



Participant Handbook

Sector

Construction

Sub-Sector

**Real Estate and Infrastructure
Construction**

Occupation

Masonry

Reference ID: **CON/Q0105, Version 1.0**

NSQF Level 3



Mason- Concrete

1.1.4 Benefits of Training Program

- After completion of this training program, trainee will undergo an assessment which will have theory and a practical test.
- On successfully passing the assessment, a certificate will be awarded by the Construction Skill Development Council (CSDCI).
- This certificate will help the trainee to get a job and earn better wages in construction sector.
- The skills acquired along with the certificate will also help the trainee to grow in his career and identify and understand the progression of career.



Fig. 1.1.3. Sample Certificate Mason Concrete



Fig. 1.1.4. Skill Card Mason Concrete

Exercise



1. Answer the following questions.

1) What does a QP consist of?

2) What does a NOS specify?

3) Name any two NOS under Mason Concrete QP?

4) Mention any two benefits of this training program?

2. Write full form of :

- a. QP
- b. NOS
- c. CSDCI

3. State whether the following statements are true or false.

a. This certificate will help you to get a job and earn better wages in construction sector.

True

False

b. The skills acquired along with the certificate will also help you to grow in your career.

True

False

c. The assessment after the training will have only practical exam.

True

False

d. "Work according to personal health, safety and environment protocol at construction site" is a NOS under Mason Concrete QP.

True

False

UNIT 1.2: An Overview of Construction Sector

Unit Objectives

At the end of this unit, you will be able to:

1. Explain about construction sector in India
2. Differentiate between urban and rural construction
3. Explain about modernization in construction
4. List out major occupations in the construction sector

1.2.1 An Overview of Construction Sector

Construction refers to building of different types of structures. The sector comprises of many small, medium and large industries or companies that involve in many different types of projects in the construction sector creating a diverse but specific requirement of workmen.

The construction sector can be broadly classified in two sub sectors, namely:

1. Real Estate and Infrastructure construction: This sub sector comprises of all the works that are required for construction of all types of infrastructure and real estate projects. Infrastructure projects are those that directly or indirectly affect the growth of the nation e.g. Roads, airports, railway bridges, dams, power plants, metros, industries etc. The real estate projects are those which are mainly focused on providing residential and commercial workplaces to all categories of people e.g. residential towers, independent houses, malls, sports complex etc.



Fig. 1.2.1. Multi-storeyed Residential Towers

4. Scaffolding

Scaffolding is temporary support structure. The material used are bamboos, timbers or steel members. This support structure helps during construction activities. Scaffolding are made for workmen to do their work and keep their tools and materials.



Fig. 1.2.15. Scaffolding

Few Job Roles under Scaffolding occupation are as follows:

1. Assistant Scaffolder-system
2. Assistant scaffolder-Conventional
3. Scaffolder conventional
4. Scaffolder-System

5. Construction Painting

Painting is a key part of the overall finishing work of a construction project. Application of paint lends aesthetic value to a constructed structure. This may also involve a component of decorative painting basis designs and patterns.



1.2.16. Paint work by a painter

Few Job Roles under Construction Painting occupation are as follows:

1. Assistant construction painter and decorator
2. Construction painter and decorator
3. Construction painter & decorator
4. Chargehand-painting &decorating

Exercise



1. Answer the following questions.

1) Name the two subcategories in construction sector?

2) What are the main objectives of Masonry?

3) What does shuttering carpenter do?

4) What is a scaffold?

2. State whether the following statements are true or false.

a. There is huge requirement of skilled man force in construction sector.

True

False

b. The use of modern equipment and technique has decreased the speed of construction work

True

False

c. By modernization of construction it is now possible to construct in under water as well as very high altitude.

True

False

d. Construction is the second largest employment generating sector in India after agriculture.

True

False

e. Scaffolding is temporary support structure used for working at heights.

True

False

f. Repairing of concrete structures is done by Mason Concrete.

True

False

Notes



Ruled area for taking notes, featuring horizontal lines within a rectangular border.

UNIT 1.3: Mason Concrete as a job role

Unit Objectives

At the end of this unit, you will be able to:

1. Introduction to concrete structure.
2. State roles and responsibilities of a mason concrete.
3. List out the required personal and professional attributes for a mason concrete.

1.3.1 Introduction to concrete structures

Concreting is widely used in all kinds of modern construction like:

- High rise buildings
- Bridges
- Dams
- Power or Atomic Plants
- Highways

Currently, the total concrete consumption in India is about 470 million cubic meter and is expected to rise to 580 million cubic meter by 2022 as per The Indian Concrete Journal.



Fig. 1.3.1. Concrete Building



Fig. 1.3.2. Concrete Bridge



Fig. 1.3.3. Concrete Tunnel



Fig. 1.3.4. Concrete Dam

Duties of a Mason Concrete

At the construction site, a mason concrete is expected to carry out tasks as mentioned below.:

- Carry out preparatory work prior to IPS / Tremix flooring
- Check for line, level and alignment.
- Check the materials used for IPS / Tremix flooring in case of manual mixing
- Check the materials used for IPS / Tremix flooring in case of machine mixing
- Carry out IPS flooring / Tremix / VDF flooring
- Carry out preparatory work before pouring of concrete manually & by machine
- Check material used for concreting in case of manual mixing
- Place and compact concrete on PCC & RCC structural elements
- Screed and level wet concrete
- Finish and cure concrete
- Carry out concreting in pre-cast segments
- Carry out simple repair work on hardened concrete surfaces
- Interact and communicate effectively with co-workers, superiors and subordinates across different teams
- Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task

Key Learning Outcomes



At the end of this module, you will be able to:

1. Understand the importance of clear communication.
2. Explain different methods of communication.
3. Communicate with others in an effective way.
4. Perform basic mathematical calculation.
5. Identify the different types of geometrical shapes.
6. Calculate the area and volume of a square, rectangle, cube and cylinder.
7. List the different types of systems of measurement.
8. Perform the conversion of measurements.
9. Read a measuring tape in imperial system.
10. Read a measuring tape in metric system.

