



9221 (Old)



Total No. of Questions : 18

Total No. of Printed Pages : 5

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ESTIMATING AND COSTING

Paper – II (English Version)

Time : 3 Hours

Max. Marks : 50

SECTION – A

(10×2=20)

- Note :**
- (i) Answer **ALL** the questions.
 - (ii) **Each** question carries **TWO** marks.

1. Write units for the following :
 - (a) Plain cement concrete
 - (b) Brick work. 
2. Detailed Estimate Means.
3. List out the data required for preparation of an Estimate.
4. If the number of Risers = 10, find the number of Treads.
5. Define specification.
6. Write a tabular form for an abstract estimate.
7. What is lead and lift ?
8. List out the various types of engineering works involving earth work.
9. Define Banking and Cutting. 
10. List the various types of roads.

SECTION – B

(5×6=30)

- Note :**
- (i) Answer **ANY FIVE** questions.
 - (ii) **Each** question carries **SIX** marks.

11. Describe various types of preliminary estimates.
12. Explain the long wall and short wall method.



13. Calculate the quantities of the following items of single room building Fig. 1 shown below by using long wall and short wall method.

(a) Earth work excavation. 

(b) C. C. Bed in foundation.

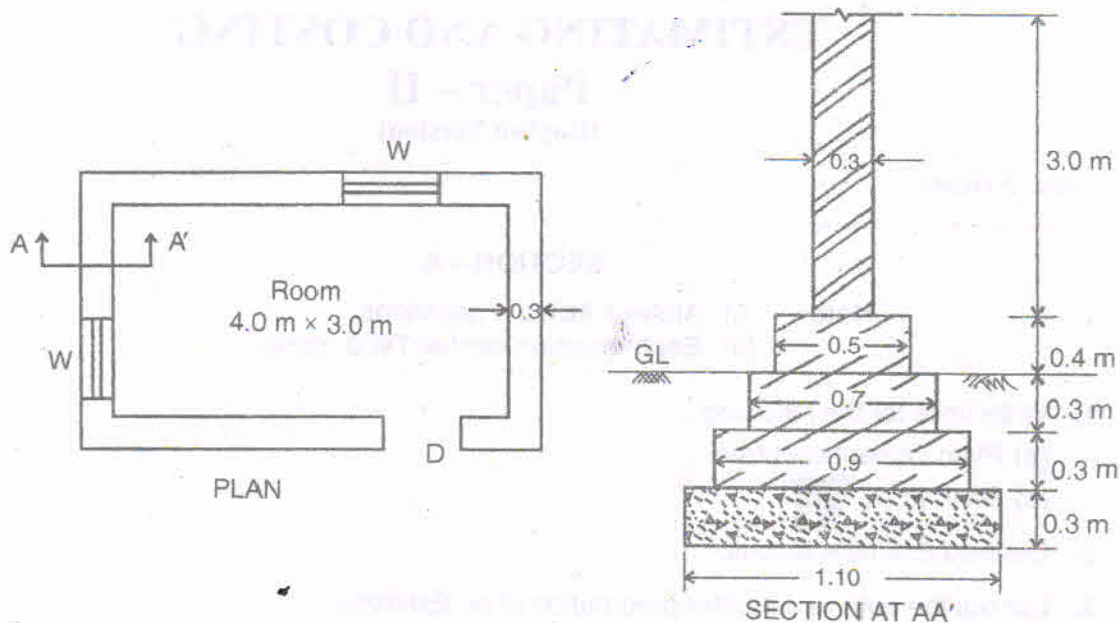


Fig. 1

Specifications :

D : 1.2 m x 2.1 m

W : 2.0 m x 1.2 m

14. Calculate the quantities of the following items of single room building by using centre line method of Fig. 1 shown above.

(a) R. R. Masonry in foundation. 

(b) Brick work in super structure. 

