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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Seventh Semester, B.E. - Civil Engineering

Semester End Examination; Dec - 2019

Quantity Surveying and Estimation

Time: 3 hrs

Max. Marks: 100

Note: i) Unit - I is compulsory

ii) Answer **THREE** full questions by selecting **ONE** full question from Unit - II, Unit - III and Unit-IV

UNIT - I

- 1 Prepare the detailed estimate for items given below by centerline method for the residential building detailed in Fig.1.0
 - a) Earth work in excavation for foundation 40
 - b) Brick masonry in cm 1:6
 - c) RCC 1:1.5:3 in chejja, all-round lintel and roof slab
 - d) Inside plastering wall surface in CM 1:6, 12 mm thick
2. Estimate the quantities of the following items of the work for the manhole shown in Fig. 2.0:
 - a) Earth work excavation for foundation 20
 - b) CC 1:3:6 for foundation
 - c) Wire cut bricks in cm 1:4 for masonry
 - d) RCC 1:1.5:3 slab over the roof

UNIT - II

- 3 a. Prepare an estimate for the portion of a road from chainage 10 to 18 from the data given below. Draw also the longitudinal and typical cross section for cutting and banking. The formation width of the road is 12 m. Side slope 1.5:1 in cutting and 2:1 in banking. The road formation is proposed at uniform falling gradient 1 in 200. Length of one Chainage = 30 m 20

Chainage(30 m)	10	11	12	13	14	15	16	17	18
R.L. of ground	108.60	109.25	109.40	108.85	108.85	107.25	106.80	107.15	107.20

4. Write detail specifications for the following items: 20
 - a) Cement concrete bed 1:4:8 in foundation
 - b) Plastering for brick walls in cm 1:6
 - c) Brunt brick masonry in cm 1:6 for superstructure
 - d) M20 grade concrete for RCC roofing

UNIT - III

5. From the first principle carryout the rate analysis, any four of the following: 20
 - a) CC 1:4:8 for foundation bed
 - b) Size stone masonry in cement mortar 1:6
 - c) 12 mm thick plastering to wall with cm 1:6
 - d) RCC roofing with 1:15:3 proportion
 - e) Fully panelled teakwood doors

6. Write a short note on any four of the following:
- a) Earnest money deposit and Security deposit
 - b) Administrative approval and Technical sanction
 - c) Supplementary and Revised estimate
 - d) Contingencies
 - e) Normal master roll
- 20

UNIT - IV

- 7 a. Define contracts and briefly explain different types of civil engineering contracts. 10
- b. Differentiate between any two of the following:
- i) Gross income and Net income
 - ii) Scrap value and Salvage value
 - iii) Market value and Book value
- 10

