Qualification Pack

Game Artist

2D Game Art/ 3D Game Art/ Design VR applications

QP Code: MES/Q0510

Version: 1.0

NSQF Level: 5

Media & Entertainment Skills Council || Commercial premises No Ja522, 5th Floor, DLF Tower A, Jasola, New Delhi
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Contents

MES/Q0510: Game Artist

Brief Job Description

The role of game artist is an artist who creates art for one or more types of games. In this role an individual will be liable to create 2D and 3D art for the visual elements of a video game, such as characters, vehicles, props, scenery, background, objects, colours, textures, and clothing.

Personal Attributes

Personal Attributes: The person must be creative and have artistic vision with passion for designing games. He/she must have storytelling ability across wide range knowledge of gaming trends. The individual possesses strong interpersonal and written communications ability, organization, teamwork, an analytical mind. Video game designers also need a thorough knowledge of the workings of various game consoles.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. MES/N2519: Preproduction -Analyse Game Art

2. MES/N0525: Create 2D/3D assets

3. MES/N0503: Design Characters

4. MES/N0526: Modelling

5. MES/N0527: Texturing & rigging applications

6. MES/N0104: Maintain Workplace Health & Safety

Options(Not mandatory):

Option 1: 2D Game Art

1. MES/N0537: 2D Game Art

Option 2: 3D Game Art

1. MES/N0539: 3D Game Art

Option 3: Design VR applications

1. [MES/N0538: Design VR applications](#)

Qualification Pack (QP) Parameters

Sector	Media & Entertainment
Sub-Sector	Animation, Gaming
Occupation	Art and Design
Country	India
NSQF Level	5
Credits	49
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2166.0501
Minimum Educational Qualification & Experience	Graduate with 1 Year of experience OR Diploma with 3 Years of experience OR Certificate-NSQF (Level-4 Certification as Animator / Modeller / Texturing Artist / Rigging Artist) with 2 Years of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NO
Minimum Job Entry Age	21 Years
Last Reviewed On	NA
Next Review Date	30/12/2026
NSQC Approval Date	30/12/2021
Version	1.0
Reference code on NQR	2021/ME/MESC/04871
NQR Version	1.0

Remarks:

Nature of qualification is to teach AR/VR developing process, use of application in designing various module (animation, modelling, texturing and gaming) and purpose is to provide job and entrepreneurship/freelance opportunity as AR-VR Developer in M&E Industry. This qualification is for the training purpose for degree courses (university / colleges) as well as for Short Term Course

MES/N2519: Preproduction -Analyse Game Art

Description

This unit covers the process of describing the game development pipeline and specifications. Gathering references, understanding details by doing research on the subject. It also important to understand the how the game art will be used in the game

Scope

The scope covers the following :

- This unit/task covers the following:
- Concept of Game Art
- Functions of game artist

Elements and Performance Criteria

Concept of Game Art

To be competent, the user/individual on the job must be able to:

PC1. define purpose, key component and rule for game

PC2. analyse need of game design

PC3. • efficiently plan work and ensure that all relevant information regarding
• the task is collected and is readily available before commencing work.

PC4. identify tools and software used in designing game

PC5. interpret business value

Functions of game artist

To be competent, the user/individual on the job must be able to:

PC6. • create art assets as per client's specifications and quality requirements
• within the budgeted time and effort.

PC7. • ensure that there is clear identification of the approach to be taken to
• create the asset as well as daily work completion targets

PC8. Collect adequate and appropriate references before commencing work

PC9. • ensuring that the asset conforms to specifications and directions
• received from the Client and the Lead.

PC10. • create high-quality artwork for a game, such as the texture, characters,
• environment or certain assets

PC11. ensure artwork follows the agreed project style

PC12. • take on board and implement feedback from the art lead by making
• appropriate changes to the artwork you've produced

PC13. handle aspect of designing characters, game environment

PC14. use texturing and rigging resource / applications

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the role and function of each member of the designing team.

KU2. Organizational value of repute

KU3. • Knowledge of industry standard software such as Maya, 3D
• Studio Max, Z-Brush and Photoshop. Knowledge of additional
• software such as Substance Painter and Mudbox

KU4. • how to create assets for export assets to game engines such as
• Unreal Engine will be an added advantage

KU5. Use of modeling organic and/or inorganic surfaces

KU6. how to apply object-oriented concepts to implement code.

KU7. how to prepare for and contribute towards the production.

KU8. how to study the project briefs and plan the work schedule accordingly

KU9. how to Implement Interaction system for the Application.

KU10. how to implement application logics.

KU11. how to read and reuse existing code base.

KU12. the usage of development tools like Game engine

KU13. integration of Libraries and plugins with the application code.

KU14. • how to use version control tools to maintain various versions of the
• code.

KU15. performance optimization techniques.

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. • take notes about application structuring and plan during project
• discussions with the technical Lead / client need.

GS2. • write clean game play code with proper comments explaining
• application logic.

GS3. write reports on the tasks being handled.

GS4. read the requirement from the Scope of Work / design document.

GS5. • interpret and translate application requirements and guidelines to
• practical work setup

GS6. • read and interpret developer guides and manuals of Realtime engine,
• development tools and others

GS7. • communicate technical suggestions and issues clearly using
• appropriate terminologies within a collaborative environment.

GS8. present/solicit feedback on work and identify modifications required.

GS9. • regularly communicate with Lead and PM to inform on any
• problems/issues that might impact the work, queried related to the
• assets allocated

GS10. • plan programming templates, file organisation structure, and work
• timelines in order to meet agreed deliverables.

GS11. • create, track and maintain realistic and meaningful daily goals for self
• and complete the planned work for the day on time every day.

