

#### **SYLLABUS FOR THE TRADE OF**

### **MULTIMEDIA, ANIMATION & SPECIAL EFFECTS**

(SEMESTER PATTERN)

Under
CRAFTSMAN TRAINING SCHEME
SECTOR – IT & ITES

Designed in: 2014

Government of India
Ministry of Labour & Employment
D.G.E. & T

#### **General Information**

1. Name of the Trade : Multimedia, Animation & Special Effects

2. N.C.O. Code No. : 3231.20, 2452.70

3. Entry Qualification : Passed 10<sup>th</sup> Standard under 10+2 System

4. Duration of Course : One Year

5. Power Norms : 6 KW

6. Space Norms : 80 Sq. m Lab & 50 Sq. m. Studio

(Workshop and Class Room)

7. Unit Strength : 20 Trainees

8. Instructors' Qualification : Degree in Multimedia and Animation from recognized university

with one year working experience in the relevant field OR Diploma in Multimedia and Animation with 2 years working experience in the relevant field OR NAC or NTC holder in Multimedia Animation & Special Effects trade with three years experience and National

**Craft Instructor Training Certificate (if available)** 

<u>Job Role</u>: After completion of this training the trainee can get jobs in any photo studio,

can become entrepreneur in photographer/videographer, can get job in advertising

agency, in media entertainment and also in film industry.

#### Objectives : After completion of the course the trainee able to

- Take photographs and videos using Digital Camera
- Make special effects in photos and videos
- Make audio and video movies with multimedia effects
- Make animation and special effects

# Syllabus for MULTIMEDIA, ANIMATION & SPECIAL EFFECTS

#### Semester: I Duration: 6 Months

Week	Trada Drastical	Tuodo Theory
No.	Trade Practical	Trade Theory
1-2	Introduction to Computers	Introduction to Computers
	Connecting of power supply to computer	Basic Definition, hardware, software, Block
	and its peripherals	Diagram of Computer system
	Demonstration of various parts of	I/O devices and its application
	computer system such as mother board,	Switching and shutting down the computer,
	RAM, CPU, serial and parallel ports	Features and functions of Operating
		systems, different types of operating
		systems.
	MS Windows	MS Windows
	Using desktop, task bar, start button, title	Different versions, advantages and application
	bar, menus and windows help.	of windows. Starting windows and their
	My computer & recycle bin.	operations.
	Creating, deleting and renaming of files,	File Management through Windows explorer.
	folders & short cuts. Opening & closing of	Introduction and applications of Accessories
	different windows. Using different	such as notepad, word pad, paint brush,
	windows at a time. Moving through	calculators, calendar, character map, system
	windows and mouse, maximize/minimize	tools, entertainment,
	windows, use of help feature, exit	Multimedia and windows media player and
	windows, starting an application and	sounds.
	closing application.	Application of control panel
	File management through windows	Zipping and unzipping
	explorer-select files and directories, copy,	Introduction to Linux
	move, delete files/directories.	
	Expand compressed directories and files.	
	Open and manage multiple director	
	windows. View and sort files, creating	
	and renaming files/directories, disk	
	operation using file manager.	
	Using essential accessories-notepad,	
	word pad, paint brush, calculators,	
	calendar, character map, system tools,	

	antartainment	
	entertainment, Using Multimedia and windows media player and sounds. Using control panel Zipping and unzipping Introduction Linux — Practicing of linux commands	
3	<u>Software Installation</u>	Different configurations of Computer system
	Practice on Installation of Windows XP, 7 and 8, Linux Installation of MS Office, Libre Office, Open source and utilities, remote control, chat, voice and video, Live CD Operations Installation of Photoshop, Illustrator Flash, Maya and 3 DS Max	and its peripherals, Compatible with different hardware/software  Software Installation —  Pre-installation — Prerequisites, Install procedure, Rollback or Un-install procedure, Tests.  Post-installation — Backup procedure & specifications, Restore procedure, Periodical view check  Awareness of IT —Act 2000, its  Amendments and Phenomena (T-5)  Provisions of act  Types of offences, fines, imprisonment  Cyber Crime, Cyber Law  Awareness of legal aspects of using computers such as copyright, patent etc.
4-5	Internet Operations browsing, downloading messages, pictures from internet, sending and receiving emails, sending attachments of pictures and text information, E-chatting.  Setting of internal Modem and External modem connecting telephone lines through dial-up, ISDN and broadband connections.  Testing and trouble shooting of Modem Operating of Routers  Security Implementations  Troubleshooting of internet connection.  Shearing Internet connection through LAN to other computers  Operating WiFi access points/modems,	Internet Operations and applications of internet. Setting of modem, connecting dial up connecting ISDN and Broadband connections, DTMF telephone system. Testing and troubleshooting of Modem Routers  WiFi, Blue Tooth and VPN Implementation Introduction to Data Centers and applications Introduction to Cloud computing

