



Assessment Guide

ADVANCE RIGGER

NSQF Level – 4

Sector: Cross Sectoral

Occupation: Lifting & Rigging Engineering & Management

Qualification Pack Code: SSD/VSQ/Q0302

Version: 1.0



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Qualification Structure

To achieve full certification as Advance Rigger, trainees must complete all 9 units (NOS) and pass assessments. The assessments will comprise of theory & practical tests.

Sl. no	Unit No. (NOS)	Title	Assessment method
001	SSD/VSQ/N0309	Introduction to Advance Rigging	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to advanced rigging activities. It will cover advanced occupational health and safety practices applicable to complex rigging operations, identification and assessment of potential hazards, and analysis of risks associated with specialized lifting procedures.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation.</p>
002	SSD/VSQ/N0310	Safety Standards and Regulations in Rigging	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to safety standards and regulatory requirements in rigging operations. It will cover occupational health and safety practices specific to rigging, compliance with relevant national and international standards, identification of hazards, and understanding of associated risks in lifting and material handling tasks.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation.</p>



003	SSD/VSQ/N0311	Rigging Mathematics and Load Calculations	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to mathematical principles and calculations applied in rigging operations. It will cover the application of basic and advanced mathematical concepts for determining load weight, center of gravity, sling angles, load distribution, and mechanical advantage in lifting operations.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation.</p>
004	SSD/VSQ/N0312	Identifying and Evaluating Lift Points	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to identifying and evaluating lift points for safe rigging operations. It will cover the principles of load handling, assessment of structural integrity, and selection of appropriate lifting points to ensure stability, balance, and safety during lifting and material movement.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation.</p>
005	SSD/VSQ/N0313	Working Load Limit & selection of Rigging components	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to determining the Working Load Limit (WLL) and selecting appropriate rigging components for lifting operations. It will cover the principles of load capacity, safety factors, and the characteristics of rigging equipment such as slings, shackles, hooks, and lifting devices.</p>



			The assessment will be based on theory, viva-voce, and practical evaluation.
006	SSD/VSQ/N0314	Pre-Use Inspection of Rigging and Lift Points	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to the pre-use inspection of rigging equipment and lift points. It will cover identification of defects, assessment of wear and tear, and verification of compliance with safety standards before commencing lifting operations.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation.</p>
007	SSD/VSQ/N0315	Load Dynamics and Associated Hazards	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to load dynamics and the hazards associated with lifting and rigging operations. It will cover the principles of load behavior, forces acting on suspended loads, center of gravity, swinging, and tipping, as well as identification of risks that may arise due to dynamic conditions.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation.</p>
008	SSD/VSQ/N0316	Advanced Rigging Considerations	The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to advanced rigging operations. It will cover complex lifting scenarios, specialized rigging techniques, multi-point lifts, and the integration of engineering principles to ensure safe and efficient load handling



			The assessment will be based on theory, viva-voce, and practical evaluation.
009	SSD/VSQ/N0317	Emergency Response and Contingency Planning	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding related to emergency response and contingency planning in rigging and lifting operations. It will cover identification of potential emergency situations, assessment of associated risks, and preparation of contingency measures to minimize accidents and operational disruptions.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation</p>
010	SSD/VSQ/N0318	Documentation and Reporting	<p>The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding of of documentation and reporting practices within rigging and lifting operations. They should be familiar with preparing, maintaining, and interpreting records related to rigging activities, including inspection reports, load calculations, equipment usage, safety compliance, and incident reporting.</p> <p>The assessment will be based on theory, viva-voce, and practical evaluation</p>
011	DGT/VSQ/N 0102	Employability Skills	The assessment will be conducted to evaluate the competencies required by the trainee in terms of skills, knowledge, and understanding relevant to the job role under DGT/VSQ/N0102. The assessment will be



			based on theory, viva-voce, and practical evaluation.
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Guidance for assessors

This qualification provides the performance criteria, skills and knowledge required to perform for the job role of Advance Rigger at NSQF Level 4. The role is referred to as 'Advance Rigger.

Brief job description: Advance Riggers use mechanical load shifting equipment and associated gear to move, place or secure loads, including plant, equipment or members of a building or structure. Riggers ensure the stability of those members and set up and dismantle cranes and hoists.

Personal attributes: The professional should be mentally and professionally fit to take responsibility for compliances of health and safety standards, rules and meet the health and safety standards at workplace with his/her integrity, objectivity, independency, knowledge of law, expression, and code of ethics.

Introduction to assessments:

The assessment will be made based on the competencies required by the trainees to perform the job role of Advance Rigger. The assessment will be based on understanding, practical demonstration and on the job, training as defined in the performance criteria & practical skill defined in the qualification pack of the job role. The trainees will be required to complete a number of assignments to show their skills & understanding of the subject through theory, demonstration and practical performances.

Grading and pass percentage

1. The assessment consists of two categories:
 - a. Practical Assessment – to assess the practical performance skills.
 - b. Theory Assessment – to assess knowledge & understanding of the domain.
2. The weightage of the assessment will be:
 - a. Practical Assessment – 50%
 - b. Theory Assessment – 50%



3. Each NOS for its Performance Criteria (PC) has been assigned marks proportional to its importance. Proportion of marks for Theory and Practical has been marked NOS wise.
4. Questions on practical & theory will be formed in such a way as to provide outcome on maximum Performance Criteria and in proportional way within the NOS.
5. The assessment for the theory part will be based on written questions (short question, multiple choice & viva, or a combination of them) created/approved by the SSDF.
6. The assessment for the practical part will be based on practical conducted for trainees. In case of remote/on-line assessments, the practical's can be carried through proctors or practical questions formulated based on pictorially represented logical questions (based on pictures of practical & logical steps) created/approved by the SSDF.
7. The passing and grading criteria of each NOS & cumulative for QP will be as follows: -
 - a. 70% or more than 70% - Grade "A"
 - b. 60% or more than 60% but less than 70% - Grade "B"
 - c. 50% or more than 50% but less than 60% - Grade "C"
 - d. Less than 50% - Grade "Fail."
 - e. Any candidate can ask for re-assessment in any of the NOSs or all the NOSs to improve his/her performance within three months from the date of publication of the results and after payment of the assessment fee. But if any candidate wants re-assessment after three months from the date of publication of results, he/she will have to appear in all the NOSs applicable for the qualification.

2.1 Performance/Skill Assessments

The performance/skill assessment will be conducted through demonstration/practical.

SSD/VSQ/N0309: Introduction to Advance Rigging - Performance/Skill Assessment

The trainee should demonstrate a clear understanding of advanced rigging principles, including the safe handling of complex lifting operations, multi-point lifts, and specialized rigging techniques. They should be familiar with load behavior, center of gravity, dynamic forces, and the potential hazards associated with lifting heavy or irregular loads. Trainees must understand their roles and responsibilities in ensuring safety during rigging operations, including effective communication with



signalers, crane operators, and supervisors. They should be able to plan lifts by selecting appropriate rigging equipment, calculating load requirements, and applying risk assessment techniques.

SSD/VSQ/N0310: Safety Standards and Regulations in Rigging - Performance/Skill Assessment

The trainee should demonstrate a clear understanding of Health, Safety & Environment (HSE) principles as they apply to rigging operations, including compliance with national and international safety standards and regulations. They should be familiar with hazard identification, risk assessment, and the implementation of control measures to prevent accidents during lifting and rigging activities.

Trainees must understand their roles and responsibilities in ensuring compliance with safety standards, including communication with signalers, crane operators, supervisors, and safety officers. They should be able to evaluate existing safety systems, recognize gaps or shortcomings, and recommend corrective actions to improve rigging safety performance.

SSD/VSQ/N0311: Rigging Mathematics and Load Calculations– Performance/Skill Assessment

The trainee should demonstrate a clear understanding of mathematical principles applied to rigging operations, including calculation of load weight, center of gravity, sling angles, mechanical advantage, and load distribution. They should be familiar with the concepts of tension, forces, and stability, emphasizing the importance of accurate calculations to ensure safe lifting and handling of loads.

SSD/VSQ/N0312: Identifying and Evaluating Lift Points –Performance/Skill Assessment

The trainee should demonstrate a clear understanding of the principals involved in identifying and evaluating safe lift points for rigging operations. They should be familiar with assessing the structural integrity of lifting points, analyzing load distribution, and determining the most appropriate locations for attaching rigging equipment to ensure stability and safety during lifting.

SSD/VSQ/N0313: Working Load Limit & selection of Rigging components–Performance/Skill Assessment

The trainee should demonstrate a clear understanding of the concept of Working Load Limit (WLL) and the principles for selecting appropriate rigging components for safe lifting operations. They should be familiar with load capacities, safety factors, and the characteristics of slings, shackles, hooks, chains, and other rigging equipment, emphasizing the importance of selecting components that meet operational and safety requirements.

SSD/VSQ/N0314: Pre-Use Inspection of Rigging and Lift Points–Performance/Skill Assessment



The trainee should demonstrate a clear understanding of the importance of pre-use inspection of rigging equipment and lift points to ensure safe lifting operations. They should be familiar with identifying defects, wear, and damage in slings, hooks, shackles, chains, and other rigging components, as well as evaluating the integrity of lift points on loads or structures.

SSD/VSQ/N0315: Load Dynamics and Associated Hazards–Performance/Skill Assessment

The trainee should demonstrate a clear understanding of load dynamics and the hazards associated with lifting and rigging operations. They should be familiar with how loads behave under different conditions, including swinging, tipping, acceleration, and sudden stops, and understand the forces acting on rigging equipment and lift points during operation.

SSD/VSQ/N0316: Advanced Rigging Considerations. –Performance/Skill Assessment

The trainee should demonstrate a clear understanding of advanced rigging principles and techniques required for complex lifting operations. They should be familiar with multi-point lifts, specialized rigging arrangements, load behavior under dynamic conditions, and the coordination required for critical or challenging lifts.

