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# COMPUTER AIDED DESIGNING (CAD)

## Assessment Package

### National Vocational Certificate Level 3

Version 1 - August 2019



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**Document Version**

August, 2019

**Islamabad, Pakistan**

# COMPUTER AIDED DESIGNING (CAD)

**Assessment Package**

National Vocational  
Certificate Level 3

Version 1 - August 2019

## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100492 Develop 3D Model using Autodesk REVIT
<b>Purpose of Assessment</b>	Formative Assessment
<b>Assessment Task</b>	Develop 3D House Model using given sample drawing in Annexure – A, while working with Families and Render the Model in accordance with Light, Material and Camera Settings

I can.....

<b>Performance Criteria</b>	<b>Yes</b>	<b>No</b>
1. Create custom user interface as per requirement of specific technology.	<input type="checkbox"/>	<input type="checkbox"/>
2. Create and apply Families for given specifications and requirements.	<input type="checkbox"/>	<input type="checkbox"/>
3. Use common tools and commands to develop a model.	<input type="checkbox"/>	<input type="checkbox"/>
4. Create/import drawings to make layout according to the given requirements.	<input type="checkbox"/>	<input type="checkbox"/>
5. Use appropriate commands and tools to create building layouts.	<input type="checkbox"/>	<input type="checkbox"/>
6. Modify drawings and objects to meet given criteria.	<input type="checkbox"/>	<input type="checkbox"/>
7. Create 3D prototype model of the drawing according to given measurements.	<input type="checkbox"/>	<input type="checkbox"/>
8. Create specification/detail for various parts according to given requirements.	<input type="checkbox"/>	<input type="checkbox"/>
9. Apply specified detail to objects according to given requirements.	<input type="checkbox"/>	<input type="checkbox"/>
10. Annotate the drawings using set parameters as per given details.	<input type="checkbox"/>	<input type="checkbox"/>
11. Add scene of 3D model according to specification	<input type="checkbox"/>	<input type="checkbox"/>
12. Add lights for illumination to get the requisite scene of 3D model.	<input type="checkbox"/>	<input type="checkbox"/>
13. Assign cameras to execute different views of 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
14. Render the 3D model according to required image size or resolution & orientation.	<input type="checkbox"/>	<input type="checkbox"/>

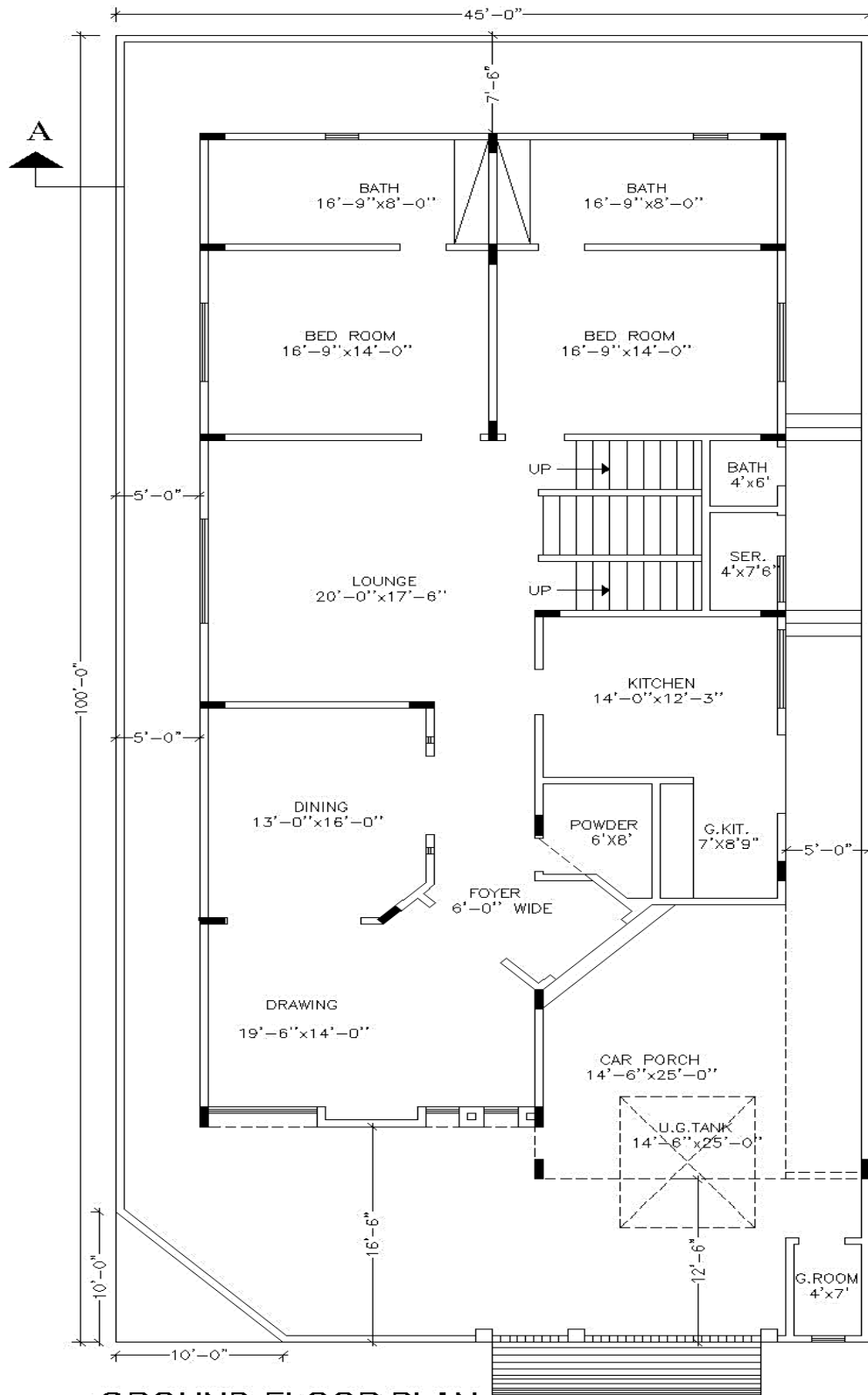
Candidate's Signature \_\_\_\_\_ Assessor's Signature \_\_\_\_\_

