2024

UNION ASSESSMENT & CERTIFICATION

Electrical Engineer

ASSESSMENT GUIDE

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Electrical Engineer

Assessment Content

Introduction

The assessment is based on the following ten main occupational standards, furtherly divided into twenty performance criteria as identified by Abu Dhabi Quality and Conformity Council for Electrical Engineer:

- Ability to prepare clear reports for progress, workers and their productivities, site issues and site requirements
- Ability to follow all the required inspections and from all parties
- Ability to properly communicate all required information to the concerned project team members to take the proper actions
- Ability to manage and distribute all site activities to his team
- Evaluating the quality of site work by applying quality assurance techniques and proposing any required changes
- Confirm the compliance with all project requirements and specifications from project initiation and up to projection handing over
- Confirm the adherence to health and safety requirements about good knowledge of Emergency preparedness and response requirements by all project team members and applicable health and safety regulations and standards including OSHAD-SF
- Ability to prepare electrical drawings and diagrams considering the international standards and local code and regulations
- Ability to apply engineering methods in order to resolve any technical issues and propose solutions
- Ability to operate computer-assisted engineering and design software and equipment to perform engineering tasks

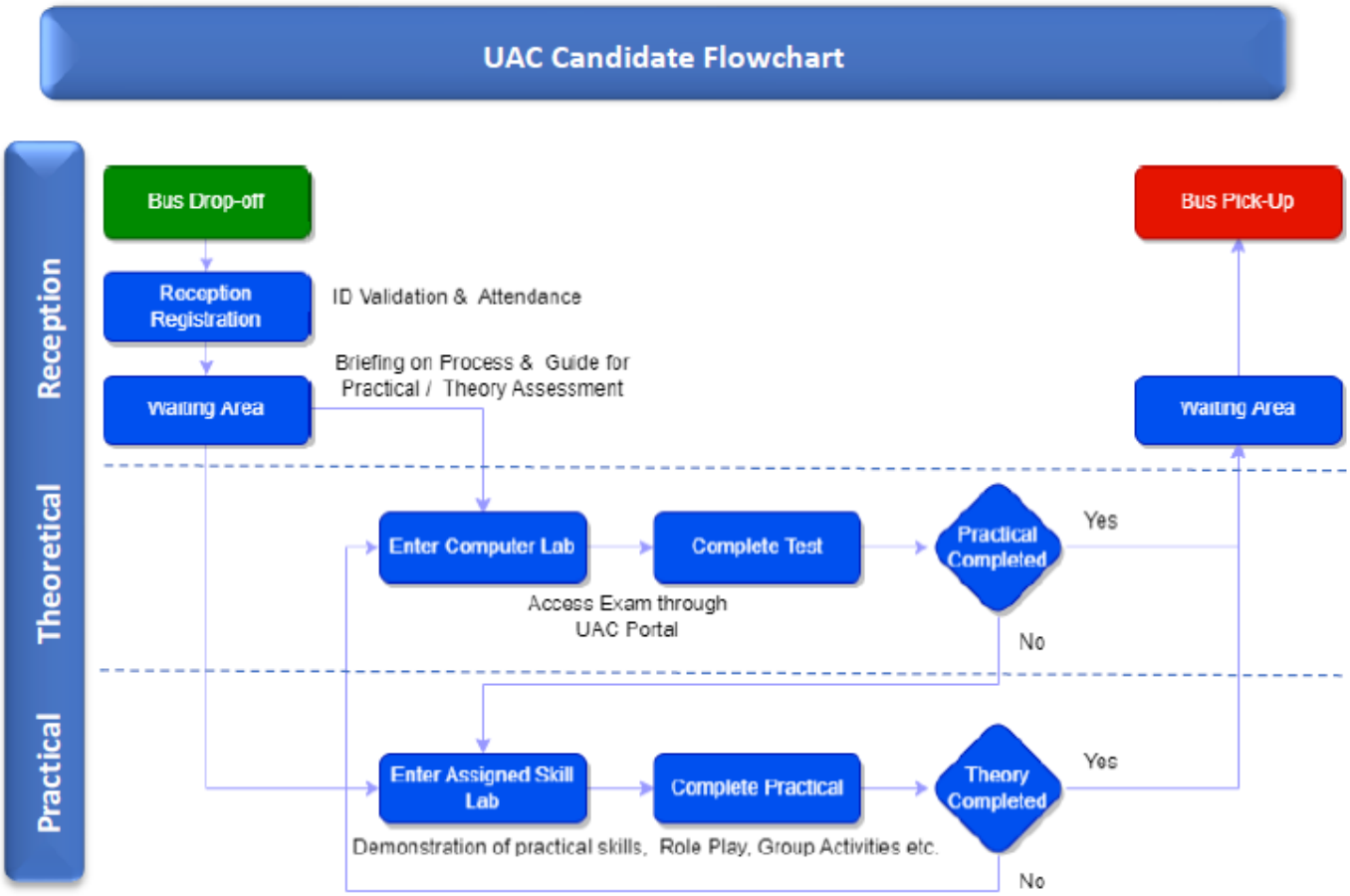
The assessment is carried out onsite at UAC certified assessment center. The latter is equipped with relevant technical and physical infrastructure.

