FACULTY OF VISUAL ARTS & PERFORMING ARTS

SYLLABUS

FOR

B.DESIGN (MULTIMEDIA)
(SEMESTER I – VIII)

Examination: 2019-20

GURU NANAK DEV UNIVERSITY
AMRITSAR

Note: (i) Copy rights are reserved.
Nobody is allowed to print it in any form.
Defaulters will be prosecuted.

(ii) Subject to change in the syllabi at any time.
Please visit the University website time to time.
**B.DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)**

**WORKING SCHEDULE**

- 8 SEMESTERS PER COURSE
- 2 SEMESTERS PER SESSION
- 19 WEEKS PER SEMESTER
- 30 HOURS PER WEEK
- 570 HOURS PER SEMESTER

### SEMESTER – I:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course</th>
<th>Total Marks</th>
<th>External Assessment</th>
<th>Exhibit Display</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Drawing &amp; Colour–I</td>
<td>Practical 100</td>
<td>100</td>
<td>–</td>
<td>6 Hrs. each</td>
</tr>
<tr>
<td>2.</td>
<td>Introduction to 3D–I</td>
<td>Practical 50</td>
<td>50</td>
<td>–</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Workshop–I</td>
<td>Practical 50</td>
<td>50</td>
<td>–</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>Elements of Art and Multimedia</td>
<td>Theory 75</td>
<td>–</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 25</td>
<td></td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Communication Skills in English–I (Compulsory)</td>
<td>Theory 50</td>
<td>–</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>7.</td>
<td>Punjabi Compulsory</td>
<td>50</td>
<td>–</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>*</td>
<td>ਪੰਜਾਬੀ ਚਰਚਾ ਯੋਜਨਾ</td>
<td>50</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td>Punjab History &amp; Culture (From Earliest Times to C 320)</td>
<td>50</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>** Drug Abuse: Problem, Management and Prevention (Compulsory Paper)</td>
<td>50</td>
<td>–</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
</tbody>
</table>

**Total Marks: 400**

**Note:**

* Special Paper in lieu of Punjabi Compulsory for those students who are not domicile of Punjab.

** Marks of this Paper will not be included in the Total Marks.
B.DESIGN (MULTIMEDIA) (SEMESTER – I)

1. DRAWING & COLOUR-I
(Practical)

Max. Marks: 100
Practical: 100

- Study of metallic objects / glass / wooden objects etc. in various medium like pencil shading – showing proportion / volume / shape & Forms / light shade / fore shortening / Perspective.
- Water Colour / Poster Colours / Oil Colour / Mixed medium and collage.
- Objects (Two/Three) with vegetables / flowers with drapery– in monochrome / halftone / solid.
- Create Collage and Landscapes
- Element of Perspective: Cone vision, one point perspective / two point perspective and three point perspective / ground line / vanishing point / Perspective of Shadows / Perspective of Reflection / Perspective of Circles / cylinders / foreshortening / lines / Aerial perspective / colour.
- Knowledge of Perspective / Foreshortening / Proportion foreground / middle ground and background / light / shade / shadow etc.
- View Point: 2 Dimension views and 3 Dimensional views
- Primary, Secondary & tertiary colours.
- Understanding HUE, VALUE, TINT & SHADE
- Meaning & understanding of colour intensity by making a chart.
2. INTRODUCTION TO 3D–I
(Practical)

Introduction to Computer Graphics and 3D
Introduction to 3D
- User Interface of 3D Software
- Navigating in 3D Software
- Closing and Saving Project in 3D Software

Understanding the Viewports of 3D Software
- Mouse Control
- Making Selections
- Manipulating Objects
- Working with Gizmos

Working with Animation Tools and Controls: Move, Rotate and Scale Tools
Change UI Interface: Working with Pivots

Working with various types of Modelling
- Nurbs Modelling
- Spline Modelling
- Polygon Modelling

Introduction to Photoshop and its components related to 3d
3. WORKSHOP–I
(Practical)

Max. Marks: 50
Practical: 50

- Demonstration and practical classes to be conducted on the following mediums in 2D/3D.
- Experimenting/Innovating with different mediums, materials of choice and submit five project on 3D at the end of the semester.
4. ELEMENTS OF ART & MULTIMEDIA
(Theory)

Time Allowed: 3 Hours

Max. Marks: 100
Theory: 75

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION-A

Elements of Art: Basics of Art, Objective of Art, Content and Form, Nature of Beauty, Art and Nature, Abstraction

SECTION-B

Multimedia: Introduction to Multimedia, Text, Image, Audio, Video, Animation, Interactive and New Media, Application in Education.

SECTION-C

- **MS–Word**: Various operations on a file, Toolbars (Standard, Format), Page setup, Border and Shading, Mail merge.
- **MS–Power Point**: Operations on a file, Application, Various view of slides.

SECTION-D

- **Digital Audio**: Audio Sampling Rate, Bit Depth, File Formats, Compression, Mono vs. Stereo, Sound Card, Editing and Recording tools.
- **Digital Video**: TV & Video Standards, Time-base, Bit Rate, Frame Size, Frame Rate, File Formats, Compressions, Codecs, Aspect Ratio, Capture Cards, Editing Tools.
4. ELEMENTS OF ART & MULTIMEDIA  
(Practical) 

- **MS–Word**: Various operations on a file, Toolbars (Standard, Format), Page setup, Border and Shading, Mail merge.  
- **MS–Power Point**: Operations on a file, Application, Various view of slides.  
- **Digital Audio**: Audio Sampling Rate, Bit Depth, File Formats, Compression, Mono vs. Stereo, Sound Card, Editing and Recording tools.  
- **Digital Video**: TV & Video Standards, Time-base, Bit Rate, Frame Size, Frame Rate, File Formats, Compressions, Codecs, Aspect Ratio, Capture Cards, Editing Tools.  

Create a Presentation in Power-point
B.DESIGN (MULTIMEDIA) (SEMESTER – I)

PAPER – V: COMMUNICATION SKILLS IN ENGLISH–I

Time: 3 Hours

Max. Marks: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

The syllabus is divided in four sections as mentioned below:

Section–A
Reading Skills: Reading Tactics and strategies; Reading purposes–kinds of purposes and associated comprehension; Reading for direct meanings.

Section–B
Reading for understanding concepts, details, coherence, logical progression and meanings of phrases/expressions.

Activities:
- Comprehension questions in multiple choice format
- Short comprehension questions based on content and development of ideas

Section–C
Writing Skills: Guidelines for effective writing; writing styles for application, personal letter, official/ business letter.

Activities:
- Formatting personal and business letters.
- Organising the details in a sequential order

Section–D
Resume, memo, notices etc.; outline and revision.

Activities:
- Converting a biographical note into a sequenced resume or vice-versa
- Ordering and sub-dividing the contents while making notes.
- Writing notices for circulation/ boards

Recommended Books:
- Oxford Guide to Effective Writing and Speaking by John Seely.
- English Grammar in Use (Fourth Edition) by Raymond Murphy, CUP
B.DESIGN (MULTIMEDIA) (SEMESTER – I)

PAPER – VI: पृष्ठनी (लक्षात्मक)

मार्ग : 3 पृष्ठ
एकादश अंश एक-पत्र-पुस्तकवर

गैतिक-पृष्ठ-अंश गैतिक-पुस्तकवर

मेलनक-पने:
अश्रुष्ठ अभिज्ञ (विद्वान अश्रुष्ठ)
(मैथुन मुद्रित धीर अश्रुष्ठ लिखित मंत्री)
भावुक राष्ट्र उद्ध पुत्रीकरण, अमृतसर।
(पृष्ठा माता राष्ट्रपंथ, माता

मेलनक-पने:
दिविंगमक दर्शन (दिविंगमक दर्श-विख्यात)।
मैथुन म.म.ग्रामी, पाणिनी मंडित भुवन-मय, तुलिपान। (शेख 1 उं 6)
(दिशेष द नघ, दिशेष-मैथी)

मेलनक-पनी
(१) औषध उपवन
(२) औषध ज्वल दे पृष्ठत्व दे हृदय।

मेलनक-पनी
(३) पाणिनी पृष्ठ दिविंगम : दिविंगमक अंतब, दिविंगमक मार्गने दे दिशेष, मार्ग, दिशेष, दर्शन-पृष्ठ1।
(४) धार्मिक दंडनीयाँ: धार्मिक दंडनीय पुमल, धार्मिक दंडनीय पुमल-दंडनीय सा नैदंडन, पाणिनी दंडनीय पुमलने दे पहळ-पृष्ठ।

अंच-दंडन अंच पृष्ठज्ञतावस्थित मद्दतमार्ग
1. पृष्ठ पृष्ठ दे चार दंडन हृदय। उत्तर दंडन हृदय से पृष्ठ पृष्ठ हृदय।
2. दिनिन्धरावांस दे दर्शन थंब हृदय दंडन नाते उत्तर। उत्तर दंडन हृदय हृदय पृष्ठ दंडन।
3. उत्तर हृदय दे पत्रमान अंच उत्तर।
4. उत्तर पृष्ठ दंडन हृदय हृदय चार उत्तर दंडन हृदय हृदय चार हृदय-पुमलने हृदय वर्त मद्दत मद्दत।
B.DESIGN (MULTIMEDIA) (SEMESTER – I)

PAPER – VI: ਮੂਚੜਾਂ ਜਨਨਾਈ (In lieu of Compulsory Punjabi)

ਸਭਾਂ: 3 ਪੇਟਿਤੇ   ਬੁਲਾ ਅਨੁਕ: 50

ਪੁਸਤਕ-ਵਿਸ਼

ਐਕਾਲੀ ਅੰਦਾਜ਼ੀ, ਅੰਦਾਜ਼ ਬੁਧ, ਪੈਟ ਸਿੱਖੀ ਕਾਲੇ ਲਗਤ ਅਉੱ ਪੈਟ ਦੀਨ ਪੇਟ
ਟਾਕੇ ਟਾਕਾ ਆਉ ਭਾਵਣਾ (ਮੂਚੜਾ ਨਤਵ-ਪਹਾੜ)
ਸਤਾਲਫ਼ (ਦੀਖੀ, ਦੀਖੀ, ਅਧਾਰਾ) : ਪੱਥਰ ਅਉੱ ਟਾਕੇ