Date: \_\_\_\_\_

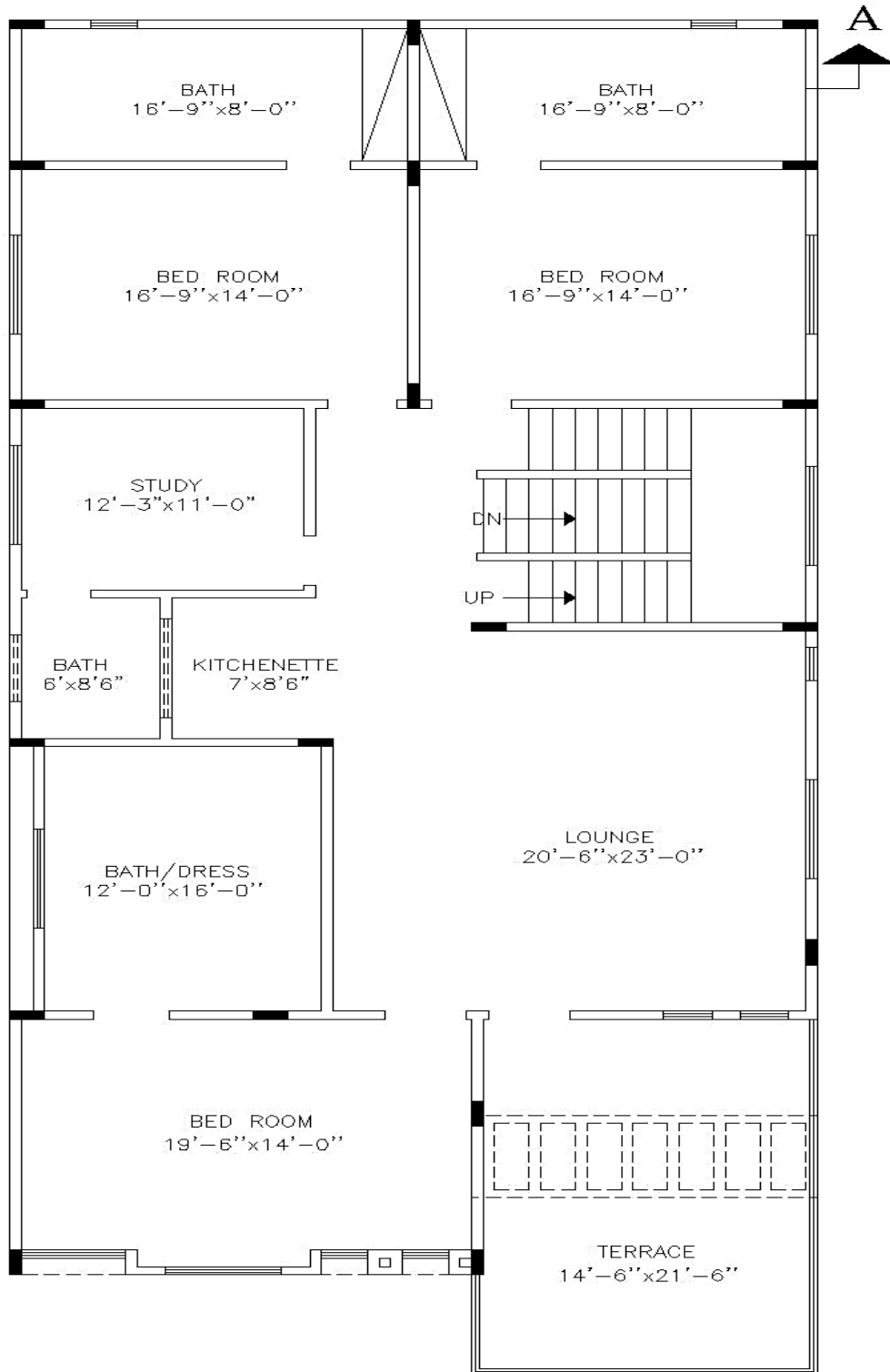
## Instruction Sheet for the Candidate

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100492 Develop 3D Model using Autodesk REVIT
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name_____
	Registration/Roll Number_____
<b>Guidance for Candidate</b>	<p><b>To meet this standard you are required to complete the following within 4 Hrs. time frame (for practical demonstration &amp; assessment):</b></p> <ol style="list-style-type: none"> <li>1. Develop 3D House Model using given sample drawing in Annexure– A, while working with Families and Render the Model in accordance with Light, Material and Camera Settings.</li> <li>2. Knowledge Assessment (Oral)</li> <li>3. Portfolio</li> </ol>
<b>Time: 4 hrs.</b>	During a practical assessment, under observation by an assessor, you are required to “Develop 3D House Model as per drawing given in Annexure-A with Lights, Material & Camera use“ demonstrating the following criteria:
<b>Minimum Evidence Required</b>	<ol style="list-style-type: none"> <li>1. Create custom user interface as per requirement of specific technology.</li> <li>2. Create and apply Families for given specifications and requirements.</li> <li>3. Use common tools and commands to develop a model.</li> <li>4. Create/import drawings to make layout according to the given requirements.</li> <li>5. Use appropriate commands and tools to create building layouts.</li> <li>6. Modify drawings and objects to meet given criteria.</li> <li>7. Create 3D prototype model of the drawing according to given measurements.</li> <li>8. Create specification/detail for various parts according to given requirements.</li> <li>9. Apply specified detail to objects according to given requirements.</li> <li>10. Annotate the drawings using set parameters as per given details.</li> <li>11. Add scene of 3D model according to specification</li> <li>12. Add lights for illumination to get the requisite scene of 3D model.</li> <li>13. Assign cameras to execute different views of 3D Model.</li> <li>14. Render the 3D model according to required image size or resolution &amp; orientation.</li> </ol>

# ANNEXURE-A



**GROUND FLOOR PLAN**  
SCALE 1/8"=1'-0"



## FIRST FLOOR PLAN

SCALE 1/8"=1'-0"

## Assessors Judgment Guide

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100492 Develop 3D Model using Autodesk REVIT
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration/Roll Number: _____ Signature: _____
