

Assessment Evidence Guide

For

“Urban Area Planning and Management”

Level-5

(Summative Assessment)

28th March – 1st April 2022



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 5 in Urban Area Planning and Management “Urban Area Manager”	CS Code:	Level: 5	Version: 01
Competency Standard Title: Perform Sampling of Construction Materials Perform Material testing Perform Inventory management Manage and Supervise the Job Activities Develop 3D Model using REVIT Prepare Topographic Map by GPS Apply ArcGIS and Google Earth in Urban Area Management Plan a Project in Primavera P6 Develop Entrepreneurial Skills Practice Professionalism	Assessment Date (DD/MM/YY): Assessment Time: 4 hrs.		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment): Assessment Task 1: Candidate is required to chalk out the supervision program for the development process of a housing society. This activity includes • Breakdown of activities • Plan housekeeping activities • Allocation of responsibilities • Facilities and material storage plan Assessment Task 2: Candidate is required to develop the 3D model of 5-marla residential building as given by the assessor and generate a material statement in REVIT software. And complete: 1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)

Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete: Assessment Task 1 Performance Criteria 1: Consult with the client to obtain required information Performance Criteria 2: Prepare SOPs in accordance with the identified requirements. Performance Criteria 3: Prepare the process flow diagram in order to achieve Quality outcome. Performance Criteria 4: Break down work of activities into small achievable components and efficient sequences Performance Criteria 5: Recognize site hazards and the personal protective equipment (PPE) and safety procedures specified for job Performance Criteria 6: Organize site induction for support personnel as required Performance Criteria 7: Plan housekeeping activities prior to and post completion of work Performance Criteria 8: Calculate quantity of materials at site Performance Criteria 9: Check with the log register Performance Criteria 10: Adjust demands in accordance with the available raw materials Performance Criteria 11: Manage production plan accordingly Performance Criteria 12: Perform material dumping as per graded sizes Performance Criteria 13: Check materials quality and quantity Performance Criteria 14: Prepare material consumption report Performance Criteria 15: Check tools quality Performance Criteria 16: Generate incident report Performance Criteria 17: Perform tasks within standard timeframe Assessment Task 2 Performance Criteria 1: Create custom user interface as per requirement of specific trade. Performance Criteria 2: Create and apply Families for given specifications and requirements. Performance Criteria 3: Create/import drawings to make layout according to the given requirements. Performance Criteria 4: Modify drawings and objects to meet given criteria. Performance Criteria 5: Create specification/detail for various parts according to given requirements. Performance Criteria 6: Apply specified detail to objects according to given requirements. Performance Criteria 7: Annotate the drawings using set parameters as per given details. Performance Criteria 8: Add lights for illumination to get the requisite scene of 3D model. Performance Criteria 9: Render the 3D model according to required image size or resolution & orientation. Performance Criteria 10: Generate material sheet
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	Portfolios required at the time of assessment (if any) for 1. Folder includes set snaps of soil bearing SPT test in field 2. Folder includes presentation on business plan and marketing plan 3. Folder includes set of rendered models in REVIT Performance criteria 1: Setup SPT apparatus Performance criteria 2: Apply blow of standard weight Performance criteria 3: Calculate relative density Performance Criteria 4: Conduct market survey to collect information Performance Criteria 5: Select the best option in terms of cost, service, quality, sales, profit margin, overall expenses Performance Criteria 6: Compile the information collected through the market survey, in the business plan format Performance Criteria 7: Collect information required to devise marketing plan Performance Criteria 8: Prepare marketing plan for new business Performance Criteria 9: Render the 3D model according to required image size or resolution & orientation.
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Assessors Judgment Guide

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: Assessor's code: Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓	✓			
Knowledge Assessment	✓	✓					
Other Requirement							

Observation Checklist

Each Assessment Task (with performance criteria)				
Assessment Task 1		Description of Assessment task 1 Candidate is required to chalk out the supervision program for the development process of a housing society. This activity includes • Assessment of risk • Breakdown of activities • Plan housekeeping activities • Allocation of responsibilities • Facilities and material storage plan		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Consulted with the client to obtain required information			
2.	Prepared SOPs in accordance with the identified requirements.			
3.	Prepared the process flow diagram in order to achieve Quality outcome.			
4.	Broken down work of activities into small achievable components and efficient sequences			
5.	Recognized site hazards and the personal protective equipment (PPE) and safety procedures specified for job			
6.	Organized site induction for support personnel as required			
7.	Planned housekeeping activities prior to and post completion of work			
8.	Calculated quantity of materials at site			
9.	Checked with the log register			
10.	Adjusted demands in accordance with the available raw materials			
11.	Managed production plan accordingly			
12.	Performed material dumping as per graded sizes			
13.	Checked materials quality and quantity			
14.	Prepared material consumption report			
15.	Checked tools quality			
16.	Generated incident report			
17.	Performed tasks within standard timeframe			
Competent ☐		Not Yet Competent ☐		