	setting up of blue tooth and data sharing	
	with mobiles	
	Creating simple VPN implementation	
	Visit to NIC/other Data centers	
6	Microsoft WORD	Microsoft WORD
	Open, resize and close MS WORD.	Text editing software's. Introduction to MS
	Opening, edit and save/ "save as"	Office. Features and application of
	documents.	Microsoft word. Concept of word
		processing. Menu bar features. Standard
	Use all menu bar features. Use all	tool bar features. Editing the text, use of
	Standard	different tools, formatting the text. Creating,
	tool bar features.	
		Document, non-documents files. Creating
	Create Document, non-documents files.	templates. Creating tables.
	Create templates.	
	Create tables. Insert pictures and videos.	Inserting pictures and videos. Mail merge.
		Book marks
	Mail merge documents. Creating	Bullets and numbering. Hyperlinks.
	Bookmarks.	Creating broachers. Creating bookwork.
		_
	Add Bullets and numbering. Create	
	Hyperlinks. Create broachers. Create	
	book	
	work	
7	Microsoft EXCEL	Application of spread sheet
	Practice Excel - creating various	Advantages of MS Excel,
	worksheets, mathematical calculations,	Use of Microsoft Excel features for creating
	using different formulae,	worksheets with mathematical formulae and
	Preparing various types of Graphs/charts,	graphs.
	different Chart options, colouring, etc.	
	Practice on Sorting and Filtering	
	Printing worksheet	
8	Micro Soft Power Point	Introduction to some of the most common
	Creating slides, designing slides, back	graphics and image file formats, and its
	ground, layout styles, special effects	restrictions to particular hardware/operating
	Editing text, adding/deleting aligning,	system platforms.
	making bold, italic and fonts, colour text.	Platform independent formats. Image formats
	Changing back ground colours and	and incorporation of compression technique for
	designs	large storage size of Image files.
	Creating auto shapes, drawing clip art,	Know the difference between Vector Graphics
	word art, smart art, charts, tables, text	and Raster Graphics.
	boxes, images, shading and 3-d effect	Know the difference between Screen Graphics
	sones, images, shading and 5 a chect	most the unference between sereen drupines

and Pixel Graphics. Rotating text and pictures, text wrapping, saving, quitting and printing slides Understand the following formats Inserting new slides, making animation :- ai, pdf, eps, svg, svgz, psd, effects bmp, gif, jpg, pcx, pct, png, raw, sct, tga, tiff, vst. Inserting hyperlinks between files. Viewing the slides, slide transition, making sound effects, inserting movie/sound from external files Grouping and ungrouping the objects. Digital Photography (photo session) 9-12 Digital photography Scanning images Implementation of Scanner Tools to be Used: Adobe Photoshop Image Editing techniques **Image Editing Techniques Fundamental** concepts · The image Editing tool Basic techniques Workspace-navigation, the tools, Retouching techniques palettes, arranging document Selection technique windows. · All about pixels, resolution, and Composition and design techniques color Depth. Colour correction · Understanding and using color Working with type modes-RGB, CMYK and Grayscale. Effects and Filters Production · Using Bridge. Basic techniques · Using brushes. · Choosing colors · Sampling colors from an image. · Using Pantone colors. · Multiple undo and taking snapshots Using the History palette. · Cropping and rotating images. · Changing image size and resolution. Retouching Fixing images using the Clone Stamp Tool and the Healing tools · The history brush. · The Red –Eye and colour replacement tools

Selection techniques

· The marquee and the lasso tools.

- · The quick selection tool.
- · Working in quick mask mode
- · Adding and subtracting selections.
- · Saving a selection.

Composition and design techniques

- · Working with layers-moving content to new layer ,opacity, Transforming layers.
- · Creating reflection and other effects.
- · Transformation-Scaling and rotating.
- · Using colour fill layers
- · Using gradients and patterns.
- · Combing images with layer masks
- · Applying a Mask to an Adjustments layer.