<b>Assessment Outcome</b>	<p><b>COMPETENT</b> <input type="checkbox"/>                      <b>NOT YET COMPETENT</b> <input type="checkbox"/></p> <p>Name of the Assessor _____</p> <p>Assessor's code: _____</p> <p>Signature: _____</p>

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



## Observation Checklist

<b>Assessment Task</b>		Develop 3D House Model using given sample drawing in Annexure – A, while working with Families and Render the Model in accordance with Light, Material and Camera Settings.		
<b>During the practical assessment, candidate demonstrated the following:</b>		<b>Yes</b>	<b>No</b>	<b>Remarks</b>
1.	Create custom user interface as per requirement of specific technology.			
2.	Create and apply Families for given specifications and requirements.			
3.	Use common tools and commands to develop a model.			
4.	Create/import drawings to make layout according to the given requirements.			
5.	Use appropriate commands and tools to create building layouts.			
6.	Modify drawings and objects to meet given criteria.			
7.	Create 3D prototype model of the drawing according to given measurements.			
8.	Create specification/detail for various parts according to given requirements.			
9.	Apply specified detail to objects according to given requirements.			
10.	Annotate the drawings using set parameters as per given details.			
11.	Add scene of 3D model according to specification			
12.	Add lights for illumination to get the requisite scene of 3D model.			
13.	Assign cameras to execute different views of 3D Model.			
14.	Render the 3D model according to required image size or resolution & orientation.			
<b>Competent</b> <input type="checkbox"/>		<b>Not Yet Competent</b> <input type="checkbox"/>		

# Knowledge Assessment

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100492 Develop 3D Model using Autodesk REVIT
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<b>COMPETENT</b> <input type="checkbox"/> <span style="margin-left: 200px;"><b>NOT YET COMPETENT</b> <input type="checkbox"/></span> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

	<b>Questions</b> (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	<b>Satisfactory</b>	<b>Not Satisfactory</b>
1.	What is meant by Families in Revit? <hr/>		
2.	What is the use of Pick line in Revit? <hr/>		
3.	What is the purpose of Levels in Revit?? <hr/>		
4.	What is the function of ZR command in Revit?		