GS12. • create a self-development plan in consultation with the Reporting
• Manager, and to work on the same diligently

GS13. • break down complex parts of the application module into manageable
• tasks.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Concept of Game Art	**11**	**19**	**-**	**-**
PC1. define purpose, key component and rule for game	2	3	-	-
PC2. analyse need of game design	2	3	-	-
PC3. • efficiently plan work and ensure that all relevant information regarding • the task is collected and is readily available before commencing work.	2	3	-	-
PC4. identify tools and software used in designing game	2	3	-	-
PC5. interpret business value	3	7	-	-
Functions of game artist	**22**	**47**	**-**	**-**
PC6. • create art assets as per client's specifications and quality requirements • within the budgeted time and effort.	3	7	-	-
PC7. • ensure that there is clear identification of the approach to be taken to • create the asset as well as daily work completion targets	3	7	-	-
PC8. Collect adequate and appropriate references before commencing work	2	3	-	-
PC9. • ensuring that the asset conforms to specifications and directions • received from the Client and the Lead.	3	7	-	-
PC10. • create high-quality artwork for a game, such as the texture, characters, • environment or certain assets	3	7	-	-
PC11. ensure artwork follows the agreed project style	1	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. • take on board and implement feedback from the art lead by making • appropriate changes to the artwork you've produced	2	3	-	-
PC13. handle aspect of designing characters, game environment	2	3	-	-
PC14. use texturing and rigging resource / applications	3	7	-	-
NOS Total	**33**	**66**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N2519
NOS Name	Preproduction -Analyse Game Art
Sector	Media & Entertainment
Sub-Sector	Animation, Gaming
Occupation	Asset Creation
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0525: Create 2D/3D assets

Description

This unit covers skills required to create 2D and 3D assets to be used as game tools for suitable platform. It is the process where artist creates 2D/3D concept art of an environment or prop or character. It can be created using z-brush, Photoshop. It is used to communicate the idea of what needs to be created and how it will be functional.

Scope

The scope covers the following :

- Create background / assets for the game

Elements and Performance Criteria

Create background / assets for the game

To be competent, the user/individual on the job must be able to:

PC1. interpret the game to be designed in line with requirements

PC2. list applicable tools / software

PC3. identify suitable hardware requirements

PC4. get ready the draft sketches / pictorials / photographs etc.

PC5. create sequences of game

PC6. use whichever graphic tools more comfortable with concept.

PC7. create 2D platformer with 3D assets

PC8. use sprites to do a 2D game and defining characters

PC9. handle models and textures to do 3D game and make 3D characters

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the role and function of each member of the designing team

KU2. organizational value of repute

KU3. knowledge of industry standard software such as Maya, 3D Studio Max, Z-Brush and Photoshop

KU4. knowledge of additional software - such as Blenders, Sprites, Substance Painter and Mudbox

KU5. how to create assets for / export assets to game engines such as Unreal Engine will be an added advantage

KU6. Use of modelling organic and/or inorganic surfaces

KU7. know 2D and 3D game asset creation process

KU8. how to apply object-oriented concepts to implement code

KU9. how to prepare for and contribute towards the production.

KU10. how to study the project briefs and plan the work schedule accordingly

KU11. how to Implement Interaction system for the Application

KU12. how to implement application logics

KU13. how to read and reuse existing code base

KU14. the usage of development tools like Game engine and middle ware

KU15. integration of Libraries and plugins with the application code

KU16. how to use version control tools to maintain various versions of the code

KU17. performance optimization techniques.

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. take notes about application structuring and plan during project discussions with the technical Lead / client need

GS2. write clean game play code with proper comments explaining application logic

GS3. write reports on the tasks being handled

GS4. read the requirement from the Scope of Work / design document

GS5. interpret and translate application requirements and guidelines to practical work setup

GS6. read and interpret developer guides and manuals of real-time engine, development tools and other libraries

GS7. communicate technical suggestions and issues clearly using appropriate terminologies within a collaborative environment

GS8. present/solicit feedback on work and identify modifications required

GS9. regularly communicate with Lead and PM to inform on - any problems/issues that might impact the work, queried related to the assets allocated

GS10. plan programming templates, file organisation structure, and work timelines in order to meet agreed deliverables

GS11. create, track and maintain realistic and meaningful daily goals for self and complete the planned work for the day on time every day

GS12. create a self-development plan in consultation with the Reporting Manager, and to work on the same diligently

GS13. break down complex parts of the application module into manageable tasks.

GS14. select and apply the right design patterns to solve the technical problems.

GS15. evaluate the quality of program being implemented using established criteria and make improvements where required.

GS16. Debug code to find and fix the bugs related to the project

GS17. make appropriate suggestion to the team lead for problems related to execution of specific application module

GS18. ensure that art and assets adhere fully to the creative and technical direction provided by the designer

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Create background / assets for the game	**31**	**69**	-	-
PC1. interpret the game to be designed in line with requirements	3	7	-	-
PC2. list applicable tools / software	3	7	-	-
PC3. identify suitable hardware requirements	3	7	-	-
PC4. get ready the draft sketches / pictorials / photographs etc.	5	10	-	-
PC5. create sequences of game	5	10	-	-
PC6. use whichever graphic tools more comfortable with concept.	3	7	-	-
PC7. create 2D platformer with 3D assets	3	7	-	-
PC8. use sprites to do a 2D game and defining characters	3	7	-	-
PC9. handle models and textures to do 3D game and make 3D characters	3	7	-	-
NOS Total	**31**	**69**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0525
NOS Name	Create 2D/3D assets
Sector	Media & Entertainment
Sub-Sector	Media and Entertainment, Gaming
Occupation	Art and Design
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0503: Design Characters

Description

This OS unit is about designing the characters in accordance with the requirements of the script and preparing the character pack

Elements and Performance Criteria

Gathering visual references that could serve as aids during the animation process

To be competent, the user/individual on the job must be able to:

PC1. gather character references to help conceptualize designs for primary and secondary characters references may include: photographs, films, images, paintings, prints, murals, miniature art, sculptures, previously executed animation workproducts, animations products available in the public domain, preproduction design work

Preparing the character pack

To be competent, the user/individual on the job must be able to:

PC2. study the movement of characters and suggest characteristics by shooting videos or acting

PC3. draw out possibilities (simple structure) for each character out on paper along with their clothing, accessories etc.

