SATHYABAMA UNIVERSITY
(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E - CIVIL
Title of the paper: Estimation, Costing & Valuation
Semester: VII   Max. Marks: 80
Sub.Code: 420702   Time: 3 Hours
Date: 23-03-2009   Session: FN

PART – A   (10 x 2 = 20)
Answer ALL the Questions

1.   Give the units of measurements of the following works.
     (a)   Bending and typing reinforcement.
     (b)   Brick work in partition wall – 10cm thick

2.   Define detailed Specification.

3.   List the essential requirements to prepare a good estimate.

4.   Enumerate the various types of estimates in practice.

5.   What do you understand by standard measurement book?

6.   Define 'security deposit'. Why and when are they collected?

7.   Define the term contract.

8.   What are the essential requirements of a valid contract?

9.   What is mortgage?

10. Define capitalized value.

Answer All the Questions

11. The accompanying sketch with details given refers to a residential building. Estimate in detail the quantities for the following items of work.

      (a)   Earth work exaction in Foundation

      (b)   R.R Masonry in foundation

      (c)   Brick Masonry in basement   (3 x 4 = 12)

(or)

12. For the same building estimate the quantities of the following items.

      (a)   Brick work in super structure in C.M 1:5   (5)

      (b)   R.C.C roof slab using 1:1:5:3, 12cm thick   (2)

      (c)   Plastering on the inside and outside walls.   (5)

13. (a)   Differentiate between plinth area and carpet area.   (4)

      (b)   Prepare detailed data for cement concrete 1:5:10 for foundations – Rate per m^3 (8)

      <u>Materials and labour required</u>

Cement mortar 1:5	-	$1m^3$
Cement	-	288 kg
Sand	-	$1\ m^3$
Mixing Charge	-	$1m^3$
Cement concrete (1:5:10)	-	$10\ m^3$
Broken stone 40mm size	-	$9.7\ m^3$
Cement mortar 1:5	-	$4\ m^3$
Mason II class	-	3 Nos.
Mazdoor I class	-	17 Nos.
Mazdoor II class	-	17 Nos.

      <u>Cost of materials (supplied at site)</u>

Cement	-	Rs.5100 per tonne
Sand	-	Rs.200 per m^3

Broken stone 40mm size   -   Rs.600 per m^3

Cost of labour
Mason II class   -   Rs.170/head/day
Mazdoor I class   -   Rs.130/head/day
Mazdoor II class   -   Rs.110/head/day
Mixing Charge   -   Rs.30 per m^3

(or)

14. (a) Explain briefly the various factors affecting the rate analysis.
(b) Differentiate between 'Analysis of rates' and 'Schedule of rates'.

15. (a) Draft a typical tender notice to be given in local news paper for the construction of an office Building worth Rs.50 lakhs. (7)
(b) Discuss the details to be provided in a tender document. (5)

(or)

16. (a) Describe briefly the procedure of opening tenders and acceptance of tenders.
(b) What is a measurement book? What are the important rules to be observed in recording measurements in the measurement book?

17. (a) What are the different types of contracts? Explain them briefly with their merits and demerits.
(b) List out the duties of Engineers in the Public works department.

(or)

18. (a) What is meant by arbitration? Explain Briefly. (7)
(b) Describe different types of penalties imposed on a contract and why such penalties are imposed. (5)

19. (a) What are the different purposes for which the valuation is undertaken? (4)

    (b) What is meant by depreciation? What are the various methods of determining depreciation? Explain any one briefly. (8)

(or)

20. (a) Differentiate between market value and book value (3)

    (b) The actual expenditure incurred in the construction of a flat roofed residential building having a plinth area of 75m^2 and height 4m is Rs.2 lakhs. It is proposed to construct another similar building in the same locality with a plinth area of 90m^2 and height 3.45m. (9)