5.	What is the purpose of selector in Revit?		

<b>Feedback to the Candidate</b>
<b>Candidate's Signature</b> _____  <b>Assessor's Signature</b> _____

## Instruction Sheet for the Candidate

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - REVIT
<b>Candidate Details</b>	Name _____ Registration Number _____
<b>Guidance for Candidate</b>	<p><b>To meet this standard you are required to complete the following within 04 Hrs. time frame (for practical demonstration &amp; assessment):</b></p> <ol style="list-style-type: none"> <li>1. Create a 3D 'House Plan' according to given sample (<b>Annexure-A</b>) and take the printout of the plan from different views.</li> <li>2. Knowledge Assessment</li> </ol>
<b>Time: 04 Hrs</b>	During a practical assessment, under observation by an assessor, you are required to <b>“Develop drawing given in Annexure-A as per given dimension and specification “</b> demonstrating the following criteria:
<b>Minimum Evidence Required</b>	<ol style="list-style-type: none"> <li>1. Set up template for required specifications.</li> <li>2. Import/create 2D Drawing/image as per assigned specification.</li> <li>3. Create 3D object from 2D drawing/image in line with given measurements.</li> <li>4. Navigate 3D objects as per required job.</li> <li>5. Modify 3D objects in line with the requirements.</li> <li>6. Create/assign specified materials and textures to 3D Model.</li> <li>7. Modify materials and textures according to the object size.</li> <li>8. Use appropriate tools and commands for applications of materials and textures on 3D objects.</li> <li>9. Edit materials and textures to get realistic outcome.</li> <li>10. Install plug-ins to meet specific outcome as per requirement.</li> <li>11. Add scene of 3D model according to specification</li> <li>12. Add lights for illumination to get the requisite scene of 3D model.</li> <li>13. Assign cameras to execute different views of 3D Model.</li> <li>14. Add shadows and realistic effects to get different rendered views.</li> <li>15. Add Render Components to make scene more realistic</li> <li>16. Render the 3D model according to required image size or resolution &amp; orientation.</li> </ol>

## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - REVIT
<b>Assessment Task</b>	Create a 3D 'House Plan' according to given sample ( <b>Annexure-A</b> ) and take the printout of the plan from different views.

I can.....

<b>Performance Criteria</b>	<b>Yes</b>	<b>No</b>
1. Set up template for required specifications.	<input type="checkbox"/>	<input type="checkbox"/>
2. Import/create 2D Drawing/image as per assigned specification.	<input type="checkbox"/>	<input type="checkbox"/>
3. Create 3D object from 2D drawing/image in line with given measurements.	<input type="checkbox"/>	<input type="checkbox"/>
4. Navigate 3D objects as per required job.	<input type="checkbox"/>	<input type="checkbox"/>
5. Modify 3D objects in line with the requirements.	<input type="checkbox"/>	<input type="checkbox"/>
6. Create/assign specified materials and textures to 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
7. Modify materials and textures according to the object size.	<input type="checkbox"/>	<input type="checkbox"/>
8. Use appropriate tools and commands for applications of materials and textures on 3D objects.	<input type="checkbox"/>	<input type="checkbox"/>
9. Edit materials and textures to get realistic outcome.	<input type="checkbox"/>	<input type="checkbox"/>
10. Install plug-ins to meet specific outcome as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
11. Add scene of 3D model according to specification	<input type="checkbox"/>	<input type="checkbox"/>
12. Add lights for illumination to get the requisite scene of 3D model.	<input type="checkbox"/>	<input type="checkbox"/>
13. Assign cameras to execute different views of 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
14. Add shadows and realistic effects to get different rendered views.	<input type="checkbox"/>	<input type="checkbox"/>
15. Add Render Components to make scene more realistic	<input type="checkbox"/>	<input type="checkbox"/>
16. Render the 3D model according to required image size or resolution & orientation.	<input type="checkbox"/>	<input type="checkbox"/>

Candidate's Signature \_\_\_\_\_ Assessor's Signature \_\_\_\_\_

Date: \_\_\_\_\_

**ANNUXURE-A**



## Assessors Judgment Guide

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - REVIT
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Signature: _____
<b>Assessment Outcome</b>	<p>COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/></p> <p>Name of the Assessor _____</p> <p>Assessor's code: _____ Signature: _____</p>

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

## Observation Checklist

Assessment Task		Create a 3D “House Plan” for the following plot dimension as given in Annexure-A		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Set up template for required specifications.			
2.	Import/create 2D Drawing/image as per assigned specification.			
3.	Create 3D object from 2D drawing/image in line with given measurements.			
4.	Navigate 3D objects as per required job.			
5.	Modify 3D objects in line with the requirements.			
6.	Create/assign specified materials and textures to 3D Model.			
7.	Modify materials and textures according to the object size.			
8.	Use appropriate tools and commands for applications of materials and textures on 3D objects.			
9.	Edit materials and textures to get realistic outcome.			
10.	Install plug-ins to meet specific outcome as per requirement.			
11.	Add scene of 3D model according to specification			
12.	Add lights for illumination to get the requisite scene of 3D model.			
13.	Assign cameras to execute different views of 3D Model.			
14.	Add shadows and realistic effects to get different rendered views.			
15.	Add Render Components to make scene more realistic			
16.	Render the 3D model according to required image size or resolution & orientation.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



## Knowledge Assessment

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - REVIT
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<b>COMPETENT</b> <input type="checkbox"/> <span style="margin-left: 200px;"><b>NOT YET COMPETENT</b> <input type="checkbox"/></span> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

