

Name of Course : XII Construction Technology (HA, HB, HC)

Paper I Concrete Technology (HA)

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Sr. No.	Unit	Objectives									Total Marks	Total Marks with option
		Knowledge			Understanding			Application				
		O	SA	LA	O	SA	LA	O	SA	LA		
1	Introduction	1(1)			1(1)	3(1)		1(1)			4	6
2	Ingredients of concrete	1(1)			1(1)	3(1)		1(1)			4	6
3	Properties of concrete				1(1)		4(1)	1(1)			4	6
4	Water cement Ratio	1(1)						1(1)		4(1)	4	6
5	Workability		3(1)			3(1)			3(1)		6	9
6	Concrete mix Design			4(1)			4(1)			4(1)	8	12
7	Admixtures		3(1)			3(1)			3(1)		6	9
8	Special concretes	1(1)		4(1)	1(1)	3(1)					6	9
9	Conducting operations	1(1)	3(1)		1(1)		6(1)			4(1)	10	15
10	Reinforcement in concrete					3(1)			3(1)	6(1)	8	12
11	Formwork	1(1)			1(1)		4(1)			6(1)	8	12
12	R C C Structural members	1(1)			1(1)		4(1)			6(1)	8	12
13	Scaffolding				1(1)			1(1)		4(1)	4	6
	No. of Questions	7	3	2	8	6	5	5	3	7		
	Total Marks	7	9	8	8	18	22	5	9	34		
	Marks with options	24			48			48			80	120

Figure in the brackets indicate number of Questions. Figure outside the brackets indicate marks.

Name of Course : XII Construction Technology (HA, HB, HC)
Paper II Estimates And Contracts (HB)
Blue Print

Sr. No.	Unit	Objectives									Total Marks	Total Marks with option
		Knowledge			Understanding			Application				
		O	SA	LA	O	SA	LA	O	SA	LA		
1	Introduction to Estimates	1(1)			1(2)						2	3
2	Types of Estimates	1(1)				3(1)					2	4
3	Measurement of Building Work	1(1)			1(1)			1(1)			2	3
4	Detailed Estimates				1(2)			1(1)			2	3
5	Specifications						4(1)		3(1)		4	7
6	Quantities of materials			4(1)		3(1)	4(1)				8	11
7	Rate Analysis						4(1)			4(2)	8	12
8	Taking out Quantities	1(1)					6(1)	1(1)	3(1)	6(1)	12	17
9	Construction planning		3(1)			3(1)			3(1)		6	9
10	Construction Labour	1(1)					4(1)	1(1)	3(1)		6	9
11	Quality control	1(1)	3(1)				4(1)	1(1)			6	9
12	P W D Works				1(1)	3(1)		1(1)		4(1)	6	9
13	Contracts		3(1)			3(1)				6(1)	8	12
14	Tender	1(1)		4(1)	1(1)					6(1)	8	12
	No. of Questions	7	3	2	7	5	6	6	4	6		
	Total Marks	7	9	8	7	15	26	6	12	30		
	Marks with options	24			48			48			80	120

Figure in the brackets indicate number of Questions. Figure outside the brackets indicate marks.

Name of Course : XII Construction Technology (HA, HB, HC)
Paper III Surveying (HC)
Blue Print

Sr. No.	Unit	Objectives									Total Marks	Total Marks with option
		Knowledge			Understanding			Application				
		O	SA	LA	O	SA	LA	O	SA	LA		
1	Fundamentals of Surveying	1(2)			1(2)	3(1)	4(1)	1(1)			8	12
2	Chain surveying	1(1)		4(1)		3(1)		1(1)		6(1)	10	15
3	Compass surveying	1(1)	3(1)		1(1)		4(1)				6	9
4	Plane table surveying	1(1)				3(1)		1(1)		4(1)	6	9
5	Levelling				1(1)	3(1)		1(1)		4(1)	6	9
6	Contouring				1(1)			1(1)	3(1)	4(1)	6	9
7	Auto Level & Digital Level				1(1)	3(1)		1(1)	3(1)	4(1)	8	12
8	Theodolite Surveying				1(1)	3(1)	6(1)	1(1)		4(1)	10	15
9	Total Stations	1(1)	3(1)	4(2)		3(1)	6(1)		3(1)	6(1)	20	30
	No. of Questions	6	2	3	7	7	4	7	3	7		
	Total Marks	6	6	12	7	21	20	7	9	32		
	Marks with options	24			48			48			80	120

Figure in the brackets indicate number of Questions. Figure outside the brackets indicate marks.

Name of Course : XII Construction Technology (HA, HB, HC)
Paper I Concrete Technology (HA)

Time: 3.00 Hrs.

80 Marks

A) Unitwise Distribution of Marks:

Sr. No.	Unit	Marks	Marks with Option
1.	Introduction	4	6
2.	Ingredients of concrete	4	6
3.	Properties of concrete	4	6
4.	Water cement Ratio	4	6
5.	Workability	6	9
6.	Concrete mix Design	8	12
7.	Admixtures	6	9
8.	Special concretes	6	9
9.	Conducting operations	10	15
10.	Reinforcement in Concrete	8	12
11.	Formwork	8	12
12.	R C C Structural members	8	12
13.	Scaffolding	4	6
Total:		80	120

B) Objectwise Distribution of Marks:

Sr. No.	Objective	Marks	Percentage	Marks with option
1	Knowledge	24	30%	24
2	Understandin g	28	35%	48
3	Application	28	35%	48
Total:		80	100	120

C) Questionwise Distribution of Marks:

Sr. No.	Objective	Marks	Percentage	Marks with option
1	Objective	20	25%	20
2	Short Answer	24	30%	36
3	Long Answer	36	45%	64
Total:		80	100%	120

Name of Course : XII Construction Technology (HA, HB, HC)
Paper II Estimates and Contract (HB)

Time: 3.00 Hrs.

