 km Rs.160/-	3	Cement	Rs. 3400/- per 1MT	- - -	At site	[6M]	2	4
S.no	material	Rate of source	Leads in Km	Conveyance charges per kg per cum																									
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3.		Calculate the quantities of steel of R.C.C simply supported beam of clear span 3.6m. The walls supporting the beam are 230 mm with full bearing on both sides. Size of the beam is 230mm x 300mm. concrete cover at ends of bars and sides 40mm and that of top and bottom is 30 mm each. The reinforcement details of the beam are given below. 1. Main straight bars at bottom -12mmØ-2nos 2. Main bent up bars – 12mmØ-2nos 3. Top anchor bars – 12mm – 2nos 4. Stirrups are 6mm dia at both in 1m long and including bearing on either side at 150mm centre to centre and middle 1.6 m length at 210 mm centre to centre.	[12M]	3	3
4		Calculate the quantity of earth work for 1km length for a portion of a road in an uniform ground, the heights of banks at the two ends at the two ends being 1m and 1.5m. The formation width is 10m and side slopes 2H:1V. Assume there is no transverse slope. i. Mid sectional area method ii. Mean sectional area method iii. Prismoidal method	[6M]	3	5
5	a)	Explain briefly about the conditions of contracts?	[6M]	4	3
	b)	Explain the procedure to get the contracts?	[6M]	4	1

PART-B**Answer the Question compulsory (1X24=24M)**

Q.No.	Questions	Marks	CO	KL
6.	Find the quantities of the following by center line method: a. Earth work excavation b. Brick masonry c. Plastering with C.M(1:5) with deductions d. Painting e. Flooring by using below image data D1 - panalled door 1 x 2 m D2 – panalled door 0.9 x 2 m D3 – panalled door 0.75 x 2m W1 – Glazed windows 0.9 x 1.35m W2 – panalled window 0.75 x 0.60m W3 – panalled window 0.60 x 0.45m V- plazed ventilator 0.75 x 0.3m	[24M]	5	4


