FACULTY OF VISUAL ARTS AND PERFORMING ARTS

SYLLABUS

FOR

BACHELOR OF VOCATION (B.Voc.)
ENTERTAINMENT TECHNOLOGY
(Semester: I – VI)

Session: 2019-20

GURU NANAK DEV UNIVERSITY,
AMRITSAR.

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Defaulters will be prosecuted.

(ii) Subject to change in the syllabi at any time.
Please visit the University website time to time.
Eligibility:
+2 pass in any stream.

**SCHEME OF COURSE**

### Semester – I:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>Theory</th>
<th>Practical</th>
<th>Total Marks</th>
<th>Time Allowed for Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction to Computers and Digital Audio</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>Video and Broadcast</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Audio Production Lab. – I</td>
<td>-</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>Production Management-I</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Communication Skills in English–I</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Punjabi (Compulsory) OR</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>* ਪੰਜਾਬੀ ਪ੍ਰਾਣਕਾਰ OR</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>* Punjab History &amp; Culture (From Earliest Times to C 320)</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>7.</td>
<td>** Drug Abuse: Problem, Management and Prevention (Compulsory Paper)</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
</tbody>
</table>

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.

### Semester – II:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>Theory</th>
<th>Practical</th>
<th>Total Marks</th>
<th>Time Allowed for</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction to Sound Technology</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs. Each</td>
</tr>
<tr>
<td>2.</td>
<td>Digital Compositing</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs. Each</td>
</tr>
<tr>
<td>3.</td>
<td>Audio Production Lab. – II</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>Production Management-II</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Communication Skills in English–II</td>
<td>35</td>
<td>15</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Punjabi Compulsory</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>* ਪੰਜਾਬੀ ਪ੍ਰਾਣਕਾਰ</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>* Punjab History &amp; Culture (C 320 to 1000 B.C.)</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>7.</td>
<td>** Drug Abuse: Problem, Management and Prevention (Compulsory Paper)</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>S.No.</td>
<td>Subject</td>
<td>Theory</td>
<td>Practical</td>
<td>Total</td>
<td>Time Allowed for Exam</td>
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<tr>
<td>1.</td>
<td>Motion Picture Photography (Theory)</td>
<td>50</td>
<td>—</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td></td>
<td>Motion Picture Photography (Practical)</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>2.</td>
<td>Recording Techniques (Theory)</td>
<td>50</td>
<td>—</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td></td>
<td>Recording Techniques (Practical)</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>3.</td>
<td>Film Editing</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>Editing and Manipulating Images (Theory)</td>
<td>50</td>
<td>—</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>Editing and Manipulating Images (Practical)</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Project–I</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td>150</td>
<td>250</td>
<td>400</td>
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**Semester – IV:**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
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<th>Practical</th>
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<th>Time Allowed for Exam</th>
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<tbody>
<tr>
<td>1.</td>
<td>Compositing with After Effects (Theory)</td>
<td>50</td>
<td>—</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td></td>
<td>Compositing with After Effects (Practical)</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td>2.</td>
<td>Film Studies (Storyboarding and Script Writing)</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td>3.</td>
<td>Film Appreciation (Theory)</td>
<td>50</td>
<td>—</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td>Film Appreciation (Practical)</td>
<td>—</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td>4.</td>
<td>Still Photography (Practical)</td>
<td>–</td>
<td>100</td>
<td>100</td>
<td>3 Hrs.</td>
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<tr>
<td>5.</td>
<td>Project–II</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td>6.</td>
<td><em>(ESL-221): Environmental Studies</em></td>
<td>100</td>
<td>—</td>
<td>100</td>
<td>3 Hrs.</td>
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<td><strong>Total:</strong></td>
<td>150</td>
<td>250</td>
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</table>

