SCHEME OF EXAMINATION
&
SYLLABUS
of
UG Programme (Interdisciplinary)

B.Sc. (Graphics & Animation)
Scheme: D

As per National Education Policy 2020
(Multiple Entry-Exit, Internships and Choice Based Credit System)
w.e.f. Academic Session: 2024-2025

INSTITUTE OF MASS COMMUNICATION & MEDIA TECHNOLOGY
Kurukshetra University, Kurukshetra
(A++ Grade NAAC Accredited)

under

Faculty of Commerce and Management,
Kurukshetra University, Kurukshetra

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**5th**		
Name of the Course	**Rigging & Lighting**		
Course Code	**B23-GAG-501**		
Course Type	CC-A5		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: Understanding the basics of Rigging CLO 2: Study of Skeleton & Anatomy setup CLO 3: Explore how to assemble the whole setup into a master rig CLO 4: Understanding the different types of Lighting techniques CLO 5 : To use the rigging and lighting techniques.		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	Basic Human Anatomical Structure Group And Hierarchy Joints, Forward Kinematics, Inverse Kinematics Mirroring Joints, Reroot Skeleton, Connect/Disconnect Joints Joint Orientation	11
II	Project Set up Constraints Deformers Set Driven Key, Adding Custom Attributes Connection Editor, Expression Editor, Reference Editor IK Handle Tool, IK Solvers (Rotate Plane, Single Chain, Spline), IK Controls, IK Preferred Angle, Pole Vector Constraint	11
III	Anatomy of the torso, leg, arms, hands, and fingers	11

	Biped skeleton Head Rigging Facial Rigging Skinning, Interactive/smooth Binding, Controlling skin weight Painting Skin weight & Editing skin weight	
IV	Theory of Lighting Direct Illumination, Manipulation of Lighting(effects) Working on Different Types of Lighting Environment Lighting Interior and Exterior Lighting	12
V	**Practicals** o Learn Bone Setup in Human and Cartoon Character o Create Controls with help of IK and FK o Wire Parameters o Skinning and binding o Three Point Lighting setup for object o Interior Lighting setup o Exterior Lighting o Facial Rigging Controls o Robotic Rigging o Animal Rig o Bird Wings Control Setup o Show reel of rigging	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- Animation Methods-Rigging Made Easy: Rig Your First Character in Maya: David Rodriguez
- Maya Character Rigging: Cheryl Cabrera
- Rig IS Right! Maya Animation Rigging Concepts by Tina
- Essential Skills in Character Rigging by Nicholas B. Zeman

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**5th**		
Name of the Course	**Commercial Design**		
Course Code	**B23-GAG-502**		
Course Type	CC-B5		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: Understanding the basics of Commercial Design. CLO 2: Students will be able to Design for Commercial goods. CLO 3: Understanding the different kind of commercial design. CLO 4: Understanding the different types of Designing Techniques CLO 5 : To design different commercial products packages		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	Commercial Design: Introduction and Scope Brand and Branding Design Strategy Design Process Design Principal: Practice & Implement Layout Designing Principals	11
II	Typography and Typeface Design Types and Features of Typefaces Structure and elements of Typeface Leading, Kerning and Tracking	11
III	Packaging and Designing Packaging Design: Process Packaging Design Principal Elements of Packaging Design Packaging Design: Outer Packaging , Inner Packaging and Product Packaging	11

	Boxes Design Packaging Cylindrical Design Packaging	
IV	Color Theory CMYK , Lab Colors and Pantone Colors Color Phycology Export and Authoring: Size Colors and Fonts	12
V	**Practicals** o Newspaper Design o Food Package Design o Electronic Product Package o Bottle Branding Design o Box Package Design o Special occasion based package o Typography Based package Design o Toy Package design	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- The New Strategic Brand Management – Advanced Insights & Strategic Thinking by Jean-Noël Kapferer
- Building Strong Brands by David Aaker
- Design and Strategy A Step-by-Step Guide By Wanda Grimsgaard