SSD/VSQ/N0317: Emergency Response and Contingency Planning –Performance/Skill Assessment

The trainee should demonstrate a clear understanding of emergency response procedures and contingency planning within rigging and lifting operations. They should be familiar with identifying potential emergency situations, assessing associated risks, and implementing appropriate preventive and corrective measures to minimize hazards and operational disruptions.

SSD/VSQ/N0318: Documentation and Reporting–Performance/Skill Assessment

The trainee should demonstrate a clear understanding of documentation and reporting practices within rigging and lifting operations. They should be familiar with preparing, maintaining, and interpreting records related to rigging activities, including inspection reports, load calculations, equipment usage, safety compliance, and incident reporting.

DGT/VSQ/N0102: Employability Skills

The trainee should demonstrate key employability skills such as communication, teamwork, digital literacy, and professionalism. They must be able to use internet, e-mails, financial transactions methods and Apps. They should be able to communicate and apply for the jobs online.



The Performance/Skill Assessments

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.

Scheduling the practical observations is flexible but to retain integrity of the assessment, they should be conducted as closely as possible to the written assessments.

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

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 familiarize 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.

Knowledge Assessment

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 be marked by pen only. 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.



Grading criteria for The Performance/Skill Assessments

NOS No.	Title	Performance & Knowledge Assessment	Assessment Marks	Min. Passing marks	Assessment Result (Total)
SSD/VSQ/N0309	Introduction to Advance Rigging	19	100	50% of individual NOS and 50% overall as per NOS weightage	50% of total NOS weightage \geq Pass 50% of total NOS weightage < Fail
SSD/VSQ/N0310	Safety Standards and Regulations in Rigging	32	100		
SSD/VSQ/N0311	Rigging Mathematics and Load Calculations	44	100		
SSD/VSQ/N0312	Identifying and Evaluating Lift Points	19	100		
SSD/VSQ/N0313	Working Load Limit & selection of Rigging component	19	100		
SSD/VSQ/N0314	Pre-Use Inspection of Rigging and Lift Points	19	100		
SSD/VSQ/N0315	Load Dynamics and Associated Hazards	44	100		
SSD/VSQ/N0316	Advanced Rigging Considerations	51	100		
SSD/VSQ/N0317	Emergency Response and Contingency Planning	19	100		
SSD/VSQ/N0318	Documentation and Reporting	32	100		
DGT/VSQ/N0102	Employability Skills	64	50		
Total		360 Min	1050 Marks		



2.2 Viva Assessment

Trainees may be required to take the viva test for their theory or their practical observation test which is an extended part of the practical observation and assessment. The viva assessments are externally set and externally marked.

2.3 Question papers for synoptic test

The question paper of the synoptic test is a confidential document. It will be held under the custody of SSDF/Assessment Agencies. The assessment agencies can be permitted to prepare the question papers and get them approved from SSDF. The centers need to follow the indenting process to obtain the question paper to administer the test.

2.4 Authenticity

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

2.5 Feedback

Assessors must provide feedback on every occasion when a skills observation takes place. A proforma for feedback is included in this assessment guide.

2.6 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.

2.7 Assessment sheets

The assessment records will be maintained as per the assessment sheet given in this document.

2.8 Codes of practice

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



2.9 Health and safety

The requirement to follow safe working practices is an integral part of all assessments and it is the responsibility of centers 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 be advised of the reasons. In case of doubts, guidance should be sought from the SSDF.

2.10 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.

2.11 Internal quality assurance

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

Quality assurance includes initial center approval, qualification approval and the Centre's own internal procedures for monitoring quality. Centers are responsible for internal quality assurance and SSDF and Assessment Agency are jointly responsible for external quality assurance.

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

The Assessment Agencies are required to retain copies of trainees' assessment records and photographic evidence (in presence of trainee performing task) for three years after assessment. They can be asked by SSDF to provide these evidences as proof of assessment.

2.12 Evidence Collection by the Assessor

- 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.
- The Centre head also needs to declare that all the students appearing in the assessments have a minimum attendance of 70% for the training.
- 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 enrollment form.
- 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.
- 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.
- The assessor needs to carry a camera to click photographs of the trainees working on the job and give theory exam as evidence with geo tagged, timestamp.
- The assessor also needs to carry a photo ID card.
- In the 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 angles/sides of the final job piece submitted.

Trainee Guidance

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, knowledge, understanding and competencies mentioned in the Qualification Pack.

Before the final assessments

The training partner (TP) will ensure that the trainees are ready for the assessment. The date and time of assessment would be intimated by the SSDF.

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 an hour of 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 misbehavior/unethical practice by a trainee would lead to disqualification of the trainee.

The first assessment will have the theory test followed by practical and may be viva in smaller batches.

(20- 30 trainees)

Assessments

Assessments for the job role of Advance Rigger are conducted to gauge and assess the trainees' competencies and professional expertise as well as their skill and knowledge in the specified job role for Advance Rigger.

During the practical task, trainees will be assessed on their workmanship, quality of finished products, 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 of the Qualification Pack. The performance criteria checklist as a guide for all qualifications is given in Practical Observation Checklist. Assessment tools and sample set of practical, theory & viva questions for each NOS, assessment evidence, overall summary, and NOS wise summary are also listed.



Advance Rigger

1. Learner Name: _____ 2. Enrolment No: _____ 3. Centre: _____

Guidance to assessors:

- The assessor must exhibit the observation checklist to the learners before the commencement of the practical and explain to them how the learners will be observed and graded during the practical assessment. However, the learners are not allowed to use the practical observation checklist during the assessment or task.
- The assessor must ensure that all the tools listed in the "List of Tools" are made available by the center to every learner being assessed.

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
SSD/VSQ/N0309: Introduction to Advance Rigging	PC-1 Evaluate load characteristics, such as weight, shape, and center of gravity, to determine appropriate rigging methods	4	4	-	-
	PC-2 Develop a comprehensive rigging plan that considers load handling, movement paths, and potential obstacles	4	4	-	-
	PC-3 Select advanced rigging equipment, including specialized slings, rigging hooks, and hoisting devices, based on the operational requirements.	4	4	-	-
	PC-4 Ensure the rigging site is free of hazards and adheres to safety protocols, including the use of barriers and warning signage.	4	4	-	-
	PC-5 Utilize advanced rigging techniques such as multiple lift systems, tandem lifts, and complex load balancing methods to safely move loads	4	4	-	-
	PC-6 Monitor load movements to ensure	3	3	-	-



	alignment and stability throughout the rigging process				
	PC-7 Adjust rigging configurations as necessary to accommodate changes in load dynamics or environmental conditions	3	3	-	-
	PC-8 Coordinate with the rigging team and other site personnel to maintain clear communication and ensure adherence to the rigging plan.	3	3	-	-
	PC-9 Conduct risk assessments for each rigging operation, identifying potential hazards and implementing control measures.	3	3	-	-
	PC -10 Ensure compliance with industry standards, regulations, and best practices for advanced rigging operations.	3	3	-	-
	PC -11 Use personal protective equipment (PPE) and enforce safety measures for the rigging team and other personnel on-site	3	3	-	-
	PC -12 Document and report any incidents, near misses, or safety concerns related to rigging activities.	3	3	-	-
	PC -13 Perform regular inspections and maintenance of rigging equipment to ensure functionality and safety.	3	3	-	-
	PC -14 Identify and troubleshoot common equipment malfunctions, reporting issues to the supervisor for corrective action	3	3		
	PC -15 Maintain records of equipment usage, inspections, and maintenance for compliance and auditing purposes	3	3		



	NOS Total Marks	50	50	-	-
SSD/N0310 v 1.0: Safety Standards and Regulations in Rigging	PC-1 Identify and interpret OSHA (Occupational Safety and Health Administration) regulations and other national safety standards relevant to rigging operations.	5	5	-	-
	PC-2 Apply OSHA guidelines for lifting, securing, and moving loads in compliance with national safety requirements	5	5	-	-
	PC-3 Ensure that all rigging equipment and procedures meet the specified national safety standards, conducting regular inspections and audits	4	4	-	-
	PC-4 Implement safety measures as required by national regulatory bodies, such as hazard communication, PPE usage, and safe work practices.	4	4	-	-
	PC-5 Interpret and apply ISO (International Organization for Standardization) standards, such as ISO 4309 (Cranes – Wire Ropes) and ISO 9927 (Cranes – Inspections).	4	4	-	-
	PC-6 Implement EN (European Norm) regulations for rigging and load-handling, ensuring compliance with international safety protocols	4	4	-	-
	PC-7 Maintain an up-to-date understanding of international safety regulations and best practices for lifting and rigging operations.	4	4	-	-
	PC-8 Adapt rigging procedures to align with both national and international safety standards, ensuring consistency in safety	4	4	-	-



	practices.				
	PC-9 Identify compliance requirements and legal obligations for rigging operations, including documentation, reporting, and record-keeping.	4	4	-	-
	PC-10 Develop procedures for reporting safety incidents, near misses, and equipment malfunctions in accordance with regulatory guidelines.	4	4	-	-
	PC-11 Educate team members on compliance requirements and the consequences of non-compliance, including potential penalties and legal repercussions.	4	4	-	-
	PC-12 Implement corrective actions and preventive measures to address safety violations or compliance gaps.	4	4	-	-
	NOS Total Marks	50	50	-	-
SSD/N0311 v 1.0: Rigging Mathematics and Load Calculations	PC1. Use direct weight measurement methods, such as load cells or scales, to determine the exact weight of a load.	4	4	-	-
	PC2. Reference manufacturer's specifications and product documentation to identify predefined load weights accurately	4	4	-	-
	PC-3 Apply volume and density calculations using the formula $\text{Weight} = \text{Volume} \times \text{Density}$ for common materials like concrete, steel, and liquids.	4	4	-	-
	PC-4 Utilize common density values for frequently rigged materials to estimate weight effectively.	4	4	-	-
	PC-5 Determine the load's center of gravity (CoG) using physical measurement techniques, ensuring	4	4	-	-



	accurate alignment for safe lifting				
	PC-6 Apply mathematical methods to calculate the CoG, considering factors like load symmetry, shape, and weight distribution	4	4	-	-
	PC-7 Adjust lift points to align with the CoG, minimizing the risk of load tipping or instability during lifting operations	4	4	-	-
	PC-8 Apply appropriate hitch configurations, such as Straight Hitch, Choker Hitch, and Basket Hitch, based on the specific lifting requirements and load characteristics.	4	4	-	-
	PC-9 Use a Straight Hitch for vertical lifts where no additional stability or load balancing is required.	3	3	-	-
	PC-10 Use a Choker Hitch for loads that require a tighter grip, such as cylindrical objects, understanding the reduced load capacity due to increased tension.	3	3	-	-
	PC-11 Use a Basket Hitch to evenly distribute load weight, preventing damage to delicate materials and ensuring a balanced lift.	3	3	-	-
	PC-12 Create and interpret diagrams that illustrate how hitch angles affect load distribution and overall load capacity.	3	3	-	-
	PC-13 Perform load angle factor calculations using sine and cosine functions to determine the actual load capacity based on the hitch angles.	3	3		
	PC-14 Utilize tables for quick reference when calculating load angle factors for different hitch setups, ensuring efficiency and accuracy in load planning.	3	3		
	NOS Total Marks	50	50	-	-