Assessment Methodology

Theoretical: Twenty (20) multiple choice question computer-based test, AI proctored with camera and sound detection recording. Duration of assessment is approximately one hour

Practical: Five (5) scenario-based questions, one-hour onsite assessor led test. Video evidence of candidates undertaking the practical tasks are available on UAC portal

Assessment Life Cycle



Assessment Blueprint

The overall passing percentage is **Seventy percent** (**70%**).

Weightage of different sections of assessment is divided as follows:

Section	Weightage
Theory	40%
Practical	60%

The assessment weightage suggested for each occupational standard with respect to number of questions to be administered in each exam is explained below.

Occupational Standard	Weightage
1.Ability to prepare clear reports for progress, workers and their productivities, site issues and site requirements	5%
2.Ability to follow all the required inspections and from all parties	10%
3.Ability to properly communicate all required information to the concerned project team members to take the proper actions	5%
4.Ability to manage and distribute all site activities to his team	5%
5.Evaluating the quality of site work by applying quality assurance techniques and proposing any required changes	15%
6.Confirm the compliance with all project requirements and specifications from project initiation and up to projection handing over	10%
7.Confirm the adherence to health and safety requirements about good knowledge of Emergency preparedness and response requirements by all project team members and applicable health and safety regulations and standards including OSHAD-SF	10%
8.Ability to prepare electrical drawings and diagrams considering the international standards and local code and regulations	15%
9.Ability to apply engineering methods in order to resolve any technical issues and propose solutions	15%
10.Ability to operate computer-assisted engineering and design software and equipment to perform engineering tasks	10%

Element Grouping

Element groups have been identified across ten occupational standards. Each element group consists of a set of clubbed elements based on relevant group of performance criteria and each represents one area of assessment. Questions are categorized according to element groups. A total number of twenty element groups have been identified.

Question Bank

As part of the submission of assessment, the following questions have been created theoretical (113 multiple choice questions) and practical (10 role play scenarios).

Occupational standard-wise break up of theoretical and practical questions is provided below:

Occupational Standard	Number of Element Groups	No of Theoretical Questions	No of Practical Questions
1.Ability to prepare clear reports for progress, workers and their productivities, site issues and site requirements	1	5	
2.Ability to follow all the required inspections and from all parties	2	10	2
3.Ability to properly communicate all required information to the concerned project team members to take the proper actions	1	5	
4.Ability to manage and distribute all site activities to his team	1	5	
5.Evaluating the quality of site work by applying quality assurance techniques and proposing any required changes	3	15	2
6.Confirm the compliance with all project requirements and specifications from project initiation and up to projection handing over	2	10	
7.Confirm the adherence to health and safety requirements about good knowledge of Emergency preparedness and response requirements by all project team members and applicable health and safety regulations and standards including OSHAD-SF	2	10	1
8.Ability to prepare electrical drawings and diagrams considering the international standards and local code and regulations	3	18	2
9.Ability to apply engineering methods in order to resolve any technical issues and propose solutions	3	17	3
10.Ability to operate computer-assisted engineering and design software and equipment to perform engineering tasks	2	18	

For full details on Question Bank, kindly refer to Electrical Engineer Question Bank Guide document.