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**5th**		
Name of the Course	**3D Creature Animation and Rendering**		
Course Code	**B23-GAG-503**		
Course Type	CC-C5		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: Understanding the basics of 3d Creature Animation CLO 2: Students will be able to Animate different Creatures CLO 3: Understanding the Setup of Animation Keys and In-betweens CLO 4: Understanding the different types of Animation Techniques and able to handle the Speed of movement. CLO 5 : Understand 3D animation softwares.		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	3D Animation: Types and Techniques Key Frames: Add & Blocking , Move & Modify Key Frame Animation : Ball Bounce Graph for Animation: Types and features Dope Sheet: Setup and Edit Connection Editor, Expression Editor, Reference Editor Camera: Setup, Modify and Animation FPS: Add & Modify Time line: Elements and Controls	11
II	Difference between Animation & Motion Mass & Weight Squash & Stretch: Ball, Hand, Arms and Face Arc: Box Bounce, Pendulum	11

	Timing and Spacing: Leaf Animation Morphing: Face Animation & Shape Morph Eyes Blinking and Movement	
III	Anticipation: Walk, and Run Secondary Action: Pulling Chain Follow Through and Overlapping Animation: Tail Slow in & Slow Out: Kick & Punch Facial Animation: Straight Ahead Action: Action with Sword	11
IV	Rendering: Concept & Scope Types of Rendering: Maya Software Render, Maya Hardware 2.0 and Arnold Rendering Rendering: Process & Settings Shadow Pass Rendering and Lighting Pass Rendering	12
V	**Practicals** o Rubber Ball Bounce / Iron Ball Bounce o Leaf Falling Animation o Face Expression with morph and without morph o Normal Walk Cycle / Funny Walk Cycle o Double Jump o Chain Pulling Animation o Punch Action o Action with Gadget o Frame Rendering o Sequence Rendering o Video Rendering	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- Autodesk Maya 2018 Basics Guide by Kelly L. Murdock
- The Animator's Survival Kit
- Understanding 3-D animation using Maya John Edgar Park
- Essential Skills in Character Rigging by Nicholas B. Zeman
- 3D Animation Essentials (Essentials (John Wiley)
- Disney Animation: The Illusion of Life

- The Animator's Survival Kit by Richard E. Williams
- 3D Animation for the Raw Beginner Using Maya Roger King
- 3D Art Essentials: The Fundamentals of 3D Modeling, Texturing, and Animation by Ami Chopine
- The Art of 3D: Computer Animation and Effects
- Character Animation in 3D: Use Traditional Drawing Techniques to Produce Stunning CGI Animation Steve Roberts
- Mastering Lumion 3D by Ciro Cardoso
- Animated Performance: Bringing Imaginary Animal, Human and Fantasy Characters to Life Nancy Beiman

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**6th**		
Name of the Course	**Visual Effect**		
Course Code	**B23-GAG-601**		
Course Type	CC-A6		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: To Learn Techniques of Motion Graphics CLO 2: Understand the basic knowledge of Motion Production CLO 3: Know about the Techniques and function of Motion Graphics CLO 4: To Gain Knowledge of Motion Graphics Stages CLO 5 : Demonstrate the different motions using After Effect Software		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	Adobe After Effects: Interface, Tools and Menu Motion Graphics History. Motion Graphics and Functions and Scope Motion Graphics Elements: Colors, Shapes, Surfaces, Typography, and Transitions.	11
II	Key Frame Types: Liner, Auto Bezier, Continue Bezier, Bezier and Hold Key framing: Adding, Modify, Change and Move & Remove Graph Edition: Types and Features Motion: Icons and Typography Information Graphics Motion Animated Titles	11
III	Social media Advertisements Logo Animation UI Animation	11