Colour correction

- · Using the levels command histogram.
- · Curves and exposure
- · Using the color balance command to modify colour casts.
- · Adjusting vibrance, Hue and Saturation: general and specific color range adjustment, colourising.
- Working with type
- · Working with type layers
- · Formatting type
- · Converting type to pixels Effects and Filters
- · Working with layers Styles-Drop shadows, glows, bevels etc.
- Using filters-corrective and creative filtering technique, using the filter gallery

#### **Production**

- · Importing and Exporting images the main stream file types and their uses.
- · Web graphics-Using the Save for Web command-Optimization and file formats

- Printing- recognizing nonprintable colors, converting images to CMYK, saving for print
- · 3d (Menu),
- · Color

Correction(Adjustments),Smart Objects, Content Aware, Puppet Wrap

Define (Brush, Pattern, Custom Shape)

 Preferences, Masking (Layer, Vector, Clipping, Channel), Video Layers, Filters (All)

· Actions (Panel), Animation,

Channels

· Text

(Character/Paragraph(Panels)), Using Bridge

#### 13-15 Working with Images in Photoshop.

Working with Palettes, i.e., layers palette, navigator palette, info palette, color palette, Swatches palette, Styles palette, History palette, Actions Palette, Tool

preset palette, Channels Palette and Path Palette.

Working with Layers.

Photo editing.

Image adjustment options – Labels, Auto labels, Auto

contrasts, Curves, Color balance, Brightness /

Contrast, Posterize, Variations.

Preparing the file and work area.

Creating different shapes.

Creating three Dimensional effects using Lavers.

Working with the magic wand tool and lasso tool.

Creating images using Symbol Sprayer Tool.

Edit the images using options of Warp

#### Introduction to Photoshop

In depth Image editing.

Exploring new creative options and producing high quality images for print & web.

Creating exceptional imagery with easier access to file streamlined web design.

Photo re-touching, colorful image

Creation of the optimized images with roll over effects and image mapping.

Special effects on images using

collages, artistic backgrounds.

Tool. Using Dodge tool, Burn tool, Sponge Tool and Clone Stamp Tool. Editing Selections. Creating images and giving special effects using Filters. Using Layer Styles. Produce an image by mixing two or more different 16-18 Tools to be Used: Adobe Illustrator **Graphics Editing** Drawing 1 Traditional Design Fundamental techniques of drawing in Traditional and digital applications of pencil, charcoal and ink. Emphasis is on color, concept and composition. realistic representation and visual Drawing 1 observation. Drawing 2 Drawing 2 Making Selections Advanced concept of drawing. **Understanding Appearances** Emphasis is on design and Working with Groups and Layers composition and experimental techniques in different media Advanced Drawing and Path Editing · Creating area text Working with Color Applying basic character settings **Object Transformation and Positioning** Use of Brushes Applying basic paragraph settings · Creating text threads Use of Masks Creating text on a path · Converting text to outlines Use of Symbols Use of selection Tool · Using the basic selection tools Application of Filters and Live Effects Advanced Test Editing Using the Magic Wand and the Lasso tool Designing for the Web Selecting objects by attribute · Saving and reusing selections Creation of Blends **Appearances** Working with Images Targeting objects attributes **Performing Specialized Tasks**  Adding multiple attributes Saving and printing · Applying live effects Expanding appearances Working with Other programs · Creating graphic styles Modifying graphic styles Appearance palette settings Copying appearance

Working with Groups and Layers

- · Defining groups
- · Editing groups
- · Working with Layers
- · Layers and object hierarchy
- · Creating template layers
- · Object, group, and layer attributes

Advanced Drawing and Editing Path

- · Creating Live Paint groups
- · Detecting gaps in Live Paint groups
- · Path editing with Live Paint
- · Using Offset Path
- · Dividing an object into a grid
- · Cleaning up errant paths

Working with Color

- · Defining swatches
- · Creating swatch groups and libraries
- · Working with gradients
- · Working with patterns
- · Using the Color Guide
- · Experimenting with color
- · Finding colors with kuler
- · Modifying color in artwork

Transformation and Positioning

- · Rotating and scaling objects
- · Reflecting and skewing objects
- · Using the free Transform panel
- · Aligning objects

Distributing objects

**Using Brushes** 

- · Creating a calligraphic brush
- · Creating a scatter brush
- · Creating an art brush
- · Creating a pattern brush

Working with Masks

- · Understanding clipping masks
- · Using layer clipping masks
- · Creating opacity masks

**Using Symbols** 

- · Defining symbols
- · Editing symbols
- · Using the symbolism toolset

**Applying Filters and Live Effects** 

- · Minding your resolution settings
- · Mapping artwork to 3Dobjects
- · Using the Transform effect

