Code: P18CET20

HALL TICKET NUMBER

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### PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
#### (AUTONOMOUS)
### IV B.TECH I SEMESTER END REGULAR EXAMINATIONS, NOV-2022
### 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-A**

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

| Q.No. | | Questions | Marks | CO | KL |
|---|---|---|---|---|---|
| 1. | a) | Define Estimation and explain the types estimates briefly? | [6M] | 1 | 1 |
| | b) | Prepare an approximate estimate for a residential building with the following data by using plinth area method.<br>(a) plinth area = 100 m²<br>(b)plinth area rate of structural cost = Rs 3200 per m²<br>(c)provide the following as a percentage on the structure cost<br>    1.water supply and sanitation = 12½<br>    2.Electrification = 7½ %<br>    3. Architectural purpose = 1%<br>    4. work charged establishment = 3% | [6M] | 1 | 2 |
| 2. | a) | Prepare a data sheet and calculate the cost of items given below.<br>Flooring with 25mm thick polished Shahabad stone of 1st quality of size not exceeding 400X400mm, laid over set in CM (1:10) 16mm thick base coat-10 sq.m. Materials and labour required for flooring with 25mm thick polished Shahabad stone 10 sq.m.<br>    10.10 sq.m            polished stone<br>    0.12 cu.m            CM (1:10)<br>    ------ cu.m            Sand<br>    ------ cu.m            Cement<br>    0.96 Nos            Mason I Class<br>    2.24Nos            Mason II Class<br>    2.20 Nos            Man mazdoors | [6M] | 2 | 3 |
| | b) | Prepare a data sheet and calculate the cost of items given below?<br>Painting with white cement paint 1st quality two coats to walls after surface is thoroughly cleaned including cost and conveyance of materials to site etc. 10 sq.m<br>**Painting with white cement paint – 10 sq.m**<br>    3.5 Kg            White cement paint<br>    0.15 Nos            Mason I Class<br>    0.35 Nos            Mason II Class<br>    0.50 Nos            Man mazdoors<br>    1.00 Nos            Women mazdoors | [6M] | 2 | 3 |

| S.No | Material | Rate(Rs) | Lead (Km) | Conveyance charges/km |
|---|---|---|---|---|
| 1 | Polished stone | 1650/- per 10 sq.m | 8 | Rs.10/- sq.m |
| 2 | Sand | 250/- cum | 20 | Rs 160/- for 20Km/1 cu.m |
| 3 | Cement | 3400/MT | 4 | 3/bag |
| 4 | White cement paint | 15/kg | - | - |

| | | | | | |
|---|---|---|---|---|---|
| | | **Labour charges:**<br>I Class Mason            Rs   160/-<br>II Class Mason            Rs   140/-<br>Man mazdoors             Rs   110/-<br>Women mazdoors         Rs   110/-<br>Mixing charges of C.M      Rs   20/- cu.m | | | |
| 3. | | A road is proposed to construct in embankment with the following data:<br>Formation width of road = 8m<br>Side slopes in embankment = 2:1<br>The ground levels along the centr3 line of the road are given below: | [12M] | 3 | 3 |

| R.L of the ground in mts: | 98,200 | 97,800 | 98,000 | 98,400 | 98,500 | 98,300 | 98,900 |
|---|---|---|---|---|---|---|---|
| Chainage in mts: | 0 | 30 | 60 | 90 | 120 | 150 | 180 |

