



Model Curriculum

1. Foreman Erection

SECTOR: Construction SUB-SECTOR: Real Estate and Infrastructure Construction OCCUPATION: RIGGING REF ID: CON/Q0708, V1.0 NSQF LEVEL: 5





| Construction of the solid and score of the so | Stall India | | and areas | N S·D·C National Skill Development Corporation |
|--|--------------------|----------------------------------|---|--|
| <section-header> Deterfisioner Australite australity Deterfisioner Australity australity</section-header> | สมหมายสา-จิเหน เหม | | Certificate | transforming the skill landscape |
| is hereby issued by the CONSTRUCTION SECTOR SKILLS COUNCIL for the MODEL CURRICULUM Complying to National Occupational Standards of Job Role/Qualification Pack: <u>Foreman Erection</u> OP No. <u>CON/Q 0708 NSQF Level 5</u> Date of Issuance: January 31st, 2017 Validup to: August 14th, 2017 | | | RRICULUM COMPLIANCI ON PACK – NATIONAL O STANDARDS | E TO CCUPATIONAL |
| CONSTRUCTION SECTOR SKILLS COUNCIL for the MODEL CURRICULUM Complying to National Occupational Standards of Job Role/ Qualification Pack: 'Foreman Erection' QP No. 'CON/Q 0708 NSQF Level 5' Date of Issuance: January31st, 2017 Validup to: August 14th, 2027 | | | is hereby issued by the | |
| borthe MODELCURRICULUM Complying to National Occupational Standards of Job Role/Qualification Pack: 'Foreman Erection' OP No. 'CON/Q 0708 NSQF Level 5' Date of Issuance: January 31st, 2017 Validup to: August 14th, 2017 Multipuise | | CON | STRUCTION SECTOR SKILLS COUNC | IL |
| MODEL CURRICULUM Complying to National Occupational Standards of Job Role/ Qualification Pack: 'Foreman Erection' QP No. 'CON/Q 0708 NSQF Level 5' Date of Issuance: January 31st, 2017 Validup to: August 14th, 2017 | | | for the | |
| Complying to National Occupational Standards of Job Role/Qualification Pack: 'Foreman Erection' QP No. 'CON/Q 0708 NSQF Level 5' Date of Issuance: January 31st, 2017 Validup to: August 14th, 2017 | | | MODELCURRICULUM | |
| Date of Issuance: January 31st, 2017 Validup to: August 14th, 2017 | | Comp Job Role/Qualification I | plying to National Occupational Standa Pack: ' <u>Foreman Erection</u> ' QP No. ' <u>CO!</u> | ards of N/ Q 0708 NSQF Level 5' |
| Valid up to: August 14th, 2017 Authorized Signatory | Date of Issuance: | January 31st, 2017 | | - Jai ' |
| (Construction Skill Development Council) | Valid up to: | August 14th, 2017 | | Authorised Signatory (Construction Skill Development Council) |





TABLE OF CONTENTS

| 1. Curriculum | 01 |
|----------------------------------|----|
| 2. Trainer Prerequisites | 08 |
| 3. Annexure: Assessment Criteria | 09 |





Foreman Erection

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Foreman Erection", in the "Construction" Sector/Industry and aims at building the following key competencies amongst the learner

| Program Name | Foreman Erection | | |
|--|---|---|--|
| Qualification Pack Name & Reference ID | CON/Q0708, v1.0 | | |
| Version No. | 1.0 | Version Update Date | 14-08-2017 |
| Pre-requisites to Training | Preferably 10 th standar occupation for Non-trai Chargehand Precast E | d with 12 Years site experie ned worker/ 3 years site exp rection or Structural Erectio | nce in same perience as a certified n for trained worker. |
| Training Outcomes | After completing this Inspect and ensure for condition for erection Supervise heavy lift Supervise and monitor Execute erection work erection work as per of Work effectively in a team working and effectively in a working under an indi | programme, participants feasibility of lifting operation and check Equipments for a ing of structural assemblic or heavy lifting activity orks as per drawing/ specific drawings a team to deliver desired re- ffective communication pro- work to meet expected ing resources to meet desired for safe and healthy work of a safe working environment ividual | will be able to: ions:- ensure safe working erection work es at construction sites:- ication:- Plan and execute esults at the workplace – cedures to be followed at l outcomes - Prioritizing ed outcome environment – t for the group of people |





This course encompasses <u>6</u> out of <u>6</u> National Occupational Standards (NOS) of "Foreman Erection" Qualification Pack issued by "Construction Skill Development Council of India".

