

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.1** 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.11 (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 /m²
 - (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 short 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, 1.80 m 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