Sector: Construction
Occupation: SCAFFOLDING
Reference id: CON/Q0312 ver. 1.0
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1. Qualification structure

To achieve full certification as a Scaffolder - Conventional, trainees must complete all **five** units, attempt and pass assessments on practical skills, viva and written test.

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Unit No.</th>
<th>Title</th>
<th>Assessment method</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>CON/N0356</td>
<td>Erect and dismantle the conventional staging using bamboos and ballis</td>
<td>The assessment for the practical skill part should be based on the competency of the trainee to erect and dismantle single and double pole scaffold using bamboo or balli. Assessment of the knowledge part would be done by conducting written test, viva-voice or through observation while carrying out practical exercise</td>
</tr>
<tr>
<td>002</td>
<td>CON/N0357</td>
<td>Erect and dismantle scaffolds using pipes and couplers</td>
<td>The assessment for the practical skill part should be based on the competency of the trainee to erect and dismantle single and double layer scaffold using pipes and couplers. Assessment of the knowledge part would be done by conducting written test, viva-voice or through observation while carrying out practical exercise</td>
</tr>
<tr>
<td>003</td>
<td>CON/N8001</td>
<td>Work effectively in a team to deliver desired results at the workplace</td>
<td>Assessment for the practical skill part should be based on the competency of the trainee to work effectively in a team including proper reporting, communication, documentation, problem solving etc. Technical and professional knowledge should be judged on the basis of theory, viva-voice or through observation.</td>
</tr>
<tr>
<td>004</td>
<td>CON/N8002</td>
<td>Plan and organize work to meet expected outcomes</td>
<td>Assessment of the practical skill of trainee would be based on the competency of effective planning and organizing to meet expected outcomes. Assessment of the knowledge part would be done by conducting written test, viva-voice or through observation while carrying out practical exercise</td>
</tr>
<tr>
<td>005</td>
<td>CON/N9001</td>
<td>Work according to personal health, safety and environment protocol at construction site</td>
<td>Assessment for the practical skill part should be based on the competency of the trainee to demonstrate PPE, identify and report hazards, pollution control, and safety standards based on the type of activity. Assessment of the knowledge part would be done by</td>
</tr>
<tr>
<td>Scaffolder – Conventional L-4</td>
<td>Conducting written test, viva-voice or through observation while carrying out practical exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Guidance for assessors

The qualification provides the performance criteria, skills and knowledge required to perform for the position of a Scaffolder - Conventional at Level 4 in the Construction Sector. The role is referred to as ‘Scaffolder - Conventional.

Brief Job Description: This job role is responsible for erecting, dismantling and maintaining various types of conventional scaffold using bamboos, ballies, pipes and couplers at specified heights. The individual should have good knowledge of safe working practices and procedures while working at heights.

**Personal Attributes:** The individual is expected to be physically fit and should be able to work across various locations and height withstanding extreme condition while working. The individual should be organized, diligent, methodical and able to implement and maintain safety practices. The individual should have independent ability to take quick decisions and have good communication skills and shall be able to work within a team to handle various scaffolding tools and materials and work responsibly for own work within defined limits.

**Introduction to assessments:**
Trainees will be able to make an informed decision about their aptitude for work in this sector with an awareness of the options for career development.

The emphasis is on ‘learning-by-doing’ and practical demonstration of skills and knowledge based on the performance criteria. For this reason, trainees are required to complete a number of assignments to show their attainment of practical skills, viva and underpinning knowledge.

**Overview of the assessments**
The weightage of skill/performance assessment is 80% and for knowledge and understanding is 20% for each NOS.

The assessment consists of two categories:
1. Performance /Skill Assessment
2. Knowledge Assessment

**Mode of Assessment**
1. Demonstration/Practical for Performance /Skill Assessment
2. Synoptic multiple choice question test
3. **Viva** \(\text{For Knowledge Assessment}\)

**Grading and weightage for assessments**
Trainees are graded Pass or Fail.

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Type of assessment</th>
<th>Sl. no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Skill assessment by practical observation</td>
<td>80</td>
</tr>
<tr>
<td>2.</td>
<td>Knowledge assessment by synoptic MCQ test</td>
<td>12</td>
</tr>
<tr>
<td>3.</td>
<td>Knowledge assessment by viva</td>
<td>8</td>
</tr>
</tbody>
</table>
2.1 Performance/Skill Assessments

The performance/skill assessment will be conducted through demonstration/practical Demonstration /Practical Assessment

There will be Two practical task for core NOS (i.e. CON/N0356 and CON/N0357) which the trainee must attempt and demonstrate the occupational skills acquired to pass. Also the practical skill for NOS – N8001, N8002 and N9001 would be judged while carrying out practical task for core NOSs. Practical assessment is externally set and externally marked.

Trainees must attempt and pass the practical test which is assessed through a given task. The basis for practical task is the performance criteria checklist given in section 5.

The practical task is of 4.5 hours duration (per group of 4 trainees). The trainee has to score 280 marks to pass the practical test. The grading criteria are defined below.

Grading criteria for Performance/Skill Assessments

<table>
<thead>
<tr>
<th>NOS</th>
<th>Title</th>
<th>Performance Assessment Duration (Minutes)</th>
<th>Min. passing marks out of 80</th>
<th>Assessment Result (Total Passing Marks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON/N0356</td>
<td>Erect and dismantle the conventional staging using bamboos and balls</td>
<td>120</td>
<td>56</td>
<td>280≥ Pass 280&lt; Fail</td>
</tr>
<tr>
<td>CON/N0357</td>
<td>Erect and dismantle scaffolds using pipes and couplers</td>
<td>120</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>CON/N8001</td>
<td>Work effectively in a team to deliver desired results at the workplace</td>
<td>*</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>CON/N8002</td>
<td>Plan and organize work to meet expected outcomes</td>
<td>*</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>CON/N9001</td>
<td>Work according to personal health, safety and environment protocol at construction site</td>
<td>30</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4.5 hr</td>
<td>280/400</td>
<td></td>
</tr>
</tbody>
</table>
The assessment will be conducted in a simulated working environment. Due to this fact, the assessors must note that the naturally occurring evidence of competence is unavailable or infrequent. Simulation must be undertaken in a Realistic Working Environment which provides an environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.

This assessment guide has a section for trainees-Section 3. For each assessment, the marking and grading criteria are intended only for faculty and assessors. Scheduling of the practical task assessments is flexible but to retain integrity of the assessment, they should be carried out as closely as possible to the written assessments.

Trainees are not permitted to use the Performance criteria checklist to work when completing the practical tasks but may familiarise themselves with it prior to an assessment.

Introducing the practical assessment to trainees
It will be beneficial to take trainees through what is required in the practical assessments and the way in which each part will be graded. Trainees should have an opportunity to familiarise themselves with the way the tasks are graded.

Trainees may refer to their faculty for guidance on parts of the practical assignments only, though they should be aware that, especially for the practical assessments, the amount of guidance and support they are given may be reflected in the feedback and performance.

2.2 Knowledge Assessment

The knowledge assessments are conducted through written test and viva.

1. Synoptic multiple choice question (MCQ) test

Synoptic test is an MCQ (Multiple Choice Question) test to assess the underpinning knowledge. The synoptic MCQ tests are externally set and externally marked. This test is to be taken by the trainee after completion of all the units under controlled and invigilated conditions as closed-book test under the supervision of an assessor. Trainees can only achieve whole marks; half marks for partially answered questions are not permitted. Selection of two or more options will be marked as wrong. The answers should to be marked by pen only.

Synoptic test is of 90 minutes duration and carries 60 marks for 5 NOS. The test may be conducted by the assessor in the oral mode, if required, considering the lack of reading and comprehending acumen (skills) of trainees. In such cases, the assessor will mention it on top of the MCQ submitted.

2. Viva

Trainees are required to take the viva test along with their practical observation test which is an extended part of the practical observation and assessment. Viva test is of 30 minutes duration per learner and carry 40 Marks. The viva assessments are externally set and externally marked. For further guidance on viva, assessors can refer to Section 5 Viva Guidance.

The trainee has to score 70 marks to pass the Knowledge assessment test. The grading criteria is as defined below
Grading criteria for Knowledge assessment

<table>
<thead>
<tr>
<th>NOS No.</th>
<th>Duration of Assessment (Minutes)</th>
<th>Knowledge Assessment</th>
<th>Min Passing marks</th>
<th>Assessment Result (Total Passing Marks)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MCQ test</td>
<td>Viva</td>
<td></td>
</tr>
<tr>
<td>CON/N0356</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N0357</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N8001</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N8002</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N9001</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td></td>
<td>70/100</td>
<td></td>
</tr>
</tbody>
</table>

2.1 Question papers for synoptic test
The question paper of the synoptic test is a confidential document. It will be held under the custody of Assessment body. Every assessment body should prepare the question papers and get it approved from CSDCI. The centres need to follow the indenting process to obtain the question paper to administer the test.

2.2 Authenticity
Centres are reminded to check for authenticity of work where trainees may be using texts and the internet to complete tasks.

2.3 Feedback
Assessors must provide feedback on every occasion when a skills observation takes place.

2.4 Trainee records of coursework
Trainees should be encouraged to keep their work carefully in a portfolio or scrapbook. This may be an unfamiliar form of record keeping for some but it is a good discipline which will benefit them when they progress in their learning and training.

2.5 Recording sheets
The recording sheets are also provided in Section 4 Assessments.

2.6 Codes of practice
Safe working practices, health and safety and codes of practice associated with the industry must always be adhered to.

2.7 Health and safety
The requirement to follow safe working practices is an integral part of all assessments and it is the responsibility of centres to ensure that all relevant health and safety requirements are in place before trainees start practical assessments.

Should a trainee fail to follow health and safety practice and procedures during an assessment, the assessment must be stopped and the trainee advised of the reasons why. In case of doubts, guidance should be sought from the SSC.
2.8 Verification of assignments
By using marking checklists, verifiers can check that evidence for an assignment is complete and can ensure that allocation of marks has been fair and beyond dispute.