ਐਕਾਲੀ-ਹੀ ਸਭਾਕ ਸਤਵ-ਪਹਾੜ ਅਉੱ (ਸਤਾਲਫ਼, ਸਤਾਲਫ਼, ਸਤਾਲਫ਼, ਸਤਾਲਫ਼, ਸਤਾਲਫ਼, ਸਤਾਲਫ਼, ਸਤਾਲਫ਼, ਸਤਾਲਫ਼)

ਐਕਾਲੀ-ਭੀ ਤਿੁਂ ਟਾਕੇ ਹੀ ਸਭਾਕੀ ਸਤਵਾਲਫ਼ ਸਤ: ਚਾਲਾਤ, ਚਾਲਾਤ, ਚਾਲਾਤ, ਚਾਲਾਤ, ਚਾਲਾਤ, ਚਾਲਾਤ, ਚਾਲਾਤ

ਐਕਾਲੀ-ਭੀ

ਹੱਦੇ ਦੇ ਮੂਠ ਦੀਤੀਆਂ ਦੇ ਲੋਕ, ਪਹਿਲੀਆਂ ਦੇ ਲੋਕ, ਦੂਨੁੰਦੇ ਦੇ ਲੋਕ, ਦੋਢੁੰ ਦੇ ਲੋਕ, ਦੋਢੁੰ ਦੇ ਲੋਕ ਮੇ ਉੱਬ ਦੀਤੀਆਂ ਸਭਾਕੀ ਦੀਤੀਆਂ

ਆਦਰ-ਪ੍ਰੇਮ ਅਉੱ ਪਤਿਆਠਵਾਰ ਕੇਹੀ ਉਚਾਈਆਂ

1. ਪ੍ਰਤਿ ਪ੍ਰਤਿ ਦੇ ਚਲ ਚਲਾਤ ਚੰਗੁ ਦੇ। ਉਸ ਵਾਲਾ ਦੀਨ ਦੇ ਪ੍ਰਤਰ ਵੱਖਰੀ।
2. ਦੀਨਾਲੀਕਾ ਦੇ ਟਾਕੇ ਨਾਂ ਪ੍ਰਤ ਨਾਂ ਵਾਲੇ ਦੇ। ਉਸ ਵਾਲਾ ਦੀਨ ਦੇ ਪ੍ਰਤਰ ਨਾਂ ਦੀਨ ਦੇ।
3. ਪ੍ਰਤ ਪ੍ਰਤਿ ਦੇ ਦਰਸਾਵਾ ਅਉੱ ਦੇ।
4. ਪੈਟ ਲੈਣ ਦੇ ਲਕਾ ਨੇਵਤ ਖੇਤ ਦੇ ਨੋ ਪ੍ਰਤਿ ਲੈਣ ਲੈਣ ਦੇ ਲੈਣ ਦੇ ਪ੍ਰਤਰ ਦੀਨ ਦੇ ਪ੍ਰਤਰ ਦੀਨ ਦੇ।
B.DESIGN (MULTIMEDIA) (SEMESTER – I)

PAPER – VI: Punjab History & Culture (From Earliest Times to C 320)
(Special Paper in lieu of Punjabi Compulsory)
(For those students who are not domicile of Punjab)

Time: 3 Hours Max. Marks: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section–A
1. Physical features of the Punjab and its impact on history.
2. Sources of the ancient history of Punjab

Section–B
3. Harappan Civilization: Town planning; social, economic and religious life of the Indus Valley People.

Section–C
5. Social, Religious and Economic life during Rig Vedic Age.

Section–D
7. Teachings and impact of Buddhism
8. Jainism in the Punjab

Suggested Readings:
1. L. M Joshi (ed.), History and Culture of the Punjab, Art-I, Patiala, 1989 (3rd edition)
PROBLEM OF DRUG ABUSE

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section – A

Meaning of Drug Abuse:

Section – B

Consequences of Drug Abuse for:
Individual : Education, Employment, Income.
Family : Violence.
Society : Crime.
Nation : Law and Order problem.

Section – C

Management of Drug Abuse:
Medical Management: Medication for treatment and to reduce withdrawal effects.

Section – D

Psychiatric Management: Counselling, Behavioural and Cognitive therapy.
Social Management: Family, Group therapy and Environmental Intervention.
References:

1. Ahuja, Ram (2003), Social Problems in India, Rawat Publication, Jaipur.
## B.DESIGN (MULTIMEDIA) (SEMESTER – II)

### SEMESTER – II:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course</th>
<th>Total Marks</th>
<th>External Assessment</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Drawing &amp; Colour–II</td>
<td>Practical 75</td>
<td>75</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>Introduction to 3D–II</td>
<td>Practical 50</td>
<td>50</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Theory of Media (Print Media &amp; Scriptwriting)</td>
<td>Theory 75</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Adobe Illustrator</td>
<td>Practical 50</td>
<td>50</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Communication Skill in English–II (Compulsory)</td>
<td>Theory 35</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Punjabi Compulsory / *ਪੰਜਾਬੀ ਵਿਚਾਨਾਂ (Basic Punjabi)</td>
<td>Theory 50</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>* Punjab History &amp; Culture (C 320 to 1000 B.C.)</td>
<td>Theory 50</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>** Drug Abuse: Problem, Management and Prevention (Compulsory Paper)</td>
<td>(Theory) 50</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

**Total Marks: 400**

**Note:**
* Special Paper in lieu of Punjabi Compulsory for those students who are not domicile of Punjab.
** Marks of this Paper will not be included in the Total Marks.
1. DRAWING & COLOUR–II
(Practical)

- Detail study of human skeleton (full size) in any medium.
- Study of human figure (male/ female), full figure, detail figure.
- Detail study of different part of the body
- Detail study of full human figure in different postures
- Quick sketches with brush, pen and ink
- Facial Expression, Mood and Seasons
- **Lights and Shade effects on colours**
  - a) Illusion
  - b) Abstract
  - c) Formative
  - d) Realistic

- Colours schemes – Analogous, Complementary, Monochromatic, Achromatic, Adjacent colours.
- Create Storyboard using any medium.
HIERARCHY AND MAYA OBJECT STRUCTURE
- Understanding Nodes
- Parents and Children

UNDERSTANDING SHADING CONCEPTS
- Shading
- Shader Types

WORKING WITH VARIOUS SHADERS AND THERE PARAMETERS

ANIMATION IN MAYA
- Creating Key frames
- Copying Key frames and Moving Pivots
- Fine Tuning Animation

WORKING WITH UVs AND CAMERA

BASICS OF LIGHTING
- Spot Light
- Area Light
- Directional Light

COMPONENTS OF PHOTOSHOP RELATED TO 3D MODELS AND TEXTURE.
Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION-A
Print Media: Printing
a) Lithography
b) Monotype
c) Stencil
d) Wood engraving and wood cut

SECTION-B
Types of Modern Printing
a) Letterpress
b) Offset printing
c) Silkscreen Printing
d) Gravure
e) Flexography

SECTION-C
Printing plates and processes
Print Media– Newspapers, Magazine, direct Mailer & Non–Standard etc.

a) Types of Print Advertisements
   • Newspaper
   • Magazine

b) Types of Newspaper/Magazine Advertisements
   • Classified
   • Business Card
   • Display Ads

SECTION-D
Script Writing:
• Terminology, Concepts, Themes & Loglines
• Beat Sheets, Treatments & Outlines
• Approaches to Developing Character and Dialogue
• Screenplay Format and Conflict
• Writing Scenes
• Soap, Talk Shows, Music, Variety and Live Event scripts
• Feature Film, Documentaries, Docu–dramas and Multi–media
**B.DESIGN (MULTIMEDIA) (SEMESTER – II)**

4. WORKSHOP–II (Photography & Adobe Lightroom)
   (Practical)

Max. Marks: 50
Practical: 50

**Photography:**

Importance of Photography in relation to Design and Communication
- Types of Cameras
- Handling the Camera, understanding different kinds of camera and exposures.
- Understanding different kinds of films
- Camera– Parts & Lenses
- Function– Aperture, Shutter Speed, Film, ISO
- Experiment with different light & angles
- Composition & layout
- Table Top Photography
- Fashion photography
- Indoor and outdoor photography
- Art photography
- Developing Black and White film in the dark room

**Adobe Lightroom**

**Introduction**
- Lightroom Workflow

**The Lightroom Interface**
- Panels
- Filmstrip
- Setting Preferences
- Frequently used keyboard shortcuts

**Library**
- Importing and reviewing images
- Editing and ranking images
- Quick Develop mode
- Using Collections
- Asset management–Metadata and Keywords
- Recommended workflow
Develop

- Navigating the image and view options
- Using and creating Presets, Snapshots and History
- Making Color and Tonal Adjustments
- Using Adjustment brushes and the Gradient Tool
- Creating Grayscale or Toned images
- Detail and Lens Corrections
- Exporting and Photoshop workflow integration

Slideshow

- Building a slideshow
- Image selection
- Configuring the Slideshow
- Using Templates and settings
- Playing and Exporting

Print

- Selecting photos
- Using Templates
- Print Layout
- Output Settings–Color management

Web

- Selecting photos
- Gallery templates
- Customizing settings
- Uploading website via FTP
5. ADOBE ILLUSTRATOR  
(Practical)  
Max. Marks: 50  
Practical: 50

• Introduction to Illustrator  
• Difference between Vector Graphics and Bitmap Graphics  
• Creating, Opening, Closing & Saving a file  
• Tool Bar  
• Palettes  
• Grid & Guideline  
• Ruler Setting  
• Paths–with all options  
• Importing & Exporting  
• Printing a document  
• Filters  
• Layers  
• All Menus

Reference Book: Adobe Illustrator classroom in a Book (Adobe Publishing)

Note: The students should submit five Assignments. (i.e. Illustration, greeting cards etc.)
B.DESIGN (MULTIMEDIA) (SEMESTER – II)

PAPER – VI: COMMUNICATION SKILLS IN ENGLISH–II

Time: 3 Hours

Max. Marks: 50
Theory Marks: 35
Practical Marks: 15

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Course Contents:

SECTION–A
Listening Skills: Barriers to listening; effective listening skills; feedback skills.
Activities: Listening exercises – Listening to conversation, News and TV reports

SECTION–B
Attending telephone calls; note taking and note making.
Activities: Taking notes on a speech/lecture

SECTION–C
Speaking and Conversational Skills: Components of a meaningful and easy conversation; understanding the cue and making appropriate responses; forms of polite speech; asking and providing information on general topics.
Activities: 1) Making conversation and taking turns
2) Oral description or explanation of a common object, situation or concept

SECTION–D
The study of sounds of English,
Stress and Intonation,
Situation based Conversation in English,
Essentials of Spoken English.
Activities: Giving Interviews

PRACTICAL / ORAL TESTING

Marks: 15

Course Contents:–
1. Oral Presentation with/without audio visual aids.
2. Group Discussion.
3. Listening to any recorded or live material and asking oral questions for listening comprehension.

