B.E. (CE) Part-II 4th Semester Examination, 2010 Planning, Estimation and Valuation (CE-404)

Time: 3 hours Full Marks: 100

<u>Use separate answerscript for each half.</u> <u>Assume data, if required.</u>

FIRST HALF

{Answer anu THREE Questions from the rest. Two marks are reserved for neatness.)

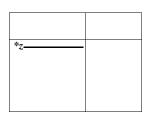
1. Analyse <u>any two</u> of the following items:

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- (i) 12mm thick cement plastering (1:6) on new brick work.
- (ii) Decorative waterproofing cement coating on plastered surface (1st coat and 2nd coat snowcem work).
- (iii) Painting two coats (excluding primer coat) with ready mixed paint for new wood work.
- 2. a) What is specification? Why it is necessary? How would you write a specification?
 - b) Write the specification of <u>any one</u> of the following:
 - (i) Terrazo floor; (ii) 1st class brick work with cement mortar; (iii) cement concrete work. [6+5]
- 3. Estimate the quantities of (i) earthwork in excavation in foundation trench; (ii) brick work upto plinth level; (iii) brick flat soling in foundation; (iv) plain cement concrete in foundation for the construction of two rooms as shown below:

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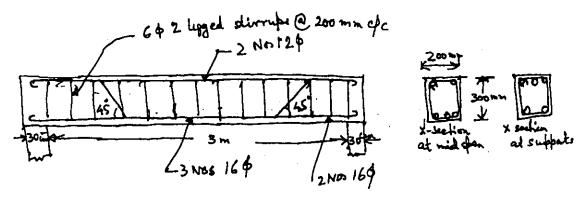
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4. Prepare a schedule of bars for a 200 mm wide and 300mm deep simply supported beam of 3m clear span with 300 mm bearings on each support with 2 Nos. 12€ hanger bars at top and 3No 16 § bars at bottom of the midspan, out of which one is cranked at both ends. 6 mm ♣ stirrups are provided @ 200mm c/c. Assume clear cover of 25 mm. Also estimate the quantities of (i) cement concrete for RCC work and (ii) hire and labour charges for shuttering.



- 5. a) Discuss the purposes to be served by preparation of approximate estimate.
 - b) Discuss the factors to be considered during preparation of detailed estimate.

OR

c) Discuss the differences between revised estimate and supplementary estimate.

15+61

SECOND HALF

JAnswer O.No.6 and anit TWO from the rest)

- 6. a) A four storied residential building will be constructed on a plot measuring 15m x 30 m. The means of access of 7.5 m wide road is abutting 15m side of the plot. The built up of rectangular shape at ground floor is 75% of the ground coverage limit. The first floor is projected 15% more towards north with respect to ground floor. The second floor on the other hand is projected 12% more towards east with respect to ground floor. The top floor is 29% less than ground floor and not projected in any side. Check whether ground coverage of the building is within specified limit. Also determine FAR of the building. For ground coverage assume that upto 200 m² of plot size it is 65%, for 500 m² or more it is 50% and for intermediate size take linear interpolation.
 - b) Distinguish between (with example) any two of the following:
 - (i) Educational building and Institutional building.
 - (ii) Open space and Ground coverage.
 - (iii) Built up area and Super built up area.

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7. Write short note on <u>any five</u> of the following:

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- a) Outgoings,
- b) Land Locked land,
- c) Internal aspects in direct capital comparison,
- d) Belting method,
- e) Sinking fund,
- 0 Obsolesence,
- g) Tandem plot.
- 8. a) Prepare the expression for amount Re. 1 per annum table at single rate.
 - b) Define yield. What are the yields of (i) Freehold residential property,
 - (ii) Freehold industrial property and (iii) Freehold shop property? |5+5|
- 9. Mr. Das leased out a residential flat to Mr. George in Park Street at Kolkata for a term of 25 years from 2000. Mr. George sub-leased the flat to VCO Bank @ Rs. 3,60,000/- per annum (net) for 10 years from 2005. The ground rent paid by Mr. George is Rs. 6,000/- per annum. The full rental of the flat as on today is Rs. 40,000/- per month. Value Mr. George's interest in the property as on 2010? Assume any other relevant data as per norms.