PC4. develop the character line-up and size relationship chart

PC5. visualize character expressions and attitude poses for each characters and create a character pack in line with requirements this may include: construction detail, prop details, character dos and donts, attitude, poses, walk poses, turnarounds, facial expressions, mouth chart, character gestures, hand gestures group behavior etc

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the creative vision and elements of production with respect to the individuals job role

KU2. the profile and preferences of the target audience

KU3. the production budget and timelines with respect to the individuals job role

KU4. the technical requirements of the medium/style in which the character will be exhibited

KU5. life drawing including human anatomy, emotions, actions, expressions, mannerisms, behavior, facial expressions, walking style, animal anatomy, mannerisms etc.

KU6. the basics of theatre acting and staging

KU7. how to work on image editing software such as adobe photoshop, gimp etc.

KU8. how to design and develop character designs consistent with the creative look of the production and in accordance to the script and design brief

KU9. how to prioritize and design what will be seen on screen

KU10. how to create perspective drawings from all angles

KU11. how to mimic any given character style according to the style suggested by the director

KU12. the sources for research and reference material

KU13. applicable copyright norms and intellectual property rights

KU14. applicable health and safety guidelines

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. document character descriptions to help present to the director and producer, and guide the production process

GS2. read and understand the design brief with respect to character design

GS3. read and understand the profile and preferences of the target audience and any culture/location-specific attributes that would need to be factored into the design process

GS4. research links, videos, artwork etc. that can be used as references during the production process while keeping animation possibilities in mind

GS5. understand the desired creative look of the production from the art director

GS6. collaborate with the script team to design the characters

GS7. discuss the character pack with the director and producer and solicit their feedback

GS8. plan and prioritize own work according to the requirements and agreed timelines

GS9. identify any creative problems that may arise during the production and find solutions to address them based on the individuals job description

GS10. finalise the creative vision of the production

GS11. be creative and imaginative

GS12. be creative and imaginative as per the changes or updations in the story or characters

GS13. be creative and imaginative as per the changes or updations in the story or characters

GS14. have an appreciation for accuracy and pay close attention to detail

GS15. be able to take direction and be prepared to make changes to your work in response to constructive feedback

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Gathering visual references that could serve as aids during the animation process	**10**	**10**	**-**	**-**
PC1. gather character references to help conceptualize designs for primary and secondary characters references may include: photographs, films, images, paintings, prints, murals, miniature art, sculptures, previously executed animation workproducts, animations products available in the public domain, preproduction design work	10	10	-	-
Preparing the character pack	**40**	**40**	**-**	**-**
PC2. study the movement of characters and suggest characteristics by shooting videos or acting	10	10	-	-
PC3. draw out possibilities (simple structure) for each character out on paper along with their clothing, accessories etc.	10	10	-	-
PC4. develop the character line-up and size relationship chart	10	10	-	-
PC5. visualize character expressions and attitude poses for each characters and create a character pack in line with requirements this may include: construction detail, prop details, character dos and donts, attitude, poses, walk poses, turnarounds, facial expressions, mouth chart, character gestures, hand gestures group behavior etc	10	10	-	-
NOS Total	**50**	**50**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0503
NOS Name	Design Characters
Sector	Media & Entertainment
Sub-Sector	Animation, Gaming
Occupation	Art and Design
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	29/10/2014
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0526: Modelling

Description

This NOS covers the aspect of creating computer generated models (characters, machines, props, objects etc.) for animation and gaming

Scope

The scope covers the following :

- Create computer generated 3D models

Elements and Performance Criteria

Create computer generated 3D models

To be competent, the user/individual on the job must be able to:

PC1. interpret goal of the script, brief or storyboard with respect to each character / theme

PC2. recognise design / concept / character / environment for which model is to be created

PC3. Identify necessary tools used to develop models

PC4. creates environments and scenarios using a level editor and other tools

PC5. .prepare digital models according to the design brief, requirements, specifications and technical needs in line with game script

PC6. create prototypes/pilots for testing

PC7. determine the final display medium and adapt / suggest the model for its polycounts, mesh complexity, movement capability etc.

PC8. ensure that the models will be able to perform properly once animated, are uniform and consistent and are delivered in appropriate formats that can be used by others

PC9. review models with relevant people

PC10. test the models to ensure that they meet the design specifications and production requirements and function as required

PC11. work out any problems with the models that emerge during production or construction in collaboration with peers and under supervision of the art director

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the role and function of each member of the designing team.

KU2. Organizational value of repute

KU3. knowledge of industry standard software such as Maya, 3D Studio Max, Z-Brush and Photoshop. Knowledge of additional software - such as Substance Painter and Mudbox

KU4. how to create assets for / export assets to game engines such as Unreal Engine will be an added advantage

KU5. Use of modeling organic and/or inorganic surfaces

KU6. Know 2D and 3D game asset creation process

KU7. how to apply object-oriented concepts to implement code

KU8. how to prepare for and contribute towards the production

KU9. how to study the project briefs and plan the work schedule accordingly

KU10. how to Implement Interaction system for the Application.

KU11. how to implement application logics

KU12. how to read and reuse existing code base

KU13. the usage of development tools like Game engine and middle ware

KU14. integration of Libraries and plugins with the application code

KU15. how to use version control tools to maintain various versions of the code

KU16. performance optimization techniques

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. take notes about application structuring and plan during project discussions with the technical Lead / client need

GS2. write clean game play code with proper comments explaining application logic

GS3. write reports on the tasks being handled

GS4. read the requirement from the Scope of Work / design document.