Questions:–
1. Oral Presentation will be of 5 to 10 minutes duration (Topic can be given in advance or it can be student’s own choice). Use of audio visual aids is desirable.
2. Group discussion comprising 8 to 10 students on a familiar topic. Time for each group will be 15 to 20 minutes.

Note: Oral test will be conducted by external examiner with the help of internal examiner.
B.DESIGN (MULTIMEDIA) (SEMESTER – II)

PAPER – VII: पैनस्टी (लघुमारी)

पत्र-ड्राइंग अधे घन-घनमारी

मैचमल-ढी

आउटा मार्गम (बांडी बांडी),
(अंग. सूचिट गीत अधे दंडिकाचन संपत धौप) चार प्रातिवेद येदी दंडिलाईन, अभिनवाच.
(डिझाइन-डाट, गूड डिजाइन)

मैचमल-ढी

टिप्पणी प्रणया (टिप्पणी प्रणया एक-डाट)
(अंग. जन्म-अभिनव, पैनस्टी प्रणया दंडिलाई, डिझाइन) (खण्ड 7 ए1 12)
(चित्र, लघुमारी गैलरी)

मैचमल-ढी

(प) मध्य-घनमारी अधे महत्त्व उच्चम्

(अ) खण्ड भूखण्ड

मैचमल-ढी

(प) स्थिर उच्चम्

(अ) पुस्तरण अधे अधार

अन्त-शीर्ष अधे अन्तिकाल सधी उच्चमिति

1. पृथक भंडार येदी चाव बतात वाचती. तर बतात विच्छ येदी पृथक उंडे वाचती.
2. दंडिकाचने येदी वळं भंडार पृथक वाचते उठत. तर बतात विच्छ लिह पृथक साहायी येते. पैनस्टी पृथक विच्छ दी बतात विच्छ वीक नाही मालका येत.
3. चार प्रातिवेद पृथक येदी चार प्रातिवेद उठत.
4. पेयचं गंड चाव लाख नेकर वाचत करत उं पृथक ची वेड अधा लेड उं लेड चाव पृथक-पृथक विच्छ वाच मालका येत.
B.DESIGN (MULTIMEDIA) (SEMESTER – II)

PAPER – VII: ਪ੍ਰੇਰਣਾ ਪ੍ਰਸ਼ਨਕਾਰ
(In lieu of Compulsory Punjabi)

ਸਮਾਨ: 3 ਅਂਤਰ

ਲੁਠ ਅੰਕ: 50

ਪਹਾਣ-ਤੱਖ

ਮੇਵਾਲ-ਸੀ

ਮੱਢੇ ਮੇਲੀਕਾਂ : ਪ੍ਰਸ਼ਨ ਅਤੇ ਟਵੱਲ
(ਸਾਹਿਤ, ਪ੍ਰਸ਼ਨਵਿਦਾਰ, ਮਿਸੀਸਟ, ਸਿਨਾਫ਼ਲ ਮਿਸੀਸਟ, ਮਸ਼ੇਸਟ, ਟੇਸ਼ ਅਤੇ ਸਿਧਾਨਤਾ)

ਮੇਵਾਲ-ਸ਼ੀ

ਪ੍ਰੇਰਣਾ ਸਿਖਾ ਘਟਤਾਂ : ਪ੍ਰੇਰਣਾ ਸਿਖਾ ਘਟਤਾਂ
(ਦਿੱਲੀ ਸਿਖਾ ਸਿਖਾ, ਪ੍ਰਸ਼ਨਵਿਦਾਰ ਸਿਖਾ ਸਿਖਾ (ਪ੍ਰਸ਼ਨ ਅਤੇ ਟਵੱਲ)
(ਅਗਵੀ ਸਿਖਾ ਸਿਖਾ, ਪ੍ਰਸ਼ਨਵਿਦਾਰ ਸਿਖਾ ਸਿਖਾ (ਪ੍ਰਸ਼ਨ ਅਤੇ ਟਵੱਲ)

ਮੇਵਾਲ-ਸ਼ੀ

ਪੇਸ਼ਾ ਕਟਾਟ
ਸੈਂ ਫ਼ਲ

ਮੇਵਾਲ-ਸ਼ੀ

ਸੰਚਾਰ ਘਟਤਾਂ (ਪੰਜਾਬੀ ਅਤੇ ਸਾਹਿਤਕਾਰ ਘਟਤਾਂ)
ਸਾਹਿਤੀ ਅਤੇ ਸਾਹਿਤਕਾਰ

ਅੱਕਰ-ਚੇਕ ਅਤੇ ਪਵਿਤਰਕਾਲ ਸ਼ੁਰੂ ਉਸਦੀਆਂ

1. ਪੁਸਤਕ ਘਟਤਾ ਦੇ ਚਾਲ ਜਾਨ ਦੇਖਤੀਆ। ਉਹ ਜਾਨ ਦੀਆਂ ਦੇ ਪੁਸਤਕ ਧੁੜ ਸਾਦੇ।
2. ਵਿਵਿਧਾਤਿਕਾਂ ਤੇ ਦੱਖਣ ਪੁਸਤਕ ਬਚਾਈ ਦਾ ਚਾਰ। ਉਹ ਜਾਨ ਦੀਆਂ ਵਿਵਿਧਾ ਪੁਸਤਕ ਸਾਡੀਆ।
3. ਪੁਸਤਕ ਧੁੜ ਦੇ ਘਟਤਾਂ ਸੇਕਰੀ ਦਿੱਤੀਆ।
4. ਪ੍ਰੇਰਣਾ ਸਿਖਾ ਸਿਖਾ ਸਿਖਾ ਸਿਖਾ ਦੀਆਂ ਦੇਖ ਅਤੇ ਦੇਖ ਦੇਖ ਦੇਖ ਦੇਖ ਦੇਖ ਪੁਸਤਕ ਧੁੜ ਬਚਾਈ ਦਿੱਤੀਆ।
B.DESIGN (MULTIMEDIA) (SEMESTER – II)

PAPER – VII: Punjab History & Culture (C 320 to 1000 B.C.)

(Special Paper in lieu of Punjabi compulsory)
(For those students who are not domicile of Punjab)

Time: 3 Hours
Max. Marks: 50

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section–A
1. Alexander’s Invasion and its Impact
2. Punjab under Chandragupta Maurya and Ashoka.

Section–B
3. The Kushans and their Contribution to the Punjab.
4. The Panjab under the Gupta Empire.

Section–C
5. The Punjab under the Vardhana Emperors
6. Socio-cultural History of Punjab from 7th to 1000 A.D.

Section–D
7. Development of languages and Education with Special reference to Taxila
8. Development of Art & Architecture

Suggested Readings:
1. L. M Joshi (Ed), History and Culture of the Punjab, Art-I, Punjabi University, Patiala, 1989 (3rd Edition)
B.DESIGN (MULTIMEDIA) (SEMESTER – II)

PAPER – VIII: DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION
(COMPULSORY PAPER)

DRUG ABUSE: MANAGEMENT AND PREVENTION

Time: 3 Hours
Max. Marks: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section – A

Prevention of Drug abuse:
Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

Section – B

School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

Section – C

Controlling Drug Abuse:
Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program

Section – D

References:


# B.DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)

**SEMESTER–III:**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course</th>
<th>Total Marks</th>
<th>External Assessment</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Film Appreciation–I</td>
<td>Theory 100</td>
<td>-</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>Animation in 3D</td>
<td>Practical 50</td>
<td>50</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Adobe Photoshop</td>
<td>Theory 50</td>
<td>Practical 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>HTML 5</td>
<td>Theory 50</td>
<td>Practical 100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Corel Draw</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Project–I</td>
<td>Practical 50</td>
<td>50</td>
<td>6 Hrs.</td>
</tr>
</tbody>
</table>

**Total Marks: 550**
B.DESIGN (MULTIMEDIA) (SEMESTER–III)

1. FILM APPRECIATION–I

Time: 3 Hours

Max.Marks: 100
Theory: 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

1. Brief introduction to Performing Art
   a) Dance & Drama
      Classical Sanskrit plays, Techniques, Vernacular, form, Ballet, Skit, Fold

Section B


Section C

3. History of Indian Cinema
   a) Introduction, extent of industry
   b) A Multilanguage industry
   c) Hindi Film, the Bengal Art Film

Section D

4. Types of Films
   War Films, Horror Films, Detective, Thriller and Spy Films, Social Fictions,
   Documentary Films, Ad Film
B.DESIGN (MULTIMEDIA) (SEMESTER – III)

2. ANIMATION IN 3D  
(Practical)

Max. Marks:  
50  
External: 50

Basics of Character Modelling
- Blocking out the body
- Building the Head
- Shaping the Nose
- The Mouth

Creating the Ear and Eyes
- Getting to Know the Ear
- Start Building the Ear
- Detailing of Eyes

Modelling the Body
- Crafting the Figure
- Arms and Legs
- Hands and Feet

Principle of Animation
- Draw Walk Cycle
- Draw Run Cycle
- Draw Jump Cycle
- Draw Push/Drag

Character Rigging
- Overview of Rigging
- Understanding Joints
- Deformers
- Nodes and Connections
- Kinematics
- Smooth and Rigid Binding

Rendering
- Rendering Engines
- Global illumination and Ambient Occlusion
- Understanding the concept of Retracing
- Render Window
B.DESIGN (MULTIMEDIA) (SEMESTER–III)

3. ADOBE PHOTOSHOP
   (Theory)
   (Practical)

Time: 3 Hours

Max.Marks:100
   Theory: 50
   External: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A
1) Introduction to graphics, vector graphics & bitmaps
2) Understanding image size resolution
3) Relation between resolution, File sizes & output

Section B
4) Using Menu & Colour palettes
5) Concept of Path (Segment, Anchor, Curved, Closed, Open, Subpath)
6) Working with Photoshop Tools
7) Working with Masks & Histogram

Section C
8) Importing & exporting images
9) Working with Layers, Channels & paths, Actions, History
10) Using navigator & Photoshop plugins.