2.9 Internal quality assurance
Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications.

Quality assurance includes initial centre approval, qualification approval and the centre’s own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and CSDCI and Assessment body are jointly responsible for external quality assurance.

Full details and guidance on the internal and external quality assurance requirements and procedures, are provided by CSDCI from time to time.

The Assessment bodies are required to retain copies of trainees’ assessment records and photographic evidence (in presence of trainee performing task) for three years after assessment.

2.10 Evidence Collection by the Assessor
1. The assessor needs to collect a copy of the attendance for the training done. The attendance sheet needs to be signed by the Training Centre Head.
2. The centre head also needs to declare that all the students appearing in the assessments have a minimum attendance of 80% for the training.
3. The assessor needs to verify the authenticity of the candidate by checking the photo ID card issued by the institute as well as any one Photo ID card issued by the Central/State Government. The same needs to be mentioned in the attendance sheet. Wherever required, the assessor can authenticate and cross verify trainee’s credentials in the enrolment form.
4. The assessor needs to punch the trainee’s roll number on all the final job pieces of learners. Different sections can have alpha numbering such as if a student’s roll number is 123 then the three pieces submitted by that student can be numbered as 123a, 123b and 123c.
5. The assessor needs to take a group photograph of all the students along with the assessor standing in the middle and with the centre name/banner at the back, as evidence.
6. The assessor needs to carry a camera to click photographs of the trainees working on the job and giving theory exam as evidence.
7. The assessor also needs to carry a photo ID card.
8. Assessment Evidence Form (provided after the practical marks sheet), the assessor should place the final photographic evidence in the space provided as evidence, from appropriate angels/sides of the final job piece submitted.
3. Trainee guidance

3.1 Information for trainees
The assessment requires a trainee to perform a combination of tasks as given below:
The trainee will be required to:
- Demonstrate the occupational skills and competencies as mentioned in each NOS.
- Demonstrate knowledge and understanding skills as mentioned in each NOS.

Before the final assessments
The training partner (TP) will intimate that the trainees are ready for the assessment. The date and time of assessment would be intimated by CSDCI.

The trainee is required to reach the assessment venue at the scheduled date and time. TP is required to circulate/download the information regarding the assessment to the trainee. Failure to reach the assessment venue for the theory or the practical test as per the schedule would be considered absent. In exceptional cases, an assessor can give a maximum of half hour concession time for late coming.

The trainee is required to carry their Institutes photo ID card as well as a government issued photo ID card for verification on all days of assessments.

Any misbehaviour/unethical practice by a trainee would lead to disqualification of the trainee.

The assessment consists of two categories:
1. Knowledge/theory assessment
2. Performance /skill assessment

The first day of assessment will have the knowledge/theory test followed by practical and viva in smaller batches (20-30 trainee).

Assessment brief
Details of the two categories of assessments are mentioned below.

1. Theory (Synoptic multiple choice question)
Synoptic test is a Multiple Choice Question (MCQ) test to assess the underpinning knowledge and is to be taken by the trainee at the start of the assessment under controlled and invigilated conditions as a closed-book test.

The synoptic test comprise of 40 questions of 90 minutes duration.

2. Viva
Trainees are required to take the viva test along with their practical observation test which is an extended part of the practical observation and assessment. Viva test is of 30 minutes duration per learner and carry 40 Marks.

A trainee has to score at least 70 marks to pass the knowledge assessment.
### Grading criteria for knowledge assessments

<table>
<thead>
<tr>
<th>NOS No.</th>
<th>Duration of Assessment (Minutes)</th>
<th>Knowledge Assessment</th>
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<tr>
<td></td>
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<td>MCQ test</td>
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<td></td>
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<td>14</td>
</tr>
<tr>
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<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N8001</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N8002</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>CON/N9001</td>
<td>120</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td></td>
<td></td>
<td><strong>70/100</strong></td>
</tr>
</tbody>
</table>

### 3. Performance/skill assessments

Trainees will be briefed on the practical observation and checklist to familiarise them on observation methodology. The trainees would be assessed on their working as well as their final product. Trainees are suggested to read the Qualification Pack to familiarise on Performance Criteria, Knowledge, Understanding and Skills.

The practical task is for **4.5 hours** (per group of 4 trainees). A trainee has to score at least **280 marks** to pass the practical observation test.

### Grading criteria for Performance/Skill Assessments

<table>
<thead>
<tr>
<th>NOS</th>
<th>Title</th>
<th>Performance Assessment Duration (Minutes)</th>
<th>Min. passing marks out of 80</th>
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</thead>
<tbody>
<tr>
<td>CON/N0356</td>
<td>Erect and dismantle the conventional staging using bamboos and ballis</td>
<td>120</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>CON/N0357</td>
<td>Erect and dismantle scaffolds using pipes and couplers</td>
<td>120</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>CON/N8001</td>
<td>Work effectively in a team to deliver desired results at the workplace</td>
<td>*</td>
<td>56</td>
<td>280≥ Pass 280&lt; Fail</td>
</tr>
<tr>
<td>CON/N8002</td>
<td>Plan and organize work to meet expected outcomes</td>
<td>*</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>CON/N9001</td>
<td>Work according to personal health, safety and environment protocol at construction site</td>
<td>30</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>4.5 hr</strong></td>
</tr>
</tbody>
</table>
4. Assessments

Assessments for the job role of Scaffolder - Conventional are conducted to gauge and assess the trainees' competencies and professional expertise as well as their skill and knowledge in the specified area (Bar Bending & Steel Fixing).

During the practical task, trainees will be assessed on their workmanship, quality of finished product, time management, etc., based on the performance criteria (PC), knowledge and understanding and their professional and soft skills as specified in the qualification pack. They will be graded for all their assessments based on the approved assessment strategy which is signed off by CSDCI.

The performance criteria checklist as a guide for all qualifications are given in section 5.0. Assessment tools in the form of a sample set of practical, theory and viva questions for each NOS is given as a guide in section 6 to 7. The assessment evidence, overall summary and NOS wise summary is given in section 8 to 10.
5. Performance criteria checklist

<table>
<thead>
<tr>
<th>Practical Details</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis</td>
<td></td>
</tr>
</tbody>
</table>
| 1 | PC1. check for and ensure level and compactness of ground by visual/physical checks in work area where scaffold is to be erected  
- Remove unwanted material and clean the area where the scaffold needs to be erected.  
- Level and compact the area where scaffold needs to be erected.  
- Use required tools to level and compact the ground.  
- Ensure that the ground is dry and stabilized properly. |
| 1 | PC2. sort out all required materials prior to erection of scaffold and replace damaged/defective materials if any  
PC3. determine scope of scaffolding works as per the position and height where it has to be erected  
- Shift and stack required scaffold materials near the work location (standards or upright pole, ledger or bearers, braces, sloe board, scaffold plank, toe board, top railing, intermediate railing, ladder, fiber rope etc.).  
- Ensure proper handling techniques while handling the material and components. |
| 1 | PC4. select the tools and tackles as per requirement:  
- Shift and stack tools and tackles (spirit level, line string, plumb bob, knife etc.). |
| 1 | PC5. check and fix guard rails and safety nets around the scaffold area to ensure safe working conditions in case of already erected scaffold or while working at height  
PC6. select bamboos/ballis as per required height, diameter, and thickness during erection  
- Barricade the area using safety net and guard rail by ensuring enough space is left for easy movement and stack the materials.  
- Fix caution board and scaffold tags. |
| 1 | PC7. place sole board on ground where temporary scaffolds to be erected  
PC8. follow correct sequence and method of erection as per standards practices: |
- Set out the position and place the sole plate on firm ground by considering required distance between scaffold unit and structure
- Place sole board by ensuring no gap between ground and sloe boards.
- Place set of standard poles on the sloe board and nail it properly.
- Ensure spacing is not more than 2.5 meter for longitudinal and 750mm for transverse.

**PC9.** ensure tightness of knots, rigidity and stability of different components during and after erection

**PC10.** check for verticality of scaffold

**PC11.** provide support to scaffold as per standard practice

**PC12.** check for dimensional accuracy as per sketches or instructions
- Tie standards with ledger pole using recommended fibre rope with required knot.
- Ensure ledger spacing is not more than 0.5 meter.
- Check verticality of scaffold at first level (use plumb bob or spirit level to check verticality).
- Check the dimensional accuracy as per the drawing
- Provide vertical support from the existing structure at every 4 meter interval.
- Extend the standards by ensuring minimum 600 mm overlapping.
- Continue the process till the required length and height is achieved.
- Provide diagonal bracing from the external side of the scaffold.

**PC13.** place and fix appropriate plank board / walk boards, guard rail, toe board and other accessories for working
- Place and tie ladder to the scaffold (not more than 75 degree).
- Deck the platform with scaffold boards for full length of the scaffold.
- Tie all the scaffold boards to the unit frame to avoid any displacement.
- Ensure there is no gap between the walk boards
- Ensure the periphery of scaffold is covered by guard rails as per the drawing.
- Ensure toe board is fixed properly.

**PC14.** report to superior for completion of work & checking of scaffolding, do any rework as suggested by engineer in charge of superior and get it approved
- Inspect and fill the scaffold checklist at the spot.
- Repair or rectify if any deviations found.
- Call supervisor for final check and approval.

**PC15.** follow dismantling procedure as per standard practices

**PC16.** check for rigidity and stability of scaffold before and during dismantling:
- Barricade the area where scaffold needs to be dismantled.
- Ensure reverse order of erection.
- Remove toe board and hand rails.
- Remove and shift plaf form board to ground level.
- Use wheel pulley to lower the materials.
- Remove external support and bracings.