SSD/N0312 v 1.0: Identifying and Evaluating Lift Points	PC-1 Assess the structural integrity and strength of potential lift points, considering factors like wear, corrosion, and deformation.	3	4	-	-
	PC-2 Evaluate the reliability of lift points by analyzing their design and construction, ensuring they can withstand the forces exerted during lifting	3	4	-	-
	PC-3 Select lift points based on the material composition of the load, considering properties such as tensile strength, ductility, and hardness.	3	4	-	-
	PC-4 Determine appropriate lift points based on the load's thickness and shape, ensuring the selected points provide balanced support.	3	4	-	-
	PC-5 Ensure lift points are positioned symmetrically and equidistant from the center of gravity to maintain load stability during lifting operations.	3	4	-	-
	PC-6 Verify that the chosen lift points comply with relevant safety standards and manufacturer guidelines for rigging and lifting operations.	3	4	-	-
	PC-7 Apply formulas for calculating the safe lift point capacity based on material strength, load weight, and distribution factors	3	4	-	-
	PC-8 Use safety factors to account for uncertainties in load characteristics and lift point conditions, ensuring a safe margin of error	3	4	-	-
	PC-9 Determine lift point capacities using established formulas, such as: ■ Safe Load Capacity = (Material Strength x Cross-	3	4	-	-



	Sectional Area) / Safety Factor. ■ Load Distribution Factor = Total Load Weight / Number of Lift Points.				
	PC-10 Utilize tables and charts that specify the strength and load-bearing capacities of common materials (e.g., steel, aluminum) for quick reference during lift point calculations	3	4	-	-
	PC-11 Adjust calculations based on the specific conditions of the lift, such as temperature, environmental factors, and potential dynamic loads.	2	5		
	PC-12 Document lift point evaluation and calculation results, ensuring transparency and traceability in rigging operations	2	5		
	NOS Total Marks	50	50	-	-
SSD/N0313 v 1.0: Working Load Limit & selection of Rigging component	PC-1 Define the working load limit (WLL) of rigging components such as slings, shackles, hooks, and lifting devices based on their material properties and design specifications.	4	4	-	-
	PC-2 Explain the concept of breaking strength and how it differs from WLL, understanding the significance of not exceeding the breaking strength during lifting operations.	4	4	-	-
	PC-3 Apply the concept of safety factor in load capacity calculations to account for uncertainties in load characteristics and dynamic forces. Common safety factor ratios include: ■ General Rigging: 5:1 (Load Weight: Rigging Capacity) ■ Critical Lifts: 10:1 or higher, depending on the complexity and risks involved.	3	3	-	-



	<p>PC-4 Use formulas to calculate the safe working load (SWL) of rigging components based on their WLL and safety factor: ■ Safe Working Load (SWL) = Breaking Strength / Safety Factor</p>	3	3	-	-
	<p>PC-5 Select rigging components based on their load capacity, ensuring they are rated for the specific weights and load characteristics of the lifting operation</p>	3	3	-	-
	<p>PC-6 Verify the load capacity of rigging equipment through inspections and documentation review, ensuring compliance with manufacturer guidelines and safety standards.</p>	3	3	-	-
	<p>PC-7 Evaluate the load's shape, weight distribution, and center of gravity to determine the appropriate rigging configuration.</p>	3	3	-	-
	<p>PC-8 Use spreader bars to distribute load weight evenly across multiple lift points when handling wide or long loads</p>	3	3	-	-
	<p>PC-9 Utilize load equalizing beams for lifting asymmetrical loads to balance weight distribution and maintain stability</p>	3	3	-	-
	<p>PC-10 Select multi-leg slings for loads with unbalanced or shifting centers of gravity, ensuring each sling leg is appropriately rated for the load it will carry</p>	3	3	-	-
	<p>PC-11 Adjust the sling angles and lengths to achieve a balanced lift, minimizing the risk of load tipping or shifting</p>	3	3	-	-



	PC-12 Implement specialized rigging tools like adjustable spreader beams, rotating hooks, or swivel hoists to accommodate complex lifting scenarios.	3	3	-	-
	PC-13 Ensure all rigging components are compliant with relevant industry standards and safety regulations, such as OSHA, ASME, and ISO guidelines.	3	3		
	PC-14 Document the selection and evaluation of rigging components, including calculations, load capacity verifications, and compliance checks.	3	3		
	PC-15 Maintain records of rigging inspections, certifications, and usage to ensure traceability and adherence to safety protocols.	3	3		
	PC-16 Report any discrepancies or non-compliance issues with rigging components to the supervisor for corrective action.	3	3		
	NOS Total Marks	50	50	-	-
SSD/N0314 v 1.0: Pre-Use Inspection of Rigging and Lift Points	PC-1 Perform a visual inspection of rigging components, checking for signs of wear, deformation, corrosion, cracks, and other visible damage.	3	3	-	-
	PC-2 Conduct a tactile inspection by feeling for irregularities such as cuts, abrasions, or fraying on slings, wires, or ropes.	3	3	-	-
	PC-3 Inspect hooks and shackles for any signs of stretching, bending, or improper alignment that could affect their load-bearing capacity.	3	3	-	-



	PC-4 Verify that all identification tags, markings, and manufacturer labels are legible and correspond to the component's specifications.	3	3	-	-
	PC-5 Check for any loose or missing parts, such as pins or bolts, on multi-leg slings or spreader bars that could compromise the integrity of the rigging setup	3	3	-	-
	PC-6 Document all findings from the inspection, noting any deficiencies or damage, and report them to the supervisor for further evaluation	3	3	-	-
	PC-7 Ensure that defective or damaged rigging components are tagged as "Out of Service" and removed from the rigging area to prevent accidental use.	3	3	-	-
	PC-8 Inspect lift points, such as welds, bolts, and other attachment points, for cracks, rust, or other signs of fatigue that could compromise their structural integrity.	3	3	-	-
	PC-9 Assess the condition of welds at lift points, looking for signs of cracking, porosity, or poor workmanship that may lead to failure during lifting operations.	3	3	-	-
	PC-10 Verify that bolts and other fasteners at lift points are properly tightened and free from corrosion or wear.	3	3		
	PC-11 Ensure that all lift points are positioned and aligned correctly to maintain load balance and stability	3	3		



	PC-12 Establish criteria for rejecting or approving lift points based on observed conditions, using industry standards and manufacturer recommendations as references.	3	3		
	PC-13 Record lift point inspection results, including any corrective actions taken or recommendations for further evaluation by a certified inspector.	3	3		
	PC-14 Develop a standardized checklist for pre-use inspections of rigging components and lift points, ensuring consistency and completeness in the inspection process	3	3		
	PC-15 Maintain an organized record-keeping system that includes inspection dates, findings, corrective actions, and the inspector's signature.	3	3		
	PC-16 Implement procedures for regularly reviewing and updating inspection records to ensure compliance with safety standards and audit requirements.	3	3		
	PC-17 Establish a protocol for reporting severe defects or non-compliance issues that require immediate attention or equipment replacement.	2	2		
	NOS Total Marks	50	50	-	
SSD/N0315 v 1.0: Load Dynamics and Associated Hazards	PC-1 Explain the basic principles of load dynamics, including inertia and momentum, and their impact on lifting stability and control.	3	3		
	PC-2 Analyze how load dynamics can change during lifting operations due to external factors such as wind, vibration, and sudden or abrupt movements	3	3		



	PC-3 Assess how inertia affects the starting and stopping phases of lifting operations, and implement measures to control load movement.	3	3		
	PC-4 Identify potential instability scenarios where load momentum could lead to uncontrolled swinging or tipping, and establish guidelines for managing these situations	3	3		
	PC-5 Demonstrate the ability to anticipate and respond to dynamic load changes by adjusting lift speed, rigging angles, and load configuration	3	3		
	PC-6 Use simulations or case studies to illustrate scenarios where changes in load dynamics have led to rigging accidents or equipment failures, and discuss preventive strategies.	3	3		
	PC-7 Identify pinch points and crush zones, which are areas where riggers can be caught between the load and a fixed object, and outline methods to avoid these hazards.	3	3		
	PC-8 Recognize the risk of overloading and structural failure when load capacities are exceeded or when faulty rigging equipment is used, and implement safe load calculations to prevent such occurrences	3	3		
	PC-9 Identify swing hazards caused by improper center of gravity (CoG) alignment, unexpected load movement, or abrupt environmental changes, and establish control measures to mitigate these risks	3	3		
	PC-10 Expand on other common hazards	3	3		



	in rigging operations, such as load shifting, falling objects, or proximity to energized equipment, and discuss their potential impact on safety				
	PC-11 Introduce hazard control measures such as using taglines to control load movement, implementing proper rigging alignment, and maintaining clear communication among team members during lifting operations.	3	3		
	PC-12 Demonstrate how to establish safety zones and barriers to protect personnel from identified hazards during rigging operations.	3	3		
	PC-13 Develop a risk assessment checklist for identifying hazards and documenting mitigation strategies before commencing any rigging operation.	3	3		
	PC-14 Use taglines to control load movement and prevent swinging or rotation during lifting and lowering operations.	3	3		
	PC-15 Apply proper rigging alignment techniques to ensure that the load remains balanced and stable throughout the lifting process	2	2		
	PC-16 Establish clear communication channels, including the use of hand signals, radios, or other communication devices, to maintain situational awareness and coordinate actions among the rigging team.	2	2		
	PC-17 Implement safety protocols such as lowering lift speeds, using spotters, and establishing visual cues to minimize the impact of dynamic forces on the load	2	2		