Section D
11) Integrating with Webpages
12) Understanding Digital Images

Five assignments should be submitted by the student (Magazine, ad, Posters, Image editing, Motion graphics, product ad. Etc)
B.DESIGN (MULTIMEDIA) (SEMESTER–III)

4. HTML 5
   (Theory)
   (Practical)

Max.Marks: 150
Theory: 50
External: 100

Time: 3 Hours

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

- WebPage Building Block
- Basic HTML Structure
- Working with Web Page Files

Section B

- HTML Forms
- WebPage Graphics
- Working with Text, Images and Other Multimedia
- Backgrounds
- Working with Lists

Section C

- Animated Graphics
- Page Design & Layout with Links
- Working with Tables and Divs

Section D

- Introduction to CSS3
- Working with Style Sheets and Selector
5. Corel Draw  
(Practical)

Max. Marks: 100  
External: 100

– Using menus, Standard toolbar, Property Bar and Dialog Boxes
– Drawing Rectangles, Ellipses, Polygons, Stars, Spirals & Graph paper
– Drawing lines of all shapes & Sizes
– Creating & Manipulating Text
– Selecting and Transforming Objects
– Shaping Objects, Filling Objects, Outlining Objects
– Object Ordering, Layers & the object Manager
– Combining, Breaking Apart, Grouping, Ungrouping, Separating & Converting to Curves
– Weld, Intersection & Trim
– Aligning, Distributing, Copying, Pasting & Cloning
– Enveloping & perspective, Extruding, Blending & Countering
– Lens, Transparency & Power-clip
– Colour–Management, Scanning and Auto Tracing
– Importing & Opening Files, Exporting & Saving Files.
– Page Setup, Printing, Styles, Templates & Scrapbooks
– Creating Custom Arrowheads, Patterns, Symbols & Line Styles

Project: Five assignments should be submitted by the student (i.e. Ad design, Poster, Folders, Pamphlet, Press Ad, Calendar etc)
6. PROJECT – I

Max. Marks: 50
External: 50

Project should be completed on the basis all the software covered during the semester.
B.DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)

SEMESTER-IV:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course</th>
<th>Total Marks</th>
<th>External Assessment</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Flash</td>
<td>Theory 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 100</td>
<td>100</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>PHP</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Dream Weaver</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>Film Appreciation–II</td>
<td>Theory 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Project– II</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>*(ESL-221): Environmental</td>
<td>Theory 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Studies–I (Compulsory) (Theory)</td>
<td></td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

Total Marks: 550

Note: * Marks of this Paper will not be included in the Total Marks.
B DESIGN (MULTIMEDIA) (SEMESTER-IV)

1. FLASH

Max.Marks:150
Theory: 50
Practical (External): 100

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

1) Animation Fundamentals:–
   Introduction, History, Systems, Techniques, managing windows & panels, Toolbox, Document window
2) Drawing in Flash:–
   Working with objects, Using Primary drawing tools
   Working with selection tools
   Creating lines, choosing line styles, Drawing panels, Symbols & instances
3) Working with colors &text
   Color basics Color panels, Color mixer panels, Text field types, Text tool
   Modifying text

Section B

4) Basic Interactivity to Flash Movies
   Actions &Event Handlers
5) Graphics & 2D Animation
   Working with Graphics
   Animation software
   Flash Symbols
   Working with Libraries!
   Basic methods of Flash Animation
   Frame–by–Frame Animation

Section C

6) Character Animation Techniques
   Storyboard
   Cartoon Animation Basics
   Coloring the art
   Flashed Tweening
   Backgrounds &Scenery
7) Integrating Media Files with Flash
   Adding sound
   Importing Sounds to Flash Synchronizing Audio to animations Stopping sounds, Editing Audio in Flash

Section D

8) Embedding video
   Preparing a video file
   importing the video
   Publishing Flash movies with video
   Using Sorenson Squeeze for Flash video
B.DESIGN (MULTIMEDIA) (SEMESTER – IV)

2. PHP
(Practical)

Max. Marks: 100
External: 100

–Introduction to PHP
Set up PHP, Variables, Echo/Print, Data Types, Strings, Constants, Arrays, Functions, Super globals

PHP Advanced: Multiple Arrays, Date and Time, Include files, File Handling, File Open/Close/Read, Cookies and Sessions.

- PHP Forms
Working with HTML forms, Form Handling, Form Validation, Form Required

–Introduction to Database
Creating Database, Insert Data into PHP, Create Tables.
Insert Multiple data, Select Data, Delete Data, Update Data, Limit Data.

Use any platform to create Database like MS-Access, MySQL etc.
3. DREAM WEAVER

Introduction to Dream weaver


Sites & Documents

- Site Planning, Planning Templates & Library Use, Local Site Creation, Editing & updating a Web site, Viewing Sites, Working with Site Files, Adding Text & objects,
- Formatting Text Overview, Special Character, Selecting Elements, Invisible Elements, Choosing Colours, Web Safe Colours, Automatic Task, Recording Commands, Head Content, Meta Properties, Description Properties

Linking & Navigation

- Post Relative Paths, Linking to a Document, Creating an E–Mail Link, Creating Jump
- Menus, Editing Jump Menus, Creating Navigation Bars, Viewing Site Structure, Managing
- Links, Testing Links

Site Management

- Overview, Setting Up Remote Site, Determining the Remote Sites Root Directory, Site
- Window, FTP Preferences, Getting & Putting Files, Getting Files from The Remote
- Server, Synchronizing the Files, HTML source searches, Saving Search Patterns, Sites for Multiple Browser, Previewing in Browser, Design Notes.

Formatting Text


Images

- Images, Inserting An Image, Image Properties, Aligning Elements, Resizing, Imaging
- & Other Elements, Practical Image Editor, Creating Rollover, Working with Fire
- Works, Creating Image Maps, Setting Hotspot Properties
B.DESIGN (MULTIMEDIA) (SEMESTER – IV)

Tables
- Tables Overview, Inserting Tables, Adding Content to a Table Cell, Importing Data, Selecting Table Elements, Preset Design in Table Elements, Copying & Pasting Cells, Resizing Tables & Cells, Changing Column Widths, Sorting Tables, Exporting Table Data

Layers

Frames:
- Frames Overview, Creating Frames, Creating Frameset, Deleting Frames, Flame
- Inspector, Saving Frame & Frameset Files, Frameset Properties, Naming a Frameset
- Documents, Borders, Creating NOFRAMES Content

Inserting Media:
- Media Overview, Practical Media Editor, Inserting Shockwave Movies, Inserting Flash Movies, Flash Movies Properties, Inserting & editing after shock objects, Inserting Generator object, Navigator plug in properties, Playing Plug ins, ActiveX Properties, Inserting Java Applets

Behavior:
- Behavior Inspector, About Events, Attaching Behavior to Timeline, Creating New Actions, Call Java Script, Change Property, Check Browser, Check Plug In, Control Shock wave or Flash, Drag layer, Jump Menu, Pre load images, Swap image
Editing HTML:

- Inserting HTML mode, Editing Tag Mode, Rap Tag Mode, The Hints Menu, Quick Tag Editor Preferences, HTML format Preferences, HTML Rewriting Preferences, HTML color Preferences, Cleaning up HTML, Using Practical HTML editor, Inserting

- Scripts, Inserting Comments

Forms:

- Creating Forms, Adding Objects to Form, Text field properties, Button properties, Image Fields, Check Box, List Menu, Radio Buttons, File Fields, Generic Fields, Processing Forms
B.DESIGN (MULTIMEDIA) (SEMESTER–IV)

4. FILM APPRECIATION–II

Time: 3 Hours

Max.Marks:100
Theory:50
Practical: 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section A

1. The Motion Picture Industry (Indian)
   a) Production & Distribution
   b) Censorship
   c) Art and Technique of Motion pictures

Section B

2. Production Manipulation
   i) Script
   ii) Actors
   iii) Sets
   iv) Costumes
   v) Aspect Ratio
   vi) Film Stock

Section C

3. Manipulation during Filming
   i) Lenses
   ii) Camera Distance & Position
   iii) Composition
   iv) Camera movement
   v) Lighting
   vi) Sound
Section D

4. Postproduction Manipulation
   i) Processing and Printing
   ii) Editing
   iii) Special effects
   iv) Music
   v) Sound Effects
   vi) Post Synchronization or dubbing
B.DESIGN (MULTIMEDIA) (SEMESTER–IV)

5. PROJECT–II

Max. Marks: 100
External: 100

Project should be completed on the basis all the software covered during the semester
Teaching Methodologies
The Core Module Syllabus for Environmental Studies includes class room teaching and field work. The syllabus is divided into 8 Units [Unit-1 to Unit-VII] covering 45 lectures + 5 hours for field work [Unit-VIII]. The first 7 Units will cover 45 lectures which are class room based to enhance knowledge skills and attitude to environment. Unit-VIII comprises of 5 hours field work to be submitted by each candidate to the Teacher in-charge for evaluation latest by 15 December, 2019.