Using the pathfinder effects

- · Using the Stylize effect
- · Using the Scribble effect
- · Using the Warp effect

**Advanced Text Editing** 

- · Taking advantage of Open type fonts
- · Using the Glyphs panel
- · Wrapping text around objects
- · Checking spelling
- · Using the change cash function
- · Setting tabs and leaders
- · Managing fonts
- · Dealing with legacy text

Web Designing

- · Using pixel preview
- · Specifying web slicing
- · Optimizing web graphics
- · Creating simple animations

**Creating Blends** 

- · Creating a basic blend
- · Using a blend to create an airbrush effect
- · Using a blend to create an animation
- $\cdot$  Using a blend to evenly distribute

Working with Images

- · Placing images
- · Using the Links panel
- · The Edit Original workflow
- · Live Trace
- · Rasterizing artwork
- · Object mosaic Creating graphs
- · Creating a lens flare
- · Using gradient Mesh
- · Using Envelope Warps
- · Using the Liquefy distortion tools
- · Saving your Graphics Editing Tool

Document

· Printing your Graphics Editing

#### Tool

Document

- · Using the Crop Area tools
- · Setting up page tiling

Adding XMP metadata

**Exporting programs** 

· Exporting files for use in

QuarkXPress

Exporting files for use in In Design

· Exporting files for use in

Word/excel/PowerPoint

· Exporting files for use in image

**Editing Tool** 

· Exporting files for use in

**Authoring Tool** 

 $\cdot$  Exporting files for use in Special

effects Tool

- · Effects (Ps-Ai)
- · Preferences

#### 19-21 Video Graphy

Introduction to video camera

Practicing the craft of filmmaking,

Learning camera anatomy

Practicing important settings of camera

Practice on focusing using tools

and auto focus

Practice on Shooting with shallow depth

of field

Practice on using neutral density (ND)

filters to correct overexposure

Practice on gain to artificially brighten an

underexposed shot

Practice on Choosing the right shutter

speed

Practice on color temperature, White

balancing a shot

Practice on Choosing the right tripod

Practice on camera moves and Mastering

hand-held shooting

**Practice on Audio Essentials** 

- For Five sound rules to live by

Introduction to video camera

Introducing the subject for the video shoot

Getting Started in Video

Learning the craft of filmmaking Exploring types

of video cameras

Knowing what to look for in a camera

Camera Essentials

Learning camera anatomy

Exploring important camera settings

Understanding how to focus

Using tools to achieve better focus

Knowing when to use auto focus

Shooting with shallow depth of field

Understanding exposure

Using neutral density (ND) filters to correct

overexposure

Using gain to artificially brighten an

underexposed shot

Choosing the right shutter speed

Understanding color temperature

White balancing a shot

Moving the Camera

	- Using the types of microphones for	Choosing the right tripod
	video shooting	Understanding camera moves
	- Setting up microphones for a video	Mastering hand-held shooting
	shoot	
	<ul> <li>Using a boom microphone</li> </ul>	Audio Essentials
	<ul> <li>Setting proper audio levels</li> </ul>	Five sound rules to live by
		Understanding the types of microphones for
	Practicing the lighting essential	video shooting
	<ul> <li>Working with lighting instruments</li> </ul>	Setting up microphones for a video shoot
	<ul> <li>Understanding lighting concepts</li> </ul>	Using a boom microphone
	<ul> <li>Creating a four-point lighting setup</li> </ul>	Setting proper audio levels
	for a scene	
	<ul> <li>Using corrective gels</li> </ul>	Lighting Essentials
		Working with lighting instruments
		Understanding lighting concepts
		Creating a four-point lighting setup for a scene
		Using corrective gels
22-23	Project Wor	rk / Industrial Visits
24-25	Examinations	
26	Admission f	or the next session