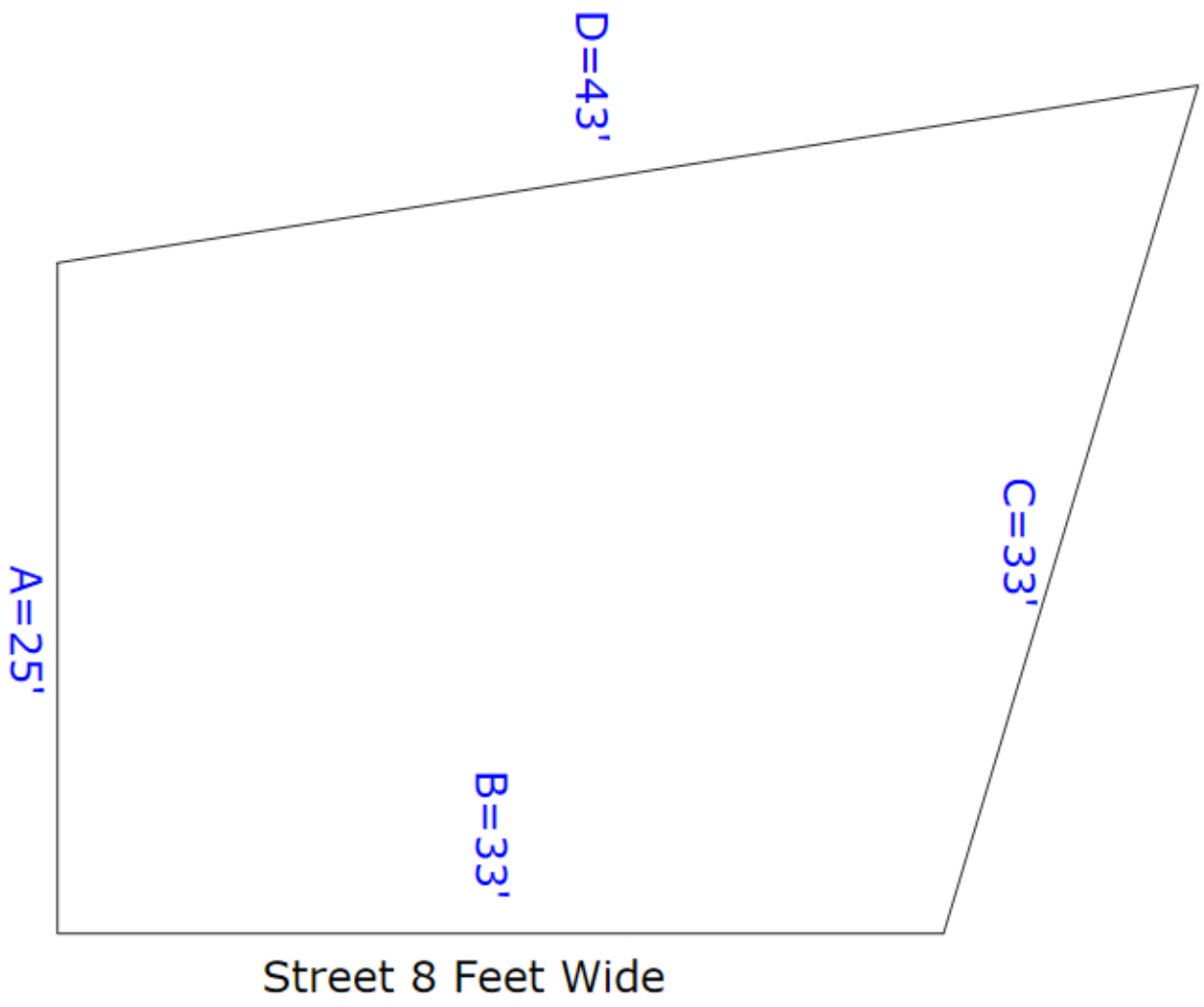
	Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	Satisfactory	Not Satisfactory
1.	<i>What is families in Revit?</i>     		
2.	<i>What is the use Pick line in Revit?</i>     		
3.	<i>What is the purpose of levels in Revit??</i>     		

4.	What should the output of ZR in Revit?		
5.	What is the purpose of selector?		

<b>Feedback to the Candidate</b>	
<b>Candidate's Signature</b> _____ <b>Assessor's Signature</b> _____	