PC17. lower scaffold materials in a safe manner
PC18. ensure cleaning and storing of scaffold materials for further use:
- Dismantle and shift material to ground without damaging the materials.
- Ensure materials should not be thrown from top.
- Clean the material after dismantling.
- Check for any damages.
- Stack all the components in a specified location.
- Clean the area.
- Ensure proper housekeeping at work place.

| Total Marks | 80 |

CON/N0357: Erect and dismantle scaffolds using pipes and couplers

<table>
<thead>
<tr>
<th>PC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>check and ensure level, compactness of ground by visual / physical checks: Remove unwanted material and clean the area where the scaffold needs to be erected. Level and compact the area where scaffold needs to be erected. Use required tools to level and compact the ground. Ensure that the ground is dry and stabilized properly.</td>
</tr>
<tr>
<td>2</td>
<td>sort out and select all the components prior to erection of scaffold and replace the damaged ones</td>
</tr>
<tr>
<td>3</td>
<td>determine the quantity of pipes &amp; couplers required for erection based on position and height where it has to be erected</td>
</tr>
<tr>
<td>4</td>
<td>select tools and tackles as per requirement Shift and stack required scaffold materials near the work location (standards or verticals, ledgers or horizontal member, diagonal pipe, sloe board, scaffold plank, clamps, screw jack, base plate, toe board, top railing, intermediate railing, ladder etc.). Ensure proper handling techniques while handling the material and components. Shift and stack tools and tackles (podger spanner, ring spanner, claw hammer, mash hammer, spirit level, line string, plumb bob, knife etc.).</td>
</tr>
<tr>
<td>5</td>
<td>check and fix guard rails and safety nets around the scaffold area to ensure safe working conditions in case of already erected scaffold or while working at heights</td>
</tr>
<tr>
<td>6</td>
<td>prevent unauthorized access to the work area by providing proper barricades: Barricade the area using safety net and guard rail by ensuring enough space is left for easy movement and stack the materials. Fix caution boards and safety signage’s to prevent unauthorised access to the work area.</td>
</tr>
<tr>
<td>7</td>
<td>place base plates or sole boards on ground as per the marking for setting the scaffolds</td>
</tr>
<tr>
<td>8</td>
<td>select &amp; use pipes of suitable diameter for vertical,</td>
</tr>
</tbody>
</table>
horizontal & diagonal member
PC9. select & use right angle coupler/swivel coupler suitably based on the requirement
PC10. follow correct sequence and method for erection of scaffold as per standard practices:
   - Set out the position and place the sole plate on firm ground by considering required distance between scaffold unit and structure
   - Place sole board by ensuring no gap between ground and sole boards.
   - Place and adjust base plate on the centre of sole board.
   - Ensure base plate is nailed on the sole board.
   - Stand set of vertical pipe on each sole plate with a set of screw jack to the lowest adjustment.
   - Place and clamp horizontal ledger to the vertical member
   - Ensure spacing is not more than 2.5 meter for longitudinal and 1.2 meter for transverse

PC11. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level
PC12. check for rigidity and stability of scaffold
PC13. provide appropriate support to the scaffold erected as per standard practice and instructions from superiors
PC14. check for dimensional accuracy as per sketches or instructions:
   - Check verticality of scaffold at first level (use plumb bob or spirit level to check verticality).
   - Place spirit level on the top of two frames and adjust the level by using adjustable jack.
   - Repeat the process to reach required height.
   - Connect all the ledgers/bracings.
   - Tie vertical supports at an interval not more than 4 meter.
   - Ensure clamps are tightened properly.
   - Ensure diagonal bracings as per the drawing.
   - Use swivel clamps to provide diagonal bracing.

PC15. fix walk boards, guard rail, toe boards and other components on the working platform properly:
   - Place and tie ladder to the scaffold (not more than 75 degree).
   - Deck the platform with scaffold boards for full length of the scaffold.
   - Tie all the scaffold boards to the unit frame to avoid any displacement
   - Ensure there is no gap between the walk boards
   - Ensure the periphery of scaffold is covered by guard rails as per the drawing.
   - Ensure toe board is fixed properly.

PC16. report to superior for completion of work & checking of scaffolding, do any rework as suggested by engineer in charge of superior and get it approved:
   - Inspect and fill the scaffold checklist at the spot.
   - Repair or rectify if any deviations found.
   - Call supervisor for final check and approval.
| PC17. follow and ensure standard dismantling procedure according to types of scaffold |
| PC18. check for stability, rigidity of scaffold before dismantling and maintain during dismantling |
| PC19. remove guard rails, toe boards, walk boards and components sequentially keeping the overall safety in mind |
| PC20. lower scaffold components in a safe manner following the proper laid down procedure |
| PC21. clean, repair and store scaffold components for further use: |
| - Barricade the area where scaffold needs to be dismantled. |
| - Ensure reverse order of erection. |
| - Remove toe board and hand rails. |
| - Remove and shift plat form board to ground level. |
| - Use wheel pulley to lower the materials. |
| - Remove external support and bracings. |
| - Dismantle and shift material to ground without damaging the materials. |
| - Ensure materials should not be thrown from top. |
| - Check and clean the material after dismantling. |
| - Inform supervisor if any damages noticed. |
| - Stack all the components in a specified location. |
| - Clean the area. |
| - Ensure proper housekeeping at work place. |

**Total Marks**: 80

**CON/N8001: Work effectively in a team to deliver desired results at the workplace**

| 3 | PC1. Pass on work related information/ requirement clearly to the team members: |
|   | - Communicate work related information clearly to the team members while performing task. |
|   | Assessor may observe this skill while following tasks are being performed by assessee |
|   | - CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis |
|   | - CON/N0357: Erect and dismantle scaffolds using pipes and couplers |
|   | PC2. Inform co-workers and superiors about any kind of deviations from work: |
|   | - Inform any kind of deviation to the instructor while performing the task. |
|   | - Is able to escalate any kind of deviations to assessor/instructor. |
|   | Assessor may observe this skill while following tasks are being performed by assessee |
|   | - CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis |
|   | - CON/N0357: Erect and dismantle scaffolds using pipes and couplers |
|   | PC3. Address the problems effectively and if required, report to immediate supervisor appropriately: |
|   | - Address the problems to the assessor/instructor (damaged tools, damaged scaffold components, material shortage etc.). |
|   | Assessor may observe this skill while following tasks are being performed by assessee |

**Scaffolder – Conventional L-4**
<table>
<thead>
<tr>
<th>Scaffolder</th>
<th>Conventional L-4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PC4.</strong> Receive instructions clearly from superiors and respond effectively on same:</td>
<td><strong>PC4.</strong> Receive instructions clearly from superiors and respond effectively on same:</td>
</tr>
<tr>
<td>- Adhere to the instructions given by assessor/instructor while performing the task.</td>
<td>- Adhere to the instructions given by assessor/instructor while performing the task.</td>
</tr>
<tr>
<td>- Is able to receive instructions clearly. Assessor may observe this skill while following tasks are being performed by assessee</td>
<td>- Is able to receive instructions clearly. Assessor may observe this skill while following tasks are being performed by assessee</td>
</tr>
<tr>
<td><strong>PC5.</strong> Communicate to team members/subordinates for appropriate work technique and method:</td>
<td><strong>PC5.</strong> Communicate to team members/subordinates for appropriate work technique and method:</td>
</tr>
<tr>
<td>- Communicate work related information/techniques clearly to the team members while performing task</td>
<td>- Communicate work related information/techniques clearly to the team members while performing task</td>
</tr>
<tr>
<td>Assessor may observe this skill while following tasks are being performed by assessee</td>
<td>Assessor may observe this skill while following tasks are being performed by assessee</td>
</tr>
<tr>
<td><strong>PC6.</strong> Seek clarification and advice as per requirement and applicability:</td>
<td><strong>PC6.</strong> Seek clarification and advice as per requirement and applicability:</td>
</tr>
<tr>
<td>- Is able to seek clarification and advice as per requirement. Assessor may observe this skill while following tasks are being performed by assessee</td>
<td>- Is able to seek clarification and advice as per requirement. Assessor may observe this skill while following tasks are being performed by assessee</td>
</tr>
<tr>
<td><strong>PC7.</strong> Hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams:</td>
<td><strong>PC7.</strong> Hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams:</td>
</tr>
<tr>
<td>- Hand over the required tools/materials to appropriate person post completion of work</td>
<td>- Hand over the required tools/materials to appropriate person post completion of work</td>
</tr>
<tr>
<td>- Collect required tools/devices from stores/respective departments/authority prior to start working</td>
<td>- Collect required tools/devices from stores/respective departments/authority prior to start working</td>
</tr>
<tr>
<td>- Complete tasks within provided time limit</td>
<td>- Complete tasks within provided time limit</td>
</tr>
<tr>
<td>- Ensure material/tools/tackles are handed over to interfacing teams in safe condition</td>
<td>- Ensure material/tools/tackles are handed over to interfacing teams in safe condition</td>
</tr>
<tr>
<td>Assessor may observe this skill while following tasks are being performed by assessee</td>
<td>Assessor may observe this skill while following tasks are being performed by assessee</td>
</tr>
<tr>
<td><strong>Scaffolder</strong> – Conventional L-4</td>
<td><strong>Scaffolder</strong> – Conventional L-4</td>
</tr>
</tbody>
</table>
PC8. Work together with co-workers in a synchronized manner:
- Work together with co-worker. (Performing scaffold erection and dismantling)
- Have clear communication with the team member while performing the task.
- Help and motivate co-workers to complete the task.
- Advice team member on work techniques.
- Report conflict to superior/ concerned authority

Assessor may observe this skill while following tasks are being performed by assessee
- CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis
- CON/N0357: Erect and dismantle scaffolds using pipes and couplers

**Total Marks** 80

**CON/N8002: Plan and organize work to meet expected outcomes**

| 4 | PC1. Understand clearly the targets and timelines set by superiors: |
|   | • Interpret the instructions from seniors. |
|   | • Describe duration of tasks to be performed to the assessor |
|   | Assessor may observe this skill while following tasks are being performed by assessee |
|   | • CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis |
|   | • CON/N0357: Erect and dismantle scaffolds using pipes and couplers |

|    | PC2. Plan activities as per schedule and sequence: |
|    | • Describe steps to be followed to execute assign task |
|    | • Follow the sequence of work. |
|    | Assessor may observe this skill while following tasks are being performed by assessee |
|    | • CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis |
|    | • CON/N0357: Erect and dismantle scaffolds using pipes and couplers |

|    | PC3. Provide guidance to the subordinates to obtain desired outcome |

|    | PC8. Engage allocated manpower in an appropriate manner: |
|    | • Pass on work related information to subordinates |
|    | • Describe the use of tools to subordinates |
|    | Assessor may observe this skill while following tasks are being performed by assessee |
|    | • CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis |
|    | • CON/N0357: Erect and dismantle scaffolds using pipes and couplers |