#### Semester : II Duration : 6 Months

Week	Dunctical	Theory
No.	Practical	Theory
1-2	Introduction to Front Page	Introduction to Front Page
		Background Pictures
	Creating Background Pictures	Tables - Adding and Deleting Rows, Columns,
	Creating Tables - Adding and Deleting Rows,	and Cells
	Columns, and Cells	Background Colors
	Background Colors	Picture Manipulation - Transparent, Alt
	Practicing Picture Manipulation -	Representation Text Tags, Rotating,
	Transparent, Alt Representation Text Tags,	Thumbnails, Picture Gallery
	Rotating, Thumbnails, Picture Gallery	Hyperlinks - To 'Outside'/External Sites,
	Practicing Hyperlinks - To 'Outside'/External	Internal Link, Bookmark, Email Addresses,
	Sites, Internal Link, Bookmark, Email	Rollover Styles, Target Frames
	Addresses, Rollover Styles, Target Frames	Marquees
	Practice on Marquees	Forms - Search Page, Inserting a Form, One
	Practice on Forms - Search Page, Inserting a	Line Text Box, Option Button, Check Box,
	Form, One Line Text Box, Option Button,	Text Area, Drop Down Box, Confirmation
	Check Box, Text Area, Drop Down Box,	Pages
	Confirmation Pages	Sample Forms Page, Date and Time Stamp,
	Practice on Sample Forms Page, Date and	Counter, Page Transitions, Changing your
	Time Stamp, Counter, Page Transitions,	Password
	Changing your Password	
		Themes, Banners, Buttons, Headings,
	Practice on - Themes, Banners, Buttons,	Hyperlinks/Bullets/Horizontal Lines,
	Headings, Hyperlinks/Bullets/Horizontal	Navigation Bars
	Lines, Navigation Bars	Frames, Shared Borders
	Practice on creating Frames, Shared Borders	Scheduling a Web Page or Picture to Appear
	Practice on Scheduling a Web Page or	
	Picture to Appear	
3-4	Practice on Image Streaming	Image Streaming
	Practice on Internet merge,	Internet merge, Youtube creation
	Practice on Youtube creation	Transferring files from Camera to Computer
	Practice on Transferring files from Camera	Hosting on web site

	to Computer	
	Practice on Hosting on web site	
5	Overview of Information Security	Overview of Information Security
		Understanding Information Security - Need
	Video show on Information Security	of the Information security, Basics of IS (CIA),
		History and evolution of IS, Dimensions of
		Information Security, Intranet/Internet,
	Overview of Security threats	Information Security and Cyber Security
		relationship
	Video show on Security Threats	Why Care About Security? - Challenges to
	Mock test on security threats	Information Security
		Benefits of Information of Security
	Information Security Vulnerabilities	Understanding techniques to enforce IS in an
		organization
	Video show on Security Vulnerabilities	Identifying tools to enforce Information
		Security
	Risk Management	Identifying frameworks to enforce
		Information Security
	Video show on Risk Management	Overview of Security threats
	Mock test on Risk Management	Overview of Information Security Threats
		Types of threats – DDoS, Malicious codes,
		Espionage, etc
		Identification of Threats - Probing of threats,
		Scanning of threats, Modus Operandi,
		Sources of Threats, External threats, Internal
		threats, Best Practices or Guidelines used to
		Identify Threats - Conduct regular education
		and awareness trainings for employees and
		third parties, Best Practices or Guidelines
		used in mitigation of threats, Deploying up to
		date technology, Maintaining Systems and
		Procedures, Educating Users, Conducting
		regular education and awareness trainings
		for employees and third parties
		Collaborate with peers and experts through
		different forums to understand
		contemporary issues and solutions
		Information Security Vulnerabilities
		Why do Information Security Vulnerabilities
		exists - Types of Technical Vulnerabilities,
		Types of Native Vulnerabilities,
		Understanding Security Vulnerabilities, Flaws
		in Software or Protocol Designs, Weaknesses

in How Protocols and Software Are Implemented, Weaknesses in System and Network Configurations, Weaknesses in Web or Cloud applications, Weaknesses in Online e-transactions, Browser Security and Role of cookies and pop-ups, Security holes in Browser, Web Applications, OS, and Smart phones, Identifying role of Social sites and media in cyber security and vulnerability **Understanding Vulnerability Assessment** Tools and Techniques, Techniques to Exploit Vulnerabilities, Techniques to Fix the Vulnerabilities, Identify security vulnerabilities on a regular basis using requisite tools and processes. How to fix the security gaps and holes, Identifying liabilities of service providers, software vendors, Software authors, system owners, and third parties Best Practices and Guidelines to mitigate security Vulnerabilities

#### **Risk Management**

What is Risk?

Relationship between Threat, Vulnerability, and Risk

What Is the Value of an Asset?

What Is a Threat Source/Agent?

Examples of Some Vulnerabilities that Are

**Not Always Obvious** 

What Is a Control?

What Is Risk Likelihood and consequences?

What Is Impact?

**Control Effectiveness** 

Risk Management

Purpose of Risk Management

Risk Assessment (Phases)

Why Is Risk Assessment Difficult?