## Instruction Sheet for the Candidate

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100491 Develop 3D Model using SketchUp
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name_____
	Registration Number_____
<b>Guidance for Candidate</b>	<p><b>To meet this standard you are required to complete the following within 04 Hrs. time frame (for practical demonstration &amp; assessment):</b></p> <ol style="list-style-type: none"> <li>1. Develop a 3D “House Model” for the following plot dimension (A= 25’, B=33’, C = 33’ and D = 43’) as given in <b>Annexure -A</b> (<i>All sides closed except street side</i>) by using Google SketchUp with the following requirements. <ul style="list-style-type: none"> <li>o Two Bedrooms with attached bath</li> <li>o One kitchen (10 ft x 10 ft)</li> <li>o TV Lounge (As per space), Car Porch (10 ft x 10 ft)</li> <li>o Stairs</li> <li>o Proper Ventilation and Space Utilization</li> </ul> </li> <li>2. Knowledge Assessment</li> </ol>
<b>Time: 04 hrs.</b>	During a practical assessment, under observation by an assessor, you are required to <b>“Develop 3D House Model as per given drawing in Annexure-A according to given dimensions and specifications“</b> demonstrating the following criteria:
<b>Minimum Evidence Required</b>	<ol style="list-style-type: none"> <li>1. Set up template for required specifications.</li> <li>2. Import/create 2D Drawing/image as per assigned specification.</li> <li>3. Create 3D object from 2D drawing/image in line with given measurements.</li> <li>4. Navigate 3D objects as per required job.</li> <li>5. Modify 3D objects in line with the requirements.</li> <li>6. Create/assign specified materials and textures to 3D Model.</li> <li>7. Modify materials and textures according to the object size.</li> <li>8. Use appropriate tools and commands for applications of materials and textures on 3D objects.</li> <li>9. Edit materials and textures to get realistic outcome.</li> <li>10. Install plug-ins to meet specific outcome as per requirement.</li> <li>11. Add scene of 3D model according to specification</li> <li>12. Add lights for illumination to get the requisite scene of 3D model.</li> <li>13. Assign cameras to execute different views of 3D Model.</li> <li>14. Add shadows and realistic effects to get different rendered views.</li> <li>15. Add Render Components to make scene more realistic</li> <li>16. Render the 3D model according to required image size or resolution &amp; orientation.</li> </ol>



## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100491 Develop 3D Model using SketchUp
<b>Purpose of Assessment</b>	Formative Assessment
<b>Assessment Task</b>	<p>Create a 3D “House Model” for the following plot dimension (A=25’ , B=33’ , C=33’ , D=43’) as given in <b>Annexure-A</b> (All sides are closed except street side) by using Google SketchUp with the following requirements:</p> <ul style="list-style-type: none"> <li>• 2 Bedrooms with Attached bath</li> <li>• One Kitchen (10’x10’)</li> <li>• TV Lounge as per space</li> <li>• Stairs and Car Porch (10’x10’)</li> <li>• Proper Ventilation and Space utilization</li> </ul>

I can.....

<b>Performance Criteria</b>	<b>Yes</b>	<b>No</b>
1. Set up template for required specifications.	<input type="checkbox"/>	<input type="checkbox"/>
2. Import/create 2D Drawing/image as per assigned specification.	<input type="checkbox"/>	<input type="checkbox"/>
3. Create 3D object from 2D drawing/image in line with given measurements.	<input type="checkbox"/>	<input type="checkbox"/>
4. Navigate 3D objects as per required job.	<input type="checkbox"/>	<input type="checkbox"/>
5. Modify 3D objects in line with the requirements.	<input type="checkbox"/>	<input type="checkbox"/>
6. Create/assign specified materials and textures to 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
7. Modify materials and textures according to the object size.	<input type="checkbox"/>	<input type="checkbox"/>
8. Use appropriate tools and commands for applications of materials and textures on 3D objects.	<input type="checkbox"/>	<input type="checkbox"/>
9. Edit materials and textures to get realistic outcome.	<input type="checkbox"/>	<input type="checkbox"/>
10. Install plug-ins to meet specific outcome as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
11. Add scene of 3D model according to specification	<input type="checkbox"/>	<input type="checkbox"/>
12. Add lights for illumination to get the requisite scene of 3D model.	<input type="checkbox"/>	<input type="checkbox"/>
13. Assign cameras to execute different views of 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
14. Add shadows and realistic effects to get different rendered views.	<input type="checkbox"/>	<input type="checkbox"/>
15. Add Render Components to make scene more realistic	<input type="checkbox"/>	<input type="checkbox"/>
16. Render the 3D model according to required image size or resolution & orientation.	<input type="checkbox"/>	<input type="checkbox"/>

Candidate’s Signature \_\_\_\_\_ Assessor’s Signature \_\_\_\_\_

Date: \_\_\_\_\_

## Assessors Judgment Guide

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100491 Develop 3D Model using SketchUp
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Signature: _____
<b>Assessment Outcome</b>	<p><b>COMPETENT</b> <input type="checkbox"/>                      <b>NOT YET COMPETENT</b> <input type="checkbox"/></p> <p>Name of the Assessor _____</p> <p>Assessor's code: _____</p> <p>Signature: _____</p>

<b>Assessment Summary (to be filled by the assessor)</b>							
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