	Product Animation / Motion Advertisements Cinematography Motion	
IV	Program Intro Graphics Header Graphics Ribbon Motion Footer Motion Graphics Video Package of Explainer Video	12
V	**Practicals** o Typographic Motion o Icon Based Motion o Animated Tittles o Social Media Advertisement Motion o Logo Motion o UI Motion o Cinematic Video Motion o Explainer Video o Motion Advertisements o Television Broadcaster Graphics Interface	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- Adobe After Effects Classroom in a Book
- After Effects - Visual Effects and Compositing
- After Effects Apprentice
- Design for Motion: Fundamentals and Techniques of Motion Design
- Design for Motion: Fundamentals and Techniques of Motion Design by Austin Shaw
- Motion Graphic Design: Applied History and Aesthetics by Jon Krasner
- Creating Motion Graphics with After Effects by Chris Meyer, Trish Meyer
- Motion Graphics: 100 Design Projects You Can't Miss by Shao Qiang Wang

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**6th**		
Name of the Course	**Gaming Technology**		
Course Code	**B23-GAG-602**		
Course Type	CC-B6		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: To Learn Core Game Design Principles CLO 2: Able to Create Game Design Documents (GDDs) CLO 3: Learn the different Techniques of Game Level Design and Game Modeling CLO 4: To Gain Knowledge of Game Engine for Developing Games CLO 5 : To prepare different characters, props and assets for a game		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	Introduction to 3d Gaming Design Overview of Mobile Gaming Game Mechanics Game Development Process Game Genres and their characteristics Game Design principles Game Design Documents GDD 3D Game Design Concept and terminology	11
II	Concept of Level Design Level design techniques Game ready modeling techniques Game Environment Design Game Props and asset creation	11

	Concept of Gamification	
III	Texture creation and editing techniques Material creation and shaders PBR (Physically-Based Rendering) workflows Texture baking and atlasing Lighting techniques for game environments	11
IV	Introduction to game engines Game engine interface and workflow Importing and organizing assets Scene setup and camera management Role of Sound Design in Games: Sound Effects & Foley Art Game UI and UX	12
V	**Practicals** o Game Design Documents GDD o Level Design o Environment Design with texture o Game Props Design and textures o Assets Design with texture o Game Character Design o Textured Character Design o Scene Setup in Game Engine o Final Output with sound	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- The Art of Game Design: A Book of Lenses by Jesse Schell
- Rules of Play: Game Design Fundamentals by Katie Salen Tekinbas and Eric Zimmerman
- Game Design Workshop: A Playcentric Approach to Creating Innovative Games by Elizabeth Harstad
- Game Engine Architecture by Jason Gregory
- Unreal Engine 5 Essential Training by Tom Looman
- Unity Game Development Cookbook by Will Goldstone:
- Learning Blender by Mike Pan

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**6th**		
Name of the Course	**UX Design**		
Course Code	**B23-GAG-603**		
Course Type	CC-C6		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: To Learn Techniques of UX design CLO 2: Understand the basic knowledge of digital tools CLO 3: Know about the Techniques and function of prototypes CLO 4: To Gain Knowledge of wire framing CLO 5 : To understand the problem and proposed solution		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	Concept of UX Design Origin and Development of UX / UI Design Process of UX Design: Product Definition, Product Research, Analysis, Design, Validation (Testing) 8 Stages: Project Definition and Scope, Understanding the problem, UX Research, Ideation (Sketching and low fidelity prototyping), High fidelity mockups and prototype, Usability Testing, Design handoff, Quality Assurance or UX Audit.	11
II	Elements of User Experience Design Functional Layout & Interaction design UX Principles: Doherty Threshold, Occam's Razor, Pareto Principle, Postel's Law, Tesler's Law Gestalt Principles UX Research Methodology	11
III	Principles of UI Design Types of UI Design Concept of User Interface Design (UI)	11