Types of Risk Assessment

Different Approaches to Risk Analysis

Best Practices and Guidelines in Assessing

and Calculating Risks

Develop and implement policies and

procedures to mitigate risks arising from ICT

		supply chain and outsourcing.
		Best Practices and Guidelines in Mitigating
		Risk
6-8	Tools to be Used : Adobe Premier	Introduction to Adobe Premier Project
	<u>Project</u>	,
	Project settings	Creating a Sequence
	· Preference settings	Editing in the Timeline
	· Asset Management	Refining the sequence
	· Sequences & Clips	Transitions
	· Offline On-line Clips	Audio
	Managing Clips	Tiles
	· The Project panel	Effects
	· Views	Output
	· The preview area	
	· Organizing clips and bins	
	· Duplicating and copying clips	
	· Renaming clips	
	· Finding clips(search function)	
	· Interpreting Footage	
	· Unlinking and Re-linking Media	
	· The Project Manager	
	The Monitor Panels	
	· Viewing Clips	
	· Playback Controls	
	· Audio Clips	
	· Cuing Clips	
	· Time Ruler Controls	
	· Safe Zones	
	· Display Mode	
	· Wave form and Vectorscope	
	Options	
	· The Reference Monitor	
	· Ganging source and Program	
	Monitor	
	Creating a Sequence	
	· Editing Methods	
	· In And Out Points	
	· Sub Clips	
	· Source And Target Tracks	
	· Overlay And Insert Edits	
	· Adding Clips By Dragging	
	· 3 And 4 Point Edits	
	· Lift And Extract	

- · Storyboard Editing
- · Multiple And Nested Sequences
- Editing in the Timeline

· The Time Ruler

· Adding, Deleting and Renaming

#### **Tracks**

- · Markers
- · Selecting
- · Splitting Clips
- · Speed, Duration and Reverse
- · Multicam Editing
- · Synchronizing Clips
- · Replace Clips

#### Refining the sequence

- ·Snapping
- · Trimming Methods
- · Trimming Clips
- $\cdot$  Ripple , Roll, Slip And Slide Edits
- · The Trim Panel
- · Split Edits (L And J Cuts)

#### Transitions

- · The Effects Panel
- · Understanding Transitions
- · Applying A Transitions
- · Editing A Transitions

#### Audio

- · The audio mixer
- · Recording with the audio mixer
- · Fading panning and balancing
- · Effects
- · Corrective measures
- · Routing tracks

#### **Titles**

- · Creating a title
- · Text paths
- · Roll and crawl titles
- · Text configuration

#### **Effects**

- · Effect Types
- · Effect Properties
- · The Effects Control Panel
- · Key framing
- · Motion Effects

- · Opacity and Volume
- · Lighting Effects
- · Timewarp (pixel motion Blending)
- · Special effect Tool and Premiere Output
- · Creating DVDs
- · Blu-Ray
- · SWF and FLV Files

Media Encoder

- · DVD Makers
- · Using Clip Notes

#### 9-10 Introduction to Adobe After Effects

Practice on User interface

Creating and using compositions

Practice on Key framing and using time line

Practice on Looping animation

Practice on Editing motion path

Creating the arrivals Bound Effects

Simulation between Authoring Tool &

Special effects Tool

Applying filter effects and mask to

components

Practice on Animate 3D transformations

Include a common loop sound

Practice on simple scripting in special effect

Tool

Rotoscoping, Chroma, 2D & 3D tracing,

Green/Blue screen technique/shooting.

**Colour Correction** 

#### <u>Introduction to Adobe After Effects</u>

Special effect Techniques

Introduction

User interface

Creating and using compositions

Key framing and using time line

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#### 11-13 Introduction to Flash

Practice on Tool Features, User interface,
Image Editing Tool and Graphics, Editing
Tool integration, Authoring Tool Video
Technology, UI components
Practice on Creating and Importing Graphics
Assets, Working with different graphic
Practice on formats - Importing bitmap
graphics, Working with layers and layer
folder, Using the drawing tools, Using object
and merge drawing, Working with the color

panels, Creating and using Graphic symbols,

#### Introduction to Flash

About Flash and General overview – Stage and Work area of Flash, using guides, grid & rulers.

Using frames and key frames, Working with time line.

Using layers – to create a layer, to create a layer folder, to show or hide a layer or folder, to view the contents of the layer as outlines, to change the layer height in the timeline, to change the order of the layers or folders. Using Guide layers.