* Marks of EVS will not be included in the Total Marks.
### Semester-V:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>Theory</th>
<th>Practical</th>
<th>Total Marks</th>
<th>Time Allowed for</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lighting</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs. each</td>
</tr>
<tr>
<td>2.</td>
<td>Introduction to Scriptwriting</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs. each</td>
</tr>
<tr>
<td>3.</td>
<td>High Definition Cinematography</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>History of Film and Theatre– I</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Introduction to Motion – I</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Project – III</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
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<tr>
<td></td>
<td><strong>Total:</strong></td>
<td>150</td>
<td>250</td>
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### Semester-VI:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>Theory</th>
<th>Practical</th>
<th>Total Marks</th>
<th>Time Allowed for Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Directing Film and Documentary</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs. each</td>
</tr>
<tr>
<td>2.</td>
<td>3DS Max</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs. each</td>
</tr>
<tr>
<td>3.</td>
<td>History of Film and Theatre – II</td>
<td>50</td>
<td>–</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>4.</td>
<td>Nuendo</td>
<td>50</td>
<td>50</td>
<td>100</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>5.</td>
<td>Introduction to Motion – II</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td>6.</td>
<td>Project – IV</td>
<td>–</td>
<td>50</td>
<td>50</td>
<td>3 Hrs.</td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td>150</td>
<td>250</td>
<td><strong>400</strong></td>
<td></td>
</tr>
</tbody>
</table>
PAPER–I: INTRODUCTION TO COMPUTERS AND DIGITAL AUDIO (Theory)

Time Allowed: 3 Hours

Total Marks: 100
Theory: 50 Marks

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
• Introduction to Computers: Application, Input and Output Devices
• Storage Technologies: Optical Disks such as CDROM, DVD and Blue–Ray Disc
  Removable Media such as Memory Cards, USB Drives, External HDD

SECTION-B
• Working with Windows, Difference between Windows and Macintosh
• Working with MS-Office, Introduction to MS-Word and MS-PowerPoint, various operations on a file, Page setup

SECTION-C
• Social Media, Blogs, Video Channels, Mobile Devices (Smartphone, Tablets, etc.)

SECTION-D
• Digital Audio: Audio Sampling Rate, Bit Depth,
  Various File Formats: MP3, WMA, WAVE (PCM), AIFF, M4A, OGG, RA & RM Mono vs Stereo, Role of Sound Card
INTRODUCTION TO COMPUTERS AND DIGITAL AUDIO (Practical)

Time: 3 Hrs.  Practical: 50 Marks

Practical will be based on operational Knowledge of:

- Basic Window Functions
- MS-Office (Basic MS-Word & MS-PowerPoint)
- Internet and Digital Audio

Suggested Readings:

1. Windows Based Computer Courses by Gurvinder Singh and Rashpal Singh
2. MS-Office by BPB Publications
3. Computer Fundamentals by P.K. Sinha
4. Introduction to Computers by N. Subramanian
5. Introduction to Computers by Peter Norton
6. Introduction to Software Packages by R.K. Taxali
7. How to Do Everything with MP3 and Digital Music by Dave Johnson and Rick Broida
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – I

PAPER – II: VIDEO & BROADCAST (THEORY)

Time Allowed: 3 Hours
Total Marks: 100
Theory: 50 Marks

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
Video and Broadcast Technology—Analogue and Digital technology, frame and field, scanning process, Interlaced and Progressive scanning, Composite video signal, Component video signal, Resolution, Aspect ratio. CCU, Colour bars, Vectorscope, Waveform monitor, Broadcast standards-- NTSC, PAL, SECAM and HDTV, Telecine.

SECTION-B
Video formats; types of Videotapes; Analogue tape, Digital tape. Video compression, Sampling, Intra and Inter frame compression, TBC, Camera cables, connectors, SMPTE Time Code, Control track, eyeballing- monitor setup.

SECTION-C
ENG equipment and Technology; DSNG Van equipped with PCR and Transmission facilities; transmission through mobile phones and microwave transmitters. EFP; OB Vans.

SECTION-D
Transmission technologies—Terrestrial transmission; Satellite and Cable broadcasting; Up linking and Down linking, Conditional Access System, DTH; IPTV.