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|---|--|---|
| 1 | Introduction Theory Duration (hh:mm) 8:00 Practical Duration (hh:mm) 00:00 | Overview of construction industry and its contribution in economy of country Overview of Rigging occupation, job roles involved in the "Rigging occupation Job opportunities for a foreman-Erection and its career progression Brief about training session and training delivery plan Basic knowledge of Unit of measurement and their conversion Roles and Responsibilities of foreman-Erection | <u>Classroom</u> <u>Requirement</u> Classroom of 30 students capacity Black/White board Projector/LED Monitor Computer Trade specific charts and other teaching aids |
| 2 | Inspect and ensure feasibility of lifting operations Theory Duration (hh:mm) 79:00 Practical Duration (hh:mm) (Recommend that this practical is done in industry set up) 126:00 Corresponding NOS Code CON/N0725 | Theory: - Standard Practices of rigging work Drawings, specifications for rigging Work Working mechanism of Heavy lifting Equipments like cranes, jacks, winches and derrick Checks on lifting Equipments for its safe working Load chart, its interpretation and load carrying capacity of equipment. Guidelines for placing counterweights to lifting Equipments Preparatory work before heavy lifting and erction Work method statement, sequential erction procedures Hazards involved in heavy lifting and erection work Safety norms and control measures in lifting Equipments carry out inspection to the Equipments visually or by conducting trial runs Evaluate the work area for heavy load lifting and erction check all certificates relevant to safe working of the lifting Equipments carry out functional test of the emergency stop device check fuel requirement of Equipments prior to lifting and report to concerned authority in case of insufficiency | Hand tools Spud Wrenches. Open-End Wrenches. Crescent Wrenches. Hammer Nibbler pliers Power tools Impact Wrench Drilling machine with bits Electric screw gun Electric hexa saw Measuring tools Measuring tools Measuring tape Plumb Bob Spirit level Chalks line Try square Water level Equipments and Machinery Tower crane Mobile crane Forklift Scissor lift Hydraulic jacks Electrical winch Electrical winch Electrical chain hoist |







| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|---|--|--|
| | | Evaluate the stability of ground and base of lifting Equipment. Perform check on foundations and supports for stability to bear erction load. Coordinate with equipment operators to assess feasibility of operation. | 26. Slings 27. Wire ropes 28. Shackles 29. Spreader board 30. Chain 31. Link 32. Eye hook 33. Eye bolts 34. Bull dog grips 35. Clamp 36. socket |
| | | | Safety instruments 37. Safety Helmet 38. Safety goggles 39. Safety shoes 40. Safety belt 41. Cotton gloves 42. Ear plugs 43. Reflective jackets 44. Dust mask 45. Fire Prevention kit 46. Barricade tape 47. Safety Tags |
| | | Theory: - | Hand tools |
| 3 | Supervise heavy lifting of structural assemblies at construction sites Theory Duration (hh:mm) 109:00 Practical Duration (hh:mm) (Recommend that this practical is done in industry set up) 161:00 Corresponding NOS Code CON/N0726 | Lifting and erection plan and schedule Code of practice relevant to lifting operation. Statutory requirements of lifting Equipments and operators for safe working. Procedures of standard reporting and organizational Load lifting capacity of equipment according to length and angle of Boom Standard Hand signals for heavy load erection Operation and use of communication Devices Demonstration/ practical: - Select and use tools used in erection of precast members ensure safe and desired functioning of lifting Equipments by conducting checks to the Equipments and trial run by competent personnel carry out physical checks on components, assemblies and its locations where sling is to be attached for lifting | Spud Wrenches. Open-End Wrenches. Crescent Wrenches. Hammer Nibbler pliers Power tools Impact Wrench Drilling machine with bits Electric screw gun Electric hexa saw Measuring tools Heasuring tape Plumb Bob Spirit level Chalks line Try square Water level Equipments and Machinery Tower crane Mobile crane Forklift |







| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|--|---|---|
| | | check slinging tools, lifting tools for their usability and specification according to load ensure tightening of shackles, hooks, anchoring slings or belts during lifting of load and locking of sling at hook of crane operate communication devices efficiently provide signals to guide suspended loads to appropriate location under critical conditions such as in case of obstacles, imperceptible erection spots, dimly lighted conditions Demonstrate standard hand signal methods while providing signals | 20. Scissor lift 21. Hydraulic jacks 22. Electric Wire Rope Hoist 23. Electrical winch 24. Electrical chain hoist Lifting accessories 25. Belts 26. Slings 27. Wire ropes 28. Shackles 29. Spreader board 30. Chain 31. Link 32. Eye hook 33. Eye bolts 34. Bull dog grips 35. Clamp 36. socket Safety instruments 37. Safety Helmet 38. Safety goggles 39. Safety shoes 40. Safety belt 41. Cotton gloves 42. Ear plugs 43. Reflective jackets 44. Dust mask 45. Fire Prevention kit 46. Barricade tape 47. Safety Tags |
| 4 | Execute erection works as per drawing/ specification Theory Duration (hh:mm) 80:00 Practical Duration (hh:mm) (Recommend that this practical is done in industry set up) 125:00 Corresponding NOS Code CON/N0727 | Theory: - Technical details of components of assembly Standard sections of structural steel Basic concept of different types of welding Types of bolts based on diameters and functions Types of joints; welded joints, bolt joints ,Revit joint Gas cutting and grinding work Methods of linear, areal and volumetric measurement Simple geometry and conversion of units Dimensional checks on erected assemblies | Hand tools 1. Spud Wrenches. 2. Open-End Wrenches. 3. Crescent Wrenches. 4. Hammer 5. Nibbler 6. pliers Power tools 7. Impact Wrench 8. Drilling machine with bits 9. Electric screw gun 10. Electric hexa saw Measuring tools 11. Measuring tape |





N-S-D-C National Skill Development Corporation

| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|--|---|---|
| | | Relationship between load carrying capacity and angle of boom Demonstration/ practical (D/P): - Read and interpret structural | 12. Plumb Bob 13. Spirit level 14. Chalks line 15. Try square |
| | | Read and merpret structural drawings to determine structural locations, orientations, resource required for executing erection work | 16. Water level Equipments and Machinery 17. Tower crane 18. Mobile crane |
| | | Carryout sequencing of key activities related to lifting and erection of components or assemblies | Forklift Scissor lift Scissor lift Hydraulic jacks Electric Wire Rope Hoist |
| | | Supervise lowering, placing and positioning of components or assemblies by providing instructions to the subordinates. Carry out measurements as | 23. Electrical winch 24. Electrical chain hoist |
| | | Carry out measurements as required to check alignment, elevation and orientation of the erected components or assemblies Ensure placing of grout pad, cleaning of gaps for grouting and caulking as per requirement Check lateral stability of part erected component and instruct to provide bracings, supports at required locations Check all bolts connections used in structural assemblies | Lifting accessories Belts 25. Slings 26. Wire ropes 27. Shackles 28. Spreader board 29. Chain 30. Link 31. Eye hook 32. Eye bolts 33. Bull dog grips 34. Clamp 35. socket |
| | | | 36. Safety Helmet 37. Safety goggles 38. Safety shoes 39. Safety belt 40. Cotton gloves 41. Ear plugs 42. Reflective jackets 43. Dust mask 44. Fire Prevention kit 45. Barricade tape 46. Safety Tags |
| 5 | Work effectively in a team to deliver desired results at the workplace Theory Duration (hh:mm) 10:00 | <u>Theory: -</u> Different types of communication and its usage Concept of effective verbal communication and reporting procedure to be undertaken at workplace Importance of effective communication and establishing | 40. Salety 1495 |







| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|--|--|--|
| | Practical Duration (hh:mm) (Recommend that this practical is done in industry set up) 14:00 Corresponding NOS Code CON/N8001 | strong working relationships with coworkers Concept of team working and its importance Risks of a failure in teamwork in terms of effects on project outcomes, Importance and need of supporting co-workers facing problems for smooth functioning of work timelines, safety at the construction site Demonstration/ Practical (D/P) :- Demonstrate different types of communication Demonstrate communication to team members/subordinates for appropriate work technique Demonstrate Reporting to senior for Deviation from work Demonstrate handing over procedure of tools ,tackles to interfacing team | |
| 6 | Plan and organize work to meet expected outcomes Theory Duration (hh:mm) 18:00 Practical Duration (hh:mm) (Recommend that this practical is done in industry set up) 30:00 Corresponding NOS Code CON/N8002 | Theory: - Plan activities of rigging work as per schedule and sequence. Method of estimation for necessary resources and setting timelines for each activity of Rigging work Optimum use of resources and preparation of details of material consumption Basic concept of productivity, sequence of working and implementation of safety and organizational norms while working Procedures of written/ verbal reporting Storing and stacking methods of tools, materials used for rigging work Requisition of resources, reporting for requirement of resources orally and in written to concerned authority Demonstration/ Practical (D/P) :- Selection of steel structural assemblies. | Hand tools Spud Wrenches. Open-End Wrenches. Crescent Wrenches. Crescent Wrenches. Hammer Nibbler pliers Power tools Impact Wrench Drilling machine with bits Electric screw gun Electric hexa saw Measuring tools Measuring tape Plumb Bob Spirit level Chalks line Try square Water level Equipments and Machinery Tower crane Mobile crane |







| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|--|--|--|
| NO. | | Demonstrate standard Handling of tools and materials used in rigging work Demonstrate planning of activities under rigging work Demonstrate Optimum use of resources while performing Rigging work Demonstrate adherence to stipulated timelines for completion of Erection work | 23. Forklift 24. Scissor lift 25. Hydraulic jacks 26. Electric Wire Rope Hoist 27. Electrical winch 28. Electrical chain hoist 29. Lifting accessories a. Belts 30. Slings 31. Wire ropes 32. Shackles 33. Spreader board 34. Chain 35. Link 36. Eye hook 37. Eye bolts 38. Bull dog grips 39. Clamp 40. socket 41. Safety instruments 42. Safety Helmet 43. Safety goggles 44. Safety shoes 45. Safety belt 46. Cotton gloves 47. Ear plugs 48. Reflective jackets 49. Dust mask 50. Fire Prevention kit |
| 7 | Manage workplace for | Theory: - | Safety instruments |
| | sate and healthy work environment Theory Duration (hh:mm) 16:00 Practical Duration (hh:mm) (Recommend that this practical is done in industry set up) 24:00 Corresponding NOS Code CON/N9002 | The policies, procedures and protocol set up by the EHS Department With respect to Health, Safety and Environment at the respective construction site Reporting procedures in case of hazards at site, accidents or emergency situations Emergency response system safe working practices for tools, tackles and equipment used in rigging work The appropriate personal protective equipment to be used in rigging work | Safety Helmet Safety goggles Safety shoes Safety belt Cotton gloves Ear plugs Reflective jackets Dust mask Fire Prevention kit Barricade tape Safety Tags |







| Sr. No. | Module | Key Learning Outcomes | Equipment Required |
|------------|---|--|---|
| | | Monitor working in workplace keeping safety & health in mind <u>Demonstration/ Practical: -</u> | |
| | | Demonstrate_procedures to be followed for accident recording and reporting as per organizational and statuary requirements Demonstrate response to emergency procedures / protocols Demonstrate the use of fire protection Equipments for different type of fire Hazard Demonstrate proper housekeeping at site Ensure safety and protection Equipments are properly installed for erection work Identify hazards associated with rigging operations | |
| | Total Duration Theory Duration 320:00 Practical Duration 480:00 | Unique Equipment Required: Classroom Requirement Classroom of 30 students capacity, Black/W Monitor, Computer, Trade specific charts and of Hand Tools Spud Wrenches, Open-End Wrenches, Cresce Nibbler,pliers Power tools Impact Wrench, Drilling machine with bits, Electhexa saw Measuring Instruments Measurement Tape, Chalk line/masons line, Plumb bob, Material and consumables Equipments required Tower crane Mobile crane Forklift Scissor lift H Rope Hoist Electrical winch Electrical chain ho Safety Instrument Safety Helmet, Safety goggles , Safety shoes , Ear plugs , Reflective jackets, Dust mask, Fired | 'hite board, Projector/LED other teaching aids ent Wrenches.Hammer, ctric screw gun ,Electric Water level, Spirit level, ydraulic jacks Electric Wire ist Safety belt, Cotton gloves, e Prevention kit, Barricade |

Grand Total Course Duration: 800 Hours, 0 Minutes Recommended 432:00 Hours of on job training

(This syllabus/ curriculum has been approved by Construction Skill Development Council of India)