<p>|    | PC4. Plan housekeeping activities prior to and post completion of work: |
|    | • Implement housekeeping norms and instructions |
|    | Assessor may observe this skill while following tasks are being performed by assessee |
|    | • CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CON/N0357</strong>: Erect and dismantle scaffolds using pipes and couplers</td>
<td></td>
</tr>
<tr>
<td>PC5. List and arrange required resources prior to commencement of work</td>
<td></td>
</tr>
<tr>
<td>PC6. Select and employ correct tools, tackles and equipment for completion of desired work</td>
<td></td>
</tr>
<tr>
<td>PC7. Complete the work with allocated resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CON/N0356</strong>: Erect and dismantle the conventional staging using bamboos and ballis</td>
<td></td>
</tr>
<tr>
<td><strong>CON/N0357</strong>: Erect and dismantle scaffolds using pipes and couplers</td>
<td></td>
</tr>
<tr>
<td>PC9. Use resources in an optimum manner to avoid any unnecessary wastage</td>
<td></td>
</tr>
<tr>
<td>PC10. Employ tools, tackles and equipment with care to avoid damage to the same</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CON/N0356</strong>: Erect and dismantle the conventional staging using bamboos and ballis</td>
<td></td>
</tr>
<tr>
<td><strong>CON/N0357</strong>: Erect and dismantle scaffolds using pipes and couplers</td>
<td></td>
</tr>
<tr>
<td>PC11. Organize work output, materials used, tools and tackles deployed</td>
<td></td>
</tr>
<tr>
<td>PC12. Processes adopted to be in line with the specified standards and instructions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CON/N0356</strong>: Erect and dismantle the conventional staging using bamboos and ballis</td>
<td></td>
</tr>
<tr>
<td><strong>CON/N0357</strong>: Erect and dismantle scaffolds using pipes and couplers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Marks</strong></td>
<td>80</td>
</tr>
<tr>
<td><strong>CON/N9001</strong>: Work according to personal health, safety and environment protocol at construction site</td>
<td></td>
</tr>
</tbody>
</table>
| 5 | PC1. Identify and report any hazard, risks or breaches in site safety to the appropriate authority.  
PC6. Use appropriate Personal Protective Equipment (PPE) as per work requirements including:  
Is able to identify and demonstrate the use of following PPE:  
- Head Protection (Helmets)  
- Ear protection.  
- Fall Protection.  
- Foot Protection.  
- Face and Eye Protection.  
- Hand and Body Protection.  
- Respiratory Protection (if required).  
*The skill is mandatory to be exhibited by assesses to pass the NOS*  
- List possible hazards while performing different task (Bending and steel fixing, scaffold erection)  
- Identify work place hazards while executing the task (high tension overhead line, un guarded deep excavations near the scaffold, damaged tools etc.).  
Assessor may observe this skill while following tasks are being performed by assesses  
- CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis  
- CON/N0357: Erect and dismantle scaffolds using pipes and couplers  
PC2. Follow emergency and evacuation procedures in case of accidents, fires, natural calamities  
- List different types of emergency situation (Fire, flood, building collapse, war etc.)  
- Ensure proper method to respond in case of any emergency. (Candidate to perform role play based on the scenario given by assessor)  
PC3. Follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable  
- Follow safe working practice while performing all the task.  
- Follow safe practice while handling hand and power tools.  
PC4. Participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site  
- List different types of emergency situation (Fire, flood, building collapse, war etc.)  
- Ensure proper method to respond in case of any emergency. (Assessor to ask viva questions to assess the knowledge)  
- Name different safety awareness program.  
- List the benefits of attending safety awareness program.  
PC5. Identify near miss, unsafe condition and unsafe act  
- List unsafe condition found while performing the task (Lack of illumination, inadequate ventilation, overcrowded and congested work places, unguarded and faulty machineries, defective tools and equipment etc.)  
- List unsafe act found while performing the task (Not wearing safety gadgets, bullying team member, using faulty machineries etc.). |
| PC7. | Handle all required tools, tackles, materials & equipment safely.  
- Follow safe practice while handling hand tools and materials  
Assessor may observe this skill while following tasks are being performed by assesses  
- CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis  
- CON/N0357: Erect and dismantle scaffolds using pipes and couplers |
| PC8. | Follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines  
- Follow safe disposal of harmful waste.  
- Follow proper precautionary measures while handling harmful waste (waste shuttering oil, chemical etc.)  
- Dispose hazardous waste into designated container. |
| PC9. | Install and apply properly all safety equipment as instructed  
- Identify and demonstrate the use of air breathing equipment.  
- Identify and demonstrate the use of fire extinguisher.  
- Identify and demonstrate the use of fire blanket. |
| PC10. | Follow safety protocol and practices as laid down by site EHS department.  
- Identify and list the information provided in emergency preparedness plan.  
- Describe safe assembly point.  
- List emergency services with contact number (Fire, ambulance etc.).  
- List the components of first aid box.  
- Describe first aid procedure for different accidents.  
- List hygienic practice to be followed. |
| PC11. | Collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes  
- Collect the waste into designated yard or container based on the type of waste  
- Follow correct method to shift waste materials to the designated yard |
| PC12. | Apply ergonomic principles wherever required.  
- Follow proper ergonomic principles while performing all the task (While climbing and landing on the scaffold)  
Assessor may observe this skill while following tasks are being performed by assesses  
- CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis  
- CON/N0357: Erect and dismantle scaffolds using pipes and couplers |

<table>
<thead>
<tr>
<th>Total Marks</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total</td>
<td>400</td>
</tr>
</tbody>
</table>
6. Tools, materials and consumable list

Below tools list is prepared based on the practical questions for the NOS CON/N0356 and CON/N0357.

<table>
<thead>
<tr>
<th>Tools and consumables required</th>
<th>Sl.no.</th>
<th>Particulars</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tools</strong></td>
<td>1.</td>
<td>Podge spanner</td>
<td>17, 19, 21</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>Ring spanner</td>
<td>17, 19, 21</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>Open end spanner</td>
<td>17, 19, 21</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>Claw hammer</td>
<td>Short handle</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>Mash hammer</td>
<td>2 lb</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>6.</td>
<td>Vernier calliper</td>
<td>Any reputed brand</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>7.</td>
<td>Hack saw blade with frame</td>
<td>Type B</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>8.</td>
<td>Line string</td>
<td>Nylon</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>9.</td>
<td>Knife</td>
<td>Steel</td>
<td>4 sets</td>
</tr>
<tr>
<td></td>
<td>10.</td>
<td>Wheel pulley</td>
<td>Light duty</td>
<td>4 sets</td>
</tr>
<tr>
<td><strong>Measuring instruments</strong></td>
<td>1.</td>
<td>Steel scale</td>
<td>30 cm</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>Try square</td>
<td>150 X150 mm</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>Spirit level</td>
<td>3 meter</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>Plumb bob</td>
<td>Brass (150 gram)</td>
<td>04</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>Measuring tape</td>
<td>5 meter</td>
<td>4 sets</td>
</tr>
<tr>
<td><strong>Power tools</strong></td>
<td>1.</td>
<td>Drilling machine</td>
<td>Any reputed brand</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>Putlog or bearers (Bamboo/Balli)</td>
<td>100 x 100</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>Ledgers supporting to putlog (Bamboo/Balli)</td>
<td>75 x 150</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>Ledgers not supporting to putlog (Bamboo/Balli)</td>
<td>50 x 150</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>5.</td>
<td>Braces (Bamboo/Balli)</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>6.</td>
<td>Base plate (12 mm thick)</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>7.</td>
<td>Sole board</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>8.</td>
<td>MS pipe 50mm OD, 4mm thick</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>9.</td>
<td>MS pipe 50mm OD, 4mm thick</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>10.</td>
<td>MS pipe 50mm OD, 4mm thick</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>11.</td>
<td>Swivel coupler</td>
<td>GI</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>12.</td>
<td>Rigid coupler</td>
<td>GI</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>13.</td>
<td>Putlog coupler</td>
<td>GI</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>14.</td>
<td>Sleeve coupler</td>
<td>GI</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>15.</td>
<td>Stairway set (including all components)</td>
<td>MS</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>16.</td>
<td>Toe board</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>17.</td>
<td>Wooden planks</td>
<td>As required</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>18.</td>
<td>Lifting appliances (wheel and rope)</td>
<td>Any reputed brand</td>
<td>2 sets</td>
</tr>
<tr>
<td></td>
<td>19.</td>
<td>Wheel barrows</td>
<td>100 kg capacity</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>20.</td>
<td>Safety Net</td>
<td>Any reputed brand</td>
<td>As required</td>
</tr>
<tr>
<td><strong>Materials required for practical</strong></td>
<td>1.</td>
<td>Helmet</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
</tr>
<tr>
<td></td>
<td>2.</td>
<td>Face shield</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
</tr>
<tr>
<td></td>
<td>3.</td>
<td>Safety goggles</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
</tr>
<tr>
<td></td>
<td>4.</td>
<td>Safety shoes</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Safety belt</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Ear defenders</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Particle masks</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Knee pad</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Reflective jackets</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Pencil</td>
<td>Any reputed brand</td>
<td>1 per learner</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Class room for theory assessment with 30 study chairs</td>
<td>300 sq.ft</td>
</tr>
<tr>
<td>2.</td>
<td>Workshop for practical assessment</td>
<td>900 sq.ft</td>
</tr>
<tr>
<td>3.</td>
<td>Toilet/Urinals (Separate for gents and Ladies)</td>
<td>2 WC +5 urinals</td>
</tr>
<tr>
<td>4.</td>
<td>3 phase power supply points</td>
<td>Any reputed brand</td>
</tr>
<tr>
<td>5.</td>
<td>Single phase power supply points</td>
<td>Any reputed brand</td>
</tr>
<tr>
<td>6.</td>
<td>Fire extinguishers (mechanical foam, DCP, CO₂ and sand buckets with stand)</td>
<td>Any reputed brand</td>
</tr>
<tr>
<td>7.</td>
<td>First aid kit</td>
<td>Any reputed brand</td>
</tr>
<tr>
<td>8.</td>
<td>Tool box with lock and key</td>
<td>Any reputed brand</td>
</tr>
</tbody>
</table>
7. Assessment methods/tools