GS5. interpret and translate application requirements and guidelines to practical work setup

GS6. read and interpret developer guides and manuals of Real time engine, development tools and other libraries

GS7. communicate technical suggestions and issues clearly using appropriate terminologies within a collaborative environment.

GS8. present/solicit feedback on work and identify modifications required. regularly communicate with Lead and PM to inform on - any problems/issues that might impact the work, queried related to the assets allocated

GS9. plan programming templates, file organisation structure, and work timelines in order to meet agreed deliverables.

GS10. create, track and maintain realistic and meaningful daily goals for self and complete the planned work for the day on time every day

GS11. create a self-development plan in consultation with the Reporting Manager, and to work on the same diligently

GS12. break down complex parts of the application module into manageable tasks

GS13. select and apply the right design patterns to solve the technical problems

GS14. evaluate the quality of program being implemented using established criteria and make improvements where required.

GS15. Debug code to find and fix the bugs related to the project.

GS16. make appropriate suggestion to the team lead for problems related to execution of specific application module

GS17. ensure that art and assets adhere fully to the creative and technical direction provided by the designer

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Create computer generated 3D models	**30**	**70**	**-**	**-**
PC1. interpret goal of the script, brief or storyboard with respect to each character / theme	2	3	-	-
PC2. recognise design / concept / character / environment for which model is to be created	2	3	-	-
PC3. Identify necessary tools used to develop models	3	7	-	-
PC4. creates environments and scenarios using a level editor and other tools	2	8	-	-
PC5. .prepare digital models according to the design brief, requirements, specifications and technical needs in line with game script	3	7	-	-
PC6. create prototypes/pilots for testing	3	7	-	-
PC7. determine the final display medium and adapt / suggest the model for its polycounts, mesh complexity, movement capability etc.	3	7	-	-
PC8. ensure that the models will be able to perform properly once animated, are uniform and consistent and are delivered in appropriate formats that can be used by others	3	7	-	-
PC9. review models with relevant people	3	7	-	-
PC10. test the models to ensure that they meet the design specifications and production requirements and function as required	3	7	-	-
PC11. work out any problems with the models that emerge during production or construction in collaboration with peers and under supervision of the art director	3	7	-	-
NOS Total	**30**	**70**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0526
NOS Name	Modelling
Sector	Media & Entertainment
Sub-Sector	Gaming, Media and Entertainment
Occupation	Art and Design
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0527: Texturing & rigging applications

Description

This NOS is about adding textures to models to create photo-realistic models that can be used for animation and creating computer generated controls/rigs for movements in models used for Gaming purpose.

Scope

The scope covers the following :

- Creation of textures
- Creating rigs for models

Elements and Performance Criteria

Creation of textures

To be competent, the user/individual on the job must be able to:

PC1. analyse tools to be used for texturing and rigging purpose

PC2. interpret possibilities for adding textures to models to create photorealistic models/images

PC3. develop and add textures to models in accordance to the design brief and concept art for different types of models under the supervision of the art director and character artist

PC4. define the final exhibition medium and adapt the textures accordingly

PC5. manage quality of textures during the animation process and ensure uniformity and consistency in the final output

Creating rigs for models

To be competent, the user/individual on the job must be able to:

PC6. • create user interfaces and controls for movements in the models according to the design brief
• appearance, expressions movements, dramatic poses etc.), and specifications (mobility, operating
• parameters, hierarchy of movement etc.) under supervision of the animato

PC7. create prototypes/pilots for testing

PC8. ensure that the final rigs are clean, efficient, have realistic movements (using muscle based rigging) and are animation friendly

PC9. create rigs for final model which includes creating movements of characters {Bends, Stretches, Expressions}, Accessories, objects, props, sets, locations, bipeds, quadrupeds, Hair/fur simulation, Cloth simulation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the role and function of each member of the designing team.

KU2. Organizational value of repute

KU3. knowledge of industry standard software such as Maya, 3D Studio Max, Z-Brush and Photoshop. Knowledge of additional software - such as Substance Painter and Mudbox

KU4. how to create assets for / export assets to game engines such as Unreal Engine will be an added advantage

KU5. Use of modeling organic and/or inorganic surfaces

KU6. Know 2D and 3D game asset creation process

KU7. how to apply object-oriented concepts to implement code

KU8. how to prepare for and contribute towards the production

KU9. how to study the project briefs and plan the work schedule accordingly

KU10. how to Implement Interaction system for the Application.

KU11. how to implement application logics

KU12. how to read and reuse existing code base

KU13. the usage of development tools like Game engine and middle ware

KU14. integration of Libraries and plugins with the application code

KU15. how to use version control tools to maintain various versions of the code

KU16. performance optimization techniques

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. take notes about application structuring and plan during project discussions with the technical Lead / client need

GS2. write clean game play code with proper comments explaining application logic

GS3. write reports on the tasks being handled

GS4. read the requirement from the Scope of Work / design document.

GS5. interpret and translate application requirements and guidelines to practical work setup

GS6. read and interpret developer guides and manuals of Real time engine, development tools and other libraries

GS7. communicate technical suggestions and issues clearly using appropriate terminologies within a collaborative environment.

GS8. present/solicit feedback on work and identify modifications required. regularly communicate with Lead and PM to inform on - any problems/issues that might impact the work, queried related to the assets allocated

GS9. plan programming templates, file organisation structure, and work timelines in order to meet agreed deliverables.

GS10. create, track and maintain realistic and meaningful daily goals for self and complete the planned work for the day on time every day

GS11. create a self-development plan in consultation with the Reporting Manager, and to work on the same diligently

GS12. break down complex parts of the application module into manageable tasks

GS13. select and apply the right design patterns to solve the technical problems

GS14. evaluate the quality of program being implemented using established criteria and make improvements where required.

GS15. Debug code to find and fix the bugs related to the project.