Trainer Prerequisites for Job role: "Foreman Erection" mapped to Qualification Pack: "CON/Q0708, v1.0"

| Sr. No. | Area | Details |
|------------|--|--|
| 1 | Description | To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack <u>"CON/Q0708"</u> . |
| 2 | Personal Attributes | Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field |
| 3 | Minimum Educational Qualifications | ITI/12th |
| 4a | Domain Certification | Trainer/Assessor-80% in each NOS of Qualification Pack "MEP/Q0102" or "MEP/Q0104" and Lead trainer/Lead Assessors- 90% in each NOS of Qualification Pack "MEP/Q0101" or "MEP/Q0103" |
| 4b | Platform Certification | Trainer/Assessor-50% in each NOS of Qualification Pack "MEP/Q0101" or "MEP/Q0103"& 80% overall, Lead trainer/ Lead Assessors- 50% in each NOS of Qualification Pack "MEP/Q0101" or "MEP/Q0103" and overall 90% |
| 5 | Experience | i. Technical Degree holder with minimum three years of Field experience and preferably two years of teaching experience or, ii. In case of a Diploma Holder five years of field experience and preferably two years of teaching experience or, iii. In case of ITI/12th pass minimum eight years of field experience and preferably two years of teaching Experience. |





CRITERIA FOR ASSESSMENT OF TRAINEES

| <u>Job Role</u> | Foreman Erection |
|----------------------|------------------|
| Qualification Pack | CON/Q0708 |
| Sector Skill Council | Construction |

Guidelines for Assessment

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
- 2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
- 3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
- 4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
- 5. The passing percentage for each QP will be 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% individually in each NOS.
- 6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.
- 7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
- 8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
- 9. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified timeframe set by SSC.
- 10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.







| | | | | Marks All | ocation |
|----------------------------------|--|---------------|----------|-----------|---------------------|
| Assessment outcomes | Assessment Criteria for outcomes | Total Mark | Out Of | Theory | Skills Practical |
| CON/N0725: Inspect and | PC1. carry out inspection to the equipments visually or by conducting trial runs | | 17.5 | 7 | 10.5 |
| of lifting | PC2. check all certificates relevant to safe working of the lifting equipments | | 10 | 4 | 6 |
| | PC3. check counterweight attached to the equipment is as per specification and work requirement | | 10 | 4 | 6 |
| | PC4. check fuel requirement of equipments prior to lifting and report to concerned authority in case of insufficiency | | 5 | 2 | 3 |
| | PC5. carry out functional test of the emergency stop device | | 10 | 4 | 6 |
| | PC6. report for maintenance to the equipments to superior on break down or malfunction | | 7.5 | 3 | 4.5 |
| | PC7. fill up necessary checklists (if any) relevant to equipment fitness prior to lifting | 100 | 7.5 | 3 | 4.5 |
| | PC8. ensure adequate compaction and base of base of lifting equipments | | 5 | 2 | 3 |
| | PC9. ensure area of operation (lifting, unloading and erection) is safely marked, barricaded, accessed and free from other hazardous effects | | 5 | 2 | 3 |
| | PC10. check the foundations or supports are adequately stable and completed in essential aspects to bear the load of erection to commence | | 7.5 3 4. | 4.5 | |
| | PC11. instruct workers to use appropriate PPEs during activities | | 5 | 2 | 3 |
| | PC12. instruct subordinates to carry out checks to the lifting tools and tackles to ensure safe working | | 5 | 2 | 3 |
| | PC13.coordinate with equipment operators to assess feasibility of operation which includes safe wind speed, clear visibility, required clear area for swing of boom, clear access to the unloading location | | 5 | 2 | 3 |
| | | Total | 100 | 40 | 60 |
| CON/N0726: Supervise heavy | PC1. brief subordinates about heavy lifting plan and safety control measures prior to start lifting | | 6.25 | 2.5 | 3.75 |
| lifting of structural | PC2. allocate activities to specified subordinates as per their level of expertise | 100 | 6.25 | 2.5 | 3.75 |
| assemblies at construction sites | PC3. analyze hazards related with lifting operations and report to concerned authority for any required action | | 12.5 | 5 | 7.5 |