Text and References
- TV Production: Gerald Millerson, Focal Press
- Film Production: Steven Bernstein, Focal Press
- Creating Special Effects for TV and Video: Barnard Wilkie
- Single Camera Video Production: R.B. Musburger
- Television Production Handbook: Zetl, Herbert, Published, Thomson Wadsworth
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – I

PAPER – II: VIDEO & BROADCAST (PRACTICAL)

Time Allowed: 3 Hours

Practical: 50 Marks

- Formats of Camera
- Recording Techniques
- Set up Equipment for Production
- Recording Setup
- Post Production
- Encoding DVD/Blu Ray
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – I

PAPER – III: AUDIO PRODUCTION LAB. – I (Practical)

Time: 3 Hrs.  
Practical: 50 Marks

UNIT – I
Understanding Digital Audio  
Working with various Audio file formats  
Basic file operations  
Working with Mono and Stereo Files  
Audio Sampling Rate and Audio Bit Depth

UNIT – II
Function of a Sound Card  
Adjusting Windows Audio Properties  
Speakers, Microphone, Line-in Levels  
Audio CD: CD Burning, Extracting Audio from CD Working with Media Players

UNIT – III
Basic Sound Editing Select an  
Editing tool Make a selection  
Trim/Cut/Crop  
Inserting Markers, use of Markers  
Adjusting Volume

Software: Sound Forge

Suggested Readings:
1. Sound Check: The Basics of Sound and Sound Systems by Tony Moscal
2. Back to Basics Audio by Julian Nathan
4. Sound Forge Power! by Scott R. Garrigus
5. The Audio Expert: Everything You Need to Know About Audio by Ethan Winer
6. How to Do Everything with MP3 and Digital Music by Dave Johnson and Rick Broida
PAPER IV - PRODUCTION MANAGEMENT-I (Theory)

Time Allowed: 3 Hours                  Theory: 50 Marks

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
Various stages of motion picture production; Preproduction stage; Production stage;
Postproduction stage,

SECTION-B
Above-the-line and Below-the-line personnel;
key departments in film making.

SECTION-C
Role and responsibilities of a Producer in TV and Film Production, Production

SECTION-D
Manager/Section manager and his collaboration with other technicians.

Text and References:
• Fundamentals of Television Production: Donald, Ralph & Spann, Published 2000, Blackwell Publishing
• Film Production Management: Bastian Cleve, Published 2003, Focal Press
• Editing Today: Smith, Ron F. & O'Connell, L.M, Published 2003, Blackwell Publishing
• Art and Production: Sarkar, N.N
• TV Production: Gerald Millerson, Published 1993, Focal Press
BACHELOR OF VOCATION (B.Voc.)
ENTERTAINMENT TECHNOLOGY) 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
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – I

PAPER – VI: पैमाना (खंडभन्दी)

महत्व: 3 पप्टे

पाठ-चूक अथवा पाठ-समयव्यत

मेंबर-वी

आयुष्मान अख़्बार (लड़का लड़की),
(मिह. सूत्रित्र गोि अथवा कवितावन सम्पूर्ण)
वार्षिक तालेब अथवा पूर्वीतज्ज्ञती, आवश्यकता।
(पूर्ण मात्रा सुविधापूर्वक, मात्र )

मेंबर-वी

दिनित्तम जानें (दिनित्तम लेख-सूत्राविदि)
मिह. म.म.भेदग, तंतकी माधिक पूर्णम, ज्ञिनाकार। (खंड 1 उं 6)
(लिखित इण मात, लिखित-सैली)

मेंबर-वी

(ई) पैढ़ा उपहार

(अ) पैढ़ा पढ़ा वे पूर्ण अथवा पूर्ण

मेंबर-वी

(ई) पैमाना यदि दिखाएँ : दुःखभर अथवा, दुःखभर मकर रेल दिवाकर, सत्तर, दिक्कससत, मुख-पुष्प।
(अ) भगवा बेलसीलीमात्र : भगवा रा टवानसी दुःख, भगवा अथवा दुःख-भगवा रा भ्रेत, यमींदी धिखाकलां दे भजन-दिखाएँ।

ञैन-देह अथवा पौष्टिकभव चढी उपहार

1. पूर्ण पूड़ा रे चल जा ठहरीँ। तव जा दिखिए वे पूर्ण पूड़ा साधो।
2. दिखावली दे बूढ़ा पूस पूर्ण बचते रहे। तव जा दिखिए दिख पूर्ण लब्धि त।
3. वस्तु पूर्ण दे बचते अव रहे।
4. ज्ञान मैंट बचत रेता सृजन करणे उं पूर्ण ले देह भरों देंगे उं देंग चल देह-पूर्णां दिख वस्तु रहे।
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – I