	PC-18 Monitor environmental conditions, such as wind speed and ground stability, to identify potential changes in load dynamics and adjust lifting procedures accordingly	2	2		
	NOS Total Marks	50	50	-	
SSD/N0316 v 1.0: Advanced Rigging Considerations	PC-1 Conduct a detailed evaluation of load characteristics, including weight, center of gravity, shape, and material properties, to develop an appropriate lift plan.	3	3		
	PC-2 Identify the optimal rigging configuration based on load characteristics, ensuring that all rigging components are appropriately rated for the intended load and lift.	3	3		
	PC-3 Assess environmental conditions such as wind, ground stability, and proximity to other structures, and factor these into lift plan	3	3		
	PC-4 Establish a step-by-step lift plan, including equipment requirements, rigging setup, load handling procedures, and contingency measures.	3	3		
	PC-5 Develop a comprehensive risk assessment for each rigging operation, identifying potential hazards and categorizing them based on likelihood and severity	3	3		
	PC-6 Implement mitigation strategies to address identified hazards, such as load stabilization measures, the use of specialized rigging equipment, and enhanced safety protocols.	3	3		



	PC-7 Review and update lift plans and risk assessments regularly to reflect changes in load conditions, environmental factors, or equipment availability.	3	3		
	PC-8 Conduct pre-lift inspections and functional tests of all rigging equipment to ensure they meet operational and safety standards.	3	3		
	PC-9 Perform load tests using calibrated equipment to verify that the rigging configuration can safely support the designated load.	3	3		
	PC-10 Follow load testing procedures as outlined by relevant standards, such as ASME (American Society of Mechanical Engineers) and OSHA (Occupational Safety and Health Administration), to ensure compliance and safety.	3	3		
	PC-11 Document load test results, including the load weight, test duration, equipment used, and any observations made during the test.	3	3		
	PC-12 Obtain load test certification from a qualified authority, ensuring that all rigging equipment and configurations are approved for use.	3	3		
	PC-13 Maintain a record of load test certifications, inspection reports, and any corrective actions taken to ensure traceability and compliance with regulatory requirements.	3	3		
	PC-14 Establish a schedule for regular load tests and re-certifications to maintain the integrity of rigging equipment and	3	3		



	adherence to safety standards				
	PC-15 Submit lift plans, risk assessments, and load test results for review and approval by a qualified supervisor or safety officer.	3	3		
	PC-16 Implement any recommendations or corrective actions provided during the review process to enhance the safety and effectiveness of the lift	3	3		
	PC-17 Ensure that all documentation, including lift plans, risk assessments, and load test certifications, is readily accessible for audits or inspections by regulatory bodies	2	2		
	NOS Total Marks	50	50		
SSD/N0317 v 1.0: Emergency Response and Contingency Planning	PC-1 Demonstrates a thorough understanding of emergency response procedures related to rigging and lifting operations	3	3		
	PC-2 Knows and follows site-specific emergency protocols, including emergency contact numbers, assembly points, and evacuation routes	3	3		
	PC-3 Proactively conducts risk assessments before and during lifting operations, identifying potential hazards that could lead to an emergency	3	3		
	PC-4 Can anticipate high-risk situations such as inclement weather, unstable ground, dynamic load shifts, or equipment malfunction.	3	3		
	PC-5 Demonstrates proficiency in using emergency response equipment, such as	3	3		



	fire extinguishers, first aid kits, emergency stop buttons, and personal protective equipment (PPE).				
	PC-6 Ensures all emergency response tools are properly maintained, inspected, and readily accessible during operations.	3	3		
	PC-7 Develops and implements comprehensive contingency plans for critical or high-risk lift	3	3		
	PC-8 Ensures that backup rigging gear, additional personnel, or alternative lifting plans are in place in case of unforeseen circumstances.	3	3		
	PC-9 Communicates clearly and effectively with the rigging team, crane operators, and site supervisors during emergency situation	3	3		
	PC-10 Ensures that all personnel understand emergency protocols and contingency plans, conducting regular drills to reinforce understanding	3	3		
	PC-11 Takes immediate, decisive action in response to rigging-related emergencies such as load failure, equipment malfunction, or crane instability	3	3		
	PC-12 Ensures the safety of the team and surrounding personnel by following emergency shutdown procedures	3	3		
	PC-13 Conducts a thorough post-incident investigation to determine the root cause of the emergency or near-miss	3	3		
	PC-14 Submits detailed reports of the incident, including the timeline of events,	3	3		



	actions taken, and recommendations for preventing future incidents				
	PC-15 Adheres to all applicable safety regulations, including OSHA and ANSI standards, regarding emergency response and contingency planning	2	2		
	PC-16 Ensures proper documentation of emergency response drills, incident reports, and contingency plans.	2	2		
	PC-17 Continuously seeks ways to improve emergency response protocols and contingency plans based on lessons learned from drills or actual incidents.	2	2		
	PC-18 Engages in ongoing training to stay updated on the latest emergency response techniques and safety practices	2	2		
	NOS Total Marks	50	50	-	
SSD/N0318 v 1.0: Documentation and Reporting	PC-1 Maintain a detailed logbook for all rigging activities, including equipment inspections, maintenance, and usage records, as well as daily lift operations	3	3		
	PC-2 Record all rigging inspections, noting the condition of equipment, any observed defects, and corrective actions taken	3	3		
	PC-3 Document lift plans for each lifting operation, including load characteristics, rigging configurations, environmental conditions, and safety measures.	3	3		
	PC-4 Use standardized templates for recording rigging inspections, incident reports, and lift plans to ensure consistency and completeness in documentation.	3	3		



	PC-5 Include relevant details in documentation, such as equipment serial numbers, dates of inspection, names of inspectors, and observations made during the inspection	3	3		
	PC-6 Store logbooks and documentation in an organized manner, ensuring easy access for reviews, audits, and inspections by internal and external stakeholders	3	3		
	PC-7 Implement a documentation review process to regularly update records, ensuring they reflect the current status of rigging operations and equipment.	3	3		
	PC-8 Establish a formal procedure for reporting incidents, near-misses, and safety concerns during rigging operations	3	3		
	PC-9 Encourage all personnel to report incidents and safety concerns promptly, without fear of retribution, to promote a culture of safety and transparency	3	3		
	PC-10 Use incident reporting templates to capture essential information, including the date and time of the incident, location, involved personnel, and a description of events.	3	3		
	PC-11 Document corrective and preventive actions taken in response to reported incidents, and ensure follow-up to verify their effectiveness	2	2		
	PC-12 Conduct root cause analysis for all reported incidents and near-misses, using techniques such as the "5 Whys" or Fishbone Diagram to identify contributing factors and underlying causes	3	3		



	PC-13 Develop and implement action plans to address identified root causes, preventing recurrence of similar incidents in future rigging operations.	3	3		
	PC-14 Share findings from incident investigations and root cause analyses with relevant personnel to enhance learning and improve overall safety awareness	2	2		
	PC-15 Ensure that all documentation and reporting procedures comply with relevant industry standards and regulatory requirements, such as OSHA, ASME, and ISO guidelines	2	2		
	PC-16 Conduct regular audits of documentation and reporting processes to verify accuracy, completeness, and compliance	2	2		
	PC-17 Implement continuous improvement initiatives based on documentation reviews and incident analysis, aiming to enhance the effectiveness of rigging operations and safety practices.	2	2		
	PC-18 Use documented findings to develop training and awareness programs that address recurring issues and promote safe rigging practices across the organization.	2	2		
	PC-19 Establish key performance indicators (KPIs) for documentation and reporting processes, monitoring them to evaluate performance and identify areas for improvement	2	2		
	NOS Total Marks	50	50		



DGT/VSQ/N0102: Employability Skills	PC1. understand the significance of employability skills in meeting the job requirements.	0.5	0.5	-	-
	PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices.	0.5	0.5	-	-
	PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Cheerful outlook, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	0.5	0.5	-	-
	PC4. speak with others using some basic English phrases or sentences	0.5	0.5	-	-
	PC5. follow good manners while communicating with others.	1	2	-	-
	PC6. work with others in a team	1	2	-	-
	PC7. communicate and behave appropriately with all genders and PwD.	0.5	1	-	-
	PC8. report any issues related to sexual harassment.	1	1	-	-
	PC9. use various financial products and services safely and securely.	1	1	-	-
	PC10. calculate income, expenses, savings etc.	0.5	1	-	-
	PC11. approach the concerned authorities for any exploitation as	0.5	1	-	-



	per legal rights and laws.				
	PC12. operate digital devices and use their features and applications securely and safely	1	1	-	-
	PC13. use internet and social media platforms securely and safely.	1	1	-	-
	PC14. identify and assess opportunities for potential business	0.5	1	-	-
	PC15. identify sources for arranging money and associated financial and legal challenges.	0.5	1	-	-
	PC16. identify diverse types of customers.	0.5	0.5	-	-
	PC17. identify customer needs and address them appropriately.	0.5	1	-	-
	PC18. follow appropriate hygiene and grooming standards.	0.5	1	-	-
	PC19. create basic biodata	0.5	0.5	-	-
	PC20. search for suitable jobs and apply.	1	2	-	-
	PC21. identify and register apprenticeship opportunities as per requirement.	1	1	-	-
	PC- 22 Use basic features of word processor, spreadsheets, and presentations	1	1		
	PC- 23 Identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	0.5	1		
	PC- 24 Develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	1	1		