15. Write the specifications for earth work in Excavation.

16. Find the unit rate for plain cement concrete (1 : 6 : 12) for 1 m³ in foundation.

Cost of material :

Cement — Rs. 350/bag

Sand — Rs. 600/m³

Coarse aggregates — Rs. 800/m³

Cost of labour :

Head Mason — 1 No. — Rs. 800/day

Mason — 2 No. — Rs. 650/day

Men Mazdoor — 6 No. — Rs. 500/day

Women Mazdoor — 4 No. — Rs. 400/day

Waterman — 1 No. — Rs. 400/day



SECTION - B

(5×6=30)

- సూచనలు : (i) ఏదైనా ఐదు ప్రశ్నలకు సమాధానములు వ్రాయుము.
(ii) ప్రతి ప్రశ్నకు ఆరు మార్కులు.

11. వివిధ రకములైన Preliminary estimates లను వివరింపుము.
12. Long wall మరియు short wall పద్ధతిని వివరింపుము.
13. ఈ క్రింది పటము Fig. 1 లో చూపిన single room building యొక్క item ల quantity లను long wall మరియు short wall పద్ధతిలో కనుగొనుము.
(a) Earth work excavation.
(b) C. C. Bed in foundation.

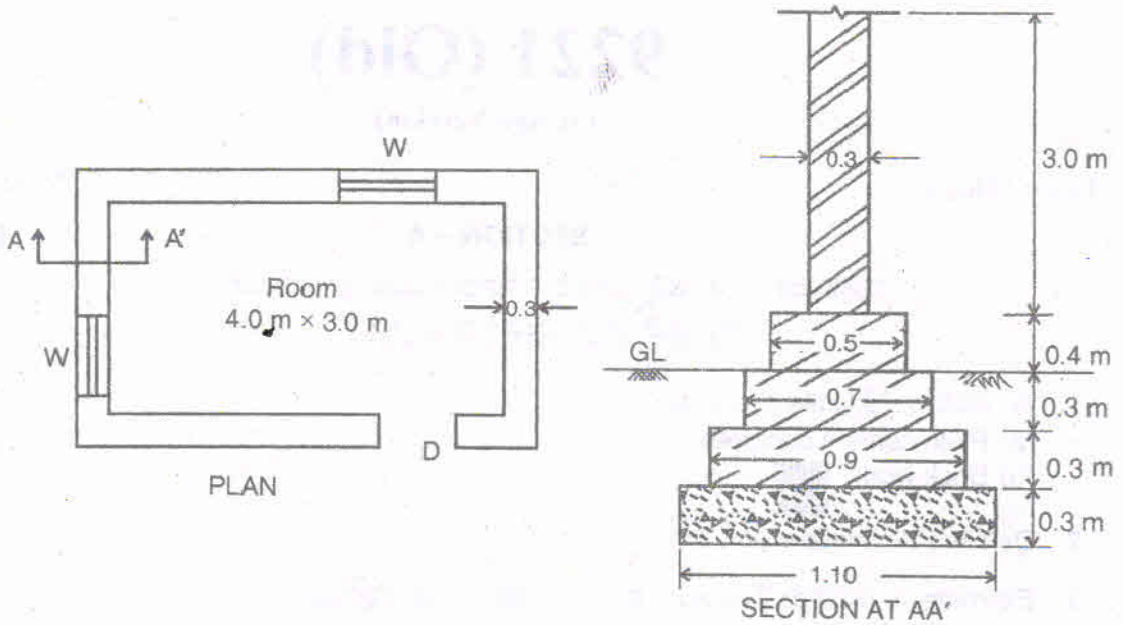


Fig. 1

Specifications :

D : 1.2 m x 2.1 m

W : 2.0 m x 1.2 m

14. పై పటము Fig. 1 లో చూపిన Single room building యొక్క item ల Quantity లను centre line పద్ధతి లో కనుగొనుము.
(a) R. R. Masonry in foundation (b) Brick work in super structure.
15. Earth work in Excavation యొక్క specifications ను వ్రాయుము.



17. Calculate the capacity of the reservoir from the following data. Take 101 as the bottom level and 107 as the top level.