<b>Assessment Task</b>	Create a 3D “House Model” for the following plot dimension (A= 25’, B=33’, C = 33’ and D = 43’) as given in <b>Annexure-A</b> ( <i>All sides closed except street side</i> ) by using Google SketchUp with the following requirements. <ul style="list-style-type: none"> <li>○ Two Bedrooms with attached bath</li> <li>○ One kitchen (10 ft x 10 ft)</li> <li>○ TV Lounge (As per space)</li> <li>○ Car Porch (10 ft x 10 ft)</li> <li>○ Stairs</li> <li>○ Proper Ventilation and Space Utilization</li> </ul>		
<b>During the practical assessment, candidate demonstrated the following:</b>	<b>Yes</b>	<b>No</b>	<b>Remarks</b>
1. Set up template for required specifications.			
2. Import/create 2D Drawing/image as per assigned specification.			
3. Create 3D object from 2D drawing/image in line with given measurements.			
4. Navigate 3D objects as per required job.			
5. Modify 3D objects in line with the requirements.			
6. Create/assign specified materials and textures to 3D Model.			
7. Modify materials and textures according to the object size.			
8. Use appropriate tools and commands for applications of materials and textures on 3D objects.			
9. Edit materials and textures to get realistic outcome.			
10. Install plug-ins to meet specific outcome as per requirement.			
11. Add scene of 3D model according to specification.			
12. Add lights for illumination to get the requisite scene of 3D model.			
13. Assign cameras to execute different views of 3D Model.			
14. Add shadows and realistic effects to get different rendered views.			
15. Add Render Components to make scene more realistic			
16. Render the 3D model according to required image size or resolution & orientation.			
<b>Competent</b> <input type="checkbox"/>	<b>Not Yet Competent</b> <input type="checkbox"/>		

# Knowledge Assessment

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Competency Standard</b>	061100491 Develop 3D Model using SketchUp
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<p><b>COMPETENT</b> <input type="checkbox"/>                      <b>NOT YET COMPETENT</b> <input type="checkbox"/></p> <p>Name of the Assessor: _____</p> <p>Assessor's code: _____</p> <p>Signature of the Assessor: _____</p>

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

	Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	Satisfactory	Not Satisfactory
1.	What is shortcut key for Rotate command? <hr/>		
2.	What is the use of space bar in Sketchup? <hr/>		
3.	What is the purpose of Orbit command in Sketchup? <hr/>		



4.	Difference between Zoom Extents and Zoom?		
5.	What is Quick Reference Card?		
6.	How do you open Material Editor in Sketchup?		

<b>Feedback to the Candidate</b>	
<b>Candidate's Signature</b> _____	<b>Assessor's Signature</b> _____

## Instruction Sheet for the Candidate

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - SKETCHUP
<b>Candidate Details</b>	Name _____ Registration Number _____
<b>Guidance for Candidate</b>	<p><b>To meet this standard you are required to complete the following within 4 Hrs. time frame (for practical demonstration &amp; assessment):</b></p> <ol style="list-style-type: none"> <li>1. Develop a 3D “House Plan” for the following plot dimension (A= 25’, B=33’, C = 33’ and D = 43’) as given in <b>Annexure -A</b> (<i>All sides closed except street side</i>) by using Google SketchUp with the following requirements. <ul style="list-style-type: none"> <li>○ Two Bedrooms with attached bath</li> <li>○ One kitchen (10 ft x 10 ft) and TV Lounge (As per space)</li> <li>○ Car Porch (10 ft x 10 ft) and Stairs</li> <li>○ Proper Ventilation and Space Utilization</li> </ul> </li> <li>2. Knowledge Assessment</li> </ol>
<b>Time: 04 Hrs</b>	During a practical assessment, under observation by an assessor, you are required to <b>“Develop drawing given in Annexure-A as per given dimension and specification “</b> demonstrating the following criteria:
<b>Minimum Evidence Required</b>	<ol style="list-style-type: none"> <li>1. Set up template for required specifications.</li> <li>2. Import/create 2D Drawing/image as per assigned specification.</li> <li>3. Create 3D object from 2D drawing/image in line with given measurements.</li> <li>4. Navigate 3D objects as per required job.</li> <li>5. Modify 3D objects in line with the requirements.</li> <li>6. Create/assign specified materials and textures to 3D Model.</li> <li>7. Modify materials and textures according to the object size.</li> <li>8. Use appropriate tools and commands for applications of materials and textures on 3D objects.</li> <li>9. Edit materials and textures to get realistic outcome.</li> <li>10. Install plug-ins to meet specific outcome as per requirement.</li> <li>11. Add scene of 3D model according to specification</li> <li>12. Add lights for illumination to get the requisite scene of 3D model.</li> <li>13. Assign cameras to execute different views of 3D Model.</li> <li>14. Add shadows and realistic effects to get different rendered views.</li> <li>15. Add Render Components to make scene more realistic</li> <li>16. Render the 3D model according to required image size or resolution &amp; orientation.</li> </ol>

## Self-Assessment Checklist

<b>Candidate Name</b>	
<b>Registration No.</b>	
<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - SKETCHUP
<b>Assessment Task</b>	Create a 3D “House Plan” for the following plot dimension as given in <b>Annexure-A</b>

I can.....