7.1 CON/N0356: Erect and dismantle the conventional staging using bamboos and ballis

A. Practical questions

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Total Marks: 80</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calculate the quantity of materials and tools required for single pole scaffold.</strong></td>
<td>5 marks</td>
</tr>
<tr>
<td>Candidate to calculate the quantity of material required for single pole scaffold (vertical post, ledger, putlog, braces, sole board, platform boards, toe boards, fibre ropes, plumb bob, spirit level, line string, knife etc.)</td>
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</tr>
<tr>
<td><strong>Calculate the quantity of material required for double pole scaffold.</strong></td>
<td>5 marks</td>
</tr>
<tr>
<td>Candidate to calculate the quantity of material required for double pole scaffold (vertical post, ledger, braces, sole board, platform boards, toe boards, fibre ropes, plumb bob, spirit level, line string, knife etc.)</td>
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</tr>
<tr>
<td><strong>Prepare the area where scaffold is to be erected.</strong></td>
<td>10 marks</td>
</tr>
<tr>
<td>Ensure that the area is well compacted in case scaffold need to be erected on ground.</td>
<td></td>
</tr>
<tr>
<td>Remove unwanted materials and clean the area.</td>
<td></td>
</tr>
<tr>
<td>Barricade the area with guard rails and safety net to avoid unauthorised entries.</td>
<td></td>
</tr>
<tr>
<td><strong>Carryout single pole scaffold using bamboo or ballies</strong></td>
<td>15 Marks</td>
</tr>
<tr>
<td>Select bamboo/ballies as per the requirement (Height, diameter and thickness)</td>
<td></td>
</tr>
<tr>
<td>Follow correct sequence as per the industry standards.</td>
<td></td>
</tr>
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<tr>
<td><strong>Check single pole scaffold for verticality, support, dimensional accuracy and tightness of knots.</strong></td>
<td>5 Marks</td>
</tr>
<tr>
<td>Candidate to demonstrate how to check verticality, alignment, dimensional accuracy.</td>
<td></td>
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<tr>
<td><strong>Carryout dismantling of single pole scaffold.</strong></td>
<td>10 Marks</td>
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<tr>
<td>Follow correct sequence as per the industry standards</td>
<td></td>
</tr>
<tr>
<td>Lower the scaffold material in a safe manner</td>
<td></td>
</tr>
<tr>
<td>Clean and stack materials in a designated area.</td>
<td></td>
</tr>
<tr>
<td>Ensure housekeeping after the completion of job.</td>
<td></td>
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<td><strong>Carryout dismantling of double pole scaffold.</strong></td>
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(All tasks should be considered accepted only on completion of task within acceptable tolerance limit. Also keep in view that completion of given task within permissible tolerance limit will be awarded full marks otherwise zero. Accepted tolerance limit for this task is attached in annexure and also mentioned in respective assessment sheet)
A. Carryout single pole scaffold using bamboo or balli as per the drawing

Note: This task can be modified without deviating the performance criteria. Helper to be provided to perform the task.
B. Carryout double pole scaffold using bamboo or balli as per the drawing

Note: This task can be modified without deviating the performance criteria. Helper to be provided to perform the task.
B. Multiple choice questions

(Preferably written but oral is also permitted)

1. A member fixed diagonally across two or more members in a scaffold to afford stability is called _______________? 2 Marks
   a. Transom
   b. Ledger
   c. Brace
   d. Guard rail

2. What is the other name for single pole scaffold? 1 Mark
   a. Independent scaffold
   b. Out rigger scaffold
   c. Rigid scaffold
   d. Putlog scaffold

3. Which of the following activity require heavy duty scaffold? 1 Mark
   a. Painting work
   b. **Masonry work**
   c. Decorative work
   d. Carpentry work

4. Which of the following is the maximum height recommended for bamboo scaffold? 2 Marks
   a. 12 meter.
   b. 24 meter
   c. 36 meter
   d. 18 meter

5. What is the minimum overlap required while extending the standard? 1 Mark
   a. 30 centimetre
   b. **60 centimetre**
   c. 90 centimetre
   d. 40 centimetre

6. The vertical spacing of the ties shall not be exceed ______? 1 Mark
   a. 10 meter
   b. 8 metre
   c. 2 meter
   d. **4 meter**

7. Which of the following is the safety code for scaffolds and ladders? 1 Mark
   a. **IS 3696 (part 1)-1987**
   b. IS 3036 (part 2)-1987
What is called mean diameter of the bamboo?

a. **Average of the diameter at top and bottom of bamboo**
b. Diameter of the bamboo at knot point
c. Diameter of the bamboo at the bottom
d. Diameter of the bamboo at the top

Which of the following knot is used to join two ropes?

a. Figure eight knot
b. **Reef knot**
c. Clove hitch knot
d. Thumb knot

Which of the following is the minimum overlap for scaffold planks?

a. 150mm
b. **300 mm**
c. 450 mm
d. 100mm
C. Viva questions

(These questions could be asked during practical observation)

1. List different types of bamboo scaffolds? 2 Marks
   **Possible answers**
   - a. Putlog scaffold
   - b. Double pole scaffold
   - c. Outrigger scaffold
   - d. Light duty scaffold
   - e. Heavy duty scaffold

2. What are the basic requirement of timber used in the construction of scaffold? 2 Marks
   **Possible answers**
   - a. Should be straight
   - b. Should be sound
   - c. Should be free from splits
   - d. Should be free from large crack and knots
   - e. Should be free from worn holes and dry rot

3. List different types of ropes used in scaffolding? 2 Marks
   **Possible answers:**
   - a. Manila fibre rope
   - b. Sisal fibre rope
   - c. Coir fibre rope
   - d. Hemp fibre rope
   - e. Nylon rope

4. What are the main components of a putlog scaffold? 2 Marks
   **Possible answers:**
   - a. Standard: Vertical member which holds the weight of scaffold.
   - b. Ledgers: Horizontal member which extend from standards.
   - c. Putlog: Horizontal pipe which is inserted in to the structure from standards.
   - d. Walk Board: Worker can access this walk board to execute the work.
   - e. Toe Board: It is a board used to prevent the material and other accessories slip from the platform.
   - f. Guard Rails: To prevent the human slip from the platform.
7.2 CON/N0357: Erect and dismantle scaffolds using pipes and couplers

A. Practical questions

- Calculate the quantity of material required for single layer scaffold. 5 marks
- Candidate to calculate the quantity of materials and tools required for single layer scaffold (vertical post, ledger, diagonal braces, sole board, base plate, rigid clamp, swivel clamp, sleeve clamp, screw jack, platform boards, toe boards, fibre ropes, claw hammer, podger hammer, mash hammer, spirit level, plumb bob, line string etc.)
- Calculate the quantity of material required for double layer scaffold. 5 marks
- Candidate to calculate the quantity of material required for double pole scaffold (vertical post, ledger, diagonal braces, sole board, base plate, rigid clamp, swivel clamp, sleeve clamp, screw jack, platform boards, toe boards, fibre ropes, claw hammer, podger hammer, mash hammer, spirit level, plumb bob, line string etc.)
- Prepare the area where scaffold is to be erected. 10 marks
- Ensure that the area is well compacted in case scaffold need to be erected on ground.
- Remove unwanted materials and clean the area.
- Barricade the area with guard rails and safety net to avoid unauthorised entries.
- Carryout single layer scaffold using pipes and couplers 15 Marks
- Select pipes, coupler as per the requirement
- Follow correct sequence as per the industry standards.
- Carryout double layer scaffold using pipes and couplers 15 Marks
- Select pipes, coupler as per the requirement (rigid coupler for cross intersection, swivel coupler for diagonal intersections)
- Follow correct sequence as per the industry standards.
- Check single layer scaffold for verticality, support, dimensional accuracy and tightness of knots. 5 Marks
- Candidate to demonstrate how to check verticality, alignment, dimensional accuracy.
- Check double layer scaffold for verticality, support, dimensional accuracy and tightness of knots. 5 Marks
- Candidate to demonstrate how to check verticality, alignment, dimensional accuracy.
- Carryout dismantling of single pole scaffold. 10 Marks
- Follow correct sequence as per the industry standards
- Lower the scaffold material in a safe manner
- Clean and stack materials in a designated area.
- Ensure housekeeping after the completion of job.
- Carryout dismantling of double pole scaffold. 10 Marks
- Follow correct sequence as per the industry standards
- Lower the scaffold material in a safe manner
- Clean and stack materials in a designated area.
- Ensure housekeeping after the completion of job.