Full details on related element group weightages are available in Annexure 2, Pages 5 to 8

Annexure 2

Occupation (Standard Unit)	Electrical Engineer

Sr. No.	Occupational Standards (OS)	OS %	Element Group (EG)	No of Questions by EG	No of Practical Question	PC no	PC Details	No. of Theory Q's
1	**Ability to prepare clear reports for progress, workers and their productivities, site issues and site requirements**	5%	1	5		1.1	Collect all required information for site progress and requirements	3
						1.2	Prepare all reports and raise them to line manager	2
				5				
2	**Ability to follow all the required inspections and from all parties**	10%	1	5	2	2.1	To know all required inspection for site activities	5
			2	5		2.2	To submit and follow all the required inspections to consultant and authority on time with proper documents	5
				10	**2**			
3	**Ability to properly communicate all required information to the concerned project team members to take the proper actions**	5%	1	5		3.1	To have good communication skills	2
						3.2	To able to make proper decisions to make sure that work carried is according to the planned schedules and at the same time meeting the requirements	3
				5				

Sr. No.	Occupational Standards (OS)	OS %	Element Group (EG)	No of Questions by EG	No of Practical Question	PC no	PC Details	No. of Theory Q's
4	**Ability to manage and distribute all site activities to his team**	5%	1	5		4.1	To be able to manage the site and aware of site requirements	2
						4.2	To distribute all site activities, workers, material, tools and equipment	3
				5				
5	**Evaluating the quality of site work by applying quality assurance techniques and proposing any required changes**	15%	1	7	2	5.1	To be aware of basic quality requirements	7
			2	4		5.2	To apply quality assurance techniques	8
			3	4				
				15	**2**			
6	**Confirm the compliance with all project requirements and specifications from project initiation and up to projection handing over**	10%	1	5		6.1	To be able to identify project milestones and any constraints	5
			2	5		6.2	To make sure that all related project objectives and activities are carried out according to the plan	5
				10				

Sr. No.	Occupational Standards (OS)	OS %	Element Group (EG)	No of Questions by EG	No of Practical Question	PC no	PC Details	No. of Theory Q's
7	**Confirm the adherence to health and safety requirements about good knowledge of Emergency preparedness and response requirements by all project team members and applicable health and safety regulations and standards including OSHAD-SF**	10%	1	5	1	7.1	Applicable health and safety regulations and standards including OSHAD-SF and Good knowledge of health and safety requirements	5
			2	5		7.2	To make sure that the project team members are fulfilling the safety requirements	5
				10	**1**			
8	**Ability to prepare electrical drawings and diagrams considering the international standards and local code and regulations**	15%	1	8	2	8.1	Good knowledge of local electrical wiring regulations (such as EWR) and international practices is a requirement	8
			2	8		8.2	Be able to prepare shop drawings from design drawings	10
			3	2				
				18	**2**			
9	**Ability to apply engineering methods in order to resolve any technical issues and propose solutions**	15%	1	5	3	9.1	Ability to identify/anticipate and site issues that may hinder the progress	8
			2	3				
			3	9		9.2	Ability to apply engineering methods and expertise to prepare action plan to avoid/mitigate any related issues	9
				17	**3**			

Sr. No.	Occupational Standards (OS)	OS %	Element Group (EG)	No of Questions by EG	No of Practical Question	PC no	PC Details	No. of Theory Q's
10	**Ability to operate computer-assisted engineering and design software and equipment to perform engineering tasks**	10%	1	5		10.1	Ability to work in computer skills and programs	5
			2	13		10.2	Ability to help designers in the electrical activities	13
		100.00%		**18**			**Total Questions (Theory)**	**113**
							No. of OS	**10**
							No. of Pcs	**12**
							Roles Play scenarios/ Practical	**10**