	PC- 25 Identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	0.5	1		
	PC- 26 Identify different types of customers	0	0.5		
	PC- 27 Identify and respond to customer requests and needs in a professional manner	0.5	1		
	PC- 28 Follow appropriate hygiene and grooming standards	0.5	0.5		
	PC- 29 Create a professional Curriculum vitae (Résumé)	0.5	0.5		
	PC- 30 Search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	0	1		
	PC- 31 Apply to identified job openings using offline /online methods as per requirement	0.5	0.5		
	PC- 32 Answer questions politely, with clarity and confidence, during recruitment and selection	0.5	0.5		
	PC- 33 Identify apprenticeship opportunities and register for it as per guidelines and requirement	0	0.5		
	Total Marks	20	30	-	-
	Grand Total	520	530	-	-



Tools, materials, and consumable list

List of Tools and Equipment

Batch Size: 30

No	Tools/Equipment Name	Specifications	Quantity for specified batch size
•	Personal Protective Equipment (PPE)	Nos	5
•	Wire Rope Slings	Nos	3
•	Synthetic Slings (Nylon, Polyester)	Nos	3
•	Chain Slings	Nos	3
•	Shackles (Anchor and Chain)	Nos	3
•	Hooks (Swivel, Grab, Eye, Self-locking)	Nos	3
•	Eye Bolts and Hoist Rings	Nos	3
•	Turnbuckles	Nos	3
•	Load Binders	Nos	3
•	Chain Hoists	Nos	3
•	Lever Hoists	Nos	3
•	Come-Along	Nos	3
•	Manual Hoists	Nos	3
•	Electric Hoists	Nos	3
•	Air Hoists	Nos	3
•	Pallet Jacks	Nos	3
•	Dollies	Nos	3
•	Roller Skids	Nos	3
•	Toe Jacks	Nos	3
•	Hydraulic Jacks	Nos	1



Skill India
कौशल भारत - कुशल भारत

			1
•	Measuring Tapes	Nos	1
•	Spirit Levels	Nos	1
•	Plumb Bobs	Nos	1
•	Digital Calipers	Nos	1
•	Load Cells and Dynamometers	Nos	1
•	Inspection Tools	Nos	3
•	Wrenches and Spanners	Nos	1
•	Screwdrivers	Nos	1
•	Hammers and Mallets	Nos	1
•	Pliers and Wire Cutters	Nos	1
•	Socket Sets	Nos	1
•	Torque Wrenches	Nos	1
•	First Aid Kits	Nos	1
•	Fire Extinguishers	Nos	1
•	Emergency Response Plans	Nos	1
•	Lockout/Tagout (LOTO) Kits	Nos	1
•	Rescue Ropes and Equipment	Nos	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Black/White board
2. Marker
3. Projector
4. Computer with relevant software



Assessment Methods/Tools

SSD/VSQ/N0309 v 1.0: Introduction to Advance Rigging

Practical questions

Total Marks:50

Create a **basic advanced rig setup** for a 3D character (humanoid or animal) using any 3D software (e.g., Maya, Blender).

Your rig should include:

- Proper **joint hierarchy setup** (10 marks)
- Implementation of **IK and FK systems** for limbs (10 marks)
- Creation of **controller objects** for animation (10 marks)
- Basic **skinning and weight painting** (10 marks)
- Use of at least one **constraint or deformer** (10 marks)

Submission Requirements:

- Rigged model file
- Playblast or short animation demonstrating controls
- Brief explanation (150–200 words) of your rig setup

B. Multiple choice questions

(5*10=50 marks)

1.	What is the primary purpose of rigging in 3D animation?			
	<input type="checkbox"/>	A. Texturing	<input type="checkbox"/>	B. Adding lights
	<input type="checkbox"/>	C. Creating a skeleton for animation	<input type="checkbox"/>	D. Rendering
2.	In rigging, joints are mainly used to:			
	<input type="checkbox"/>	A. Apply textures	<input type="checkbox"/>	B. Control deformation of meshes
	<input type="checkbox"/>	C. Render images	<input type="checkbox"/>	D. Add sound
3.	What does IK stand for?			
	<input type="checkbox"/>	A. Internal Kinetics	<input type="checkbox"/>	B. Inverse Kinematics
	<input type="checkbox"/>	C. Integrated Keying	<input type="checkbox"/>	D. Instant Kinematics
4.	IK is most useful for:			
	<input type="checkbox"/>	A. Facial animation only	<input type="checkbox"/>	B. Static models
	<input type="checkbox"/>	C. Controlling end effectors like hands and feet	<input type="checkbox"/>	D. Rendering
5.	FK stands for:			
	<input type="checkbox"/>	A. Forward Kinematics	<input type="checkbox"/>	B. Fast Keying
	<input type="checkbox"/>	C. Frame Kinetics	<input type="checkbox"/>	D. Final Kinematics



6.	In FK, movement starts from:			
	<input type="checkbox"/>	A. End joint	<input type="checkbox"/>	B. Middle joint
	<input type="checkbox"/>	C. Root joint	<input type="checkbox"/>	D. Camera
7.	Which system is better for realistic arm swinging?			
	<input type="checkbox"/>	A. IK	<input type="checkbox"/>	B. FK
	<input type="checkbox"/>	C. Both Same	<input type="checkbox"/>	D. None
8.	Which system is ideal for foot placement on the ground?			
	<input type="checkbox"/>	A. FK	<input type="checkbox"/>	B. IK
	<input type="checkbox"/>	C. Lighting	<input type="checkbox"/>	D. Texturing
9.	Constraints are used to:			
	<input type="checkbox"/>	A. Delete objects	<input type="checkbox"/>	B. Control relationships between objects
	<input type="checkbox"/>	C. Add materials	<input type="checkbox"/>	D. Render frames
10.	The top-most joint in a hierarchy is called			
	<input type="checkbox"/>	A. End joint	<input type="checkbox"/>	B. Root joint
	<input type="checkbox"/>	C. Child joint	<input type="checkbox"/>	D. Leaf joint

SSD/VSQ/N0310 v 1.0: Safety Standards and Regulations in Rigging

Practical questions

Total Marks:50

You are assigned as a **rigger** at a worksite. A heavy load needs to be lifted using rigging equipment. Perform the following tasks based on safety standards and regulations.

Tasks:

1. Inspection of Equipment (10 Marks)
 - Identify and inspect rigging equipment (slings, hooks, chains, etc.)
 - List at least 5 safety checks before use
2. Risk Assessment (10 Marks)
 - Identify possible hazards (minimum 5)
 - Suggest preventive measures for each hazard
3. Selection of Equipment (10 Marks)
 - Choose appropriate rigging equipment based on load
 - Justify your selection (WLL, type of sling, etc.)
4. Demonstration of Safe Rigging Procedure (10 Marks)
 - Explain step-by-step safe lifting procedure
 - Include use of PPE and communication methods
5. Emergency Preparedness (10 Marks)



- Describe actions to be taken in case of:
 - Equipment failure
 - Load imbalance
 - Worker injury

B. Multiple choice questions

(50marks)

11	What is the primary purpose of rigging inspections			
	<input type="checkbox"/>	A. Increase lifting speed	<input type="checkbox"/>	B. Ensure equipment aesthetic condition
	<input type="checkbox"/>	C. Identify defects and ensure safety compliance	<input type="checkbox"/>	D. Reduce manpower
12	Which type of sling is most suitable for delicate loads?			
	<input type="checkbox"/>	A. Chain sling	<input type="checkbox"/>	B. Wire rope sling
	<input type="checkbox"/>	C. Synthetic web sling	<input type="checkbox"/>	D. Metal sling
13	What does SWL stand for in rigging operations?			
	<input type="checkbox"/>	A. Standard Weight Limit	<input type="checkbox"/>	B. Safe Working Load
	<input type="checkbox"/>	C. System Weight Load	<input type="checkbox"/>	D. Safety Work Level
14	Which defect requires immediate removal of a wire rope sling from service?			
	<input type="checkbox"/>	A. Slight discoloration	<input type="checkbox"/>	B. Broken wires
	<input type="checkbox"/>	C. Dust accumulation	<input type="checkbox"/>	D. Minor oil stains
15	Increasing sling angle will:			
	<input type="checkbox"/>	A. Decrease tension in sling	<input type="checkbox"/>	B. Increase tension in sling
	<input type="checkbox"/>	C. Have no effect	<input type="checkbox"/>	D. Reduce load weight
16	What is the safest hitch for load stability?			
	<input type="checkbox"/>	A. Single vertical hitch	<input type="checkbox"/>	B. Choker hitch
	<input type="checkbox"/>	C. Basket hitch	<input type="checkbox"/>	D. Loose hitch
17	What should be checked before lifting a load?			
	<input type="checkbox"/>	A. . Weather only	<input type="checkbox"/>	Operator's uniform
	<input type="checkbox"/>	C. Load weight, rigging condition, and surroundings	<input type="checkbox"/>	D. Color of sling
18	What is the function of a shackle in rigging?			
	<input type="checkbox"/>	A. To lift the load directly	<input type="checkbox"/>	B. To connect lifting components
	<input type="checkbox"/>	C. To measure load weight	<input type="checkbox"/>	D. To reduce load
19	Which of the following is an emergency situation in rigging?			
	<input type="checkbox"/>	A. Proper load balance	<input type="checkbox"/>	B. Clear communication
	<input type="checkbox"/>	C. Sling failure during lift	<input type="checkbox"/>	D. Correct equipment selection
20	What is the first action in case of load instability?			