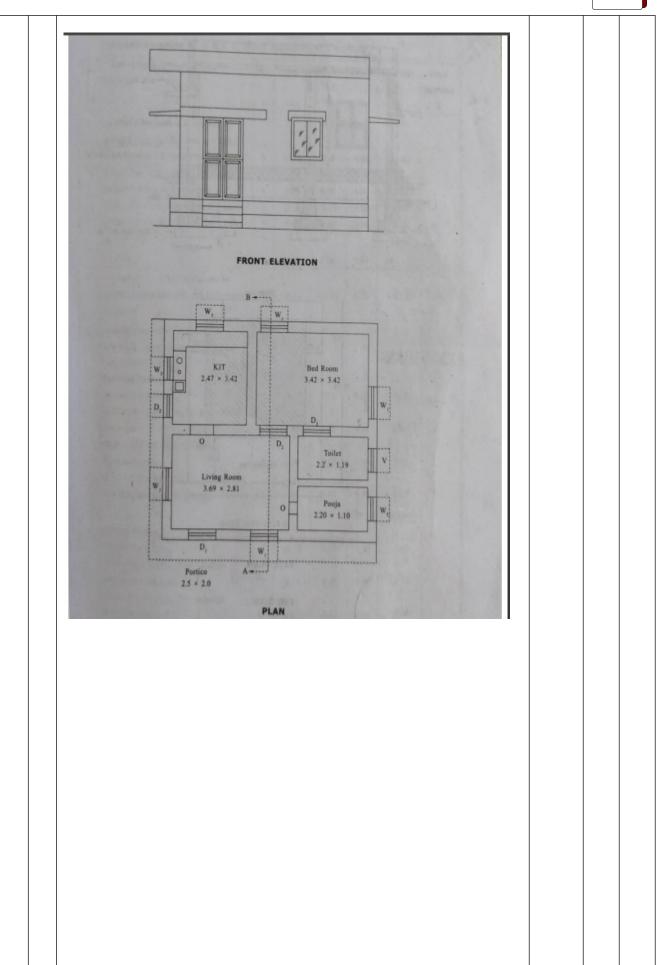| | | | | | |
|---|---|---|---|---|---|
| | | The formation level may be taken as 100,000mts. constant from o mts to 180 mts Chainages. Calculate the quantity of earth work involved by<br>     a)   Trapezoidal formula<br>     b)   Prismoidal formula | | | |
| 4 | a) | Explain about contracts and type of contracts? | [6M] | 4 | 2 |
| | b) | List-out the types of Documents need for the contract? | [6M] | 4 | 1 |
| 5 | a) | Define valuation, write the needs of valuation and what, who valuate the buildings? | [6M] | 4 | 1 |
| | b) | Explain about valuation and types of valuation? | [6M] | 4 | 2 |

## PART-B

### Answer the Question compulsory (1X24=24M)
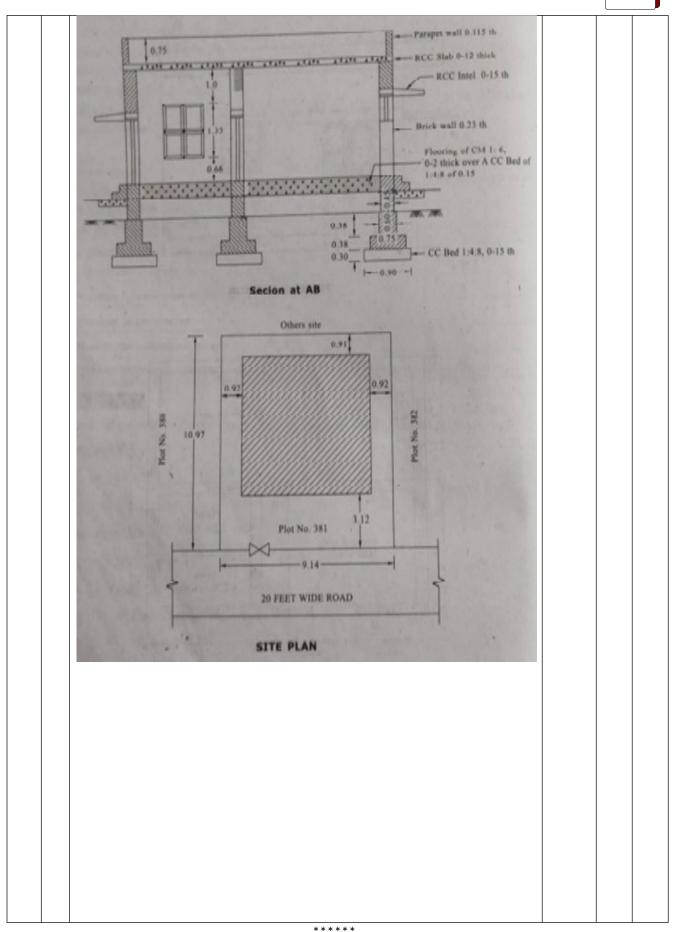
| Q.No. | Questions | Marks | CO | KL |
|---|---|---|---|---|
| 6 | Find the quantities of the following by individual wall Method:<br>     a. Brick masonry<br>      b.Plastering with C.M(1:5) with deductions<br>     c. Painting<br>     d. Flooring<br>      e. RCC for sunshades with an average thickness of 0.07 m<br>by using below image data.<br>D1 - panalled door 1 x 2 m<br>D2 – panalled door 0.9 x 2 m<br>D3 – panalled door 0.75 x 2m<br>W1 – Glazed windows 0.9 x 1.35m<br>W2 – panalled window 0.75 x 0.60m<br>W3 – panalled window 0.60 x 0.45m<br>V- plazed ventilator 0.75 x 0.3m | [24M] | 5 | 4 |

FRONT ELEVATION

PLAN

**Secion at AB**



**SITE PLAN**

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