80 Marks

A) Unitwise Distribution of Marks:

Sr. No.	Unit	Marks	Marks with Option
1.	Introduction	2	3
2.	Type of Estimate	2	4
3.	Measurement of Building works.	2	3
4.	Detailed Estimates	2	3
5.	Specifications	4	7
6.	Quantities of Materials	8	11
7.	Rate Analysis	8	12
8.	Taking out Quantities.	12	17
9.	Construction Planning.	6	9
10.	Construction Labour.	6	9
11.	Quality Control.	6	9
12.	P.W.D.Works.	6	9
13.	Contracts.	8	12
14.	Tender.	8	12
Total:		80	120

B) Objectwise Distribution of Marks:

Sr. No.	Objective	Marks	Percentage	Marks with option
1	Knowledge	24	30%	24
2	Understanding	28	35%	48
3	Application	28	35%	48
Total:		80	100	120

C) Questionwise Distribution of Marks:

Sr. No.	Objective	Marks	Percentage	Marks with option
1	Objective	20	25%	20
2	Short Answer	24	30%	36
3	Long Answer	36	45%	64
Total:		80	100%	120

Name of Course : XII Construction Technology (HA, HB, HC)
Paper III Surveying (HC)

Time: 3.00 Hrs.

80 Marks

A) Unitwise Distribution of Marks:

Sr. No.	Unit	Marks	Marks with Option
1.	Fundamental of Surveying	8	12
2.	Chain Surveying	10	15
3.	Compass Surveying	6	9
4.	Plane Table Surveying	6	9
5.	Levelling	6	9
6.	Contouring	6	9
7.	Auto Level and Digital Level	8	12
8.	Theodolite Surveying	10	15
9.	Total Stations	20	30
Total		80	120

B) Objectwise Distribution of Marks:

Sr. No.	Objective	Marks	Percentage	Marks with option
1	Knowledge	24	30%	24
2	Understanding	28	35%	48
3	Application	28	35%	48
Total		80	100	120

C) Questionwise Distribution of Marks:

Sr. No.	Objective	Marks	Percentage	Marks with option
1	Objective	20	25%	20
2	Short Answer	24	30%	36
3	Long Answer	36	45%	64
Total		80	100%	120

Question Paper Pattern for Theory Paper
Construction Technology (HA, HB, HC)
Std. XI & XII

Time :- 3 hours

Max. Marks :- 80

Q.1 A) Select the correct alternative and rewrite the following sentences (05 Marks)

- 1) -----
a) ---- b) ---- c)----- d)-----
- 2) -----
a) ---- b) ---- c)----- d)-----
- 3) -----
a) ---- b) ---- c)----- d)-----
- 4) -----
a) ---- b) ---- c)----- d)-----
- 5) -----
a) ---- b) ---- c)----- d)-----

Q.1 B) Match the following :- (5 Marks)

- | Group A | Group B |
|----------|----------|
| 1) ----- | 1) ----- |
| 2) ----- | 2) ----- |
| 3) ----- | 3) ----- |
| 4) ----- | 4) ----- |
| 5) ----- | 5) ----- |

Q.1 C) State True or False (05 Marks)

- 1) -----
- 2) -----
- 3) -----
- 4) -----
- 5) -----

Q.1 D) Answer the following questions in one sentence (05 Marks)

- 1) -----
- 2) -----
- 3) -----
- 4) -----
- 5) -----

Q.2 Attempt any four of the following (12 Marks)

- a) -----
- b) -----
- c) -----
- d) -----
- e) -----
- f) -----

Q.3 Attempt any four of the following

(12 Marks)

- a) -----
- b) -----
- c) -----
- d) -----
- e) -----
- f) -----

Q.4 Attempt any three of the following

(12 Marks)

- a) -----
- b) -----
- c) -----
- d) -----
- e) -----

Q.5 Attempt any three of the following

(12 Marks)

- a) -----
- b) -----
- c) -----
- d) -----
- e) -----

Q.6 Attempt any three of the following

(12 Marks)

- a) -----
- b) -----
- c) -----
- d) -----

Marks Distribution:

Q. No.	Marks	Marks with option
1	20	20
2	12	18
3	12	18
4	12	20
5	12	20
6	12	24
	80	120

A) Answer the following (any two) :- (4 mark each) 8 marks (12)

- a) -----
- b) -----
- c) -----

B) Answer any one :- (4 mark each) 4 marks (8)

- a) -----
- b) -----

1. A) Solve (any one) long answer :- (6 mark each) 6 marks (12)

- a) -----
- b) -----

B) Long Answer (any one) :- (6 mark each) 6 marks (12)

- a) -----
- b) -----

Objective type 12 marks 15%
Short answer 32 marks 40%
Long answers 36 marks 45%
