

Secord Papered 17th

ANSWER ALL THE FOLLOWING QUESTIONS

1. Explain in brief the various types of Estimate. ID - 303

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2. Write the detailed specifications of any two major items/works

OR

Write brief specifications of a first class building.

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1. Preliminary Estimate or Approximate or Approximate Estimate

This is required for preliminary estimates to decide financial position and prepare for administrative sanction by the competent authority. It takes the increased and decreased part of material and labour as seen with its labour for building per unit work.

Pitch area
Cost of plaster

Approximate quantity work.

2. Pitch area estimate for building (R.A estimate)

This is prepared on the plot area basis and the rate is taken from the cost of a similar building having similar specifications, height & construction in the same locality. First pitch area is calculated for the covered area by taking and is multiplied by pitch area rate. Pitch area is calculated for the covered area by taking external dimensions of the building at floor level.

3. Cubic rate estimate

This is also preliminary estimate and is prepared on the basis of cubical content of the building. The cube rate being taken from the cost of the similar building having similar specifications and construction in the same locality. It is usually calculated by multiplying length, breadth & height and then multiplying with cube rate.

4. Approximate Quantity Method Estimate

In this total length of the wall is calculated in running meters and this is multiplied estimate per running meter.

5. Detailed Estimate or item rate Estimate

This estimate is an accurate estimate and consist of working out the quantities of item and working out. The dimensions L x B x H are for quantity and SBR/CCR used for rate taking.

(i) Details of measurement and calculation of quantities

(ii) Abstracted Estimated cost.

6. Revised Estimate

This is also detailed estimate but prepared under the following conditions.

- (i) When the original sanctioned estimate is exceed or likely to exceed by more than 5%.
- (ii) When the expenditure on a work exceeds or likely to exceed by the amount of administrative sanction ^{very more than 10%}.
- (iii) When there are material revisions even though the cost may be met from the sanctioned amount.

7. Supplementary Estimate

This is also a detailed estimate and is prepared when additional works are required to supplement the original. The fresh detailed estimate is prepared for additional works or addition to original.

8. Supplementary & Revised estimate

When a certain amount of the estimated cost after retaining work is less than 95% of the original work, that is less than 95%. If the original sanctioned estimate or when there are material revision and change in design when many cause substantial savings in estimate then the amount of the original estimate is revised by the authority. A supplementary and revised estimate is then prepared and given technical sanction in original.

9. Annual or year or maintenance estimate

As a rule estimate is a detailed estimate and is prepared to maintain buildings in proper order and take conditions for building it includes white-washing, glass washing, painting, minor repairs etc.

Ans 2) Distemping :-

The distemper shall be of best quality and colour should be specified. The distemper shall be mixed and prepared and water added as laid down in the instructions. First a coat is made with hot water and stirred thoroughly and is allowed to stand for 4 or 5 minutes. The water is thrown with water to have a thin cream like consistency of all parts and stored all the time while applying. If the surface is rough it should be smoothed with sand paper.

The surface must be perfectly dry before distemping. For new plastered surface, it should be treated with a solution of zinc sulphate (1 kg/l in 200 ml of water) and allowed to dry for 48 hours. It should be repaired with P.O.S. The whole surface shall be sand papered and smoothed.

The two coats shall be specified. It must be stored and applied with broad brushes first horizontally and immediately crossed vertically. Brushing should not be continued for long to avoid brush marks. The second coat shall be applied after the first coat is dried up. Smoothing shall be done with a brush. It should be done in dry weather and not in the hot weather or wet weather.

i) Finishing :-

The third of the paint shall be specified and ready made paint of any colour should be used. For finishing the first coat of may be added. The surface shall be perfectly smooth by rubbing with sand paper of different grades. For top with coarse grade and then finer by fine grade. All holes or joints should be filled with putty or plaster after 4 P.O.S. and smoothed by rubbing with sand paper. For steel work sand and scale be removed by grinding or sanding.

The number of coats shall be as specified. For wallpaper one priming coat and then two coats of paint to be applied. The sand shall be applied evenly and smoothly by carrying out no brush marks should be visible. Each coat must be waiting dry before the next is applied. Before next coat the surface shall be rubbed with a fine sand paper to give smooth and glossy surface. The paint should be stored in container immediately before use. Surface to be washed and cleaned with turpentine at the end of day work.

For old surface it may be removed by washing with soda water or with lime down and removing all old paint and removing the old surface. After removing the old surface it should be dried and rubbed with sand paper and smoothed. For iron work prepared to receive the painting should be done with red oxide paint or aluminium paint.

OR.

Ground specifications of a first class building.

1. Foundation & Floor: It shall be of 1st class brick work in plain mortar on 1:6 cement mortar on 1:4:3 c.c.
2. Plaster Part Course: D.K.C shall be of 2.5 cm (1") thick c.c. 1:1 1/2:3 mixed with one bag of Sincere Portland Cement or other standard water proofing material as specified as per standard with fine coats of bitumen.
3. Superstructure: Superstructure shall be of 1st class brick work with lime mortar on 1:6 cement mortar on 1:6 c.c. finished over floor of concrete shall be of R.C.C.
4. Parting: It shall be of R.C.C. slab with an insulation layer and lime concrete remaining above suspended over R.S. Joists or R.C.C. beam as req. Height of room shall not be less than 3.7 m.
5. Flooring: Damp proofing & driving over floor shall be of concrete (Terra-cotta). Bathrooms & W.C. floors shall be of marble (Terra-cotta). Floors of hall rooms shall be of standard or polished of 2 cm (1") c.c. over 7.5 cm lime concrete. Floors of other shall be of standard and other inside shall be of standard 3 coats. Outside shall be of standard standard standard standard over one coat of white wash.
6. Finishing: Inside & outside shall be of 12 mm cement lime plaster of 1:1:6. Plastering shall be of best quality - inside shall be of standard and other inside shall be of standard 3 coats. Outside shall be of standard standard standard standard over one coat of white wash.
7. D.P.M & window: Chalk line of D.P.M & window shall be of standard grade used. Scaffolding shall be of standard grade for all work. Panelled glazed or painted or glazed or varnished with additional zinc standard standard. All fittings shall be of brass. D.P.M & window shall be varnished or painted or finished with high class enamel paint over one coat of priming. Windows shall be provided with iron gratings or grills.
8. Plastering: Rain water pipes of cast iron or of asbestos cement or P.V.C. shall be provided and finished. Building shall be finished with 1st class Sanitary & water fitting and electrical installation. (in etc) under 7.5 cm thick c.c. 1:1 1/2:3 upon shall be provided as per standard practice.