<input type="checkbox"/>	A. Ignore the issue	<input type="checkbox"/>	B. Increase lifting speed
<input type="checkbox"/>	C. Stop the operation immediately	<input type="checkbox"/>	D. Continue lifting slowly

SSD/N0311 v 1.0: Rigging Mathematics and Load Calculations

Practical questions

Total Marks:50

You are assigned to plan a lifting operation for a rectangular load weighing 4 tons using a two-leg sling arrangement

1. Calculate the load on each sling leg for a symmetric lift. (10 Marks)
2. Determine the effect of sling angle (given 60°) on sling tension. (10 Marks)
3. Identify the center of gravity and explain its importance in load stability. (10 Marks)
4. Select appropriate sling capacity based on calculated load and safety factors. (10 Marks)
5. Assess risks associated with incorrect calculations and suggest control measures. (10 Marks)

B. Multiple choice questions

(5*10=50 marks)

21.	What is the unit commonly used to measure load in rigging?			
	<input type="checkbox"/>	A. Meter	<input type="checkbox"/>	B. Kilogram or Ton
	<input type="checkbox"/>	C. Pascal	<input type="checkbox"/>	D. Ampere
22.	What happens to sling tension when the sling angle decreases?			
	<input type="checkbox"/>	A. Decreases	<input type="checkbox"/>	B. Remains constant
	<input type="checkbox"/>	C. Increases	<input type="checkbox"/>	D. Becomes zero
23.	The center of gravity of an object is:			
	<input type="checkbox"/>	A. The topmost point	<input type="checkbox"/>	B. The heaviest edge
	<input type="checkbox"/>	C. The point where weight is evenly distributed	<input type="checkbox"/>	D. The lowest point
24.	In a two-leg sling, if the load is evenly distributed, each leg carries:			
	<input type="checkbox"/>	A. Full load	<input type="checkbox"/>	B. Half the load
	<input type="checkbox"/>	C. Double the load	<input type="checkbox"/>	D. No load
25.	Which factor affects sling tension the most?			
	<input type="checkbox"/>	A. Color of sling	<input type="checkbox"/>	B. Sling angle
	<input type="checkbox"/>	C. Operator experience	<input type="checkbox"/>	D. Weather condition
26.	What is the formula for load per sling leg in a symmetric lift?			
	<input type="checkbox"/>	A. Load × 2	<input type="checkbox"/>	B. Load ÷ number of legs
	<input type="checkbox"/>	C. Load + angle	<input type="checkbox"/>	D. Load ÷ height
27.	What is the main purpose of load calculation?			
	<input type="checkbox"/>	A. Increase speed	<input type="checkbox"/>	B. Ensure safe lifting
	<input type="checkbox"/>	C. Reduce cost	<input type="checkbox"/>	D. Improve appearance



28.	Which of the following is a safe practice?			
	<input type="checkbox"/>	A. Ignoring safety factor	<input type="checkbox"/>	B. Using overloaded sling
	<input type="checkbox"/>	C. Applying safety factor in calculations	<input type="checkbox"/>	D. Estimating load visually only
29.	If the center of gravity is not aligned properly, it may cause:			
	<input type="checkbox"/>	A. Smooth lifting	<input type="checkbox"/>	B. Load stability
	<input type="checkbox"/>	C. Load tilting or swinging	<input type="checkbox"/>	D. Faster lifting
30.	What is the effect of uneven load distribution?			
	<input type="checkbox"/>	A. Equal load sharing	<input type="checkbox"/>	B. Reduced tension
	<input type="checkbox"/>	C. Overloading of one sling leg	<input type="checkbox"/>	D. No effect

SSD/N0312 v 1.0: Identifying and Evaluating Lift Points

Practical questions

Total Marks:50

You are assigned to prepare a lifting plan for an irregular-shaped equipment using a crane.

- Identify suitable lift points on the given load and justify your selection. (10 Marks)
- Assess the strength and integrity of identified lift points. (10 Marks)
- Determine the center of gravity and its relation to lift point positioning. (10 Marks)
- Evaluate risks associated with improper lift point selection. (10 Marks)
- Recommend control measures to ensure safe lifting and load stability. (10 Marks)

B. Multiple choice questions

(5*10=50 marks)

31.	What is the primary purpose of identifying correct lift points?			
	<input type="checkbox"/>	A. Increase lifting speed	<input type="checkbox"/>	B. Improve appearance
	<input type="checkbox"/>	C. Ensure safe and stable lifting	<input type="checkbox"/>	D. Reduce manpower
32.	Lift points should ideally be located:			
	<input type="checkbox"/>	A. At the edges only	<input type="checkbox"/>	B. Near the center of gravity
	<input type="checkbox"/>	C. At random positions	<input type="checkbox"/>	D. At the heaviest corner
33.	What can happen if lift points are incorrectly selected?			
	<input type="checkbox"/>	A. Faster lifting	<input type="checkbox"/>	B. Load stability
	<input type="checkbox"/>	C. Load tilting or slipping	<input type="checkbox"/>	D. Reduced tension
34.	Which factor is most important while evaluating lift points?			
	<input type="checkbox"/>	A. Color of equipment	<input type="checkbox"/>	B. Structural strength
	<input type="checkbox"/>	C. Operator preference	<input type="checkbox"/>	D. Weather condition
35.	What is a common indicator of a safe lift point?			



	<input type="checkbox"/>	A. Painted surface	<input type="checkbox"/>	B. Presence of cracks
	<input type="checkbox"/>	C. Certified lifting lugs	<input type="checkbox"/>	D. Rust marks
36.	The center of gravity affects:			
	<input type="checkbox"/>	A. Equipment color	<input type="checkbox"/>	B. Load balance and stability
	<input type="checkbox"/>	C. Operator skill	<input type="checkbox"/>	D. Lifting speed only
37.	Which of the following is a hazard related to lift points?			
	<input type="checkbox"/>	A. Proper alignment	<input type="checkbox"/>	B. Load balancing
	<input type="checkbox"/>	C. Weak or damaged lifting points	<input type="checkbox"/>	D. Certified lifting lugs
38.	What should be checked before using a lift point?			
	<input type="checkbox"/>	A. Paint quality	<input type="checkbox"/>	B. Structural integrity and certification
	<input type="checkbox"/>	C. Size only	<input type="checkbox"/>	D. Operator availability
39.	Uneven lift points may result in:			
	<input type="checkbox"/>	A. Equal load distribution	<input type="checkbox"/>	B. Load instability
	<input type="checkbox"/>	C. Reduced tension	<input type="checkbox"/>	D. Faster lifting
40.	What is the safest approach if lift points are not clearly defined?			
	<input type="checkbox"/>	A. Guess and proceed	<input type="checkbox"/>	B. Use any available point
	<input type="checkbox"/>	C. Stop and consult lifting plan/engineer	<input type="checkbox"/>	D. Increase lifting speed

SSD/N0313 v 1.0: Working Load Limit & selection of Rigging component

Practical questions

Total Marks:50

You are assigned to plan a lifting operation for a 6-ton load using available rigging components.

1. Identify the Working Load Limit (WLL) of given rigging components (slings, shackles, hooks) from tags/certificates. (10 Marks)
2. Select appropriate rigging components suitable for the load and justify your selection. (10 Marks)
3. Calculate the effective load on each component considering sling configuration and angle. (10 Marks)
4. Verify whether selected components meet safety requirements with appropriate safety factors. (10 Marks)
5. Identify risks of overloading or incorrect selection and suggest corrective actions. (10 Marks)

B. Multiple choice questions

(50 marks)

41.	What does WLL stand for in rigging operations?			
	<input type="checkbox"/>	A. Weight Load Level	<input type="checkbox"/>	B. Working Load Limit
	<input type="checkbox"/>	C. Work Lift Level	<input type="checkbox"/>	D. Wire Load Limit
42.	The WLL of a rigging component indicates:			
	<input type="checkbox"/>	A. Maximum breaking load	<input type="checkbox"/>	B. Recommended safe load capacity



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	<input type="checkbox"/>		<input type="checkbox"/>	
	<input type="checkbox"/>	C. Average load capacity	<input type="checkbox"/>	D. Minimum load capacity
43.	Which factor significantly reduces the effective WLL of a sling?			
	<input type="checkbox"/>	A. Color of sling	<input type="checkbox"/>	B. Sling angle
	<input type="checkbox"/>	C. Operator skill	<input type="checkbox"/>	D. Weather condition
44.	What is the main risk of exceeding WLL?			
	<input type="checkbox"/>	A. Faster lifting	<input type="checkbox"/>	B. Equipment failure
	<input type="checkbox"/>	C. Improved efficiency	<input type="checkbox"/>	D. Reduced tension
45.	Where is WLL usually indicated?			
	<input type="checkbox"/>	A. On operator's manual only	<input type="checkbox"/>	B. On equipment tag or marking
	<input type="checkbox"/>	C. On control panel	<input type="checkbox"/>	D. On crane cabin
46.	Which of the following is a correct practice?			
	<input type="checkbox"/>	A. Ignoring WLL during lifting	<input type="checkbox"/>	B. Using components without tags
	<input type="checkbox"/>	C. Selecting components within WLL limits	<input type="checkbox"/>	D. Overloading slightly for efficiency
47.	What should be done if WLL marking is not visible?			
	<input type="checkbox"/>	A. Assume standard value	<input type="checkbox"/>	B. Use the equipment anyway
	<input type="checkbox"/>	C. Do not use and report	<input type="checkbox"/>	D. Increase load gradually
48.	Safety factor in rigging is used to:			
	<input type="checkbox"/>	A. Increase load	<input type="checkbox"/>	B. Reduce cost
	<input type="checkbox"/>	C. Ensure additional safety margin	<input type="checkbox"/>	D. Speed up operation
49.	Which component is used to connect slings to loads?			
	<input type="checkbox"/>	A. Ladder	<input type="checkbox"/>	B. Shackle
	<input type="checkbox"/>	C. Helmet	<input type="checkbox"/>	D. Rope only
50.	Selection of rigging components depends on:			
	<input type="checkbox"/>	A. Color and shape	<input type="checkbox"/>	B. Load weight, type, and lifting conditions
	<input type="checkbox"/>	C. Operator preference	<input type="checkbox"/>	D. Availability only

SSD/N0314 v 1.0: Pre-Use Inspection of Rigging and Lift Points

Practical questions

Total Marks:50

You are assigned to conduct a pre-use inspection before a lifting operation.

