

BACHELOR OF ARCHITECTURE (B.Arch.)

Term-End Examination

00521

June, 2019

BAR-053 : ESTIMATING AND COSTING

Time : 3 hours

Maximum Marks : 70

Note : *Question no. 1 is compulsory. Attempt any four questions from the remaining. All questions carry equal marks*

1. (a) In a tender, the proposed cost of construction is ₹ 30 lacs. What may be the amount of earnest money ? $7 \times 2 = 14$
- (i) ₹ 20,000
 - (ii) ₹ 40,000
 - (iii) ₹ 60,000
 - (iv) ₹ 2,00,000
- (b) Which of the following is *not* a type of contract ?
- (i) Lump sum contract
 - (ii) Item rate contract
 - (iii) Cost plus fixed fee contract
 - (iv) Rental contract

- (c) If the quantity in excavation, concrete and brick work up to ground level are 4 m^3 , 1.5 m^3 and 2 m^3 respectively, then the quantity of earthwork in trench filling will be
- (i) 4.0 m^3
 - (ii) 2.0 m^3
 - (iii) 1.5 m^3
 - (iv) 0.5 m^3
- (d) The width and depth of a wall are 0.9 m and 1.2 m respectively. If the centre line of the wall has length equal to 20 m , then the quantity of earthwork in excavation will be
- (i) 21.6 m^3
 - (ii) 18 m^3
 - (iii) 24 m^3
 - (iv) 28.6 m^3
- (e) 1 m^3 cement consists of approximately
- (i) 15 bags
 - (ii) 30 bags
 - (iii) 45 bags
 - (iv) 50 bags
- (f) The fineness modulus of coarse sand used for concrete shall **not** be less than
- (i) 1.5
 - (ii) 2.5
 - (iii) 3.5
 - (iv) 4.5

- (g) Which of the following should *not* be a constituent of cement concrete ?
- (i) Cement
 - (ii) Superplasticizer
 - (iii) Clay
 - (iv) Water
2. (a) Write general specifications for RCC work in brief. 7
- (b) Briefly discuss the utility of providing specifications for various items of work to contractors. 7
3. (a) What is the difference between center line method and separate wall method ? Explain with a suitable example. 7
- (b) Define an Estimate. Discuss the need and importance of approximate and detailed estimates at various stages of a project. 7
4. Write short notes on the following : $4 \times 3 \frac{1}{2} = 14$
- (a) MAS Account
 - (b) Conditions of Tender
 - (c) Types of Travelling Allowance
 - (d) Primavera Software

5. (a) Discuss how bar bending schedule is prepared. 7
- (b) Briefly discuss how adverse site drainage conditions may lead to accidents at a construction site. 7
6. Calculate the quantity of earthwork for a 200 m length portion of a road in a uniform ground, the heights of banks at the two ends being 1.00 m and 1.60 m. The formation width is 8 m and side slopes are 2 : 1. (2 h to 1 v). Assume there is no transverse slope. 14
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