

1	Name of Syllabus	CERTIFICATE COURSE FOR MASON (304101)																																								
2	Max.Nos of Student	25 Students																																								
3	Duration	6 Month																																								
4	Type	Part Time																																								
5	Nos Of Days / Week	6 Days																																								
6	Nos Of Hours /Days	4 Hrs																																								
7	Space Required	Workshop = 300 Sq feet <u>Class Room = 200 Sq feet</u> TOTAL = 500 Sq feet																																								
8	Entry Qualification	VII th Pass																																								
9	Objective Of Syllabus/ introduction	Be aware of different kinds of bond To acquire skills in plastering and masonry work and concreting etc.																																								
10	Employment Opportunity	Can work as a mason with contractor Can work as a contractor for petty labour work																																								
11	Teacher’s Qualification	Certificate in mason from ITI (1 Yr.) / HSC Vocational in Related field																																								
12	Training System	<table><tr><th colspan="6">Training System Per Week</th></tr><tr><td>Theory</td><td>Practical</td><td colspan="4">Total</td></tr><tr><td>6 Hours</td><td>18 Hours</td><td colspan="4">24 Hours</td></tr></table>						Training System Per Week						Theory	Practical	Total				6 Hours	18 Hours	24 Hours																				
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13	Exam. System	<table><tr><th>Sr. No.</th><th>Paper Code</th><th>Name of Subject</th><th>TH/PR</th><th>Hours</th><th>Max. Marks</th><th>Min. Marks</th></tr><tr><td>1</td><td>30410111</td><td>Building Materials</td><td>TH-I</td><td>3 hrs</td><td>100</td><td>35</td></tr><tr><td>2</td><td>30410121</td><td>Methods of Construction</td><td>PR-I</td><td>3 hrs</td><td>100</td><td>50</td></tr><tr><td>3</td><td>30410122</td><td>Skills of Masonary</td><td>PR-II</td><td>6 hrs</td><td>200</td><td>100</td></tr><tr><td></td><td></td><td>Total</td><td></td><td></td><td>400</td><td>185</td></tr></table>						Sr. No.	Paper Code	Name of Subject	TH/PR	Hours	Max. Marks	Min. Marks	1	30410111	Building Materials	TH-I	3 hrs	100	35	2	30410121	Methods of Construction	PR-I	3 hrs	100	50	3	30410122	Skills of Masonary	PR-II	6 hrs	200	100			Total			400	185
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COURSE CONTENT THEORY – I - Building Materials

- 1. Introduction**
- 2. Introduction to the Trade**
- 3. Introduction to Trade Glossary**
- 4. Introduction to Tools & Equipment**
 - Hand Tools of the Trade
 - a. Learning to use the Basic Tools
 - b. Learning to care of Basic Tools
 - c. Basic related equipments of the Trade
 - d. Learning to use and care related equipments
- 5. Documentation**
 - **Basic Working Drawings introduction**
 - 5.1. Interpreting Site Drawings & Details
 - 5.2. Taking of dimensions from scale drawings
 - 5.3. Determining the accuracy of dimensions given on scale Drawings
 - 5.4. Sketches-** Interpreting line sketches and details
 - 5.5. Information Sheets-** Interpreting handouts Estimation of Basic Tools & Materials
 - 5.6. Record Sheet-** Interpreting productivity chart, Interpreting Store request, Reporting damages & Wastage
- 6. Basic Materials**
 - 6.1 Mortars-** Introduction
 - 6.2 Concrete-** Coarse aggregates, Fine aggregates, Cement, Water
 - 6.3 Bricks-**Introduction to different types and structures, Selection of Bricks, Understanding uses, Cutting bricks in different methods / sizes
 - 6.4 Sills & Lintels-**In-situ concrete lintels casting, Bedding pre-cast sills and lintels
 - 6.5 Rubble-** Introduction to Random Rubble masonry (Un coursed)
- 7. Testing**
 - 7.1 Water Test
 - 7.2 Material Test
 - 7.3 Setting Out
 - 7.4 Leveling
 - 7.5 Basic Marking Out
- 8. Safety**
 - 8.1 Health & Safety
 - 8.2 Eye protection
 - 8.3 Tidiness on site
 - 8.4 Personal safety
 - 8.5 Moving
 - 8.5 Lifting
 - 8.6 Carrying
 - 8.7 Working at Heights (Ladders / scaffold)

PRACTICAL – I - Methods of Construction

9.1 Mixing Mortar

- 9.1.1 Proportion Mortar ingredients for specific mixes
- 9.1.2 Type of Sand, Cement, Lime, Water Mixing procedures
- 9.1.3 Mix mortar manually with hand tools and equipment
- 9.1.4 Mix mortar with a power mixer
- 9.1.5 Lifting, carrying and moving
- 9.1.6 Site tidiness
- 9.1.7 Correct safety practices