Exam Pattern:
End Semester Examination- 75 Marks
Project Report/Field Study- 25 Marks [based on submitted report]
Total Marks- 100

The structure of the question paper being:

Part-A, Short answer pattern with inbuilt choice – 25 Marks
Attempt any five questions out of seven distributed equally from Unit-1 to Unit-VII. Each question carries 5 marks. Answer to each question should not exceed 2 pages.

Part-B, Essay type with inbuilt choice – 50 Marks
Attempt any five questions out of eight distributed equally from Unit-1 to Unit-VII. Each question carries 10 marks. Answer to each question should not exceed 5 pages.

Project Report / Internal Assessment:
Part-C, Field work – 25 marks [Field work equal to 5 lecture hours]
The candidate will submit a hand written field work report showing photographs, sketches, observations, perspective of any topic related to Environment or Ecosystem. The exhaustive list for project report/area of study are given just for reference:

1. Visit to a local area to document environmental assets: River / Forest/ Grassland / Hill / Mountain / Water body / Pond / Lake / Solid Waste Disposal / Water Treatment Plant / Wastewater Treatment Facility etc.
2. Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
3. Study of common plants, insects, birds
4. Study of tree in your areas with their botanical names and soil types
5. Study of birds and their nesting habits
6. Study of local pond in terms of wastewater inflow and water quality
7. Study of industrial units in your area. Name of industry, type of industry, Size (Large, Medium or small scale)
8. Study of common disease in the village and basic data from community health centre
9. Adopt any five young plants and photograph its growth
10. Analyze the Total dissolved solids of ground water samples in your area.
11. Study of Particulate Matter (PM$_{2.5}$ or PM$_{10}$) data from Sameer website. Download from Play store.
12. Perspective on any field on Environmental Studies with secondary data taken from Central Pollution Control Board, State Pollution Control Board, State Science & Technology Council etc.
B.DESIGN (MULTIMEDIA) (SEMESTER – IV)

Unit-I
The multidisciplinary nature of environmental studies
Definition, scope and importance, Need for public awareness (2 lectures)

Unit-II
Natural Resources: Renewable and non-renewable resources:
Natural resources and associated problems.
(a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
(b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
(c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
(d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
(e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
(f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
• Role of an individual in conservation of natural resources.
• Equitable use of resources for sustainable lifestyles. (8 Lectures)

Unit-III
Ecosystems
• Concept of an ecosystem
• Structure and function of an ecosystem
• Producers, consumers and decomposers
• Energy flow in the ecosystem
• Ecological succession
• Food chains, food webs and ecological pyramids
• Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries) (6 Lectures)

Unit-IV
Biodiversity and its conservation
• Introduction – Definition: genetic, species and ecosystem diversity
• Biogeographical classification of India
• Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
• Biodiversity at global, national and local levels
• India as a mega-diversity nation
• Hot-spots of biodiversity
B.DESIGN (MULTIMEDIA) (SEMESTER – IV)

- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

(8 Lectures)

Unit-V

Environmental Pollution:
Definition:
- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

(8 Lectures)

Unit-VI

Social Issues and the Environment
- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

(7 Lectures)

Unit-VII

Human Population and the Environment
- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education
- HIV / AIDS
Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

(6 Lectures)

Unit-VIII

Field Work
- Visit to a local area to document environmental assets River / forest / grassland / hill / mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

(Field work equal to 5 lecture hours)

References:
2. Down to Earth, Centre for Science and Environment, New Delhi.
9. State of India’s Environment 2018 by Centre for Sciences and Environment, New Delhi
### B.DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)

#### SEMESTER –V:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course</th>
<th>Total Marks</th>
<th>External Assessment</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adobe Premiere Pro</td>
<td>Theory 50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 50</td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>Adobe After Effects</td>
<td>Theory 50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 50</td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Workshop–III</td>
<td>Practical 50</td>
<td>50</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>4</td>
<td>Sound Editing and Recording</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>5</td>
<td>Technical Theory of Media – II</td>
<td>Theory 100</td>
<td>–</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>(Electronic Media)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Project–III</td>
<td>Practical 150</td>
<td>150</td>
<td>6 Hrs.</td>
</tr>
</tbody>
</table>

**Total Marks:** 600
1. ADOBE PREMIERE PRO

Instructions for Paper–Setters:

Section A: (10 Marks): It will consist of 8 very short answer type questions. Candidates will be required to attempt any 5 questions, each question carrying 2 marks.

Section B: (20 Marks): It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks.

Section C: (20 Marks): It will consist of 4 Essay type questions. Candidates will be required to attempt any 2 questions, each question carrying 10 marks.

INTRODUCTION
- Nonlinear editing in Adobe Premiere Pro
- Workflow
- Interface

CREATING A NEW PROJECT & THE WORKSPACE
- Starting a New Project
- Setting up a Sequence
- Exploring Preference Settings
- Arranging Your Workspace
- Studying the Project Panel
- Exploring the Program & Source Panels
- Reviewing the Media Browser, Info, Effects & History Panels

IMPORTING ASSETS
- Capturing Video & Logging Clips
- Importing Media into the Project Panel
- Organizing the Project Panel
- Importing Photoshop Files

THE TIMELINE PANEL & SEQUENCE
- Placing Clips from the Project Panel
- Placing Clips from the Source Panel
- Embedding Sequences

DESIGNING & INSERTING TITLES
- Using & Creating Styles with the Title
- Templates & Lower Thirds
- Creating Text on a Path & Working with Masks
- Creating Rolling & Crawling Titles

ADDING AUDIO & EXPORTING FILES
- Adding Audio to a Project
- Exporting a Project

EDITING VIDEO
- Editing Video in the Timeline Panel
- The Ripple & Rolling Edit Tools
- The Slip & Slide Tools
- Trimming Clips in the Source Panel
- The Rate Stretch Tool
- Time Remapping
B.DESIGN (MULTIMEDIA) (SEMESTER – V)

APPLYING VIDEO TRANSITIONS
- Setting & Applying Default Transitions
- Working with Transitions
- Adjusting Transition Settings in the Effect Controls Panel

ADVANCED EDITING & VIDEO EFFECTS
- Converting Video Formats with Adobe Media Encoder
- Stabilizing Shaky Footage
- Adjusting Motion & Opacity
- Applying Color Correction
- Using Adjustment Layers

WORKING WITH AUDIO
- Studying the Basics of Editing with Audio
- Recording a Narration with the Audio Mixer
- Transcribing Speech

EXPORTING THE FINAL PROJECT
- Using the Project Manager
- Exporting Media
- Working with Adobe Media Encoder
- Credits

AUTHORING DVDs WITH ADOBE ENCORE
2. ADOBE AFTER EFFECTS

Time: 3 Hours

Max. Marks: 100
Theory: 50
Practical (External): 50

Instructions for Paper-Setters:
Section A: (10 Marks): It will consist of 8 very short answer type questions. Candidates will be required to attempt any 5 questions, each question carrying 2 marks.
Section B: (20 Marks): It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks.
Section C: (20 Marks): It will consist of 4 Essay type questions. Candidates will be required to attempt any 2 questions, each question carrying 10 marks.

- Introduction to After Effects
  o Setting up a project
  o Creating a project
  o Importing footage Item
  o Opening & closing a project
  o Saving a project
- Importing media
  o File formats supported for import in After Effects
  o Preparing still image file for import into After Effects
  o Using interpretation rules
  o Importing image containing alpha channel
  o Importing layered adobe Photoshop files
  o Importing layered Adobe illustrator files
- Working with imported footage
  o Introducing the switch columns
  o Seeing & hearing A/V panel
  o Global composition switches
  o Flipping switches in the switches panel
  o Finding the hidden panel
  o Knowing the time graph
  o Changing position
  o Changing scale
  o Changing degree of rotation
  o Adjusting the anchor point
  o Fading opacity
  o Modifying motion path
  o Understanding key frame
  o Setting key frames
  o Moving & copying key frames
  o Setting & animating a layer property in timeline window
  o Setting & animating anchor point
  o Setting & animating mask property
  o Modifying mask
  o Putting mask in motion
  o Using mask with effects
- Composition setting
  o Setting general preferences
  o Setting import preferences
  o Setting output preferences
B. DESIGN (MULTIMEDIA) (SEMESTER – V)

- Setting grid & guides preferences
- Setting label colors & label defaults preferences
- Replacing & substituting footage
- Nesting a composition

- Creating mattes
  - Understanding transparency
  - Working with tracks matte
  - Using layer's alpha channel as a track matte
  - Using layer's luminance as a track matte
  - Inverting mattes
  - Using the preserve transparency switch

- Transform modes
  - Using add
  - Using multiply
  - Using Screen
  - Using overlay
  - Using soft light
  - Using hard light
  - Using color dodge & color burn
  - Using darken & lighten
  - Using exclusion & difference
  - Using hue, saturation, color & luminosity
  - What is interpolation
  - Controlling change through interpolation
  - Interpolation method
  - Changing speed of a layer
  - Using time reverse key frame assistant
  - Time stretching a layer
  - About time remapping
  - Reversing the playback direction of a layer

- Working with render queue
  - About rendering
  - Using the render queue window
  - Changing render settings
  - Saving a RAM preview as a rendered movie
  - Choosing compression potion

- Using effects
  - Using all standard effect (adjust, audio, blur, sharpen, channel etc.)
  - Particles
  - What is particle
  - Understanding the particle playground effect
B.DESIGN (MULTIMEDIA) (SEMESTER – V)

- Working with text
  - Working with text filter
  - Using basic text
  - Using the number filters
  - Using path text effect
  - Working with mask in text layer

- Working with 3D composition
  - Introduction to 3D
  - Adjusting 3D layer's position & rotation
  - Animating in 3D
  - Adding camera & light to 3D
  - Working with virtual camera
  - Understanding 3D auto orientation
  - 3D rendering

- Expression
  - Introduction to expression
  - Expression icon
  - Converting expression to key frame
  - Creating & editing expression
  - Working with layer & time in expression
  - Controlling expression by using effect controls

- Working with audio
  - Editing audio levels
  - Using standard audio effects (backward, bass, treble, delay, flange, chorus, reverb etc)

- Project
Pre-Production:
Script writing, Storyboard, Budgeting, Location, staffing, Planning Film stock, Frame rate, Equipment etc.