(All tasks should be considered accepted only on completion of task within acceptable tolerance limit. Also keep in view that completion of given task within permissible tolerance limit will be awarded full marks otherwise zero. Accepted tolerance limit for this task is attached in annexure and also mentioned in respective assessment sheet)
A. Carryout single layer scaffold using pipes and couplers as per the drawing

Note: This task can be modified without deviating the performance criteria. Helper to be provided to perform the task.
B. Carryout double layer scaffold using pipes and couplers as per the drawing

Note: This task can be modified without deviating the performance criteria. Helper to be provided to perform the task.
B. Multiple choice questions

(Preferably written but oral is also permitted)

Total Marks: 12
Duration: 15 Minutes

1. Which of the following areas is suitable for erecting scaffold?  
   a. Over wet soil  
   b. **Over filled and compacted soil**  
   c. Over loose soil  
   d. Over deep sloped soil

2. Identify the scaffold component from the image below?  
   a. **Putlog coupler**  
   b. Sleeve coupler  
   c. Swivel coupler  
   d. Rigid coupler

3. Which of the following is an upstand or vertical barrier at the edge of a platform intended to prevent materials, or workers from slipping off the platform?  
   a. Ladder  
   b. **Toe board**  
   c. Transom  
   d. Working platform

4. What is the minimum thickness of a wooden sole board?  
   a. **50mm**  
   b. 100 mm  
   c. 25mm  
   d. 80mm

5. Which of the following tool is used to place or remove pins in the pipes or tubes?  
   a. Claw hammer  
   b. Mash hammer  
   c. Ring spanner  
   d. Podger spanner

6. Which of the following scaffold component used to adjust the base level?  
   a. **Adjustable base plate**  
   b. Nonadjustable base plate  
   c. Sole board  
   d. Scaffold board

7. Which of the following coupler is used to tie diagonal bracings in scaffold?  
   a. Right angle coupler  
   b. **Swivel coupler**  
   c. Putlog coupler  
   d. Sleeve coupler
8. Which of the following statement is not correct while installing ladder to the scaffold? 2 Marks
   a. ladder should be placed at an angle approximately 75 degree from the horizontal
   b. both bottom and top of the ladder should be secured to prevent displacement
   c. **Width of the ladder should not be less than 600 mm.**
   d. Ladder rails should be extended at least 1 meter above the top landing

9. What does red tag in scaffold indicate? 2 Marks
   a. **Unsafe, do not use**
   b. Ready to use
   c. Work in progress
   d. Caution about hazard

10. Which of the following statement you feel incorrect while dismantling a scaffold? 2 Marks
    a. Clean the material in case of accumulation of dead mortar or mud
    b. Segregate and stack components after dismantling
    c. Inspect the component and report if any damages
    d. **Throw scaffold component from top to ground while dismantling**
C. Viva questions

(These questions could be asked during practical observation)

1. What are the common tools used in scaffolding?  
   **Possible answers:**  
   a. Claw hammer  
   b. Podger spanner  
   c. Ring spanner  
   d. Spirit level  
   e. Plumb bob  
   f. Line string  

2. What are the guideline to be followed while installing working platform?  
   **Possible answers:**  
   a. Working platform must be checked for any defects before using it. Damaged units should be removed from the service immediately.  
   b. Do not use painted wooden boards as this may hide any damages in the board.  
   c. Select proper type of scaffold board based on the type of work involved and the load imposed on it.  
   d. Each platform should be fully decked by ensuring no gaps are left between the boards.  
   e. Scaffold planks or prefabricated units must be properly tied with scaffold to avoid any displacement.  
   f. Working platform should be wide enough to accommodate worker, material and equipment.  
   g. Clear width of the platform walk way should not be less than 450 mm.  
   h. Planks should be extended over the support at not less than 50 mm and not more than 150 mm.  
   i. Platform edge should be marked for identification.  

3. List different types access used in scaffolding?  
   **Possible answers:**  
   a. Ladder  
   b. Ramp or walk way  
   c. Stairways  

4. What are the pre checks to be ensured before starting scaffold dismantling?  
   **Possible answers**  
   a. Ensure that the work is completed for which the scaffold is erected.  
   b. Take prior approval from reporting senior.  
   c. Check for any damage on scaffold components.  
   d. Ensure that no support is been removed.  
   e. Ensure that no ledgers or bracings removed.  
   f. Ensure that the surroundings of dismantling area is properly barricaded.
7.3 CON/N8001: Work effectively in a team to deliver desired results at the workplace

A. Practical questions

Assessor is required to assess this NOS based on his/her observation skill and knowledge to observe, ask questions and assess trainee while performing all core NOS’s during the practical task for following points:

- How the candidate communicates work related information to team member or to assessor. 10 Marks
  - Is the candidate able to explain the process/sequence before performing every task? (Like erecting and dismantling scaffold etc.)
  - Is the candidate able to communicate properly with other candidate while adjusting base level using spirit level?
- How the candidate escalated deviations to the seniors/assessor. 10 Marks
  - If the candidate reduced the height of scaffold due to some obstructions
- How the candidate addresses and reports problems. 15 Marks
  - If the candidate noticed damaged tool or material (Compulsory: assessor to provide damaged tool or material to the candidate to assess this skill)
  - If candidate noticed shortage of materials while performing task (Assessor to provide less quantity of coupler to assess this skill)
  - If trainee facing problem with shortage of working space
  - If trainee found lack of illumination while performing the task.
- How a person receive and follow the instructions given by seniors/assessor. 15 Marks
  - Is candidate able to follow class room disciplines?
  - Is candidate able to follow instructions given by assessor?
- How a person seeks clarifications and resolves the issues raised during performing the task. 15 Marks
  - Is the candidate able to clarify if the information given for particular task is insufficient?
- How a person works as a team, like, proper cooperation, timely handing over tools and materials, helping and advising team members, etc. 15 Marks
  - Is the candidate able to take support of team member? (While shifting scaffold materials from the yard, while checking measurements and alignments etc.)
  - Is the candidate able to hand over the tools timely to other candidate? (For example Spirit level, spanner, PPE’s, measurement tape etc.)
B. Multiple choice questions

(Preferably written but oral is also permitted)

1. What is the first step to be followed before engaging with work? 2 Marks
   a. Receive work instruction from customer
   b. Receive work instruction from co-worker
   c. Receive work instruction from reporting senior
   d. Receive work instruction from interfacing team

2. What is supposed to be done if the tool gets damaged while executing the task? 2 Marks
   a. Hide the problem with senior
   b. Put blame on other team member
   c. Inform to the reporting senior about the damage
   d. Dispose the damaged equipment without informing anybody

3. How can a scaffolder review the quality of completed tasks? 2 Marks
   a. By taking feedback from manufacturer
   b. By taking feedback from top management
   c. By taking feedback from juniors
   d. By taking feedback from reporting senior

4. What should be done if there is material shortage while executing a task? 2 Marks
   a. Wait till other team members to escalate
   b. Use damaged materials and complete the task
   c. Address reporting senior
   d. Inform to the higher management

5. Which of the following is considered as a negative development for a team? 2 Marks
   a. Cooperation
   b. Mutual understanding
   c. Communication gap
   d. Helping each other

6. What should be done if there is lack of coordination found within the team? 2 Marks
   a. Do not bother about others opinion and argue with them
   b. Discuss with team member and resolve the conflict
   c. Stop the work and protest with the team member
   d. Escalate it to the management and wait for the action
C. Viva questions

(These questions could be asked during practical observation)

1. What are the benefits of receiving feedback from the reporting senior? 2 Marks
   Possible answers:
   a. Know the quality of work executed.
   b. Learn from the mistakes, if any.
   c. Improve the skill set from past experience of reporting senior.
   d. Aware of latest technology from reporting senior.
   e. Support from and mutual understanding with reporting senior.
   f. Helps to get rewards and salary hike.

2. Who is called authorized people in construction site? 2 Marks
   Possible answers:
   a. The people who listens to problems and provide solutions
   b. The people who are responsible for providing safe working guidelines
   c. The people who help in proper decision making
   d. The people who provide approval for work permit

3. What are the x’ 2 Marks
   Possible answers:
   a. Cooperation with team members
   b. Knowledge sharing with team members
   c. Advising team members with known skills
   d. Avoid spreading rumours within the team
   e. Respecting the opinions of each team member
   f. Motivating the team members to achieve desired outcomes

4. What are the benefits of discussing work related information’s with colleagues? 2 Marks
   Possible answers:
   a. Understanding the timeline and targets.
   b. Understand the scope of work.
   c. More ideas by knowledge sharing.
   d. Helps team member to achieve their targets.
   e. Avoid conflicts within the team.
   f. Build good working environment
7.4 CON/N8002: Plan and organize work to meet expected outcomes

A. Practical questions

Total Marks: 80

Assessor is required to assess this NOS based on his/her observation skill and knowledge to observe, ask questions and assess trainee while performing all core NOS’s during the practical task for following points:

- How a person understand the targets and time line set by supervisor. 15 Marks
  - Is candidate able understand the target clearly? (compulsory) (Ex. Type of scaffold, component details, duration for each task etc.)

- How a person plan activities as per schedule and sequence. 15 Marks
  - Is candidate able to explain the plan and sequence before performing any core task? (Compulsory: assessor to ask candidate to explain the sequence of task (for any core task)

- How a person provide guidance to the subordinates to obtain desired outcome. 15 Marks
  - Is candidate able to guide other candidate while working together? (Ex. While checking scaffold level using spirit level, while shifting material from ground to scaffold platform etc.)

- How a person arrange required resources prior to commencement of work. 15 Marks
  - Is candidate able to arrange right quantity of material? (Ex. Quantity of scaffold materials, number of helper, tools etc.)

- How a person utilize resources effectively during performing the task. 10 Marks
  - Is candidate able to use the scaffold materials, tools and man power within the allowable limit?
  - Is able to engage helpers properly?