9.2. Building of Brick Wall Stretcher

- 9.2.1 Layout half brick wall in stretcher Bond
- 9.2.1 Checking of alignment, line level
- 9.2.3 Pointing of joints
- 9.2.4 Tidiness of surface
- 9.2.5 Curing and Importance

9.3. Building 1 Brick Wall (English bond)

- 9.3.1 Arrangement of Materials
- 9.3.2 Basic marking out
- 9.3.3 Bonding
- 9.3.4 Tolerances
- 9.3.5 Safety
- 9.3.6 Site Tidiness

9.4. Building 1 Brick Wall using Right Angle English bond

- 9.4.1 Arrangement of Materials
- 9.4.2 Basic marking out
- 9.4.3 Bonding
- 9.4.4 Tolerances
- 9.4.5 Safety
- 9.4.6 Site Tidiness

9.5. Building 1½ Brick Wall (English Bond)

- 9.5.1 Arrangement of Materials
- 9.5.2 Basic marking out
- 9.5.3 Bonding
- 9.5.4 Tolerances
- 9.5.5 Safety
- 9.5.6 Site Tidiness

9.6. Building 1 X 1½ Brick Wall (English Bond)

- 9.6.1 Arrangement of Materials
- 9.6.2 Basic marking out
- 9.6.3 Bonding
- 9.6.4 Tolerances
- 9.6.5 Safety
- 9.6.6 Site Tidiness

9.7. Building 1 Brick Wall Corner (Flemish Bond)

- 9.7.1 Arrangement of Materials
- 9.7.2 Basic marking out
- 9.7.3 Bonding

- 9.7.4 Tolerances
- 9.7.5 Safety
- 9.7.6 Site Tidiness

9.8. Building 1 Brick Wall Sq. Junction (Flemish Bond)

- 9.8.1 Arrangement of Materials
- 9.8.2 Basic marking out
- 9.8.3 Bonding
- 9.8.4 Tolerances
- 9.8.5 Safety
- 9.8.6 Site Tidiness

PRACTICAL – II - Skills of Masonary

9.9. Skill Consolidation, Fixing Window & Door Frames

- 9.9.1 Reading layout plans
- 9.9.2 Handling Frames
- 9.9.3 Fixing Frames
- 9.9.4 Protection of Frames
- 9.9.5 Checking Tolerances
- 9.9.6 Taking remedial action
- 9.9.7 Stores requisition
- 9.9.8 Information Sheet
- 9.9.9 Working at Heights, Ladders /Scaffold

9.10. Plastering

- 9.10.1 Introduction to different types of Plastering
- 9.10.2 Surface preparation
- 9.10.3 Fixing of accessories
- 9.10.4 Importance of level pads
- 9.10.5 Application of different coats
- 9.10.6 Curing and importance
- 9.10.7 Protection of surface

9.11. Construction of Attached Piers

- 9.11.1 Introduction to different types of Plastering
- 9.11.2 Surface preparation
- 9.11.3 Bonding Methods
- 9.11.4 Use of gauge
- 9.11.5 Plumbing points
- 9.11.6 Setting out

9.12. Construction of Detached Piers

- 9.12.1 Introduction to different types of Plastering
- 9.12.2 Surface preparation
- 9.12.3 Bonding Methods
- 9.12.4 Use of gauge
- 9.12.5 Plumbing points
- 9.12.6 Setting out

9.13. Foundation work up to D.P.C.

- 9.13.1 Setting out
- 9.13.2 3-4-5 method, interpreting simple sketches/drawings
- 9.13.3 Building bricks work below D.P.C.
- 9.13.4 Understanding simple shoring

9.14. Building Junction Manhole

- 9.14.1 Interpreting simple drawing
- 9.14.2 Fixing pipes
- 9.14.3 Positioning steps
- 9.14.4 Fixing pre-case cover
- 9.14.5 Internal / external rendering

9.14. Building Junction Manhole

- 9.14.1 Interpreting simple drawing
- 9.14.2 Fixing pipes
- 9.14.3 Positioning steps
- 9.14.4 Fixing pre-case cover
- 9.14.5 Internal / external rendering

9.15. Random Rubble Wall (Un coursed)

- 9.15.1 Introduction to cutting and chipping of random rubble
- 9.15.2 Basic principles of avoiding continuous joints

10. Introduction To Trade On Job Site

11. Revision

12 Final Testing & Evaluation
