

B.E. (IVth Sem.) (CGPA) Civil Engg. Exam. 2016**QUANTITY SURVEYING & COSTING****Paper - CE - 405****Time Allowed : Three Hours****Maximum Marks : 60****Note :** Question No. 1 is compulsory.**Q.I** Choose correct answers. **10**

(a) How many numbers of Masons are required in cement concrete work in foundation.

(i) 1 (ii) 2

(iii) 3 (iv) 4

(b) How much percentage of contractor profits is consider while rate analysis?

(i) 5% (ii) 8%

(iii) 10% (iv) 15%

(c)

Weight of per-cement bag is :

- (i) 50 kg
- (ii) 30 kg
- (iii) 45 kg
- (iv) 40 kg

(d)

What will be the estimate cost of building of area 1600 sqm, when plinth area rate = Rs. 1200/- sqm and extra for internal installations is 15% of building cost?

- (i) Rs. 1920000
- (ii) Rs. 2178000
- (iii) Rs. 76800
- (iv) Rs. 115200

(e)

How long the bricks are soaked in water before brick work.

- (i) 6 hours
- (ii) 8 hours
- (iii) 12 hours
- (iv) 10 hours

(f)

The plan consist of all details of plumbing service and building, elevation, plan, section of sewage disposal system and private water supply is known as-

- (i) Index plan
- (ii) Key plan
- (iii) Service plan
- (iv) Site plan

(g) How many labours are required for excavation for foundation for per $10m^3$ unit?

(i) 1

(ii) 2

(iii) 3

(iv) 4

(h) Rate of sundries considered per $10m^3$ of work while estimate is-

(i) Rs. 10

(ii) Rs. 15

(iii) Rs. 20

(iv) Rs. 25

(i) The actual amount incurred in making commodity which has some value is-

(i) Price

(ii) Cost

(iii) Value.

(iv) Loss

(j) Gross income is :-

(i) Net income + out going.

(ii) Net income - out going

(iii) Net income only

(iv) Out going income only

- Q.II (a) What is 'rate analysis'? Explain in detail various factors which remain involved in rate of an item? 5
- (b) Explain the following types- 5
- (i) Plinth area rate estimate
- (ii) Revised estimate

OR

- (a) Prepare a preliminary estimate of three storeyed office building having a carpet area of 2000 sqm with following data. It may be assured that 30% of the built up area will be taken up by three corridors, verandahs, lavatories, staircase etc. and 10% of the built up area will be occupied by walls -
- (i) Plinth area rate - Rs. 1000.00 / m^2
- (ii) Extra due to deep foundation at site = 1.1% of building cost
- (iii) Extra for special Architectural work = 0.5% of building cost

- (iv) Extra for sanitary and water supply installation = 6.1% of building cost
- (v) Extra for electrical installation = 12.5% of building cost
- (vi) Contingencies = 2.5%
- (vii) Supervision charge = 8%

(b) Explain the following 3

- (i) Plinth area
- (ii) Carpet area
- (iii) Built up area

Q.III (a) What is DPR? Discuss the content of DPR in detail. 5

(b) What do you understand by 'contingencies' and work charge establishment 5

OR

(a) Write short note on measurement of civil engineering works? 5

(b) What is "current schedules of rate"? 5

- Q.IV** (a) What are various methods of valuation?
Explain any one in detail. 5
- (b) Prepare the rate analysis for 12 mm cement plastering 1:6 unit 1 sqm. 5

OR

- (a) Explain : 5

- (i) Depreciation
(ii) Gross income and net income.

- (b) Prepare rate analysis for half brick work wall (10 cm thick) with 1:3 cement mortar = unit 1 sqm.

- Q.V** (a) Explain long wall shout wall method and centre line method in detail. 8

- (b) Differentiate :
(i) Market value and Book value 2
(ii) Carpet area and plinth area 10

OR

(a) Estimate the quantity of earth work required in a road embankment having 10 m formation width, 2 : 1 side slope in a length of 7 chains, each chain being 30 m long. The central difference of formation and ground is 0.70 m 1.20 m, 2.00 m, 1.00 m, 1.50 m, 2.10 m, 1.80m and 1.50 m. at 0 to 7th chain respectively. Assume the ground is level in direction transverse to centre line.

- Q.VI** (a) Explain the following : 5
- (i) Schedule of bars
 - (ii) Calculation of length of bent up bird hooked bars.
- (b) Discuss the importance and various purpose of estimate. 5

OR

- (a) Differentiate between:- 5
- (i) Salvage value
 - (ii) Revised estimate & supplementary estimate
- (b) Mention the general rules to be adopted for the measurement of various items of work. 5
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