- Inspect given rigging equipment (slings, shackles, hooks) and identify visible defects. (10 Marks)
- Examine lift points (lugs, eyebolts) for structural integrity and suitability. (10 Marks)
- Verify WLL markings, certification tags, and color coding of equipment. (10 Marks)
- Identify potential hazards related to defective equipment or improper lift points. (10 Marks)



• Recommend corrective actions and decide whether the equipment is safe for use. (10 Marks)

B. Multiple choice questions

(50 marks)

51.	What is the main purpose of pre-use inspection in rigging?			
	<input type="checkbox"/>	A. Increase lifting speed	<input type="checkbox"/>	B. Ensure safety and detect defects
	<input type="checkbox"/>	C. Reduce manpower	<input type="checkbox"/>	D. Improve appearance
52.	Which defect in a sling requires immediate removal from service?			
	<input type="checkbox"/>	A. Clean surface	<input type="checkbox"/>	B. Broken wires or cuts
	<input type="checkbox"/>	C. Proper labeling	<input type="checkbox"/>	D. Normal wear
53.	What should be checked on lifting lugs before use?			
	<input type="checkbox"/>	A. Paint color	<input type="checkbox"/>	B. Structural integrity and cracks
	<input type="checkbox"/>	C. Shape only	<input type="checkbox"/>	D. Size only
54.	Why is WLL marking important during inspection?			
	<input type="checkbox"/>	A. For decoration	<input type="checkbox"/>	B. To identify safe load capacity
	<input type="checkbox"/>	C. To increase load	<input type="checkbox"/>	D. To reduce cost
55.	What should be done if certification tag is missing?			
	<input type="checkbox"/>	A. Use equipment carefully	<input type="checkbox"/>	B. Ignore and proceed
	<input type="checkbox"/>	C. Do not use and report	<input type="checkbox"/>	D. Estimate load
56.	Which of the following is a hazard during lifting?			
	<input type="checkbox"/>	A. Proper equipment	<input type="checkbox"/>	B. Defective rigging gear
	<input type="checkbox"/>	C. Correct inspection	<input type="checkbox"/>	D. Certified tools
57.	What is the correct action if cracks are found in lift points?			
	<input type="checkbox"/>	A. Continue lifting	<input type="checkbox"/>	B. Repair during lifting
	<input type="checkbox"/>	C. Reject and report immediately	<input type="checkbox"/>	D. Ignore minor cracks
58.	Pre-use inspection should be performed:			
	<input type="checkbox"/>	A. Once a month	<input type="checkbox"/>	B. Before every lifting operation
	<input type="checkbox"/>	C. After lifting only	<input type="checkbox"/>	D. Once a year
59.	Which component connects rigging equipment to the load?			
	<input type="checkbox"/>	A. Helmet	<input type="checkbox"/>	B. Shackle
	<input type="checkbox"/>	C. Ladder	<input type="checkbox"/>	D. Belt
60.	What is the outcome of proper inspecti			
	<input type="checkbox"/>	A. Increased risk	<input type="checkbox"/>	B. Equipment failure



<input type="checkbox"/>	C. Safe lifting operation	<input type="checkbox"/>	D. Higher cost
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SSD/N0315 v 1.0: Load Dynamics and Associated Hazards

Practical questions

Total Marks:50

You are assigned to monitor a lifting operation involving a suspended load.

1. Identify factors affecting load dynamics such as wind, sudden movements, and uneven lifting. (10 Marks)
2. Demonstrate methods to control load movement using tag lines and proper communication. (10 Marks)
3. Observe and assess hazards like load swinging, rotation, or sudden jerks. (10 Marks)
4. Recommend safe practices to maintain load stability during lifting and lowering. (10 Marks)
5. Explain emergency actions in case of uncontrolled load movement or instability. (10 Marks)

B. Multiple choice questions

(50 marks)

61.	What is meant by load dynamics in rigging??			
	<input type="checkbox"/>	A. Static load condition	<input type="checkbox"/>	B. Movement and behavior of load during lifting
	<input type="checkbox"/>	C. Weight of load only	<input type="checkbox"/>	D. Color of load
62.	Which factor can cause load swinging?			
	<input type="checkbox"/>	A. Stable lifting	<input type="checkbox"/>	B. Sudden crane movement
	<input type="checkbox"/>	C. Proper rigging	<input type="checkbox"/>	D. Balanced load
63.	What is the purpose of tag lines?			
	<input type="checkbox"/>	A. Increase load weight	<input type="checkbox"/>	B. Control load movement
	<input type="checkbox"/>	C. Lift the load	<input type="checkbox"/>	D. Measure load
64.	Wind can affect lifting operations by:			
	<input type="checkbox"/>	A. Increasing stability	<input type="checkbox"/>	B. Causing load movement
	<input type="checkbox"/>	C. Reducing load weight	<input type="checkbox"/>	D. Improving balance
65.	What is a major hazard of uncontrolled load movement?			
	<input type="checkbox"/>	A. Smooth operation	<input type="checkbox"/>	B. Reduced effort
	<input type="checkbox"/>	C. Injury or damage	<input type="checkbox"/>	D. Faster lifting
66.	Which of the following is a safe practice?			
	<input type="checkbox"/>	A. Sudden lifting	<input type="checkbox"/>	B. Smooth and controlled movement
	<input type="checkbox"/>	C. Ignoring wind conditions	<input type="checkbox"/>	D. Overloading
67.	What should be done if load starts swinging excessively?			
	<input type="checkbox"/>	A. Continue lifting	<input type="checkbox"/>	B. Increase speed
	<input type="checkbox"/>	C. Stop operation and stabilize	<input type="checkbox"/>	D. Ignore it



		load		
68.	Load rotation during lifting is caused by:			
	<input type="checkbox"/>	A. Balanced load	<input type="checkbox"/>	B. Uneven load distribution
	<input type="checkbox"/>	C. Proper rigging	<input type="checkbox"/>	D. Correct center of gravity
69.	Which hazard is associated with sudden jerks?			
	<input type="checkbox"/>	A. Smooth lifting	<input type="checkbox"/>	B. Increased stability
	<input type="checkbox"/>	C. Equipment stress and failure	<input type="checkbox"/>	D. Reduced tension
70.	What is the first step in handling load instability?			
	<input type="checkbox"/>	A. Ignore the issue	<input type="checkbox"/>	B. Stop the operation
	<input type="checkbox"/>	C. Increase load	<input type="checkbox"/>	D. Speed up lifting

SSD/N0316 v 1.0: Advanced Rigging Considerations

Practical questions

Total Marks:50

You are assigned to plan and supervise a complex lifting operation involving an irregular load in a constrained work area.

- Analyze the lifting scenario and identify advanced rigging requirements (multi-leg slings, special lifting devices). (10 Marks)
- Plan rigging configuration considering load distribution, center of gravity, and sling angles. (10 Marks)
- Identify site constraints such as space limitations, overhead obstructions, and environmental factors. (10 Marks)
- Evaluate risks associated with complex lifting operations and suggest mitigation measures. (10 Marks)
- Demonstrate communication, coordination, and supervision practices for safe execution of the lift. (10 Marks)

B. Multiple choice questions

(50 marks)

71	What defines an advanced rigging operation?			
	<input type="checkbox"/>	A. Simple lifting task	<input type="checkbox"/>	B. Routine operation
	<input type="checkbox"/>	C. Complex load, environment, or configuration	<input type="checkbox"/>	D. Small load lifting
72.	Which factor is critical in complex rigging operations?			
	<input type="checkbox"/>	A. Color of equipment	<input type="checkbox"/>	B. Load weight only
	<input type="checkbox"/>	C. Load distribution and center of gravity	<input type="checkbox"/>	D. Operator uniform
73.	Multi-leg sling arrangements are used to:			
	<input type="checkbox"/>	A. Reduce load	<input type="checkbox"/>	B. Increase lifting speed
	<input type="checkbox"/>	C. Distribute load evenly	<input type="checkbox"/>	D. Decorate equipment
74.	What is a major risk in confined lifting areas?			
	<input type="checkbox"/>	A. Better visibility	<input type="checkbox"/>	B. Limited movement and collision hazards



	<input type="checkbox"/>	C. Increased space	<input type="checkbox"/>	D. Reduced load weight
75.	Environmental factors affecting rigging include:			
	<input type="checkbox"/>	A. Equipment color	<input type="checkbox"/>	B. Wind and weather conditions
	<input type="checkbox"/>	C. Operator name	<input type="checkbox"/>	D. Load shape only
76.	What is the purpose of a lifting plan?			
	<input type="checkbox"/>	A. Increase speed	<input type="checkbox"/>	B. Ensure safe and controlled operation
	<input type="checkbox"/>	C. Reduce manpower	<input type="checkbox"/>	D. Improve appearance
77.	Which is a key component of advanced rigging planning?			
	<input type="checkbox"/>	A. Ignoring hazards	<input type="checkbox"/>	B. Risk assessment
	<input type="checkbox"/>	C. Guesswork	<input type="checkbox"/>	D. Random selection
78.	What can happen if center of gravity is misjudge			
	<input type="checkbox"/>	A. Smooth lifting	<input type="checkbox"/>	B. Load stability
	<input type="checkbox"/>	C. Load tilting or rotation	<input type="checkbox"/>	D. Faster lifting Faster lifting
79.	Which of the following improves safety in complex lifts?			
	<input type="checkbox"/>	A. Poor communication	<input type="checkbox"/>	B. Clear signaling and coordination
	<input type="checkbox"/>	C. Ignoring procedures	<input type="checkbox"/>	D. Overloading
80.	What should be done before executing a complex lift?			
	<input type="checkbox"/>	A. Start immediately	<input type="checkbox"/>	B. Conduct planning and safety checks
	<input type="checkbox"/>	C. Ignore site conditions	<input type="checkbox"/>	D. Reduce inspection

SSD/N0317 v 1.0: Emergency Response and Contingency Planning

Practical questions

Total Marks:50

You are part of a rigging team during a lifting operation when an emergency situation occurs (e.g., load instability, equipment failure, or worker injury)