PAPER – VI: ਭੁੱਧਤੀ ਦੁਆਰਾ
(In lieu of Compulsory Punjabi)

ਪ੍ਰਾਥਮਿਕਿਆ ਦੇ ਉਦੋਂ ਤੋਂ ਕੁਝ ਹੋ ਸਕਤਾ ਹੈ ਕਿ ਪ੍ਰਤਕਲਣ ਦੇ ਸੰਸਾਰ ਵਿੱਚ ਸਭ ਤੋਂ ਵਧੇ ਗਏ ਪ੍ਰਤਕਲਣ ਦੇ ਹਨ ਲੇਕਿਨ ਇੱਥੇ ਪ੍ਰਤਕਲਣਕਾਰੀ ਦੇ ਸੰਸਾਰ ਵਿੱਚ ਭੁੱਧਤੀ ਨਹੀਂ (ਪ੍ਰਤਕਲਣਕਾਰੀ ਸੰਸਾਰ-ਪ੍ਰਤਕਲਣਕਾਰੀ)

ਤਾਜਾ (ਸੀਸੀ, ਟੀਚੀ, ਅਪਲ) : ਪ੍ਰਤਕਲਣ ਅਤੇ ਰਚਨੀ

ਪ੍ਰਤਕਲਣ-ਬ੍ਰਿਂਟਾ

ਪ੍ਰਤਕਲਣਕਾਰੀ ਸਰਕਾਰ-ਪ੍ਰਤਕਲਣਕਾਰੀ : ਪ੍ਰਤਕਲਣਕਾਰੀ ਸਰਕਾਰ-ਪ੍ਰਤਕਲਣਕਾਰੀ (ਸਰਕਾਰਵਰ, ਮੰਗਲਵਾਰ ਸਰਕਾਰ, ਪ੍ਰਤਕਲਣਵਾਰ ਸਰਕਾਰ, ਭੂਮਿਕਾ ਸਰਕਾਰ, ਭੂਮਿਕਾ ਸਰਕਾਰ)

ਪ੍ਰਤਕਲਣ-ਬ੍ਰਿਂਟਾ

ਦੋਹਾਂ ਦੇ ਮੰਡ ਦੀਆਂ ਤਾਜ਼ਾ, ਨਾਲੂ ਭਾਵਨਾਵਾਂ ਦੇ ਤਾਜ਼ਾ, ਵੈਦਿਕ ਦੇ ਤਾਜ਼ਾ, ਵੈਦਿਕ ਦੇ ਤਾਜ਼ਾ ਨਾਲ ਭਾਵਨਾਵਾਂ ਭਾਵ ਤਾਜ਼ਾ ਸੰਭਾਵਦ।

ਪ੍ਰਤਕਲਣ-ਬ੍ਰਿਂਟਾ

ਉਹਦੇ ਦੇ ਮੰਡ ਦੀਆਂ ਤਾਜ਼ਾ, ਨਾਲੂ ਭਾਵਨਾਵਾਂ ਦੇ ਤਾਜ਼ਾ, ਵੈਦਿਕ ਦੇ ਤਾਜ਼ਾ ਨਾਲ ਭਾਵਨਾਵਾਂ ਭਾਵ ਤਾਜ਼ਾ ਸੰਭਾਵਦ।

ਪ੍ਰਾਥਮਿਕਿਆ ਦੇ ਪਾਲਿਕਾਵਾਂ ਲਈ ਸ਼ਾਸਨਾਂ

1. ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ ਵਿੱਚ ਵਿਕਰਮ ਦੇ ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ।
2. ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ ਵਿਕਰਮ ਦੇ ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ।
3. ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ ਵਿਕਰਮ ਦੇ ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ।
4. ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ ਵਿਕਰਮ ਦੇ ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ।

ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ ਵਿਕਰਮ ਦੇ ਪ੍ਰਤਕਲਣ ਦੇ ਕੁਝ।
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) 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:
PROBLEM OF DRUG ABUSE

Section – A

Meaning of Drug Abuse:

Section – B

Consequences of Drug Abuse for:
- 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:

PAPER– I: INTRODUCTION TO SOUND TECHNOLOGY (Theory)

Time Allowed: 3 Hours  Total Marks: 100
Theory: 50 Marks

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
Basic Physics of Sound
Sound and Vibration, Samples

SECTION-B
Waveforms & Wave Tables, Characteristics of Sound Waves
Frequency, Amplitude, Wavelength, Phase and Phase Shift, Harmonic content
Behavior of sound in rooms, Echoes, Reverberation, Modulation

SECTION-C
Aesthetics of Sound
Sound Recording, Sound Design, Sound Editing & Mixing
Visual perception versus Sound perception
Dubbing & Post Synchronization
Foley Recording

SECTION-D
The future of Sound Technology
Surround Sound, Dolby Digital in cinema
Digital sampler and synthesizer generated sounds
Film music in the 21st century
INTRODUCTION TO SOUND TECHNOLOGY (Practical)

Time: 3 Hrs.  
Practical: 50 Marks

Basic Sound Recording Operations
Difference between Analogue & Digital Recording
Recording Speech and Voice Over
Introduction to Dubbing, Foley Recording

Suggested Readings:
1. Sound Check: The Basics of Sound and Sound Systems by Tony Moscal
2. Back to Basics Audio by Julian Nathan
3. Surround Sound by Tomlinson Holman
4. The Audio Expert: Everything You Need to Know About Audio by Ethan Winer
5. Computer Sound Design: Synthesis techniques and programming (Music Technology) by Eduardo Miranda
6. Computational Thinking in Sound: Teaching the Art and Science of Music and Technology by Gena R. Greher and Jesse M. Heines
7. Dhwani Aur Sangeet by Lalit Kishore Singh
PAPER – II: DIGITAL COMPOSITING

Max. Marks 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

Introduction to Digital Compositing techniques; Tool Conventions: The slice tool, Flow graphs, The colour curve; Mattes: Luma-key mattes, Chroma-key mattes, Difference mattes, Bump maps, Colour difference maps, keyers; Refining mattes: Matte monitor, Garbage mattes, Filtering the matte; Despill.

SECTION-B

The composite: The compositing operation, The processed foreground method, The add mix composite, Refining the composite, Stereo compositing; CGI Compositing: Depth Compositing, Premultiply and unpremultiply, Multi-pass CGI Compositing, HDR Images, 3D compositing; Blending: Blending operations(image blending operations), Adobe Photoshop blending modes; Slot gags.

SECTION-C

Matching light space: Brightness, contrast, blackpoints, white points, midtones, Histogram matching; Colour matching: Grayscale balancing, Matching flesh tones, Light direction, Quality of light source, Shadows, Atmosphere haze; Adding a glow; Matching camera effects: Matching the focus & Depth of field; Gamma: Introduction to gamma, The effect of gamma changes on images, The dim surround effect, The gamma of video, the gamma of film.

SECTION-D

Animation: 2D transformation, 3D transformation; Match Move, Motion Tracking; Keyframe Animation, Warps, Morphs; Rotoscoping: Splines, Articulated Rotos, Interpolation; Scene Salvage; Wire Removal, Rig Removal, Hair Removal, Light Leaks. Practical: Making Short films for demonstrating Compositing techniques.

Text and References:

- The Visual Effects Producer: Understanding the Art and Business of VFX by Charles Finance and Susan Zwerman, Focal Press.
- The Visual Effects Arsenal, VFX Solutions for the Independent Filmmaker by Bill Byrne; Focal Press.
- Digital Compositing for Film & Video; Steve Wright, Focal Press, Compositing Visual Effects, essentials for the aspiring artist, Steve Wright.
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – II

PAPER – II: DIGITAL COMPOSITING

Max. Marks 100  Practical: 50 Marks

Time Allowed: 3 Hours

• Basics of After Effects
• Submit 5 compositions of After effects with following effects:
  o Wire Removal
  o Mattes
  o Chroma key
  o 3D effects
  o Scene Salvage
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – II

PAPER – III: AUDIO PRODUCTION LAB. – II (Practical)