Using the Library panel
Practice on Text Effectively- Text tool,
Adding and formatting static text, Changing
font rendering methods, Adding input text
fields, Embedding fonts in input text fields,
Using for best practices
Practice on Creation of Animations Working with the timeline, Using key
frames, blanks key frames and frames,
Creating motion tweens, Creating shape
tweens, Creating transition effects, Using
animation best practices
Practice on Basic Action Script - Using Script
Assist, Adding actions to a frame, Creating

Drawing in Flash – to raw with a pencil tool, to paint with a brush tool, to draw with pen tool.

Using colors in Flash, to use a gradient fill.
Importing Artwork, Video and Audio.
Different file formats in Video & Audio. Flash
Compatible Audio & Video file formats

## 14-17 Introduction to 3ds MAX Practice on creating projects and Scenes

and using Button symbols

Practice on Transform tool basics, Pivot points, Grouping and parenting, Modeling with primitives

Practice on User Interface - Setting up

Practice on User Interface - Setting up project, Views/panels, Hotbox, Viewing Geometry, Channel Box, Layer Box, Attributes Editor, QWERTY Navigation, Working with the camera, Over view of MEL, Outliner/ Hyper graph, Grouping / parenting Shelf Marking Menus

Practice on Modeling – Curve
Tools/snapping, Revolving, History,
Duplicating, Working with NURBS,
Detaching surfaces, Grouping/Duplicating,
Working with polygons, Subdivisional
surfaces, Split polygon Tool, Lofting,
Extruding
Practice on MODELING
Practice on POLYGON TOOLS
Practice on WITH PROXY
Practice on NORMALS, Lighting /Rendering
Practice on Hyper shade, Materials, Apply

Materials, Making Shader Networks,

Introduction to 3ds Max 3D Animation Techniques Fundamentals & concepts User Interface

Modeling
Lighting / Rending
Character Setup & Animation
Dynamics

Combining Ramps, Layered Textures, Intro to lights, Making Bump Maps, Working with Shadows, UV Mapping, Specular Maps, Paints FX, Render View, Camera Settings, Render Globals, TOON SHADER

#### 18-21 Introduction to MAYA

Practice on navigation with view port, view port menu, forms and grids, selecting objects, move rotate and scale, manipulating pivote, channel box, attributed editor, Marking menu

Practice on Polygon modeling:
Ploygon components, soft selection, extrude tools, extruding curves, polygon vevels, subdivide surface, character body,

Practice on NURBS Modeling NURBS primitive NURBS carv tools, Text creations, NURBS revolve, NURBS loft, NURBS extrude, NURBS planner

Practice on Organising Maya scene, out liner, group object, hierarchies, duplicating objects, hypergraph, hide/show object, players

Practice on using Materials

Render Material, basics of material, applying of maps, BIP map picture, hyper shade, mental ray material, bump mapping, ramp shader, 3d paint tools
Animation, time line animation, adjusting key, editing key, graph editor, dope sheet, break down keys, path animation, play blast, constrains, animation cycles, adding sound.

Practice on Rendering
Lights, depth map shadow, raterace
shadows, basics of camera, depth of field,
mental ray, software rendering, reflection
and refraction, IPR rendering, lighting to

#### Introduction to maya

Navigating with view port, view port menu, forms and grids, selecting objects, move rotate and scale, manipulating pivote, channel box, attributed editor, Marking menu

Polygon modeling: Ploygon components, soft selection, extrude tools, extruding curves, polygon vevels, subdivide surface, character body,

#### **NURBS Modeling**

Introduction to NURBS, NURBS primitive NURBS carv tools, Text creations, NURBS revolve, NURBS loft, NURBS extrude, NURBS planner

Organising Maya scene, out liner, group object, hierarchies, duplicating objects, hypergraph, hide/show object, players

#### Materials

Render Material, basics of material, applying of maps, BIP map picture, hyper shade, mental ray material, bump mapping, ramp shader, 3d paint tools
Animation, time line animation, adjusting key, editing key, graph editor, dope sheet, break down keys, path animation, play blast,

constrains, animation cycles, adding sound.

