

(ENGLISH)

[TIME ALLOWED—3 HOURS]

(MARKS—100)

CIVIL MATERIALS AND ESTIMATING AND COSTING (THEORY-III)

- Instructions:—*(1) Figure to the right hand side indicate *full* marks.
 (2) Assume suitable data if require.
 (3) All questions are *compulsory*.

Marks

1. (a) Fill in the blanks with correct options (*any five*) :—

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(i) The 'A' Grade brick have crushing strength to

(a) 1 to 2 N/mm² (b) 7 to 14 N/mm² (c) None of this.

(ii) Stone should be dried before the use in structure for the period to month.

(a) 6 to 12 (b) 2 to 3 (c) None of this.

(iii) is carried out to check proper grinding of cement.

(a) Compressive strength (b) Fineness test

(c) Consistency test.

(iv) test commonly used in field to measure the workability of concrete mix.

(a) Slump test (b) soundness test (c) None of this.

(v) Lime is use in the production of

(a) Glass (b) Steel (c) Non of this.

(vi) Good quality of timber should be preferably color.

(a) white (b) light (c) dark.

- (b) Match the pair (*any five*) :—

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' A ' Group**' B ' Group**

(i) Datas for Estimate

(a) Provision of contingencies made in estimate

(ii) General specification

(b) Provision of work charged establishment.

(iii) Detail specification

(c) Provision of tools and plants made in estimate

(iv) 3% to 5%

(d) Each items quantity work out and it is accurate estimate.

(v) 2% to 2½%

(e) approximate cost in short time workout.

(vi) 1% to 1½%

(f) Drawing, specification, rates.

[turn over

- (c) Write *true* or *false* (any *five*) :— 5
- (i) In ordinary cement 62% to 67% lime range is kept.
 - (ii) Limestone = lime + carbon dioxide.
 - (iii) The brick resist fire better than stone.
 - (iv) Terra-cotta means the baked earth.
 - (v) Veneers are thin sheets or slices of wood of superior quality.
 - (vi) The adhesive substance does not become strong immediately after its application.
- (d) State the long form of following (any *five*) :— 5
- (i) M. B. (ii) D.P.C. (iii) R.C.C.
 - (iv) T. & P. (v) D.S.R. (vi) C.C.
 - (vii) L.C. (viii) P.W.D.
2. Answer the following questions (any *four*) :— 16
- (a) What are the qualities of good building stone ?
 - (b) List the market form of timber, explain each.
 - (c) What are the object of painting a surface ?
 - (d) What are the properties of cement concrete ?
 - (e) What are the characteristics of good tile ?
 - (f) Write the short note on seasoning of timber.
3. Answer the following questions :— 8
- (a) State the unit of following :—
 - (i) Excavation (ii) P.C.C. work.
 - (iii) R.C.C. work (iv) flooring
 - (v) Brick work 0.23 M thk. (vi) 10 mm or half brick work
 - (vii) Reinforcement. (viii) White washing.
 - (b) Write the difference between plinth area estimate of cubical rate estimate. 4
 - (c) Explain the principles of units of measurement. 4
4. Answer the following questions (any *four*) :— 16
- (a) Describe the field test of brick.
 - (b) Enlist the composition of good brick earth, explain each.
 - (c) Explain properties and use of cast-iron.
 - (d) State the general properties of glass.
 - (e) Enlist the type of glass, explain each types property and use.
 - (f) What is mean by curing of concrete ? What are its purpose ?

5. Write down the short notes on following (any *four*) :— 16
- (a) Centre line method Estimate. (b) Rate analysis
 - (c) Contingencies (d) Contract document
 - (e) Tender (f) Specification.
6. Answer the following questions (any *four*) :— 16
- (a) Write the difference between cement and lime.
 - (b) What is mean by bulking of sand ?
 - (c) Explain about varnish.
 - (d) What point required in tender notice ?
 - (e) Explain about abstract form and measurement form.
 - (f) Write the difference between earnest money and security deposit.
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