<b>Performance Criteria</b>	<b>Yes</b>	<b>No</b>
1. Set up template for required specifications.	<input type="checkbox"/>	<input type="checkbox"/>
2. Import/create 2D Drawing/image as per assigned specification.	<input type="checkbox"/>	<input type="checkbox"/>
3. Create 3D object from 2D drawing/image in line with given measurements.	<input type="checkbox"/>	<input type="checkbox"/>
4. Navigate 3D objects as per required job.	<input type="checkbox"/>	<input type="checkbox"/>
5. Modify 3D objects in line with the requirements.	<input type="checkbox"/>	<input type="checkbox"/>
6. Create/assign specified materials and textures to 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
7. Modify materials and textures according to the object size.	<input type="checkbox"/>	<input type="checkbox"/>
8. Use appropriate tools and commands for applications of materials and textures on 3D objects.	<input type="checkbox"/>	<input type="checkbox"/>
9. Edit materials and textures to get realistic outcome.	<input type="checkbox"/>	<input type="checkbox"/>
10. Install plug-ins to meet specific outcome as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>
11. Add scene of 3D model according to specification.	<input type="checkbox"/>	<input type="checkbox"/>
12. Add lights for illumination to get the requisite scene of 3D model.	<input type="checkbox"/>	<input type="checkbox"/>
13. Assign cameras to execute different views of 3D Model.	<input type="checkbox"/>	<input type="checkbox"/>
14. Add shadows and realistic effects to get different rendered views.	<input type="checkbox"/>	<input type="checkbox"/>
15. Add Render Components to make scene more realistic	<input type="checkbox"/>	<input type="checkbox"/>
16. Render the 3D model according to required image size or resolution & orientation.	<input type="checkbox"/>	<input type="checkbox"/>

Candidate's Signature \_\_\_\_\_ Assessor's Signature \_\_\_\_\_

Date: \_\_\_\_\_

ANNEXURE-A



## Assessors Judgment Guide

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - SKETCHUP
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Signature: _____
<b>Assessment Outcome</b>	<p><b>COMPETENT</b> <input type="checkbox"/> <span style="margin-left: 200px;"><b>NOT YET COMPETENT</b> <input type="checkbox"/></span></p> <p>Name of the Assessor _____</p> <p>Assessor's code: _____ Signature: _____</p>

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

## Observation Checklist

<b>Assessment Task</b>	<p>Create a 3D “House Plan” for the following plot dimension (A= 25’, B=33’, C = 33’ and D = 43’) as given in <b>Annexure-A</b> (<i>All sides closed except street side</i>) by using Google SketchUp with the following requirements.</p> <ul style="list-style-type: none"> <li>○ Two Bedrooms with attached bath</li> <li>○ One kitchen (10 ft x 10 ft)</li> <li>○ TV Lounge (As per space) and Car Porch (10 ft x 10 ft)</li> <li>○ Stairs, Proper Ventilation and Space Utilization</li> </ul>			
<b>During the practical assessment, candidate demonstrated the following:</b>		<b>Yes</b>	<b>No</b>	<b>Remarks</b>
1.	Set up template for required specifications.			
2.	Import/create 2D Drawing/image as per assigned specification.			
3.	Create 3D object from 2D drawing/image in line with given measurements.			
4.	Navigate 3D objects as per required job.			
5.	Modify 3D objects in line with the requirements.			
6.	Create/assign specified materials and textures to 3D Model.			
7.	Modify materials and textures according to the object size.			
8.	Use appropriate tools and commands for applications of materials and textures on 3D objects.			
9.	Edit materials and textures to get realistic outcome.			
10.	Install plug-ins to meet specific outcome as per requirement.			
11.	Add scene of 3D model according to specification.			
12.	Add lights for illumination to get the requisite scene of 3D model.			
13.	Assign cameras to execute different views of 3D Model.			
14.	Add shadows and realistic effects to get different rendered views.			
15.	Add Render Components to make scene more realistic.			
16.	Render the 3D model according to required image size or resolution & orientation.			
<b>Competent</b> <input type="checkbox"/>		<b>Not Yet Competent</b> <input type="checkbox"/>		

## Knowledge Assessment

<b>Qualification</b>	0611ICT09 National Vocational Certificate Level-3 in Information Technology (REVIT & SKETCHUP)
<b>Purpose of Assessment</b>	Summative Assessment - SKETCHUP
<b>Candidate Details</b>	Name: _____ Registration Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<b>COMPETENT</b> <input type="checkbox"/> <span style="margin-left: 200px;"><b>NOT YET COMPETENT</b> <input type="checkbox"/></span> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

	Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	Satisfactory	Not Satisfactory
1.	<i>What is short cut key for rotate command?</i> <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>		
2.	<i>What is the use of space bar in sketchup?</i> <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>		
3.	<i>What is the purpose of Orbit command in sketchup?</i> <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>		

4.	Difference between Zoom Extends and Zoom?		
5.	What do you about Quick Reference Card?		


<b>Feedback to the Candidate</b>	
<b>Candidate's Signature</b> _____	<b>Assessor's Signature</b> _____



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