	Scope of Interface Design Elements of UI Design: Input Controls, Navigation Components, Informational Components, Containers. Concept of Microcopy	
IV	User Interface of UI Design Software (**FIGMA)** Add and Edit Content: Frames, Shapes, Text, Masking, Image, Colour, Style, Components, Constraints Prototyping: Process and linking Sharing and Exporting Concept of Wireframing: low fidelity and high fidelity	12
V	**Practicals** o Layout Design: Low fidelity o Working with Text and Fonts o Color and Gradients o Work with Mask o Button design o Icon Design o Working with Grid o Layout Design: High fidelity o Interaction Screen Design o Web Screen Design	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- The Essential Guide to User Interface Design an Introduction to GUI Design Principles and Techniques, Third Edition by Wilbert O. Galitz, Wiley Publishing, Inc.
- The Elements of Graphic Design, Second Edition by Alexw. White, Published by Allworth Press
- A Designer's Research Manual, Second Edition by Jenn + Ken Visocky O'Grady
- Adobe Illustrator CC, Classroom in a Book, The official training workbook from Adobe by Brian Wood, ADOBE PRESS
- UI Design with Adobe Illustrator by Rick Moore, ADOBE PRESS
- Adobe XD in CC,Classroom in a Book, The official training workbook from Adobe By Brian Wood, ADOBE PRESS

Session: 2024-25			
Part A - Introduction			
Name of Programme	B.Sc. Graphics & Animation		
Semester	**6th**		
Name of the Course	**Artificial Intelligence and Cyber Security**		
Course Code	**B23-GAG -604**		
Course Type	CC-M6		
Level of the course	300-399		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: To help learners to understand the world of AI and its applications CLO 2 :To understand the basics of intelligent agents and learning types CLO 3 :To under the concept of Information Security and CIA traid. CLO 4 : To about network security and various security techniques. CLO 5: To learn about various application of AI in Graphics Industry.		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	

Part B- Contents of the Course

Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.

Unit	Topics	Contact Hours
I	Artificial Intelligence **:**Evolution, Brief history & Definition Fundamental, Process, Features, Components & Interaction Types of AI: Capabilities and Limitation Machine Learning: Introduction & Classification Knowledge representation techniques Neural Networks: ANN, RNN and CN	11
II	Introduction to NLP , Introduction to robotics; Applications of AI in robotics, Prompts: Phrasing and Structure AI Applications in Design Industry: Pre-Production , Production and Post-production	11
III	Information Security : Concept, Need, Types Security Principles, Security Attacks	11

	model for network security Basic cryptography: Encryption and Decryption, Symmetric and Asymmetric	
IV	Identification and Authentication: Goals, Requirements Machine Authentication and Mechanism Two Stage Authentication Network Security: Threats, Eavesdropping, Spoofing, Security Techniques: Firewalls, Intrusion detection, VPN Legal Aspects of Security, Privacy and Ethics	12
V	**Practicals:** o Generate Article on particular topic by using AI tool o Generate image via AI Prompt o Remove Background with Help of AI o Image Enhancement by using AI tools o Create a story with Help of Prompts o Create a Script with Help of Prompts o Create a storyboard using AI Image o Colour Pairing and Font Pairing Tools of AI o Use AI to Prompt to Convert Image to Poster o Create Sound for Production by using AI tools o Checklist for Reporting Cyber Crime at Cyber Cell o Demonstration of Email Fishing Attack o Use of VPN	30
	Total Contact Hours	75

Suggested Evaluation Methods

Internal Assessment: 30		**End Term Examination: 70**	
➢ **Theory**	**20**	➢ **Theory:**	**50**
• Class Participation:	5	Written Examination	
• Seminar/presentation/assignment/quiz/class test etc.:	5		
• Mid-Term Exam:	10		
➢ **Practicum**	**10**	➢ **Practicum**	**20**
• Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical	
• Seminar/Demonstration/Viva-voce/Lab records etc.:	5		
• Mid-Term Exam:	-		

Part C-Learning Resources

Recommended Books/e-resources/LMS:

- *"Artificial Intelligence: A Modern Approach" by Stuart Russell and Peter Norvig*
- *"Deep Learning" by Ian Goodfellow, Yoshua Bengio, and Aaron Courville*
- *"Robotics: Modelling, Planning and Control" by Bruno Siciliano and Lorenzo Sciavicco*
- *"AI Superpowers: China, Silicon Valley, and the New World Order" by Kai-Fu Lee*
- New Media : A critical Introduction, Martin Lister, Jon Dovey, Seth Giddings,Ian Grant, Kieran Kelly, Routledge, Tayolor & Francis Group, 2007
- Mapping New Media in India, Sunita Naryanan, Sage Publication, 2017