GS16. make appropriate suggestion to the team lead for problems related to execution of specific application module

GS17. ensure that art and assets adhere fully to the creative and technical direction provided by the designer

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Creation of textures	**19**	**41**	-	-
PC1. analyse tools to be used for texturing and rigging purpose	3	7	-	-
PC2. interpret possibilities for adding textures to models to create photorealistic models/images	3	7	-	-
PC3. develop and add textures to models in accordance to the design brief and concept art for different types of models under the supervision of the art director and character artist	3	7	-	-
PC4. define the final exhibition medium and adapt the textures accordingly	5	10	-	-
PC5. manage quality of textures during the animation process and ensure uniformity and consistency in the final output	5	10	-	-
Creating rigs for models	**12**	**28**	-	-
PC6. • create user interfaces and controls for movements in the models according to the design brief • appearance, expressions movements, dramatic poses etc.), and specifications (mobility, operating • parameters, hierarchy of movement etc.) under supervision of the animato	3	7	-	-
PC7. create prototypes/pilots for testing	3	7	-	-
PC8. ensure that the final rigs are clean, efficient, have realistic movements (using muscle based rigging) and are animation friendly	3	7	-	-
PC9. create rigs for final model which includes creating movements of characters {Bends, Stretches, Expressions}, Accessories, objects, props, sets, locations, bipeds, quadrupeds, Hair/fur simulation, Cloth simulation	3	7	-	-
NOS Total	**31**	**69**	-	-

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0527
NOS Name	Texturing & rigging applications
Sector	Media & Entertainment
Sub-Sector	Gaming, Media and Entertainment
Occupation	Art and Design
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0104: Maintain Workplace Health & Safety

Description

This OS unit is about contributing towards maintaining a healthy, safe and secure working environment

Elements and Performance Criteria

Understanding the health, safety and security risks prevalent in the workplace

To be competent, the user/individual on the job must be able to:

PC1. understand and comply with the organizations current health, safety and security policies and procedures

PC2. understand the safe working practices pertaining to own occupation

PC3. understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises

PC4. participate in organization health and safety knowledge sessions and drills

Knowing the people responsible for health and safety and the resources available

To be competent, the user/individual on the job must be able to:

PC5. identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency

PC6. identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms

Identifying and reporting risks

To be competent, the user/individual on the job must be able to:

PC7. identify aspects of your workplace that could cause potential risk to own and others health and safety

PC8. ensure own personal health and safety, and that of others in the workplace though precautionary measures

PC9. identify and recommend opportunities for improving health, safety, and security to the designated person

PC10. report any hazards outside the individuals authority to the relevant person in line with organizational procedures and warn other people who may be affected

Complying with procedures in the event of an emergency

To be competent, the user/individual on the job must be able to:

PC11. follow organizations emergency procedures for accidents, fires or any other natural calamity in case of a hazard

PC12. identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individuals authority

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. Organizations norms and policies relating to health and safety

KU2. Government norms and policies regarding health and safety and related emergency procedures

KU3. Limits of authority while dealing with risks/ hazards

KU4. The importance of maintaining high standards of health and safety at a workplace

KU5. The different types of health and safety hazards in a workplace

KU6. Safe working practices for own job role

KU7. Evacuation procedures and other arrangements for handling risks

KU8. Names and contact numbers of people responsible for health and safety in a workplace

KU9. How to summon medical assistance and the emergency services, where necessary

KU10. Vendors or manufacturers instructions for maintaining health and safety while using equipment, systems and/or machines

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. how to write and provide feedback regarding health and safety to the concerned people

GS2. how to write and highlight potential risks or report a hazard to the concerned people

GS3. read instructions, policies, procedures and norms relating to health and safety

GS4. highlight potential risks and report hazards to the designated people

GS5. listen and communicate information with all anyone concerned or affected

GS6. make decisions on a suitable course of action or plan

GS7. plan and organize people and resources to deal with risks/ hazards that lie within the scope of ones individual authority

GS8. apply problem solving approaches in different situations

GS9. understand hazards that fall within the scope of individual authority and report all hazards that may supersede ones authority

GS10. apply balanced judgments in different situations

GS11. How to write and provide feedback regarding health and safety to the concerned people

GS12. How to write and highlight potential risks or report a hazard to the concerned people

GS13. Read instructions, policies, procedures and norms relating to health and safety

GS14. Highlight potential risks and report hazards to the designated people

GS15. Listen and communicate information with all anyone concerned or affected

GS16. Make decisions on a suitable course of action or plan

GS17. Plan and organize people and resources to deal with risks/ hazards that lie within the scope of ones individual authority

GS18. Apply problem solving approaches in different situations

GS19. build and maintain positive and effective relationships with colleges and customers

GS20. analyze data and activites

GS21. Understand hazards that fall within the scope of individual authority and report all hazards that may supersede ones authority

GS22. Apply balanced judgments in different situations

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Understanding the health, safety and security risks prevalent in the workplace	**15**	**15**	**-**	**-**
PC1. understand and comply with the organizations current health, safety and security policies and procedures	5	5	-	-
PC2. understand the safe working practices pertaining to own occupation	5	5	-	-
PC3. understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises	3	2	-	-
PC4. participate in organization health and safety knowledge sessions and drills	2	3	-	-
Knowing the people responsible for health and safety and the resources available	**10**	**10**	**-**	**-**
PC5. identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency	5	5	-	-
PC6. identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms	5	5	-	-
Identifying and reporting risks	**18**	**17**	**-**	**-**
PC7. identify aspects of your workplace that could cause potential risk to own and others health and safety	5	5	-	-
PC8. ensure own personal health and safety, and that of others in the workplace though precautionary measures	5	5	-	-
PC9. identify and recommend opportunities for improving health, safety, and security to the designated person	3	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. report any hazards outside the individuals authority to the relevant person in line with organizational procedures and warn other people who may be affected	5	5	-	-
Complying with procedures in the event of an emergency	**7**	**8**	**-**	**-**
PC11. follow organizations emergency procedures for accidents, fires or any other natural calamity in case of a hazard	5	5	-	-
PC12. identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individuals authority	2	3	-	-
NOS Total	**50**	**50**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0104
NOS Name	Maintain Workplace Health & Safety
Sector	Media & Entertainment
Sub-Sector	Film, Television, Animation, Gaming, Radio, Advertising
Occupation	Ad sales/Account Management/Scheduling/Traffic
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	30/12/2021
Next Review Date	27/01/2027
NSQC Clearance Date	27/01/2022

MES/N0537: 2D Game Art

Description

This unit covers skills required to create 2D to be used as game tools for a suitable platform. It is the process where the artist creates 2D concept art of an environment or prop or character.