UNIT 2.1: Communication Skills

Unit Objectives

At the end of this unit, you will be able to:

1. State the importance of clear communication
2. Understand different method of communication
3. Communicate with others in an effective way

2.1.1 What is Communication?

Communication has an important role in every aspect of your life, be it personal or professional. Being able to communicate well can boost your overall performance, help you build an organized working unit and build a great understanding with your colleagues.

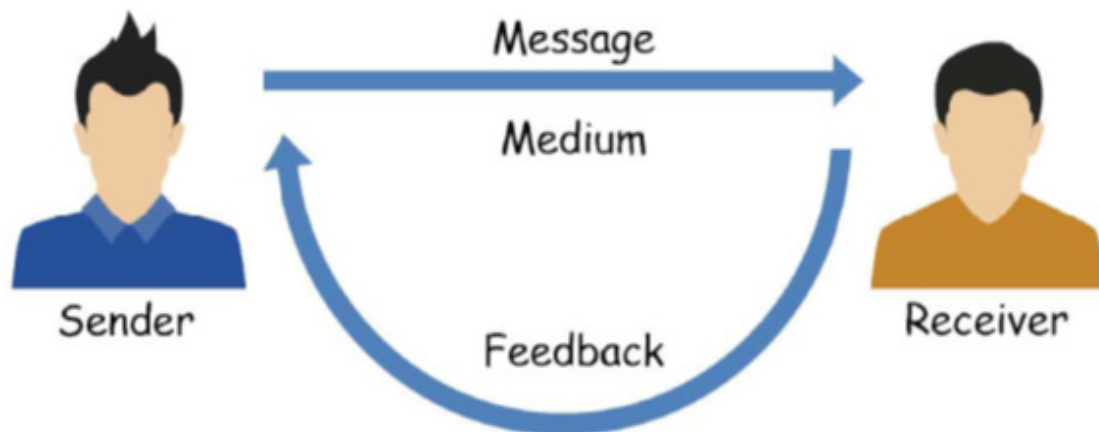


Fig. 2.1.1. Communication

Communication is the process by which people exchange information and feelings through verbal and non-verbal messages.

The act of communication requires skills such as speaking, listening, observing, questioning, processing, analyzing and evaluating.

Communication consists of two aspects

1. Verbal
2. Non-verbal

Verbal Communication

It includes all the spoken elements like, speech, conversation- face to face or telephonic, and voice chat.



Fig. 2.1.2. Telephonic conversation



Fig. 2.1.3. Speech



Fig. 2.1.4. Face to face conversation



Fig. 2.1.5. Voice chat

Non-verbal communication

It includes body language, gestures, facial expressions, eye contact, signboards, safety rules, safety tags, sketches and even photographs

Non-verbal communication also becomes a part of the communicating process as well as the written and typed modes of communications. It includes letters, Reports, newspaper, e-mails, SMS or text messages.



Fig. 2.1.6. Sign boards



Fig. 2.1.7. Email



Fig. 2.1.8. Gestures



Fig. 2.1.9. Sketches

The objective of communication is achieved only when both sender and receiver understand the same information which is supposed to be conveyed.

Dos	Don't s
Smile	Avoid having an unkind expression
Keep your arms open – Shows positive body language	Do not keep hands on hip – Shows aggressive body language
Be friendly in tone of voice even while teasing your friends	Do not use challenging tone of voice
Welcome juniors	Do not show lack of courtesy in choice of words used
Speak slowly and clearly	Do not be nervous or speak fast
Be careful with your choice of words	Do not use rude words
Stand straight without leaning against the wall	Do not show stiff body language
Be genuine	Do not use over-polite language; it seems affected



Fig. 2.1.10. Dos while communicating at workplace



Fig. 2.1.11. Don't s while communicating at Workplace

2.1.2 Oral Communication (Listening & Speaking Skills)

Mason Concrete should possess strong oral communication skills as he/she has to interact with his/her co-workers and supervisor for various routine activities. His/her prime responsibility is to listen and follow instructions given by his/her supervisor and follow the guidelines for performing his/her job role. He should also have the ability to speak in one or more language, preferably in one of the local language of the site.



Fig. 2.1.12. Oral Communication

2.1.3 Reading Skills



A Mason Concrete needs to read and interpret the work related documents. It is important for him to read instructions, guidelines, sign boards, safety rules and safety tags instructions related to exit routes during emergency at workplace.

2.1.4 Writing Skills



Mason Concrete needs to write in at least one language, preferably in the local language of the site.

Exercise



1. Answer the following questions.

1) What do you mean by communication?

2) Write any three skills required for communication?

3) What are the two aspects of communication?

4) Why is oral communication necessary for a Mason concrete?

2. Write any five Do's and Don't s of effective communication:

S No.	Dos	Don't s
1		
2		
3		
4		
5		

3. State whether the following statements are true or false.

a. Communication has an important role in every aspect of life.

True

False

b. Communication is successful only when both the sender and the receiver understand the same information.

True

False

c. It is not the responsibility of Mason concrete is to listen and follow instructions given by the supervisor.

True

False

d. It is important for Mason concrete to read instructions, guidelines, sign boards, safety rules and safety tags instructions at workplace.

True

False

e. Mason Concrete is not required to know how to write.

True

False



Skill India

कौशल भारत - कुशल भारत



सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP



N · S · D · C
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Transforming the skill landscape



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