Production:
Camera preparation (frame rate, shutter speed, shutter angle, white/black balance, Monitor, Back focus, cables, accessories. asa speed, tonal range, lighting ratio, Lighting according to monitor. Highlights, shadows and exposure.

Understanding camera:
Camera head, Body, Frame rate and scanning on board vtr, mechanics, operation, Formats, Image control, Shutter, output, accessories.

Lenses:
Resolution, contrast, breathing, Focus, depth of field, filters, aperture.

Monitor: Introduction, Lining up with color bars, exposure meter, cabling color balance: white/Black balance using grey cards, Nd filters,

Project:
Recording 1/2 hr movie (footage)

Post Production:
Off line / on line editing, Recording and editing music voice over for movie. Mixing.
B. DESIGN (MULTIMEDIA) (SEMESTER – V)

4. SOUND EDITING AND RECORDING

Max. Marks: 100
External: 100

Sound Forge

• Introduction to audio
  o Opening a file
  o Closing a file
  o Saving a file
  o Extracting audio from CDs
• Working with video
  o Attaching & detaching a video
  o Show & hide video strip
  o Display frame number
  o Recording
  o Monitor input levels
  o Choose an input device & adjust levels
  o Adjust for DC offset
  o Recording a specific length
• Selection of data
  o Select data using the set selection dialog
  o Mark in and mark out of a selection
  o Select data using the keyboard
  o Set selection snapping
  o Move the cursor to a specific position
  o Make a selection
  o Adjust the length of a selection
  o Shift a selection left or right
  o Region list
  o Play list / cutlist
  o Snap to time
  o Snap edge to time
  o Snap to zero
  o Snap edge to zero
  o Automatically snap to time
  o Automatically snap to zero
• Basic editing
  o Select an editing tool
  o Cut selected data
  o Play the content of the clip board
  o Paste data from the clipboard
  o Clear selected data
  o Paste multiple copies of the clip board contents
  o Trim/ crop all data in a window except the current selection
  o Repeat an edit operation
• Markers, regions & commands
  o Inserting a marker
  o Inserting a region
  o Convert marker to region
  o Create region automatically
  o Extract region to new files
  o Replicate marker & regions
  o Delete marker & regions
  o Clear all marker or regions from a file
• Working with effects
  o Acoustic mirror
  o Amplitude modulation
  o Chorus
  o Delay / echo
  o Distortion
  o Dynamic
  o Envelope
  o Flange/ wah–wah
  o Crapper/ snipper
  o Noise gate
  o Pitch
  o Reverb
  o Vibrate
  o Wave hammer
• Working with processes
  o Auto trim/crop
  o Bit–depth converter
  o Channel converter
  o DC offset
  o EQ
  o Fade
  o Insert silence
  o Invert / flip
  o Mute
  o Normalize
  o Pan / expand
  o Resample
  o Reverse
  o Smooth/ enhance
  o Swap channel
  o Time stretch
  o Volume
B.DESIGN (MULTIMEDIA) (SEMESTER – V)

- Sampling Sound
  - Using the loop tuner
  - Cross fading a loop
  - MIDI note & frequencies
  - Introducing sound data

- MIDI synchronization
  - Introduction to MIDI
  - Using MIDI triggers
  - Configure an internal or external MIDI controller
  - Assign sound forge events to MIDI triggers
  - Setting MIDI / synchronization preferences
  - Acoustic mirror
  - Wave hammer

Introduction to Stienberg Cu–Base

  - Interface
  - Toolbars
  - Effects Channels
  - Lanes & Tracks
  - Solo
  - Loop
  - Effects
  - Equaliser
  - Mixer
  - MIDI Recording
B.DESIGN (MULTIMEDIA) (SEMESTER – V)

5. TECHNICAL THEORY OF MEDIA –II (ELECTRONIC MEDIA)

Max. Marks: 100
Time: 3 Hours

Instructions for Paper–Setters:

Section A: (20 Marks): It will consist of 12 very short answer type questions. Candidates will be required to attempt any 10 questions, each question carrying 2 marks.

Section B: (20 Marks): It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks.

Section C: (60 Marks): It will consist of 5 Essay type questions. Candidates will be required to attempt any 4 questions, each question carrying 15 marks.

- Evaluation and Growth of Electronic Media (Radio, TV)
- Characteristics of Various Electronic Media (Radio, TV)
- Radio vs. TV
- Print vs. Electronic Media
- Effect of Electronic Media on Culture and Society
- Broadcasting Writing Technique and Style
- Script Formats
- Editing
- Principles of Video Production
- Basic TV Production Techniques
- Production Team
- Camera Crew
- Types of Cameras
- VHS U–matic, Betacam, High Eight, DVC
- Budgeting
- Channel Analysis, Media Appreciation – Film review
- Distribution of Films
- Editing Softwares – Adobe Premiere, After Effects, Sound Forge.
B.DESIGN (MULTIMEDIA) (SEMESTER – V)

6. PROJECT–III

Max. Marks: 150
External: 150

Project should be completed on the basis all the software covered during the semester
### B.DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)

#### SEMESTER – VI:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Total Marks</th>
<th>External</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3D Studio Max</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>2</td>
<td>Introduction to 3D</td>
<td>Theory 100</td>
<td>-</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>3</td>
<td>Drawing &amp; Illustration</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>4</td>
<td>Workshop – IV: (Stop Motion)</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>5</td>
<td>Blender</td>
<td>Theory 50</td>
<td>50</td>
<td>3 Hrs. 6 Hrs.</td>
</tr>
<tr>
<td>6</td>
<td>Project – IV</td>
<td>Practical 100</td>
<td>100</td>
<td>6 Hrs.</td>
</tr>
</tbody>
</table>

**Total Marks: 600**
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

1. 3D Studio Max
   (Practical)

   - Introducing 3d Max
     - What Is 3d
     - About 3ds Max
     - How’s Max Developed
     - System Requirements
     - About 3-D Graphics
     - How 3-D Graphics Are Used
     - Finding A Career In 3d
     - Simulating Three Dimension
   - Exploring View Ports
     - Understanding 3d Space
     - Orthographic Views
     - Perspective View
     - View port Controls
     - View port Rendering Levels
     - View port Configuration
   - Meeting The Max Interface
     - Command Panels
       - The Create Panels
       - The Modify Panels
       - The Hierarchy Panel
       - The Motion Panel
       - The Display Panel
       - The Utility Panel
     - The Main Toolbar Options
       - Learning The Toolbar Contents
       - Selection Tool
       - Transform Tool
       - Other Toolbar Options
   - Using Primitives & Splines
     - 3d Primitives
     - Extended Primitives
     - 2d Primitives
   - Selection & Transform Tools
     - Selection Methods
     - Groups

Max. Marks: 100
External: 100
B. DESIGN (MULTIMEDIA) (SEMESTER – VI)

- Transform Tools
  - Using Transform Buttons
  - Working With The Transform Gizmo
  - Using Transform Type–Ins
  - Constructing The Transform
  - Understanding A Coordinate System
- Pivot Points
  - Temporary Pivot Points
  - Temporary Pivot Points And Sub Object
  - True Pivot Point
  - Positioning And Aligning Pivot Point
  - Transform Adjustments
- Using The Align Command
- Using Grids
- Cloning Objects And Object Arrays
  - Cloning Basics
  - Shift Clone Method
  - Array Tool
    - Linear Array
    - Circular Array
    - Spiral Array
- Grouping And Linking Objects
  - Grouping Objects
    - Ungrouping Objects
    - Attaching And De–Attaching Objects
  - Relationship Between Parent, Chills & Root Relationships
    - Linking & Unlinking Objects
    - Links & Hierarchies
  - Displaying Links In The View Port
  - Viewing Hierarchies
  - Working With Linked Objects
    - Selecting Hierarchies
    - Linking To Dummies
  - Using Schematic View Window
    - Schematic View Window
    - Schematic View Interface
  - Working With Schematic View Nodes
    - Creating A Hierarchy
    - Rearranging Nodes
    - Deleting Nodes
    - Node Colors
    - Changing The Object Color
    - Copying & Recording Modifiers
B. DESIGN (MULTIMEDIA) (SEMESTER – VI)

- Modeling With Modifiers
  - Modifiers & The Modifier Stack
  - Basic Axial Modifier
    - Bend
    - Taper
    - Twist
    - Stretch
    - Squeeze
    - Push
    - Mirror
    - Skew
  - Noise
  - Relax
  - Ripple & Wave
  - Slice & Cap Holes
  - Spherify & Lattice
  - Mesh Optimization
  - The Displace Modifiers
  - Free Form Deformations
  - Spline Based Modifiers
    - Extrude
    - Bevel
    - Lathe & Fillet/ Champher
    - Using Spline Boolean Operations

- Mesh Level Modeling
  - Choosing A Modeling Method
  - Mesh Basics
  - Polygonal Mesh Modeling
  - Modeling With Primitives
  - Modeling Using Modifiers
    - Modeling A Display Case With Lattice Modifier
    - Modeling A Landscape With The Displace Modifier
  - Modeling Meshes From Lazier Splines
  - Modeling With Compound Object
  - Editable Poly Modeling
  - Mesh Sub Object Editing
  - The Vertex Sub Object Level

- Patch Modeling
  - Introduction To Patch Grid
  - Building & Editing Patch Surfaces
    - Creating Patches
    - Shaping Patches
    - Adding New Patches
    - Extruding Patches
    - Extrude Edge On Patches
    - Attaching & Welding Patch Surface
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