Scope

The scope covers the following :

- create 2D art for game design

Elements and Performance Criteria

Create 2D art for the game

To be competent, the user/individual on the job must be able to:

PC1. describe 2D game art and its application in designing game tools / dame engines

PC2. identify various tools to create 2d design / game art

PC3. ensure artwork follows the agreed project style

PC4. create high-quality artwork for a game, such as the texture, characters, environment or certain assets

PC5. design 2D art of each character / models desired as per game script

PC6. work collaboratively with other game artists, as well as members of the wider team, such as designers, developers, animators, quality assurance testers, and those involved in management and marketing

PC7. take on board and implement feedback from the art lead by making appropriate changes to the artwork

PC8. report progress to art director/lead artist on a regular basis

PC9. work to meet deadlines to help the team to produce the game efficiently and in line with the required schedule

PC10. keep skills set updated and learn about new tools as and when required

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the role and function of each member of the designing team

KU2. organizational value of repute

KU3. knowledge of industry standard software such as Maya, 3D Studio Max, Z-Brush and Photoshop

KU4. knowledge of additional software - such as Blenders, Sprites, Substance Painter and Mudbox

KU5. how to create assets for / export assets to game engines such as Unreal Engine will be an added advantage

KU6. Use of modelling organic and/or inorganic surfaces

KU7. know 2D and 3D game asset creation process

KU8. how to apply object-oriented concepts to implement code

KU9. how to prepare for and contribute towards the production.

KU10. how to study the project briefs and plan the work schedule accordingly

KU11. how to Implement Interaction system for the Application

KU12. how to implement application logics

KU13. how to read and reuse existing code base

KU14. the usage of development tools like Game engine and middle ware

KU15. integration of Libraries and plugins with the application code

KU16. how to use version control tools to maintain various versions of the code

KU17. performance optimization techniques.

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. take notes about application structuring and plan during project discussions with the technical Lead / client need

GS2. write clean game play code with proper comments explaining application logic

GS3. write reports on the tasks being handled

GS4. read the requirement from the Scope of Work / design document

GS5. interpret and translate application requirements and guidelines to practical work setup

GS6. read and interpret developer guides and manuals of real-time engine, development tools and other libraries

GS7. communicate technical suggestions and issues clearly using appropriate terminologies within a collaborative environment

GS8. present/solicit feedback on work and identify modifications required

GS9. regularly communicate with Lead and PM to inform on - any problems/issues that might impact the work, queried related to the assets allocated

GS10. plan programming templates, file organisation structure, and work timelines in order to meet agreed deliverables

GS11. create, track and maintain realistic and meaningful daily goals for self and complete the planned work for the day on time every day

GS12. create a self-development plan in consultation with the Reporting Manager, and to work on the same diligently

GS13. break down complex parts of the application module into manageable tasks.

GS14. select and apply the right design patterns to solve the technical problems.

GS15. evaluate the quality of program being implemented using established criteria and make improvements where required.

GS16. Debug code to find and fix the bugs related to the project

GS17. make appropriate suggestion to the team lead for problems related to execution of specific application module

GS18. ensure that art and assets adhere fully to the creative and technical direction provided by the designer

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Create 2D art for the game	**30**	**70**	**-**	**-**
PC1. describe 2D game art and its application in designing game tools / dame engines	3	-	-	-
PC2. identify various tools to create 2d design / game art	3	-	-	-
PC3. ensure artwork follows the agreed project style	3	-	-	-
PC4. create high-quality artwork for a game, such as the texture, characters, environment or certain assets	3	-	-	-
PC5. design 2D art of each character / models desired as per game script	3	-	-	-
PC6. work collaboratively with other game artists, as well as members of the wider team, such as designers, developers, animators, quality assurance testers, and those involved in management and marketing	3	-	-	-
PC7. take on board and implement feedback from the art lead by making appropriate changes to the artwork	3	-	-	-
PC8. report progress to art director/lead artist on a regular basis	3	-	-	-
PC9. work to meet deadlines to help the team to produce the game efficiently and in line with the required schedule	3	-	-	-
PC10. keep skills set updated and learn about new tools as and when required	3	-	-	-
NOS Total	**30**	**70**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0537
NOS Name	2D Game Art
Sector	Media & Entertainment
Sub-Sector	Media and Entertainment, Gaming
Occupation	Art and Design
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0539: 3D Game Art

Description

This unit covers skills required to create 3D to be used as game tools for a suitable platform. It is the process where the artist creates 3D concept art of an environment or prop or character.

Scope

The scope covers the following :

- create 3D art for game design

Elements and Performance Criteria

Create 3D art for the game

To be competent, the user/individual on the job must be able to:

PC1. use creativity to design games for a range of devices and platforms that engage and capture the imagination of the user

PC2. devise the missions, challenges and puzzles that will be encountered in 3D game play.

PC3. create animations and graphics by making use of both illustrations and computer programs. `

PC4. create 3D environment / background in motion

PC5. create 3D models using modelling tools like 3DS Max and Blender

PC6. create narrative features, such as storylines, role-play mechanics and character bios.