Contour	Area
101	1,000 m ²
102	8,000 m ²
103	12,000 m ²
104	20,000 m ²
105	34,000 m ²
106	42,000 m ²
107	60,000 m ²

18. Prepare a detailed estimate for one kilometer length cement concrete road 4.0 m wide and 15 cm thick. It is laid over rammed earth 6.0 m wide and 20 cm thick.

9221 (Old)

(Telugu Version)

Time : 3 Hours

Max. Marks : 50

SECTION – A

(10×2=20)

- సూచనలు : (i) అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.
(ii) ప్రతి ప్రశ్నకు రెండు మార్కులు.

- ఈ క్రింది వాటికి Units వ్రాయుము :
(a) Plain cement concrete
(b) Brick work. 
- Detailed Estimate అనగానేమి ?
- Estimate ను తయారు చేయుటకు కావలసిన Data ను తెలుపుము.
- Risers సంఖ్య 10, అయిన Treads సంఖ్యను కనుగొనుము.
- Specification ను నిర్వచింపుము.
- Abstract estimate యొక్క Tabular form వ్రాయుము.
- Lead మరియు Lift అనగానేమి ?
- Earth work లో అవసరమైన వివిధ engineering works తెలుపుము.
- Banking మరియు Cutting ను నిర్వచింపుము.
- వివిధ రకాల Road లను తెలుపుము. 



16. Plain cement concrete (1 : 6 : 12) ని foundation లో వేయుటకు ఎంత rate అగును ? 1 m³ కు

ఈ క్రింది data ను ఉపయోగించి కనుగొనండి.



Cost of material :

- Cement – Rs. 350/bag
- Sand – Rs. 600/m³
- Coarse aggregates – Rs. 800/m³

Cost of labour :

- Head Mason – 1 No. – Rs. 800/day
- Mason – 2 No. – Rs. 650/day
- Men Mazdoor – 6 No. – Rs. 500/day
- Women Mazdoor – 4 No. – Rs. 400/day
- Waterman – 1 No. – Rs. 400/day

17. ఈ క్రింద ఇవ్వబడిన data తో Reservoir యొక్క capacity ని లెక్కకట్టుము. 101 ని bottom level గాను 107 ను top level గాను తీసుకొనుము.

Contour	Area
101	1,000 m ²
102	8,000 m ²
103	12,000 m ²
104	20,000 m ²
105	34,000 m ²
106	42,000 m ²
107	60,000 m ²



18. ఒక్క kilometer పొడవు cement concrete road కు estimate ను తయారు చేయుము. Cement concrete road 4.0 m wide మరియు 15 cm thick. Rammed earth 6.0 m wide మరియు 20 cm thick మీద cement concrete road వేయబడినది.



1. The first step in the process of creating a new product is to identify a market need.



- The first step in the process of creating a new product is to identify a market need.
- The second step is to develop a concept for the product.
- The third step is to develop a business plan for the product.
- The fourth step is to develop a prototype of the product.
- The fifth step is to develop a marketing plan for the product.
- The sixth step is to develop a distribution plan for the product.
- The seventh step is to develop a financial plan for the product.
- The eighth step is to develop a legal plan for the product.
- The ninth step is to develop a human resources plan for the product.
- The tenth step is to develop an operations plan for the product.

2. The second step in the process of creating a new product is to develop a concept for the product.



- The first step in the process of creating a new product is to identify a market need.
- The second step is to develop a concept for the product.
- The third step is to develop a business plan for the product.
- The fourth step is to develop a prototype of the product.
- The fifth step is to develop a marketing plan for the product.
- The sixth step is to develop a distribution plan for the product.
- The seventh step is to develop a financial plan for the product.
- The eighth step is to develop a legal plan for the product.
- The ninth step is to develop a human resources plan for the product.
- The tenth step is to develop an operations plan for the product.

3. The third step in the process of creating a new product is to develop a business plan for the product.



The business plan is a document that outlines the financial and operational aspects of the product.