#### Rendering

Lights, depth map shadow, raterace shadows, basics of camera, depth of field, mental ray, software rendering, reflection and refraction,

	scene, Batch rendering	IPR rendering, lighting to scene
		Batch rendering
22-23	Project Work /	Industrial Visits
24-25	Exami	nations
26	Admission for the next session	

#### **Tool & Equipment for a batch of 20 trainees**

SI.	Name of the items	Quantity
No.	rounce of the items	Quartity
1	Server for LAN – As Required.	1 No.
	Latest 32/64 bit processor or Higher with PCI Express Video Card	
	4GB VRAM	
	4 GB RAM expandable	
	19" TFT Keyboard, Mouse, DVD OR BLU-RAY WRITER with latest	
	Paper license of OS – Server Edition	
	Internet, Antivirus / Total Security – Server Edition & UPS for Power	
	Back up.	
2	WORKSTATION FOR MULTIMEDIA	2 Nos.
	i700 (i7) PROCESSOR or Quad core or Higher	
	8 GB RAM	
	1 Terabyte HDD	
	22" TFT Monitor101 DVD OR BLU-RAY WRITER	
	KEYBORD/INTERNET	
	USB Optical Mouse, USB Keyboard with latest license of OS	
3	WORKSTATION/NODES: 2 <sup>nd</sup> Generation Core i3 Processor or	10 Nos.
	Equivalent and above with major minimum features as below :	
	1) 32/64 Bit Processor (3.06 GHz or Higher,4 MB 4-Core) or Higher.	
	2) Network Card: Integrated Gigabit Ethernet(10/100/1000).	
	3) RAM : 2 GB/ 4 GB DDR3 or Higher.	
	4) 320 GB / 500 GB HDD or Higher.	
	5) 19" TFT Monitor / Higher	
	6) DVD Writer	
	7) PS2 / USB KeyBoard , USB/Optical Mouse with latest Paper	
	Licensed Operating System / OEM Pack(Preloaded)	
	Professional/Ultimate Edition with Internet Facility.	
4	500 VA or higher off – line UPS FOR NODES	13 Nos.
5	COLOUR LASER PRINTER	1 No.
6	Network MONOCHROME LASER PRINTER	1 No.

7	OPTICAL SCANNER (DESK TOP TYPE)	1 No.
8	WEB CAM (DIGITAL CAMERA)	1 No.
9	DVD OR BLU-RAY WRITER	2 Nos.
10	Standalone HARD DISKS	4 Nos.
11	Network Interface Card (Ethernet Card 10/100/1000 Mbps)	4 Nos.
12	Fire extinguisher	1 No.
13	Vacuum Cleaner (For IT & ITES Sector)	1 No.
14	LCD / DLP projector	1 No.
15	24 port Switch /Router	1 Each
16	500 VA or higher off – line UPS FOR NODES and server	11 Nos.
17	Air Conditioner 1.5 ton	3 Nos.
18	Modem (Internal & External)	2 Nos.
19	Broad Band connection	1 No.
20	Telephone Line	1 No.
21	CD / DVD Writer 2 nos.	2 Nos.
22	Room temperature thermometer	1 No.
23	Scanner	1 No.
24	Digital Still SLR Camera	1 No.
25	Digital Video Camera	1 No.
	<u>SOFTWARE</u>	1
1	Windows XP/vista/8 Network Support with 10 User license	1 No.
	professional/academic edition	
2	MS Office latest version / Open Office 10 user license	1 No.
	professional/academic edition (along with MS access and MS Front	
	page)	
3	Anti Virus Latest version/ Total Security software with (10 User	1 No.
	License)	
4	Adobe Photoshop (academic edition with 10 user license)	1 No.
5	3D STUDIO Max (academic edition with 10 user license)	1 No.
6	Maya (academic edition with 10 user license)	1 No.
7	Adobe Flash (academic edition with 10 user license)	1 No.
8	Adobe premier Suite (academic edition with 10 user license)	1 No.
9	Front Page Editor (Academic edition with 10 user license)	1 No.
<u>FURNITURE</u>		
1	Computer Tables	11 Nos.
2	Printer Tables	3 Nos.
3	Instructor Table	1 No.
4	Instructor's Chair	1 No.
5	Straight back revolving & adjustable chairs (Computer Chairs )	20 Nos.
6	Steel cupboards drawer type	3 Nos.
7	Cabinet with drawer	2 Nos.

8	Pigeon hole cabinet -16 compartments	1 No.	
9	Steel almirah big size	1 No	
10	Steel almirah small size	2 Nos.	
11	Class room chairs with writing pad moulded type	20 Nos.	
	Trainee Tool Kit		
1	Screwdriver Set of min. 5 bits (Combination of star & minus) + 1	1 Set	
	ext. rod		
2	Crimping Tool for BNC and RJ-45 connectors	1 No. Each	
3	Punching Tool	1 No.	

#### Note: 1. All Software should be Network Version

#### 2. Some of Course Related CBTs can be purchased (Optional)

NOTE- LATEST VERSION OF HARDWARE AND SOFTWARE should be provided.

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