Each Assessment Task (with performance criteria)				
Assessment Task 2		Description of Assessment Task 2 Candidate is required to develop the 3D model of 5-marla residential building as given by the assessor and generate a material statement in REVIT software.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Created custom user interface as per requirement of specific trade.			
2.	Created and applied Families for given specifications and requirements.			
3.	Created/imported drawings to make layout according to the given requirements.			
4.	Modified drawings and objects to meet given criteria.			
5.	Created specification/detail for various parts according to given requirements.			
6.	Applied specified detail to objects according to given requirements.			
7.	Annotated the drawings using set parameters as per given details.			
8.	Added lights for illumination to get the requisite scene of 3D model.			
9.	Rendered the 3D model according to required image size or resolution & orientation.			
10.	Generated material sheet			
Competent ☐		Not Yet Competent ☐		

Portfolio		Description of Portfolio		
		1. Folder includes set snaps of soil bearing SPT test in field 2. Folder includes presentation on business plan and marketing plan 3. Folder includes set of rendered models in REVIT		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Setup SPT apparatus			
2.	Applied blow of standard weight			
3.	Calculated relative density			
4.	Conducted market survey to collect information			
5.	Selected the best option in terms of cost, service, quality, sales, profit margin, overall expenses			
6.	Compiled the information collected through the market survey, in the business plan format			
7.	Collected information required to devise marketing plan			
8.	Prepared marketing plan for new business			
9.	Rendered the 3D model according to required image size or resolution & orientation.			
Competent ☐		Not Yet Competent ☐		

Knowledge Assessment

Title of Qualification: National Vocational Certificate Level 5 in Urban Area Planning and Management "Urban Area Manager"	CS Code:	Level:5	Version:01
Competency Standard Title: Perform Sampling of Construction Materials Perform Material testing Perform Inventory management Perform Risk Management Manage and Supervise the Job Activities Develop 3D Model using REVIT Prepare Topographic Map by GPS Apply ArcGIS and Google Earth in Urban Area Management Plan a Project in Primavera P6 Develop Entrepreneurial Skills Practice Professionalism	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Question	Candidate's answer
1. Enlist the types of aggregate?	
2. What are the characteristics of a good coarse aggregate?	
3. Enlist the types of gradation?	
4. Enlist any five-building construction material?	
5. Define bleeding of concrete?	
6. Define soundness of cement?	
7. Define aggregate gradation?	
8. Explain sieve analysis?	
9. Define elongation and flakiness index?	
10. Explain the purpose of slump cone test?	
11. What are FIFO and LIFO?	

Question	Candidate's answer
12. What are 5M resources in industry?	
13. Why we keep inventory?	
14. Define Just-in-time inventory?	
15. What is Sampling document?	
16. What is Autodesk Revit?	
17. What is the advantage of using Revit?	
18. What file types are used in Revit?	

ANSWER KEY

Sr.	Answers
1.	Gravel, rock and sand.
2.	Coarse aggregate.
3.	Aggregate gradation is the distribution of various particle sizes in the mix
4.	Open graded
5.	Dense or well graded
6.	Soundness refers to the ability of cement to not shrink upon hardening
7.	Aggregate gradation is the distribution of various particle sizes in the mix
8.	It determines the gradation (the distribution of aggregate particles, by size, within a given sample)
9.	The Elongation index of aggregate is the % by weight of the particles (aggregates) whose length is greater than 1 and 1.8 times of their mean dimension The flakiness index of aggregate is the % by weight of the particles (aggregates) whose thickness is less than 0.6 times of their mean dimension.
10.	Slump test is used to measure the consistency of concrete
11.	First-in, First-out and Last-in, First-out
12.	Following resources are popularly known as 5 M's of any industrial activity i.e., men, machines, materials, money and methods.
13.	• It helps in smooth and efficient running of an enterprise. • It helps to avoid stock-outs and shortages. • It helps in availing quantity discounts because of bulk purchasing. • It acts as a buffer stock when raw materials are received late.
14.	Just-in-time inventory means, raw materials are expected just in time to be used to manufacture finished products; and finished products are manufactured in time to be supplied to the consumers.
15.	Sampling technique is the process of combining a representative sample of documents, form and records
16.	Autodesk Revit is able to deliver dynamic information in intelligent models allowing complex building structure to be designed accurately and document it in a short span of time.
17.	Speeding projects from design to completion while automating updates across your model with a single design change
18.	RVT : Revit Project Files RFA : Revit Family Files RTE : Revit Template Files RFT : Revit Family Template Files