- How a person adhere to the standard instructions while performing the task. 10 Marks
  - Is candidate able to follow standard instructions? (Ex. Class room discipline, using proper PPE’s, care on tools, materials and surrounding environments etc.)
B. Multiple choice questions

(Preferably written but oral is also permitted)

Total Marks: 12
Duration: 10 Minutes

1. What is the purpose of method statement? 2 Marks
   a. **To understand the sequence of work**
   b. To measure the quantity of work done
   c. To track the project schedule
   d. To assess the quality of work done

2. What is the first thing a scaffolder should do for starting a new work? 2 Marks
   a. Collect the materials
   b. Collect the tools
   c. **Discuss and plan the details of the work with his supervisor**
   d. Discuss and plan the details of the work with the client

3. Which of the following is not the resources used in scaffolding? 2 Marks
   a. Skilled helpers
   b. Scaffold components
   c. Scaffold tools
   d. **Skilled masons**

4. Which of the following statement you feel correct while engaging tools? 2 Marks
   a. Engage damaged tool to save cost
   b. Always engage new and branded tools
   c. **Engage right tool for the right job**
   d. Engage only used tool

5. Which of the following statement you feel correct while engaging helpers? 2 Marks
   a. Engage less number of helpers to save cost
   b. Engage more helpers than the requirement
   c. **Engage required number of trained helpers**
   d. Engage unskilled helpers to save the cost

6. Which of the following is the unit of measurement for scaffolding work? 2 Marks
   a. Cubic meter
   b. Square meter
   c. Running meter
   d. **All the above**
C. Viva questions

(These questions could be asked during practical observation)

1. What are the details that can be found in an activity plan?  
   Possible answers:
   a. Specification of the work  
   b. Quantity of the work  
   c. Time line to complete the task  
   d. Sequence of work  
   e. Resource required to complete the work  
   f. Risk involved in the work

2. What must be included in the briefing of the subordinates before start of the work?  
   Possible answers:
   a. Content/ scope of work  
   b. Work practices  
   c. Safety hazards  
   d. Use of PPEs  
   e. Special precautions

3. How a worker can reduce the wastages while performing a task?  
   Possible answers:
   a. Engage right tool for the right job  
   b. Optimum utilization of resources  
   c. Use good quality of materials  
   d. Engage trained manpower for the right job  
   e. Follow standard procedure for handling tools, materials and equipment.  
   f. Follow safe operating procedures and instructions  
   g. Ensure accuracy while measuring and marking

4. What are the resources that need to be arranged before start of a scaffolding work?  
   Possible answers:
   a. Scaffold components (Standard, ledger, braces, coupler, sole board, base plate etc)  
   b. Tools (Claw hammer, mash hammer, podge spanner, ring spanner, line string, etc.)  
   c. Measuring instruments (measuring tape, right angle, plumb bob, spirit level etc.)  
   d. Man power (helper scaffolder, assistant scaffolder, supervisor, engineer)  
   e. Documents (drawing, specifications, work schedule etc.)
7.5 CON/N9001: Work according to personal health, safety and environment protocol at construction site

A. Practical questions

Total Marks: 80
Duration: 30 Minutes

Assessor is required to assess this NOS bases on his/her observation skill and knowledge to observe, ask questions and assess trainee while performing all core NOS’s during the practical task for following points (If particular outcome is not covered in any of the core NOS’s, assessor need to insist candidate to perform the activities):

- How person identify hazards, risks in site and report to seniors 8 Marks
  - Is candidate able to escalate hazards, risks to the senior? (Ex: Inadequate illumination, co-worker working at height without using safety harness, damaged electrical cables etc.)

- How a person respond to emergency and evacuation procedures in case of accidents, fires. 8 Marks
  - Is candidate able to explain the emergency evacuation procedure in case of different emergencies? (Ex: Fire, building collapse, flood etc.)

- Use of personal protective equipment listed below (Compulsory). 30 Marks
  (Use of PPEs specified at NOS is mandatory for all the assesse and candidate should score 100% mark in this particular outcome.)
  - Is candidate able to demonstrate the use of all personal protective equipment’s? (Ex. Helmet, harness, safety goggles, safety shoes, hand gloves, gum boot, earplug, dust mask, reflective jacket, shoulder pack, etc.)

- Identification and operation procedure for fire extinguishers. 8 Marks
  - Is candidate able to identify different types of fire extinguishers? (Ex. DCP, CO2, Foam etc.).
  - Is candidate able to demonstrate the operating procedure for different types of fire extinguishers? (Assessor to insist candidate to perform this task)

- Handling technique of tools, materials and equipment. 8 Marks
  - Is candidate able to explain the handling techniques of tools, materials and equipment?

- Adhere to safe working practices while working at height, using tools and equipment, material shifting, working with hazardous materials etc. 9 Marks
  - Is candidate able to follow precautionary measures in disposal of harmful chemicals?

- Ensure cleaning, housekeeping and waste disposal. 9 Marks
  - Is candidate able to plan housekeeping while performing the task?
  - Is candidate able explain the method to shift waste to designated yard?
B. Multiple choice questions

(Preferably written but oral is also permitted)

1. Which of the following is not the safety hazard found in scaffolding work? 2 Marks
   a. Overhead power lines
   b. Hit by moving vehicles
   c. Fire due to arson
   d. High wind pressure

2. Which of the following information found in an emergency preparedness plan? 2 Marks
   a. Contact details of emergency rescue team
   b. Contact details of site visitors
   c. Work specifications
   d. Project schedule

3. Which of the following safety training is mandatory for workers before entering a new site? 1 Mark
   a. Induction training
   b. First aid training
   c. Refresher training
   d. Specific training

4. Which part of the safety helmet has suspension system to absorb shock in case of an impact? 1 Mark
   a. Hard shell
   b. Chin strap
   c. Crown strap
   d. Sweat band

5. What is the meaning of firefighting?  
   a. Working in fire hazard area
   b. Process of extinguishing fire
   c. Disposing of fire hazard materials
   d. Working in high temperature zone

6. Which of the following is not an emergency equipment? 2 Marks
   a. Breathing apparatus
   b. Emergency lamp
   c. Sun safety glass
   d. Fire extinguisher

7. Where should fibre rope waste be dumped? 1 Mark
   a. Mixed and dumped with other waste
   b. Returned to the store
   c. In a designated waste yard
   d. Let it lie in work place

8. Which of the following statement is correct while handling materials manually? 1 Mark
   a. Keep the load away from your body
   b. Keep your back straight at all times
   c. Keep your feet as close as possible
   d. Twist your body while carrying load
C. Viva questions

Total Marks: 08
Duration: 4 Minutes

(These questions could be asked during practical observation)

1. What are the possible hazards find during scaffolding work? 2 Marks
   **Possible answers**
   a. Falls from elevation.
   b. Electrocution be overhead power lines.
   c. Struck by falling tools and debris.
   d. Scaffold collapse by overloading and soil sliding.
   e. Bad planking.
   f. Unfastened lateral supports.
   g. Working without proper safety gears.

2. State the colour codes and their meaning used in safety signage? 2 Marks
   **Possible answers**
   a. Red – Danger, prohibitive, fire or emergency.
   b. Blue – Mandatory or things to do.
   c. Yellow – Caution, hazard warning or take precautions.
   d. Green – safe condition, safe method/equipment, exit or escape.

3. State the type’s fire extinguishers. 2 Marks
   **Possible answers**
   a. Carbon dioxide fire extinguisher.
   b. Dry chemical powder fire extinguisher.
   c. Halon fire extinguisher.
   d. Soda acid fire extinguisher.
   e. Gas pressure extinguisher.
   f. Constant pressure type extinguisher.

4. List safe techniques for material handling 2 Marks
   **Possible answers**
   a. Assess the load before handling.
   b. Bend your knees and whilst keeping your back straight.
   c. Keep the head up while handling material.
   d. Do not turn your body while handling material.
   e. Use both hand to lift the material.
   f. Wear appropriate safety gears while handling material.
8. Assessment Evidence Form

Trainee name:  
Trainee roll number:  

Centre name/ Code Date:

This is to confirm that the trainee has handed over the final job to the assessor.  
(For each task separate sheet can be used)

Assessor to affix photographs of the practical output. (Photo should be taken along with the Candidate, Assessor and training coordinator with time and date)

Trainee’s signature:  
Trainee’s name (please print):  

Assessor’s signature:  
Assessor’s name (please print):  

Centre Head’s seal and signature:
9. Assessment summary

Assessor's comments

This is to confirm that the trainee has undertaken the assessment for the job role of Scaffolder - Conventional.

Trainee's signature: 

Trainee’s name (please print): 

Assessor’s signature: 

Assessor’s name (please print): 

Centre Head’s seal and signature: 

Trainee’s photo ID (other than the Institute ID): 

Assessment completion date: 
# 10. Assessment Summary Sheets

## ASSESSMENT SUMMARY
Qualification Pack - Scaffolder - Conventional Level-4

### Training Provider:
- Affiliation No.

### Testing Centre:
- Accreditation No.

### Candidate Detail:
- Roll No.:
- Batch:
- Name:

### Assessment Summary:

<table>
<thead>
<tr>
<th>NOS No.</th>
<th>Allotted (Marks)</th>
<th>Knowledge</th>
<th>Skill (Practical)</th>
<th>Knowledge</th>
<th>Skill (Practical)</th>
<th>Knowledge</th>
<th>Skill (Practical)</th>
<th>Knowledge</th>
<th>Skill (Practical)</th>
<th>Knowledge</th>
<th>Skill (Practical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON/N0001</td>
<td>80 12 8</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
</tr>
<tr>
<td>CON/N0002</td>
<td>80 12 8</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
</tr>
<tr>
<td>CON/N0003</td>
<td>80 12 8</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
</tr>
<tr>
<td>CON/N0004</td>
<td>80 12 8</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
</tr>
<tr>
<td>Total: 800</td>
<td>400 12 8</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
<td>Theory</td>
<td>Viva</td>
</tr>
</tbody>
</table>

- Percentage weightage: 80% Knowledge, 12% Theory, 8% Viva
- Minimum pass % to qualify: 70% for Knowledge, 70% for Skill (Practical)

### Result:
- Passed/Failed

### Assessors Name:
- Signature:

### Assessing Body Representative Name:
- Signature:

### Assessment Agency:
- Date:

---

Scaffolder – Conventional L-4
<table>
<thead>
<tr>
<th>QP &amp; NOS Detail</th>
<th>Skills (Total Marks = 80)</th>
<th>Marks Obtained by candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>QP: Scaffolder - Conventional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Calculate the quantity of materials and tools required for single pole scaffold</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2. Calculate the quantity of material required for double pole scaffold</td>
<td>5</td>
</tr>
<tr>
<td>CON/N0356: Erect and dismantle the conventional staging using bamboo and ballis</td>
<td>3. Prepare the area where scaffold is to be erected</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>4. Carryout single pole scaffold using bamboo or ballis</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>5. Carryout double pole scaffold using bamboo or ballis</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>6. Check single pole scaffold for verticality, support, dimensional accuracy and tightness of knots</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>7. Check double pole scaffold for verticality, support, dimensional accuracy and tightness of knots</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>8. Carryout dismantling of single pole scaffold</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9. Carryout dismantling of double pole scaffold</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total Marks</td>
<td>80</td>
</tr>
</tbody>
</table>

**Knowledge - MCQ** (Total Marks = 12)

1. Knowledge about scaffold terminology | 2 |
2. Knowledge about the other name for single pole scaffold | 1 |
3. Knowledge about the activities for heavy duty scaffold | 1 |
4. Knowledge about the maximum height recommended for bamboo scaffold | 2 |
5. Knowledge about the minimum overlap required while extending the standard | 1 |
6. Knowledge about the vertical spacing of the ties | 1 |
7. Knowledge about the safety code for scaffolds and ladders | 1 |
8. Knowledge about the mean diameter of the bamboo | 1 |
9. Knowledge about the knot used to join two ropes | 1 |
10. Knowledge about minimum overlap length for scaffold planks | 1 |
| Total Marks | 12 |

**Knowledge Viva** (Total Marks = 8)

1. Knowledge about different types of bamboo scaffolds | 2 |
2. Knowledge about the basic requirement of timber used in the construction of scaffold | 2 |
3. Knowledge about different types of ropes used in scaffolding | 2 |
4. Knowledge about the main components of a putting scaffold | 2 |
| Total Marks | 8 |
1. Calculate the quantity of material required for single layer scaffold 5
2. Calculate the quantity of material required for double layer scaffold 5
3. Prepare the area where scaffold is to be erected 10
4. Carry out single layer scaffold using pipes and couplers 15
5. Carry out double layer scaffold using pipes and couplers 15
6. Check single layer scaffold for verticality, support, dimensional accuracy and tightness of knots 5
7. Check double layer scaffold for verticality, support, dimensional accuracy and tightness of knots 5
8. Carry out dismantling of single pole scaffold 10
9. Carry out dismantling of double pole scaffold 10

Total Marks 80

Knowledge - MCQ (Total Marks = 12)

1. Knowledge about surface preparation for scaffolding 2
2. Knowledge about the scaffold component 2
3. Knowledge about the terminology used in scaffolding 2
4. Knowledge about thickness of a wooden sole board 2
5. Knowledge about the bolts 2
6. Knowledge about scaffold component used to adjust the base level 2
7. Knowledge about coupler the diagonal bracings in scaffold 2
8. Knowledge about the procedure while installing ladder to the scaffold 2
9. Knowledge about the red tag in scaffold 2
10. Knowledge about the procedure of dismantling scaffold 2

Total Marks 20

Knowledge Viva (Total Marks = 08)

1. Knowledge about common tools used in scaffolding 2
2. Knowledge about guideline to be followed while installing working platform 2
3. Knowledge about the different types access used in scaffolding 2
4. Knowledge about the pre checks to be ensured before starting scaffold dismantling 2

Total Marks 8
### QP & NOS Detail

**QP:** Scaffolder - Conventional  
**NOS:** CON/N8001: Work effectively in a team to deliver desired results at the workplace

### Skills (Total Marks = 80)

<table>
<thead>
<tr>
<th>Skills</th>
<th>Allocated Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How the candidate communicate work related information to team member or to assessor</td>
<td>10</td>
</tr>
<tr>
<td>2. How the candidate escalate deviations to the seniors/assessor</td>
<td>10</td>
</tr>
<tr>
<td>3. How the candidate address and report problems</td>
<td>15</td>
</tr>
<tr>
<td>4. How a person receive and follow the instructions given by seniors/assessor</td>
<td>15</td>
</tr>
<tr>
<td>5. How a person seek clarifications and resolve the issues raised during performing the task</td>
<td>15</td>
</tr>
<tr>
<td>6. How a person work as team like, proper cooperation, timely handing over tools and materials, helping and advising team members</td>
<td>15</td>
</tr>
</tbody>
</table>

**Total Marks:** 80

### Knowledge-MCQ (Total Marks = 12)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge about reporting senior about the problem</td>
<td>2</td>
</tr>
<tr>
<td>2. Knowledge about taking feedback from reporting senior</td>
<td>2</td>
</tr>
<tr>
<td>3. Knowledge about reporting senior about the damage</td>
<td>2</td>
</tr>
<tr>
<td>4. Knowledge about the description of work and technique to be used</td>
<td>2</td>
</tr>
<tr>
<td>5. Knowledge about the team coordination</td>
<td>2</td>
</tr>
<tr>
<td>6. Knowledge about the negatives of team</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Marks:** 12

### Knowledge Viva (Total Marks = 8)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge about the benefits of receiving feedback from the reporting senior</td>
<td>2</td>
</tr>
<tr>
<td>2. Knowledge about authorized people in construction site</td>
<td>2</td>
</tr>
<tr>
<td>3. Knowledge about the features of a good team</td>
<td>2</td>
</tr>
<tr>
<td>4. Knowledge about the benefits of discussing work related information’s with colleagues</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Marks:** 8
<table>
<thead>
<tr>
<th>QP &amp; NOS Detail</th>
<th>Marks Obtained by candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>QP: Scaffolder - Conventional</td>
<td></td>
</tr>
<tr>
<td>CON/N8002: Plan and organize work to meet expected outcomes</td>
<td></td>
</tr>
<tr>
<td>QP Code- CON/Q0312 Assessment Sheet for NOS No. - CON/N8002</td>
<td></td>
</tr>
</tbody>
</table>

### Skills (Total Marks = 80)

<table>
<thead>
<tr>
<th>Allocated Marks</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is candidate able to understand the target clearly</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Is candidate able to explain the plan and sequence before performing any core task</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Is candidate able to guide other candidate while working together in a team</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Is candidate able to arrange right quantity of material</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Is candidate utilize resources effectively during performing the task</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Is candidate adhering to the standard instructions while performing the task</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Marks</strong></td>
<td><strong>80</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Knowledge - MCQ (Total Marks = 12)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge about the purpose of method statement</td>
<td>2</td>
</tr>
<tr>
<td>2. Knowledge about the planning of new task</td>
<td>2</td>
</tr>
<tr>
<td>3. Knowledge about resources used in scaffolding</td>
<td>2</td>
</tr>
<tr>
<td>4. Knowledge about the utilization of tools</td>
<td>2</td>
</tr>
<tr>
<td>5. Knowledge about the utilization of manpower</td>
<td>2</td>
</tr>
<tr>
<td>6. Knowledge about the unit of measurement for scaffolding work</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Marks</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

### Knowledge Viva (Total Marks = 08)

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge about the planning of work</td>
<td>2</td>
</tr>
<tr>
<td>2. Knowledge about briefing of the subordinates before start of the work</td>
<td>2</td>
</tr>
<tr>
<td>3. Knowledge about how to reduce the wastages while performing a task</td>
<td>2</td>
</tr>
<tr>
<td>4. Knowledge about resources for scaffolding work</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Marks</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

---

**Batch No. & TP:**

**Reg. No. :**

**Assessors Name:**

**Assessors Signature:**

**Assessors Body(AB) Representative Name:**

**AB Representative Signature:**

**Assessment Agency :**

**Date :**

---

Scaffolder – Conventional L-4 52
### Assessment Sheet for NOS No. - CON/N9001

**QP & NOS Detail**

**QP :** Scaffolder - Conventional  
**CON/N9001: Work according to personal health, safety and environment protocol at construction site**

#### Skills (Total Marks = 80)

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>How person identify hazards, risks in site and report to seniors</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>How a person respond to emergency and evacuation procedures in case of accidents, fires</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>Use of personal protective equipment listed below (Compulsory)</td>
<td>30</td>
</tr>
<tr>
<td>4.</td>
<td>Identification and operation procedure for fire extinguishers</td>
<td>8</td>
</tr>
<tr>
<td>5.</td>
<td>Handling technique of tools, materials and equipment</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Adhere to safe working practices while working at height, using tools and equipment, material shifting, working with hazardous materials etc.</td>
<td>9</td>
</tr>
<tr>
<td>7.</td>
<td>Ensure cleaning, housekeeping and waste disposal</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Marks**

80

#### Knowledge -MCQ (Total Marks =12)

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Knowledge about safety hazard found in scaffolding work</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Knowledge about the information found in an emergency preparedness plan</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Knowledge about safety training</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>Knowledge about the parts of helmet</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>Knowledge about the meaning of firefighting</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>Knowledge about the emergency equipment</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>Knowledge about waste disposal</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>Knowledge about safe handling of materials</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Marks**

12

#### Knowledge Viva (Total Marks = 08)

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Knowledge about the possible hazards find during scaffolding work</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Knowledge about the colour codes and their meaning used in safety signage</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Knowledge about the type’s fire extinguishers</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Knowledge about safe techniques for material handling</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Marks**

8

### Batch No. & TP:

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Assessors Name:</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Assessors Signature:</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Assessors Body(AB) Representative Name:</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>AB Representative Signature:</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Assessment Agency:</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>
### 11. Annexure:

**General tolerance related to the practical task N0356 and N0357**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Permitted tolerance</th>
<th>Observed variation</th>
<th>Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bay length</td>
<td>+/- 50mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Bay width</td>
<td>+/- 50mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Verticality of standards (In 5meter)</td>
<td>+/- 20mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Ladder placing (75 degree from horizontal)</td>
<td>+/- 15 degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Lift height</td>
<td>+/- 100mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Stability of ties</td>
<td>Rigid (No shake)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Gap between scaffold board</td>
<td>No gap</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Assessor Comment:**

<table>
<thead>
<tr>
<th>Assessor Name</th>
<th>Assessor Signature</th>
</tr>
</thead>
</table>