Time: 3 Hrs.  Max. Marks: 50

UNIT – I
Sound Editing: Audio Restoration, Noise Reduction Mix and Cross-fade
Choosing an input device & adjust levels
Mark in and Mark out
Convert marker to region

UNIT – II
Sound Processes: Auto trim/crop, Bit–depth converter, Channel converter
Fade, Insert silence, Invert / flip, Mute Normalize, Pan / expand, Resample Reverse, Smooth/
enhance
Swap channel. Time stretch, Volume

UNIT – III
Sound Effects: Acoustic mirror, Amplitude modulation, Chorus
Delay / Echo, Distortion, Dynamic, Envelope Flange/ Wah–Wah, Crapper/ Snipper, Noise
gate Pitch, Reverb, Vibrate, Wave hammer

Software: Sound Forge

Suggested Readings:
1. Sound Forge Pro in Simple Steps by Kogent Learning Solutions Inc.
2. Sound Forge Power! by Scott R. Garrigus
3. The Audio Expert: Everything You Need to Know About Audio by Ethan Winer
4. Understanding Digital Music and Sound Forge by D. Sen
5. PC Audio Editing: From broadcasting to home CD by Roger Derry
PAPER – IV: PRODUCTION MANAGEMENT-II

Max. Marks 50

Theory: 50 Marks

Time Allowed: 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
Motion picture production- preparation of budget for various types of films

SECTION-B
Preparation of script break-down - artiste, location/setting-preparation of shooting schedule.

SECTION-C
Cast and Crew hiring procedures, Crew Duties

SECTION-D
Actors, Agents,
Contracts and Agreements, Budget and Production Forms.

Text and References:

• Fundamentals of Television Production: Donald, Ralph & Spann, Published 2000, Blackwell Publishing
• Film Production Management:Bastian Cleve, Published 2003, Focal Press
• Editing Today: Smith, Ron F. & O'Connell, L.M, Published 2003, Blackwell Publishing
• Art and Production: Sarkar, N.N
• TV Production: Gerald Millerson, Published 1993, Focal Press
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – II

PAPER – V: 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.
PAPER – VI: पंजाबी (ख़ासभी)

भाग : 3 पृष्ठ
बुलबुल : 50

भाग-बाहुः प्रारंभ-पूर्णवर्तमान

मैथिल-के

अध्याय अध्याय (पाठकी वाणी).
(मं. सुशिरां बीत अरे लिखिता पिपिं गंगा)
वेड़ लंच टेक परीटिवामीटी, अभिधात
(पियाम-हमू, पउन चिदम)

मैथिल-की

हिडिगमव फांड़ (हिडिगमव लेख- मंजूरी)
मं. म.म.अनुष्ठ, पातरि स्वीच्यथा पूर्णमल, भनिपांडा। (लेख 7 ते 12)
(नम, सिखट गैली)

मैथिल-कि

(१) मध्य-मध्य अॅटे मध्य उद्धरण : पालिकका, भेंजरे मध्यध
(अ) मध्य गृःदान

मैथिल-की

(२) संधि उद्धरण
(अ) भुंजेटे अॅटे अधार

सूच-बाँट अॅटे पालिककयथा घटी उद्धरण्या

1. पूर्ण मटोव ते चार डरा टेस्तो। तत डरा लिच्चे ते पूर्ण मटोव लाहतो।
2. हिडिगमवारी ते बुंड़ पौंछ पूर्ण मटोव चतरे उठ। तत डरा लिच्चे दिल पूर्ण स्वीचा
   ता। पौंछ पूर्ण विच्चे ही डरा लिच्चे वीड़ा मात्र माहरा ता।
3. उल्लंस पूर्ण मटोव ते घाटव भंग उठ।
4. पैरर मटोव चतरे दास्ता स्वेच्छा चारे उं पूर्ण ती टेक में लें लें चार चार
   विड़-पूर्णता दिल बट माहरा ता।
PAPER – VI: भूमिका पत्रिका
(In lieu of Compulsory Punjabi)

मात्र: 3 अंशे
बुल अंब: 50

भाष-शृङ्खला
मैत्रमत आते

मवमत-थी
भूमिका लच घटना: मैली नाट-घटना
(क) मापन लच, संघर्ष लच, भयंकर लच (भाषा आते घटने)
(ख) विशेषज्ञ लच, पूर्णरूप लच आते गुर्गी लच (भाषा आते घटने)