PC7. plan games using screenshot mockups, gameplay flowcharts and other visual devices.

PC8. create 3D game design in final shape and test

PC9. use 2D/3D computer animation software to mockup and animate game levels and worlds.

PC10. scripting and design capabilities using software such as Blueprint Visual Scripting within Unreal Engine 4 (UE4)

PC11. use motion-capture software to incorporate live-action actors into the video game

PC12. take on board and implement feedback from the art lead and make appropriate changes to the artwork

PC13. create aesthetics (or visual style) of 3D games and simulations

PC14. apply / match traditional art concepts and techniques, such as line, form and colour theory.

PC15. design the artwork for all visual game aspects, such as haracters, weapons and vehicles.

PC16. lead on the user experience (UX) design of the game, ensuring players have the best experience

PC17. collaborate with artists and sound engineers to achieve the desired audio/visual style.

PC18. train quality assurance (QA) testers to play the game so they can test it properly

PC19. conduct periodic design reviews throughout the video game development timeline.

PC20. maintain design level documentation, including mechanics, guidelines and mission outlines

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the role and function of each member of the designing team

KU2. organizational value of repute

KU3. knowledge of industry standard software such as Maya, 3D Studio Max, Z-Brush and Photoshop

KU4. knowledge of additional software - such as Blenders, Sprites, Substance Painter and Mudbox

KU5. how to create assets for / export assets to game engines such as Unreal Engine will be an added advantage

KU6. Use of modelling organic and/or inorganic surfaces

KU7. know 2D and 3D game asset creation process

KU8. how to apply object-oriented concepts to implement code

KU9. how to prepare for and contribute towards the production.

KU10. how to study the project briefs and plan the work schedule accordingly

KU11. how to Implement Interaction system for the Application

KU12. how to implement application logics

KU13. how to read and reuse existing code base

KU14. the usage of development tools like Game engine and middle ware

KU15. integration of Libraries and plugins with the application code

KU16. how to use version control tools to maintain various versions of the code

KU17. performance optimization techniques.

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. take notes about application structuring and plan during project discussions with the technical Lead / client need

GS2. write clean game play code with proper comments explaining application logic

GS3. write reports on the tasks being handled

GS4. read the requirement from the Scope of Work / design document

GS5. interpret and translate application requirements and guidelines to practical work setup

GS6. read and interpret developer guides and manuals of real-time engine, development tools and other libraries

GS7. communicate technical suggestions and issues clearly using appropriate terminologies within a collaborative environment

GS8. present/solicit feedback on work and identify modifications required

GS9. regularly communicate with Lead and PM to inform on - any problems/issues that might impact the work, queried related to the assets allocated

GS10. plan programming templates, file organisation structure, and work timelines in order to meet agreed deliverables

GS11. create, track and maintain realistic and meaningful daily goals for self and complete the planned work for the day on time every day

GS12. create a self-development plan in consultation with the Reporting Manager, and to work on the same diligently

GS13. break down complex parts of the application module into manageable tasks.

GS14. select and apply the right design patterns to solve the technical problems.

GS15. evaluate the quality of program being implemented using established criteria and make improvements where required.

GS16. Debug code to find and fix the bugs related to the project

GS17. make appropriate suggestion to the team lead for problems related to execution of specific application module

GS18. ensure that art and assets adhere fully to the creative and technical direction provided by the designer

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Create 3D art for the game	**40**	**60**	**-**	**-**
PC1. use creativity to design games for a range of devices and platforms that engage and capture the imagination of the user	2	-	-	-
PC2. devise the missions, challenges and puzzles that will be encountered in 3D game play.	2	-	-	-
PC3. create animations and graphics by making use of both illustrations and computer programs. `	2	-	-	-
PC4. create 3D environment / background in motion	2	-	-	-
PC5. create 3D models using modelling tools like 3DS Max and Blender	2	-	-	-
PC6. create narrative features, such as storylines, role-play mechanics and character bios.	2	-	-	-
PC7. plan games using screenshot mockups, gameplay flowcharts and other visual devices.	2	-	-	-
PC8. create 3D game design in final shape and test	2	-	-	-
PC9. use 2D/3D computer animation software to mockup and animate game levels and worlds.	2	-	-	-
PC10. scripting and design capabilities using software such as Blueprint Visual Scripting within Unreal Engine 4 (UE4)	2	-	-	-
PC11. use motion-capture software to incorporate live-action actors into the video game	2	-	-	-
PC12. take on board and implement feedback from the art lead and make appropriate changes to the artwork	2	-	-	-
PC13. create aesthetics (or visual style) of 3D games and simulations	2	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. apply / match traditional art concepts and techniques, such as line, form and colour theory.	2	-	-	-
PC15. design the artwork for all visual game aspects, such as haracters, weapons and vehicles.	2	-	-	-
PC16. lead on the user experience (UX) design of the game, ensuring players have the best experience	2	-	-	-
PC17. collaborate with artists and sound engineers to achieve the desired audio/visual style.	2	-	-	-
PC18. train quality assurance (QA) testers to play the game so they can test it properly	2	-	-	-
PC19. conduct periodic design reviews throughout the video game development timeline.	2	-	-	-
PC20. maintain design level documentation, including mechanics, guidelines and mission outlines	2	-	-	-
NOS Total	**40**	**60**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0539
NOS Name	3D Game Art
Sector	Media & Entertainment
Sub-Sector	Media and Entertainment, Gaming
Occupation	Art and Design
NSQF Level	5
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

MES/N0538: Design VR applications

Description

This NOS covers skills required to work with VR platforms, Principles Technology and the related development tools

Scope

The scope covers the following :

- Basic concept and
- application of virtual
- reality
- Design VR models

Elements and Performance Criteria

Basic concept and application of virtual reality

To be competent, the user/individual on the job must be able to:

PC1. Analyse Virtual Reality principles and basics

PC2. Overlay (image, 2D, 3D) information on top of pre-existing data

PC3. Define VR catalogues

PC4. Facilitate data and visualize concepts

PC5. Researching and developing pipeline solutions and techniques

PC6. Consider real world and interpret utilities around features

PC7. Prepare theme of real and virtual data

PC8. Design and develop VR Application in line with existing features / story or specifications

PC9. Describe image recognition and object recognition

PC10. Production of VR/AR experiences viewable on mobile devices and VR headsets

Design VR Models

To be competent, the user/individual on the job must be able to:

PC11. Analyse different VR Platforms

PC12. Develop application for each VR platform with their specific SDKs

PC13. Working with pre-created images and 3D models to create photorealistic experiences

PC14. create rapid prototypes of systems in Unity, including asset integration into Unity

PC15. Building user interfaces in Unity utilizing diegetic, meta and spatial elements.

PC16. Spike testing and rapid proofing of concepts around emerging technologies.

PC17. Create a cross platform VR application

PC18. Integration of assets into the application to demonstrate basic features

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. timelines available for plugin and Middleware.

KU2. intellectual property rights, copyright, and fair use policies applicable to software and tools used in the organisation's business.

KU3. the development practices to organize, label, structure and save the code with versioning tools within the organization

KU4. principles of programming applicable in the application development process

KU5. how to model game elements with the required parameters and procedures matching the design specification.

KU6. integration of Art asset creations into the game according to the design guidelines laid out in Design Document.

KU7. implementation of various application subsystems in accordance with (as per) Design requirements

KU8. optimization techniques pertaining to application performance and size

KU9. how to Implement the User Interface as per Design specification laid out for User and Application information.

KU10. publishing techniques to convert a application across multiple platforms.

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. make accurate notes about features to be implemented in the modules assigned by the lead programme

GS2. convert the features into task list and schedule a work plan

GS3. log and Report the progress of tasks completed with descriptions about feature being implemented.

GS4. read and Classify feature listing into Application Module.

GS5. read and Integrate Application programming interface (API) Documentation about Plugins and Libraries.

GS6. read and interpret developer guides and manuals of game engine, development tools and other libraries

GS7. identify and deliberate possible idea for architecture and framework implementation with the lead Programmer.

GS8. communicate ideas, suggestions and issues relating to Tools and Technology used in development using appropriate terminologies within a collaborative environment

GS9. present/solicit feedback on work and identify modifications required

GS10. plan the implementation of application module that is assigned to meet agreed work deliverables

GS11. plan project file organisation, structure and integration with the base code efficiently.

GS12. segregate the application modules implementation tasks required for the project into a manageable work breakdown structure for the team.

GS13. guide the team with methodical approaches to identify and resolve any technical issues that arise during sampling and synthesis.

GS14. provide constructive feedback to the team for improvement when necessary.

GS15. make well informed and appropriate choices of sampling and synthesis techniques based on available resources.

GS16. ensure that art and assets adhere fully to the creative and technical direction provided by the designer.

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Basic concept and application of virtual reality	**20**	**64**	**-**	**-**
PC1. Analyse Virtual Reality principles and basics	2	-	-	-
PC2. Overlay (image, 2D, 3D) information on top of pre-existing data	2	-	-	-
PC3. Define VR catalogues	2	-	-	-
PC4. Facilitate data and visualize concepts	2	-	-	-
PC5. Researching and developing pipeline solutions and techniques	2	-	-	-
PC6. Consider real world and interpret utilities around features	2	-	-	-
PC7. Prepare theme of real and virtual data	2	-	-	-
PC8. Design and develop VR Application in line with existing features / story or specifications	2	-	-	-
PC9. Describe image recognition and object recognition	2	-	-	-
PC10. Production of VR/AR experiences viewable on mobile devices and VR headsets	2	-	-	-
Design VR Models	**16**	**-**	**-**	**-**
PC11. Analyse different VR Platforms	2	-	-	-
PC12. Develop application for each VR platform with their specific SDKs	2	-	-	-
PC13. Working with pre-created images and 3D models to create photorealistic experiences	2	-	-	-
PC14. create rapid prototypes of systems in Unity, including asset integration into Unity	2	-	-	-
PC15. Building user interfaces in Unity utilizing diegetic, meta and spatial elements.	2	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC16. Spike testing and rapid proofing of concepts around emerging technologies.	2	-	-	-
PC17. Create a cross platform VR application	2	-	-	-
PC18. Integration of assets into the application to demonstrate basic features	2	-	-	-
NOS Total	**36**	**64**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	MES/N0538
NOS Name	Design VR applications
Sector	Media & Entertainment
Sub-Sector	Gaming
Occupation	Art and Design
NSQF Level	6
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	30/12/2026
NSQC Clearance Date	30/12/2021

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.

2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.

4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.

6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.

7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
MES/N2519.Preproduction - Analyse Game Art	33	66	0	0	99	10
MES/N0525.Create 2D/3D assets	31	69	0	0	100	20
MES/N0503.Design Characters	50	50	-	-	100	20
MES/N0526.Modelling	30	70	0	0	100	20
MES/N0527.Texturing & rigging applications	31	69	0	0	100	20
MES/N0104.Maintain Workplace Health & Safety	50	50	-	-	100	10
Total	**225**	**374**	**0**	**0**	**599**	**100**

Optional: 1 2D Game Art

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
MES/N0537.2D Game Art	30	70	0	0	100	0
Total	**30**	**70**	**0**	**0**	**100**	**0**

Optional: 2 3D Game Art

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
MES/N0539.3D Game Art	40	60	0	0	100	0
Total	**40**	**60**	**0**	**0**	**100**	**0**

Optional: 3 Design VR applications

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
MES/N0538.Design VR applications	36	64	0	0	100	0
Total	**36**	**64**	**0**	**0**	**100**	**0**

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.