- Converting A Loft Object To Patch
- Compound Object
- Types Of Compound Object
  - Boolean Objects
  - Spline Boolean
  - Morphing Objects
  - Creating Conform Object
  - Shape Merge
  - Terrain Object
  - Loft Objects
  - Scatter
  - Mesher
- Working With Nurbs
  - Nurbs Curves & Surfaces
  - Non Uniform Rational B–Spline (Nurbs)
  - Adaptive Tessellation
  - Using Nurbs For Organic Modeling
  - Working With Nurbs Curves
  - Working With Nurbs Surfaces
  - Nurbs Modeling Technique
  - Converting A Mesh Primitive To Nurbs
  - Understanding Isoparms
  - Using Nurb Tools
    - Making A U Loft Surface From Curve
    - Capping A Surface
    - Drawing A Curve On Surface
    - Trimming A Surface
    - Modeling A Character’s Head With Nurbs
    - Lathing A Nurbs Surface
    - Lofting Surfaces
- Radiocity
- Basic Mapping & Material
  - What Is Material
  - Material In 3d Computer Graphics
  - Understanding The Structure Of Materials
    - Understanding Color Models
    - Components Of Surface Shading
    - Shading Types
    - Basic Shading Parameters
  - Understanding Materials & Maps
    - Material & Map Browser
    - Material Tree
    - Material Type
### B. DESIGN (MULTIMEDIA) (SEMESTER – VI)

- **Material Channels**
- **Map Type**
  - Bitmap
  - 2d Procedural Maps
  - 3d Procedural Maps
  - Color Modifying Maps
  - Special Maps
  - Reflection & Refraction Maps
- **Mapping Coordinates**
  - Adjusting Mapping Coordinates In Coordinate Rollout
  - The UVW Map Modifiers
  - Using Unwrap UVW To Change Mapping
- **Exploring The Material Editor Interface**
- **Map Rollout**
- **Advanced Materials**
- **Advanced Material Setting**
- **Supes Sampling Rollout**
- **Dynamics Properties Rollout**
- **Output Curver For Maps**
  - Ray Tracing
  - Applying a Mattel Shadow Material
  - Applying a Double Sided Material
  - Applying Top/ Bottom Material
  - Applying a Shellec Material
  - Applying Map to Material Channel

- **Working With Lights**
  - **Art Of Lighting**
  - **Basics Of Lightning**
  - **Simulation And Color In 2d**
  - **Types Of Light & Their Parameters**
  - **Lightning In Computer Graphics**
  - Diffuse Reflection
  - Ambient Light
  - Shadow Casting
  - Inclusion & Exclusion of Objects
  - **Designing Your Lighting**
    - A Three Point Lightning Setup
    - Applying Three Point Lighting
    - Adding Volume Light Atmospheric
    - Zone Lighting
    - Mood Lighting
    - Applying Mood Lighting
    - Lighting Free Camera
    - Using Vertex Color To Replace Lighting
Using Camera
- Understanding camera & Camera types
- Using free camera
- Using target camera
- Camera parameters
- Controlling camera
- Dollying the camera
- Roofing the camera
- Trucking the camera
- Orbiting the camera
- Panning the camera
- Adding multi-pass effect
- Depth of field
- Motion blur

Animation
- Using keys
- Managing keys in track view
- Using animation button
- Setting frame rate
- Setting speed & direction
- Track bars
- Track view modes
  - Edit key mode
  - Edit time mode
  - Edit range mode
  - Position ranges mode
  - Function curves mode
- Motion panel
- Animation Parameters
  - Animating a single parameters
  - Animating a modifiers parameters
  - Animating light parameters
  - Animating material parameter
  - Animating modifier parameter
- Animating with space warps
- Animating particles
- Making the particles follow a path
- Adding a deflector space warp
- Morphing

Using controllers
- Assigning controllers
- Assigning controllers in motion panel & track view
- Setting default controllers
B. DESIGN (MULTIMEDIA) (SEMESTER – VI)

- Using Particles
  - Creating particles
  - Types of particles
  - Particles basic parameters
  - Particles generation rollout

- Using Space Warps
  - Creating space warps
  - Binding space warp to an object
  - Types of space warp
    - Forces
    - Deflectors
    - Geometrical / deformable
    - Modifier based
    - Using video post

- Understanding video post
  - Editing video post
  - Video post queue
  - Video post events
  - Video post panels

- Dynamic Simulation
  - Understanding dynamic
  - Using dynamic space warps
  - Using dynamic rollout
  - Editing simulation objects
  - Using flex modifier
  - Adding forces & deflectors

- Adding Collision
- Rendering
  - Rendering animation
  - Output size & other options
  - Rendering few part of the scene
  - Motion blur
  - Antialiasing
  - Render type
  - Common parameters
  - Render preview
  - Action spade

- Environment & Render Effects
  - Render effects
  - Lens effect
  - Glow, ring, blur etc.
  - Creating an environment
  - Adding atmospheric effect
  - Fog, cloud, fire etc.
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

- Working with bones
  - Building bones system
  - Assigning an IK solver
  - Setting bone parameter
  - Using skin modifiers
  - Editing envelops
  - Using deformer

- Using inverse kinematics
  - Creating IK system
  - Building & linking a system
  - Defining joint constraints
  - Copying, pasting & mirroring joints
  - Binding objects
  - IK limb solver
  - IK methods
  - IK script

Project:

- Assignment 1 – Modeling
- Assignment 2 – Animation (i.e. Walkthrough, Camera animation etc.)
2. INTRODUCTION TO 3D

Max. Marks: 100
Theory: 100

Time: 3 Hours

Instructions for Paper–Setters:
Section A: (20 Marks): It will consist of 12 very short answer type questions. Candidates will be required to attempt any 10 questions, each question carrying 2 marks.
Section B: (20 Marks): It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks.
Section C: (60 Marks): It will consist of 5 Essay type questions. Candidates will be required to attempt any 4 questions, each question carrying 15 marks.

Introduction to the 12 Basic Principles of Animation
- Squash and Stretch
- Anticipation
- Staging
- Straight ahead action and pose to pose
- Follow through and overlapping action
- Slow in and Slow out
- Arcs
- Secondary Action
- Timing
- Exaggeration
- Solid Drawing
- Appeal

What is 3D
- Application of 3D Graphics and Animation
- Difference between 2D Workspace and 3D Workspace
- Skills set required

Understanding Viewports
- Understanding 3D Space
- Different Viewports in 3D
- Role of Perspective View
- Configuring Viewport

Techniques in 3D
- Streams– Modelling, –Rigging, –Texturing, –Lighting, –Animation, –Dynamics, –Rendering
• Choosing a Modelling Method: Nurbs Modelling, Spline Modelling, Polygon Modelling, Patch Modeling, Subdivs
• Choosing a Rigging Method: Inverse Kinematic (IK), Forward Kinematics (FK)
• Choosing a Texturing Method: UV Mapping and Unwrapping
• Choosing a Lighting Method: Scan line, Mental Ray.
• Using Primitives – 3D Primitives, Extended Primitives, 2D Primitives

Selection and Transform Tools
• Transform tools
• Working with Gizmo
• Using the Transform Tools
• Co–ordinate System

Pivot Points
• True Pivot
• Temporary Pivot

Cloning Objects
• Cloning basics
• Array Tool

Modifiers
• Bend
• Taper
• Twist
• Stretch
• Squeeze
• Mirror
• Skew
• Turbo smooth
• Symmetry
• Mesh Optimization
• Spline based modifiers
• Free Form deformations

Compound Objects
• Boolean Objects
• Spline Boolean
• Morphing Objects
• Creating Conform Object
• Shape Merge
• Terrain Object
• Loft Objects
• Scatter
• Mesher
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

Map Types
- Bitmap
- 2D Procedural Map
- 3D Procedural Map
- Color Modifying Map
- Refraction and Reflection Maps
- Opacity Maps

Mapping Attributes
- UVW map
- Material Editor
- Map Rollout

Lighting in 3D Software
- Art of Lighting
- Basics of lighting
- Three Point lighting basic
- Zone lighting
- Mood Lighting
- Accent Lighting
- Types of lights and their properties

Camera in 3D
- Understanding the camera and camera types
- Free camera
- Target camera
- Camera parameters
- Controlling Camera
- Dollying the Camera
- Rolling the Camera
- Trucking the Camera
- Orbiting the Camera
- Panning the Camera
- Adding Multi–Pass effect in the camera
- Depth of Field
- Motional Blur
Animation in 3D
- Using Animation key frames
- Frame Rate
- Morphing
- Auto Key and Set Key Attributes
- Motion Panel
- Dope Sheet
- Trax Editor
- Ghosting
- Simulating Particles
- Video Post

Rigging
- Creating Bones
- Solvers
- Skin Modifiers
- Using Inverse Kinematics
- Using Forward Kinematics
- Linking
- Physique
- Understanding Biped

Rendering
- Taking Output
- Formats of Rendering
- Frame Size
- Output type
- Render Preview
- Anti Aliasing
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

3. DRAWING & ILLUSTRATION
(Practical)

Max. Marks: 100
External: 100

a. Drawing:
   i. Study of Furniture, Buildings, and Automobiles etc. ii.
   Study of objects in wood, Glass, Metal, Fabric etc.
   iii. Drawing of 3D objects from 4 different views (Top, Front, Side view & Perspective)
   iv. All above assignments to be done in any one medium.

b. Illustration:
   i. Introduction to Illustration
   ii. Different styles of Illustration
   iii. Exaggerated, Flat, Stylish & Realistic etc.