- Identify the type of emergency and assess immediate risks. (10 Marks)
- Demonstrate appropriate emergency response actions (stop operation, raise alarm, secure area). (10 Marks)
- Explain evacuation procedures including escape routes and assembly points. (10 Marks)
- Demonstrate use of emergency equipment (fire extinguisher/first aid/communication systems). (10 Marks)
- Describe post-incident actions including reporting, investigation support, and corrective measures. (10 Mark)

B. Multiple choice questions

(50 marks)

81.	What is the first action in an emergency during lifting operations?			
	<input type="checkbox"/>	A. Continue working	<input type="checkbox"/>	B. Ignore the issue
	<input type="checkbox"/>	C. Stop the operation immediately	<input type="checkbox"/>	D. Increase speed



82.	What is the purpose of an emergency response plan?			
	<input type="checkbox"/>	A. Increase productivity	<input type="checkbox"/>	B. Ensure quick and safe response
	<input type="checkbox"/>	C. Reduce manpower	<input type="checkbox"/>	D. Improve appearance
83.	Which of the following is an emergency situation in rigging?			
	<input type="checkbox"/>	A. Proper lifting	<input type="checkbox"/>	B. Load instability
	<input type="checkbox"/>	C. Correct rigging	<input type="checkbox"/>	D. Balanced load
84.	What should be done after raising an alarm?			
	<input type="checkbox"/>	A. Ignore instruction	<input type="checkbox"/>	B. Continue operation
	<input type="checkbox"/>	C. Follow emergency procedures	<input type="checkbox"/>	D. Leave site immediately without coordination
85.	What is the purpose of evacuation drills?			
	<input type="checkbox"/>	A. Waste time	<input type="checkbox"/>	B. Practice safe evacuation
	<input type="checkbox"/>	C. Reduce efficiency	<input type="checkbox"/>	D. Increase workload
86.	Which equipment is used during fire emergencies?			
	<input type="checkbox"/>	A. Ladder	<input type="checkbox"/>	B. Fire extinguisher
	<input type="checkbox"/>	C. Sling	<input type="checkbox"/>	D. Shackle
87.	What is an assembly point?			
	<input type="checkbox"/>	A. Work area	<input type="checkbox"/>	B. Storage area
	<input type="checkbox"/>	C. Safe gathering place during emergency	<input type="checkbox"/>	D. Equipment zone
88.	What should be done in case of injury?			
	<input type="checkbox"/>	A. Ignore	<input type="checkbox"/>	B. Continue work
	<input type="checkbox"/>	C. Provide first aid and report	<input type="checkbox"/>	D. Move the person without care
89.	Post-incident reporting helps to:			
	<input type="checkbox"/>	A. Assign blame only	<input type="checkbox"/>	B. Ignore issues
	<input type="checkbox"/>	C. Improve safety and prevent recurrence	<input type="checkbox"/>	D. Delay work
90.	Who is responsible for emergency response?			
	<input type="checkbox"/>	A. Only supervisor	<input type="checkbox"/>	B. Only safety officer
	<input type="checkbox"/>	C. Everyone on site	<input type="checkbox"/>	D. Only management



SSD/N0318 v 1.0: Documentation and Reporting

Practical questions

Total Marks:50

You are assigned to handle documentation and reporting for a lifting operation

- Prepare a pre-lift checklist including inspection details of rigging equipment and lift points. (10 Marks)
- Record details of the lifting operation (load, equipment used, personnel involved). (10 Marks)
- Identify and document any defects, hazards, or deviations observed during the operation. (10 Marks)
- Complete an incident/near-miss report based on a given scenario. (10 Marks)
- Maintain proper documentation records ensuring accuracy, completeness, and compliance with safety standards. (10 Marks)

B. Multiple choice questions

(50 marks)

91.	What is the purpose of documentation in rigging operations?			
	<input type="checkbox"/>	A. Increase workload	<input type="checkbox"/>	B. Ensure record keeping and compliance
	<input type="checkbox"/>	C. Reduce safety	<input type="checkbox"/>	D. Improve appearance
92.	Which document is prepared before a lifting operation?			
	<input type="checkbox"/>	A. Salary sheet	<input type="checkbox"/>	B. Pre-lift checklist
	<input type="checkbox"/>	C. Attendance sheet	<input type="checkbox"/>	D. Purchase order
93.	What should be included in a lifting record			
	<input type="checkbox"/>	A. Only load weight	<input type="checkbox"/>	B. Equipment color
	<input type="checkbox"/>	C. Load, equipment, and personnel details	<input type="checkbox"/>	D. Weather only
94.	What is a near-miss report?			
	<input type="checkbox"/>	A. Completed work report	<input type="checkbox"/>	B. Incident without injury or damage
	<input type="checkbox"/>	C. Financial report	<input type="checkbox"/>	D. Equipment manual
95.	Why is accurate reporting important?			
	<input type="checkbox"/>	A. To increase paperwork	<input type="checkbox"/>	B. To ensure safety and traceability
	<input type="checkbox"/>	C. To delay work	<input type="checkbox"/>	D. To reduce responsibility
96.	What should be done if a defect is found?			
	<input type="checkbox"/>	A. Ignore it	<input type="checkbox"/>	B. Continue operation
	<input type="checkbox"/>	C. Record and report immediately	<input type="checkbox"/>	D. Hide the issue
97.	Who is responsible for maintaining records?			
	<input type="checkbox"/>	A. Only management	<input type="checkbox"/>	B. Only supervisor
	<input type="checkbox"/>	C. All responsible personnel involved	<input type="checkbox"/>	D. Only operator
98.	Incident reports help in:			



	<input type="checkbox"/>	A. Blaming individuals only	<input type="checkbox"/>	B. Improving safety practices
	<input type="checkbox"/>	C. Reducing documentation	<input type="checkbox"/>	D. Ignoring hazards
99.	What is the key feature of good documentation?			
	<input type="checkbox"/>	A. Incomplete data	<input type="checkbox"/>	B. Accuracy and clarity
	<input type="checkbox"/>	C. Delay in reporting	<input type="checkbox"/>	D. Irrelevant details
100.	Documentation should be maintained:			
	<input type="checkbox"/>	A. Occasionally	<input type="checkbox"/>	B. After incidents only
	<input type="checkbox"/>	C. Regularly and systematically	<input type="checkbox"/>	D. Once a year
DGT/VSQ/N0102: Employability Skills				
Practical questions				Total Marks:30
You are required to demonstrate key employability skills in a workplace scenario				
<ol style="list-style-type: none"> 1. Demonstrate effective verbal and non-verbal communication in a team discussion. (10 Marks) 2. Prepare a simple resume highlighting your skills and experience. (10 Marks) 3. Solve a workplace problem using logical thinking and decision-making. (10 Marks) 				
B. Multiple choice questions				(20 marks)
101.	What is effective communication?			
	<input type="checkbox"/>	A. Speaking loudly	<input type="checkbox"/>	B. Clear and understandable exchange of information
	<input type="checkbox"/>	C. Using technical words only	<input type="checkbox"/>	D. Talking continuously
102.	Which of the following is a non-verbal communication method?			
	<input type="checkbox"/>	A. Email	<input type="checkbox"/>	B. Phone call
	<input type="checkbox"/>	C. Body language	<input type="checkbox"/>	D. Written report
103.	What is the purpose of a resume			
	<input type="checkbox"/>	A. To describe company policies	<input type="checkbox"/>	B To showcase skills and qualifications
	<input type="checkbox"/>	C. To record attendance	<input type="checkbox"/>	D. To manage salary
104.	Teamwork means:			
	<input type="checkbox"/>	A. Working alone	<input type="checkbox"/>	B. Competing with others
	<input type="checkbox"/>	C. Working together to achieve a common goal	<input type="checkbox"/>	D. Avoiding responsibility
105.	Which skill helps in solving workplace problems?			
	<input type="checkbox"/>	A. Ignoring issues	<input type="checkbox"/>	B. Logical thinking
	<input type="checkbox"/>	C. Delaying decisions	<input type="checkbox"/>	D. Avoiding discussion



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).

Trainee's signature:

Trainee's name (please print):

Assessor's signature:

Assessor's name (please print):

Assessor to affix photographs of the practical output (end product)

Centre Head's seal and signature:



Assessment summary

Assessor's comments

.....

.....

.....

This is to confirm that the trainee has undertaken the assessment for the job role of Advance Rigger

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:



Assessment Summary Sheet

SAFETY SKILL DEVELOPMENT FOUNDATION													
ASSESSMENT SUMMARY SHEET													
Qualification Pack – Advance Rigger													
Training Provider: Affiliation No.					Batch ID:				Training Centre Name & Address:				
Candidate Detail:					Roll No.:				Roll No.:				
					Name:				Name:				
Assessment Summary:													
NOS No.	Weightage of the NOS	Allotted (Marks)			Marks Obtained				Marks Obtained				
		Skill (Practical)	Knowledge		Skill (Practical)	Knowledge			Skill (Practical)	Knowledge			
			Theory	Project		Theory	Project	% per Nos		Theory	Project	% per Nos	
SSD/VSQ/N0309	7%	50	50	0									
SSD/VSQ/N0310	7%	50	50	0									
SSD/VSQ/N0311	13%	50	50	0									
SSD/VSQ/N0312	7%	50	50	0									
SSD/VSQ/N0313	7%	50	50	0									
SSD/VSQ/N0314	7%	50	50	0									
SSD/VSQ/N0315	13%	50	50	0									
SSD/VSQ/N0316	13%	50	50	0									
SSD/VSQ/N0317	7%	50	50	0									
SSD/VSQ/N0318	7%	50	50	0									
DGT/VSQ/N0101 (30 Hours)	12%	30	20	0									
Total Marks	100	530	520	0									
		1050											
Minimum pass % to qualify	50%	50% in each NOS and 50% overall			Pass/Fail								



Assessors Name:	Signature:
Assessing Body Representative Name:	Signature:
Assessment Agency:	Signature: