

# **SAMPLE PROJECT**

**INDIASKILLSKERALA 2018**

**State Skill Competitions**

**Skill- 3D DIGITAL GAME ART**

*Category: Creative Arts and Fashion*

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# Section - A

## A. Preface

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### **Skill Explained:**

The games development sector comprises three occupations or work roles: the designer, the artist, and the programmer. The 3D Digital Game Artist takes a designers brief and through a combination of conceptualization, creativity, selectivity, technical and specialist skills, completed the brief to the satisfaction of the client.

The artist requires an appreciation of aesthetics, colour, structure and form as well as movement. 3D Digital Game Artist combines art with technology to create imaginative experiences for gamer.

An artist often works with a team of other artists led by an Art Lead or Art Director. In smaller companies, the artist will work closely with the programmer and designer. Depending on the size of the company, a large team of artists may work in an office and is likely to be open plan for creative involvement across the team. Sometimes an artist must work in isolation on strictly confidential assets in a game.

The skills required of the 3D Digital Game Artist can be broken down further into:

- 2D Concept Art
- 3D Modelling
- UV Mapping
- Texture & Painting
- Rigging
- Animating
- Game Engine

### **Eligibility Criteria (for IndiaSkills 2018 and WorldSkills 2019):**

Competitors born on or after 01 Jan 1997 are eligible to attend the Competition.

### **Total Duration : 12Hrs**

- Day 1 : 6Hrs
- Day 2 : 6Hrs

# Section -B

## B. Project

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### Instructions to the Competitor

1. Create a folder called "YY\_Task1" on your desktop (Where YY represents the number of your workstation)
2. All of your files must be saved in the folder

### Day 1, Task 1: Concept Art

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#### Description of project and Task:

- You must deliver task in 2 hours
- The task will be automatically collected at the end of two hours

#### Subject:

As an event that will work across the country, the Best Designer Awards requires a2D concept art of a **Car Racing game**. It should reflect the concepts explained the introduction and should be designed with ease of reproduction across multiple media

#### Description:

- Create the concept for the game along with the background
- Create the concept for the Car
- The concept should be unique
- Use your own gaming ideas for making the game more interesting.
- Concept art dimension 3840x2160px (Ultra HD)

**Technical Specifications:**

- Size: You need to submit one final art piece (digital) at 3840x2160px (Ultra HD)

**You must deliver**

- Folders as specified in “instruction to the Competitor” on page 3
- Only files from these folders will be assessed
- one final art piece (digital) at 3840x2160px (Ultra HD)

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**Day 1, Task 2: Modelling**

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**Description of project and Task:**

- You must deliver task in 4 hours
- The task will be automatically collected at the end of two hours

**Subject:**

The focus of the competition is to create 3D model of Racing Car.

**Description :**

- Model the Car, as that of your 2D concept.
- Add basic details.
- Make sure the final model must have less than 10000 triangles  
(if you are working on a high poly model , you need to convert it in to a low poly model finally)

**Technical Specifications:**

- Make sure the final model must have less than 10000 triangles  
(if you are working on a high poly model , you need to convert it in to a low poly model finally)
- Max/Maya scene organization – only relevant assets in scene

## Day 2, Task 1: UV MAPPING AND TEXTURES

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### **Description of project and Task:**

- You must deliver task in 4 hours
- The task will be automatically collected at the end of four hours

### **Subject:**

The focus of the competition is to add textures to the models.

### **Description:**

- Unwrap the UVs and texture both for the bike and the characters
- Unwrap the Car on to separate texture sheets of 1024X1024px and 4096X4096px.
- Donot make the assets share one sheet.
- Create stylized textures for each assets, though you may also paint details and create maps in Photoshop

### **Technical Specifications:**

- Unwrap the Car on to separate texture sheets of 1024X1024px and 4096X4096px

### **You must deliver**

- Folders as specified in “instruction to the Competitor” on page 3
- Only files from these folders will be assessed

## Day 2, Task 2: Rendering

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### **Description of project and Task:**

- You must deliver task in 2 hours
- The task will be automatically collected at the end of two hours

### **Subject:**

The focus of the competition is to render the 3D model of Carin high quality.

### **Description :**

- Render the models at its finest details
- Final rendered image of the Car
- Front view and Side view both Isometric and Perspective.

### **Technical Specifications:**

- Make sure the final model must have less than 10000 triangles  
(if you are working on a high poly model , you need to convert it in to a low poly model finally)
  - Max/Maya scene organization – only relevant assets in scene
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# Section -C

## C. Marking Scheme

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The Assessment is done by awarding points by adopting two methods. Objective and Subjective.

- Measurement - One which is measurable
- Judgemental - Based on industry expectations / standards

### **Marking Scheme**

50% marks for technical skills

50% marks for conceptual skills

**The Section Criteria is the total of Subjective and Objective**

**Mark Sheet is attached as Appendix**



# Section -D

## D. Infrastructure List

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### System requirement

- Computer system (i3 or above processor, 8GB or above RAM, 1TB Hard Disc) **6Nos**
- 2. 22" Monitor screen **6Nos**
- Mouse and Mouse pad **6Nos**
- Wacom Graphic tablet **6Nos**
- LAN Connectivity for printing

### Software requirements

- Adobe Photoshop
- Adobe Illustrator
- Autodesk Maya
- Autodesk 3Ds Max
- Z-Brush

### General Requirements

1. 115 GSM Matte Paper A3 Size -
2. Pencil - 5 Box
3. Eraser- 10 Nos.
4. 18" steel rule
5. Pencil sharpener
6. Paper Cutter
7. Long reach Stapler
8. A4 Size Paper- 2 Bundle
9. Pen drive — 2Nos.

## **Furniture Requirements**

- |                         |             |
|-------------------------|-------------|
| 1. Computer Table-      | <b>6Nos</b> |
| 2. Computer Chair-      | <b>6Nos</b> |
| 3. Table for Assessors- | <b>3Nos</b> |
| 4. Chair for Assessors- | <b>3Nos</b> |
| 5. Printer Table-       | <b>1No.</b> |

# Section -E

## E. Instruction for candidates

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### General Rules

- Competitor should inform the officials on duty regarding the malfunctioning of their computers, tools and equipment.
- Competitor should be mindful of loose computer wires and electrical outlets on their workstations and throughout the competition area.
- Competitors to make sure that any rulers, cutting blades or other workstation equipment are not left hanging over the edge of the bench.
- Competitors are not allowed to walk around the graphic areas with cutting blades, rulers or other workbench tools.

# Section -F

## **F. Health, Safety and Environment**

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- All accredited participants and supporting volunteers will abide by rules and regulations with regards to Health, Safety and Environment of the Competition venue.
- All participants technicians and supporting staff will wear the required protective Personnel clothing
- All participants will assume liability for all risks of injury and damage to property, loss of property, which might be associated with or result from participation in the event. The organizers will not be liable for any damage. However in case of Injury the competitor will immediately inform the immediate organizer for medical attention.
- Proper covered shoes are to be worn.

## Annexure-1

**Skill Name:** 3D Digital Game Art

**Competitor Name:** \_\_\_\_\_

Task	Criteria	Mark
A	Concept Art and 3D Modelling	50.00
B	UV Unwrapping	50.00
	<b>Grand Total</b>	<b>100.00</b>

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M=Measures J=Judgement	Aspect Description	Judge Score	Judgement Score Description	Max Mark
A1	PSD tidiness – named layers and sensible folder structure					
		M	Layers and folders have been given appropriate rather than default names (any language)			1
A2	All tasks completed on time					
		M	Each module every day must be finished to achieve this mark			1

A3	Concept Art done according to the technical and artistic industry standards					
		M	Digital sketch explores more than 2 ideas		Drawings/sketches (using digital software) should be created to explore ideas (paper based drawings are not counted)	3.50
		M	Digital painting demonstrates perspective		Some form of perspective needs to be shown rather than flat elevations	5
		M	Digital painting Indicates proportion		Proportion needs to be demonstrated, using the concept in relation to something else in the scene or a human figure	5
		M	The final concept art features blending / smoothing to represent form			4
		J	Digital painting demonstrates shading and describes			5.50

			the form of the object			
				0	No use of shading or hatching	
				1	Slight use of shading or hatching	
				3	Some use of shading or hatching	
				5.50	Shading the accentuates the 3D shape	
				3.50	The artwork uses colour, light and shadow	
				5.50	The artwork closely represents the final model	
B1	Max/Maya scene organization – only relevant assets in scene					
		M	Geometry used for testing or unassigned to the model should be removed from the final scene			1
B2	Art style consistent through all assets					

		M	The art style set in the brief and accompanying scene should be met for created assets			1.5
		M	Geometry used for testing or unassigned to the model should be removed from the final scene			1
B3	Asset Modelling					
		M	Asset meet the triangle budget			2
		M	No flipped normals present on the asset			1.5
		M	Chamfered edges on any 90 degree edge			1
		M	Model utilizes 90+% triangle budget			1
		J	Asset's distribution of triangles is even			4



			across fixed areas, and concentrated for areas of deformation and detail			
				0	Inequitable use of triangles that fail to reduce tris on areas that need less	
				1.5	The triangle sizes are even across the whole model	
				3	The triangle sizes are even and areas needing more detail use more triangles	
				4	Equitable use of triangles that reduce tris on areas that need less	
		J	Asset conforms to edgeflow that accentuates the represented object			4
				0	Edgeflow is not sympathetic with the shape of the object	

				1	Edgeflow is not sympathetic with the objects shape	
				3	Edgeflow is accentuates objects shape	
				4	Edge =flow has no misturned edges	
		J	Asset can be understood in silhouette only			4
				0	The object cannot be understood in silhouette in the perspective view	
				2	The object is understood in perspective view	
				3	The object is understood from perspective, front and side	
				4	The silhouette hold up to 360 degree scrutiny	

		J	Asset fits within the set style in the brief and the vignette scene. Model is consistent with artstyle			4
				0	The asset does not resemble the art style	
				1	The asset closely resembles the art style	
				4	The asset conforms to the art style	
				3	The asset accentuates the art style	
					<b>Total Marks</b>	<b>50</b>

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M=Meas J= Judg	Aspect Description	Judge Score	Judgement Score Description	Max Mark
A4	Texture – named textures and sensible folder structure					
		M	Textures and folders have been given appropriate rather than default names (any language)			1
A5	All tasks completed on time					
		M	Each module every day must be finished to achieve this mark			1
A6	Texturing done according to the technical and artistic industry standards					
		M	Texture images with required dimensions		Textures should have the required dimensions specified	3.50
		M	Texture image Quality		Texture images should have the specified pixel quality	5

		M	Normal Map Texture images with required dimensions		Normal Map Textures should have the required dimensions specified	5
		M	UV Mapping		Quality of UV Mapping	4
		J	Use of shadings in Textures			5.50
				0	No use of shading or hatching	
				1	Slight use of shading or hatching	
				3	Some use of shading or hatching	
				5.50	Shading the accentuates the 3D shape	
				3.50	The artwork uses colour, light and shadow	
				5.50	The artwork closely represents the final model	
B4	Max/Maya scene organization – only relevant assets in scene					
		M	Material assigning			1
B5	Art style consistent through all assets					
		M	Use of patterns			1.5

		M	Scaling ratio of pattern textures			1
B6	Asset Texturing					
		M	Asset meet the final required result			3
		M	No flipped normals present on the asset			2.5
		J	UV Mapping Perfection			4
				0	Inappropriate	
				1.5	Almost appropriate	
				3	Appropriate	
				4	Extraordinary	
		J	Surface details			4
				0	Inappropriate	
				1	Almost appropriate	
				3	Appropriate	
				4	Extraordinary	
		J	Asset can be			4

			understood in silhouette only			
				0	The object cannot be understood in silhouette in the perspective view	
				2	The object is understood in perspective view	
				3	The object is understood from perspective, front and side	
				4	The silhouette hold up to 360 degree scrutiny	
		J	Asset fits within the set style in the brief and the vignette scene. Model is consistent with artstyle			4
				0	The asset does not resemble the art style	

				1	The asset closely resembles the art style	
				4	The asset conforms to the art style	
				3	The asset accentuates the art style	
	<b>Total Marks</b>					<b>50</b>