   Story Narration through Illustration
4. WORKSHOP-IV (STOP MOTION)

Camera Capturing Techniques
Camera Angle
Frame by frame shoot
Editing
Sequence Edit and Composite in Video and Composting softwares
Render

Max. Marks: 100
External: 100
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

5. BLENDER
(THEORY)
(PRACTICAL)

Max. Marks: 100
Theory: 50
Practical (External): 50

Time: 3 Hours

Instructions for Paper–Setters:

Section A: It will consist of 8 very short answer type questions. Candidates will be required to attempt any 5 questions, each question carrying 2 marks. (10 Marks)

Section B: It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks. (20 Marks)

Section C: It will consist of 4 Essay type questions. Candidates will be required to attempt any 2 questions, each question carrying 10 marks. (20 Marks)

Blender Interface
• Blender screen, 3D window, 3D space
• Navigate save, App Pac Imp

Object
• Create and edit object, Basic Mesh, Join mesh
• Move mesh object, Mesh vertex edit

Materials and textures
• Blender material slots, Material settings, Ramp shaders
• Halos, UV Texture mapping, Displacement mapping, Unwrapping with seams

Lighting and camera
• Types of lights, Light settings, Camera settings

Rendering
• Render Settings, Rendering image, Creating a video clip
• Raytracing

Animation
• Animation basics, Graph editor window, Editing curves
• Curve types, Automatic keyframing
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

3D Text
- Creating 3D text, Text on curves, Converting to mesh object
- Elefont 3D text

Modifiers
- Modifier stack, Array modifier, Bevel modifier
- Boolean modifier, Mirror modifier, Subdivision surface modifier
- UV project modifier

Particle Systems
- Nomenclature, Particle buttons, Starting a system, Material on particles
- Interaction, Types of particles, Wind

Constraints
- Constraint stack, Transform, Tracking, Relationships
- Duplicating on curves, Extruding on curves

Armatures
- Manually assign vertices, Vertex groups, Adding armatures
- Editing bones, Inverse kinematics

Fluid Simulation
- Basic setup, Domain object setup, Fluid object setup, Inflow object setup
- Obstacle object setup, Fluid simulation

Nodes
- Resize node, Expand & collapse nodes, Connecting & Unconnecting
- Node group, Naming groups, Material nodes
- Texture nodes, Compositing nodes

Video Sequence Editing
- Making a movie, The video editing screen
B.DESIGN (MULTIMEDIA) (SEMESTER – VI)

6. PROJECT: IV

Max. Marks: 100
External: 100

Project should be completed on the basis all the software covered during the semester
B. DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)

SEMESTER – VII:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Total Marks</th>
<th>External</th>
<th>Exhibit Display</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Maya</td>
<td>Theory 100</td>
<td></td>
<td>-</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 200</td>
<td>200</td>
<td></td>
<td>6 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>Mudbox</td>
<td>Theory 50</td>
<td></td>
<td>-</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical 50</td>
<td>50</td>
<td></td>
<td>6 Hrs.</td>
</tr>
</tbody>
</table>

Total Marks: 600
BACHELOR OF MULTIMEDIA (SEMESTER – VII)

MAYA (THEORY) (PRACTICAL)

Max. Marks: 300
Theory: 100
Practical (External): 200

Time: 3 Hours

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section-A

User Interface of Maya
- Introduction to Maya
- Modeling Tools
- Abt. View Ports
- Abt. Opening File, Saving and Closing

Modeling Tools
- Nurbs Modeling
- Poly Modeling
- Subdivision Modeling

Advance Modeling Technique
- Product Modeling
- Character Modeling
- Low poly Modeling
- High Poly Modeling

Texturing
- About Texturing
- Mapping
- UV Tex editor

Materials
- Anisotropic.
- Blinn.
- Lambert.
- Layered Shades.
- Ocean Shades.
- Phong.
- Phong E.
- Ramp Shades.
- Shading Map.
- Surface Shades.
- Use Backgrounds.
BACHELOR OF MULTIMEDIA (SEMESTER – VII)

Section-B

Animation
- About Animation.
- About Key Frames.

Animation Editors
- Graph Editor.
- Trax Editor.
- Dope Sheet.
- Blend Shape.
- Expression Editor.
- Device Editor.

Set Key
- Set Breakdown.
- Hold Current Keys.
- Set Driver Key.
- Set Transform Keys.
- Ik/Fk Keys.
- Create Clip.
- Create Pose.

Section-C

Ghost Selected
- Unghost Selected.
- Unghost All.
- Create Motion Trail.
- Create Animation SnapShot.
- Update Motion Trail/Snapshot.
- Create Animated Sweep.
- Motion Paths.

Skin
- Bind Skin.
- Detach Skin.
- Go To Bind Pose.
- Edit Smooth Skin.
- Edit Rigid Skin.
BACHELOR OF MULTIMEDIA (SEMESTER – VII)

Skeleton
- Joint Tool.
- Ik Handle Tool.
- Ik Spline Handle Tool.
- Insert Joint Tool.
- Reroot Skeleton.
- Remove Joint.
- Connect Joint.
- Mirror Joint.
- Orient Joint.
- Set Preferred Angle.
- Assume Preferred Angle.
- Enable Ik Handle Snap.
- Enable Ik Fk Control.
- Enable Selected Ik Handle.
- Disable Selected Ik Handle.

Section-D

Lighting
- Ambient Light.
- Directional Light.
- Point Light.
- Spot Light.
- Area Light.
- Volume Light.
- Camera.
- Camera
- Rendering

Cloth
- Create Panel
- Create Garment
- Create Seam
- Create Collision Object

Hypergraph
Paint Effects
Play blast
BACHELOR OF MULTIMEDIA (SEMESTER – VII)

MUDBOX (THEORY)  
(PRACTICAL) 

Max. Marks: 100  
Time: 3 Hours  
Theory: 50  
Practical (External): 50

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section-A
- Time lapse Masking
- Sculpturing Technique

Section-B
- Texturing
- Lighting technique
- Rendering Technique

Section-C
- Displacement Map
- Mesh Preparation

Section-D
- Painting, Drawing
- Painting HDRI
- Vector Art with selection and path in GIMP

Books Recommended:
- Introducing Mudbox –Ara Kermanikian
- Digital Sculpting with Mudbox: Essential Tools and Techniques for Artists by Mike de la Flor and Bridgette Mongeon
- Maya for Games: Modeling and Texturing Techniques with Maya and Mudbox by Michael Ingrassia
BACHELOR OF MULTIMEDIA (SEMESTER – VII)

3. PROJECT–V

Max. Marks: 200
External: 200

Project should be completed on the basis all the software covered during the semester
### B. DESIGN (MULTIMEDIA) (SEMESTER SYSTEM)

#### SEMESTER – VIII:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Course</th>
<th>Total Marks</th>
<th>External</th>
<th>Exhibit Display</th>
<th>Time Allowed for Exam</th>
<th>Time Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>3D and Animation in Photoshop</td>
<td>Theory 50</td>
<td>50</td>
<td>-</td>
<td>3 Hrs.</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td></td>
<td>Practical 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Motion Graphics for Commercials</td>
<td>Theory 50</td>
<td>50</td>
<td>-</td>
<td>3 Hrs.</td>
<td>6 Hrs.</td>
</tr>
<tr>
<td></td>
<td>Practical 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>3D Human Modelling and Animation</td>
<td>Practical 100</td>
<td>100</td>
<td>-</td>
<td>6 Hrs.</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Industrial Training</td>
<td>300</td>
<td>300</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Marks: 600**
B. DESIGN (MULTIMEDIA) (SEMESTER – VIII)

1. 3D AND ANIMATION IN PHOTOSHOP
   (THEORY)
   (PRACTICAL)

Max. Marks: 100
Theory: 50
Practical (External): 50

Time: 3 Hours

Instructions for Paper–Setters:

Section A: (10 Marks): It will consist of 8 very short answer type questions. Candidates will be required to attempt any 5 questions, each question carrying 2 marks.

Section B: (20 Marks): It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks.

Section C: (20 Marks): It will consist of 4 Essay type questions. Candidates will be required to attempt any 2 questions, each question carrying 10 marks.

Section A: Working with 3D files: 3D file formats, importing 3D objects, working with Mesh Shadows, DICOM Files

Section B: 3D tools in Photoshop: 3D Object Control, 3D Camera control tool, 3D-Axis tool, Rotate view Tool

Section C: 3D post card, shapes, meshes from 2D grayscale layer, 3D Meshes, Texture, 3D painting.

Section D: Working with lights, Infinite light, Spot light, Image based light, Point Light

Section E: Animation in Photoshop, 3D timeline Animation, Frame Animation, 3D Render settings

Section F: Working with third Party Tools: DAZ studio 3D, 3DVIA
B.DESIGN (MULTIMEDIA) (SEMESTER – VIII)

2. MOTION GRAPHICS FOR COMMERCIALS (THEORY) (PRACTICAL)

Max. Marks: 100
Theory: 50
Practical (External): 50

Time: 3 Hours

Instructions for Paper–Setters:

Section A: (10 Marks): It will consist of 8 very short answer type questions. Candidates will be required to attempt any 5 questions, each question carrying 2 marks.

Section B: (20 Marks): It will consist of 7 long answer type questions. Candidates will be required to attempt any 4 questions, each question carrying 5 marks.

Section C: (20 Marks): It will consist of 4 Essay type questions. Candidates will be required to attempt any 2 questions, each question carrying 10 marks.

Section A: Motion Graphics in Film and Television: Film Titles, Commercials, Network Branding, Music Videos.

Section B: Motion Graphics on Web: Animation Formats on Web, Animation Navigation Webs, Splash Page Animation, Motion in DVD-Video, Digital Signage.

Section C: Spatial Transformation, Direction, Frame Mobility.

Section D: Animation Process: Frame by Frame Animation, Interpolation, Spatial, Visual and Temporal Interpolation, Coordination Movement

Section E: Motion Graphic Compositing: Blend Operations, Keying, Alpha Channels, Mattes, Masks, Nesting and Color Correction.
B. DESIGN (MULTIMEDIA) (SEMESTER – VIII)

3. 3D HUMAN MODELLING AND ANIMATION
   (PRACTICAL)

   Max. Marks: 100
   Practical (External): 100

Section A: Anatomy of Human Figure: Proportion, Skeleton, Muscles

Section B: Advanced Modelling Technique: Patch Modelling, Splines and NURBS Modelling, Human Face Modelling

Section C: Surfacing and Lighting: Key light, Ambient Light, Fill, Rim or Back Light, Kicker, Top Light, Bounce Light, Contact Light, Gobos Light

Section D: Storyboarding, Rotoscoping, Walking and Running

B.DESIGN (MULTIMEDIA) (SEMESTER – VIII)

4. INDUSTRIAL TRAINING

Max. Marks: 300
Practical (External): 300

- Industrial Training for minimum 10–12 weeks