| | PC4. ensure safe and desired functioning of lifting equipments by conducting checks to the equipments and trial run by competent personnel | | 10 | 4 | 6 |
|--|---|-------|-----|----|-----|
| | PC5. carry out physical checks on components, assemblies and its locations where sling is to be attached for lifting | | 10 | 4 | 6 |
| | PC6. check slinging tools, lifting tools for their usability and specification according to load | | 5 | 2 | 3 |
| | PC7. ensure tightening of shackles, hooks, anchoring slings or belts during lifting of load | | 5 | 2 | 3 |
| | PC8. ensure exact locking of sling at hook of crane | | 5 | 2 | 3 |
| | PC9. ensure use of tag line of adequate length to control motion of the suspended load | | 5 | 2 | 3 |
| | PC10. ensure motion of crane boom and load movement path is free from any static or mobile obstruction, adequately illuminated | | 5 | 2 | 3 |
| | PC11. check and ensure erection of barrication surrounding heavy lifting location | | 5 | 2 | 3 |
| | PC12. maintain clear line of vision with the operator and suspended load while providing signal | | 5 | 2 | 3 |
| | PC13. operate communication devices efficiently | | 2.5 | 1 | 1.5 |
| | PC14. provide verbal directions appropriately to equipment operator using communication devices | | 5 | 2 | 3 |
| | PC15. adhere to standard hand signal methods while providing signals | | 5 | 2 | 3 |
| | PC16. provide signals to guide suspended loads to appropriate location under critical conditions such as in case of obstacles, imperceptible erection spots, dimly lighted conditions | | 7.5 | 3 | 4.5 |
| | | Total | 100 | 40 | 60 |
| CON/N0727: Execute erection works as per drawing/ | PC1. read and interpret structural drawings to determine structural locations, orientations, critical erection points and resource required for executing the works | | 7.5 | 3 | 4.5 |
| specification | PC2. adhere to time line specified for completion of activities | | 5 | 2 | 3 |
| | PC3. sequence key activities related to lifting and erection of components or assemblies | 100 | 7.5 | 3 | 4.5 |
| | PC4. manage required resources in coordination with superiors and other respective authorities | 100 | 7.5 | 3 | 4.5 |
| | PC5. plan and establish safe access to the point of erection | | 5 | 2 | 3 |
| | PC6. obtain key survey markings at appropriate locations | | 5 | 2 | 3 |
| | PC7. develop hand sketches and provide to subordinates as and when required | | 7.5 | 3 | 4.5 |







| | PC8. supervise lowering, placing and positioning of components or assemblies by providing instructions to the subordinates to achieve desired outcome | | 5 | 2 | 3 |
|---|--|---|------|-----|------|
| | PC9. oversee erection activity and ensure the orientation of structural components and assemblies is within tolerance limit as per relevant drawings or instructions | | 7.5 | 3 | 4.5 |
| | PC10. carry out measurements as required to check alignment, elevation and orientation of the erected components or assemblies | blacing and positioning of by providing instructions to e desired outcome activity and ensure the imponents and assemblies is per relevant drawings or nents as required to check brientation of the erected ges, holes and joints as per guidelines that all bolts used in the eners are of proper length, is cercast units to ensure gement for the bolt threads ut pad, cleaning of gaps for r requirement ability of part erected provide bracings, supports523104060information/ requirement rs d superiors about any kind s effectively and report if ervisor appropriately learly from superiors igue and method advice as per requirement10461046104610461046 | 3.75 | | |
| | PC11. check terminals, edges, holes and joints as per quality control checklists or guidelines | | 5 | 2 | 3 |
| | PC12. check and confirm that all bolts used in the existing or precast components are of proper length, diameter and grade for the connections are as per erection drawing | | 5 | 2 | 3 |
| | PC13. check the depth of threaded inserts in the existing structures or RCC precast units to ensure minimum acceptable engagement for the bolt threads | | 5 | 2 | 3 |
| | PC14. ensure placing of grout pad, cleaning of gaps for grouting and caulking as per requirement | | 5 | 2 | 3 |
| | PC15. check lateral stability of part erected component and instruct to provide bracings, supports at required locations | | 5 | 2 | 3 |
| | PC16. offer for quality control checking by superior and other concerned authorities | | 2.5 | 1 | 1.5 |
| | PC17. inform respective concerned authorities for future fabrication activities such as bolting, welding, grinding | | 3.75 | 1.5 | 2.25 |
| | PC18. observe housekeeping and safety practices as per standard/ organizational norms during all concerned activities | | 5 | 2 | 3 |
| | | Total | 100 | 40 | 60 |
| CON/N8001: Work effectively in a team to deliver desired | PC1. pass on work related information/ requirement clearly to the team members | | 10 | 4 | 6 |
| | PC2. inform co-workers and superiors about any kind of deviations from work | | 10 | 4 | 6 |
| results at the workplace | PC3. address the problems effectively and report if required to immediate supervisor appropriately | 100 | 20 | 8 | 12 |
| | PC4. receive instructions clearly from superiors and respond effectively on same | 100 | 10 | 4 | 6 |
| | PC5. communicate to team members/subordinates for appropriate work technique and method | | 10 | 4 | 6 |
| | PC6. seek clarification and advice as per requirement and applicability | | 10 | 4 | 6 |







| | PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams | | 15 | 6 | 9 |
|---------------------------------|--|-------|-----|----|----|
| | PC8. work together with co-workers in a synchronized manner | | 15 | 6 | 9 |
| | | Total | 100 | 40 | 60 |
| CON/N8002: Plan and organize | PC1. understand clearly the targets and timelines set by superiors | | 13 | 5 | 8 |
| work to meet | PC2. plan activities as per schedule and sequence | | 10 | 4 | 6 |
| expected outcomes | PC3. provide guidance to the subordinates to obtain desired outcome | | 13 | 5 | 8 |
| | PC4. plan housekeeping activities prior to and post completion of work | 100 | 8 | 3 | 5 |
| | PC5. list and arrange required resources prior to commencement of work | | 10 | 4 | 6 |
| | PC6. select and employ correct tools, tackles and equipment for completion of desired work | | 8 | 3 | 5 |
| | PC7. complete the work with allocated resources | | 8 | 3 | 5 |
| | PC8. engage allocated manpower in an appropriate manner | | 5 | 2 | 3 |
| | PC9. use resources in an optimum manner to avoid any unnecessary wastage | | 5 | 2 | 3 |
| | PC10. employ tools, tackles and equipment with care to avoid damage to the same | | 5 | 2 | 3 |
| | PC11. organize work output, materials used, tools and tackles deployed, | | 10 | 4 | 6 |
| | PC12. processes adopted to be in line with the specified standards and instructions | | 8 | 3 | 5 |
| | | Total | 100 | 40 | 60 |
| CON/N9002: | PC1. ensure proper housekeeping at workplace | | 5 | 2 | 3 |
| Manage workplace for | PC2. implement safe handling , stacking methods at workplace / store | | 5 | 2 | 3 |
| safe and healthy work | PC3. insure that health and safety plan is followed by all subordinates | | 5 | 2 | 3 |
| environment | PC4. identify any hazard in workplace and notify them to appropriate authority | | 5 | 2 | 3 |
| | PC5. ensure that all safety and protection installation are correctly placed & adequate | | 5 | 2 | 3 |
| | PC6. ensure safe access is available at work place for movement of workers & materials | | 5 | 2 | 3 |
| | PC7. ensure safe use of tools and tackles by the workmen as per applicability | | 5 | 2 | 3 |
| | PC8. ensure appropriate use of following Personal Protective Equipment (PPE) as per applicability: • Head Protection (Helmets) | | 10 | 4 | 6 |







| Ear Protection | | | | |
|---|-------|-----|----|-----|
| Fall Protection | | | | |
| Foot Protection | | | | |
| • Face and Eye Protection, | | | | |
| Hand &Body Protection | | | | |
| Respiratory Protection | | | | |
| PC9. maintain entrances & exit from confined spaces, excavated pits and other location in concurrence with safety parameters or instruction form safety personals. | | 5 | 2 | 3 |
| PC10. ensure organizational policies and procedures are followed for health , safety and welfare, in relation to: | | | | |
| methods of receiving or sourcing information | | | | |
| dealing with accidents and emergencies associated with the work and environment | | | | |
| reporting | | 10 | 4 | 6 |
| stooping work | | | | |
| evacuation | | | | |
| • fire risks and safe exit procedures | | | | |
| PC11. follow procedures for accident recording and reporting as per organizational and statuary | | | | |
| requirements | | 5 | 2 | 3 |
| PC12. ensure effective adherence to response to emergency procedures / protocols | | 7.5 | 3 | 4.5 |
| PC13. report any case of emergency / risks to the concern people at the construction site | | 7.5 | 3 | 4.5 |
| PC14. report any perceived risk hazards to the superiors / concerned EHS | | 7.5 | 3 | 4.5 |
| PC15. demonstrate the use of fire protection equipments for different type of fire hazard | | 7.5 | 3 | 4.5 |
| PC16. implement control measures to reduce risk & meet legal requirement as per organizational policies | | 5 | 2 | 3 |
| | Total | 100 | 40 | 60 |