मवमत-मी
पेन्जा वरमा
मैत्रमत आते

मवमत-ढी
हिंदी प्रेक्षण (पक्षियु आते घटनाओं)
आपनाले भूमिका

अभ-दंड आते भूमिकाभव राधी उटाविंद"

1. पूर्ण प्रेक्षण रे चाह जना वेंटेंगे। उन जना विें रे पूर्ण पूर्ण हुँदे लीटेंगे।
2. हिंदीप्रेक्षण रे चाह पूर्ण पूर्ण वेंटेंगे। उन जना विें रे पूर्ण पूर्ण हुँदे वेंटेंगे।
3. उत्तरी पूर्ण रे चाह पूर्ण वेंटेंगे।
4. भेंड पूर्ण वेंटेंगे रे चाह पूर्ण पूर्ण वेंटेंगे रे पूर्ण पूर्ण वेंटेंगे रे पूर्ण पूर्ण वेंटेंगे

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**
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:**
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – II

PAPER – VII: 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:
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – III

PAPER – I: MOTION PICTURE PHOTOGRAPHY
(Theory)

Time Allowed: 3 Hours
Max. Marks: 100
Theory: 50 Marks

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
- Camera Preparation
- Understanding camera– Camera head, Body, Frame rate and scanning on board VTR, mechanics, operation, Formats, Image control, Shutter, output, accessories.

Section B
- Lenses – Resolution, contrast, breathing, Focus, depth of field, filters, aperture.
- Monitor– Introduction, Lining up with color bars, exposure meter, cabling

Section C
- Lighting according to Monitor– Highlights, shadows and exposure.
- ND Filters
- Color Balance– white/Black balance using grey cards

Section D
- Offline/ Online editing
- Recording and Editing Sound– music voice over for movie. Mixing.

Text and References:
- Video Production Handbook  by Jim Owens and Gerald Millerson
- The Art of Video Production  by Leonard C. Shyles
MOTION PICTURE PHOTOGRAPHY
(Practical)

Time Allowed: 3 Hours  Practical: 50 Marks

Note: Practical Examiner can ask questions from the theory portion also

Course Contents:
- Camera Preparation
- 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
- Lighting according to Monitor– Highlights, shadows and exposure.
- ND Filters
- Color Balance– white/Black balance using grey cards
- Offline/ Online editing
- Recording and Editing Sound– music voice over for movie. Mixing.

Text and References:
- Video Production Handbook by Jim Owens and Gerald Millerson
- The Art of Video Production by Leonard C. Shyles
Time Allowed: 3 Hours
Max. Marks: 100
Theory: 50 Marks

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

- Introduction to Digital Audio
- Sound recording Studio

Section B

- Introduction to Adobe Sound booth
  - Interface, Customizing, Dock, group and float panels
  - Working with multiple monitors
  - Managing workspace, Predefined Workspaces, Customize.
- Workflow of Sound booth

Section C

- Various effects for Sound Recording and Editing
  - Effects reference, Standard and Advanced effects
  - Analog Delay effect
  - Chorus/ flanger effect, Compressor effect, Convolution Reverb effect, Distortion and dynamics effect
  - EQ:Graphic, EQ:Parametric effect
  - Mastering effect, Phaser effect, Vocal enhancer effect.
Section D

- Multitrack mixing and editing
- Audio formats
- Video and AAC formats

Text and References:

- Sound and Recording sixth edition by Francis Rumsey and Tim McCormick.
- Sound Engineering Explained second edition by Michael Talbot –Smith
- Sound for film and Television third edition by Tomlinson Holman.
- Master Handbook of Audio Production by Jerry C. Whitaker.
- Producing Great Sound for Film and Video third edition by Jay Rose.
- Sound and Music for the theatre by Deena Kaye and James Lebrecht.
- Audio Production and Post–Production by Woody Wood Hall.
- The Art of Recording by William Moylan
RECORDING TECHNIQUES
(Practical)

Time Allowed: 3 Hours  Practical: 50 Marks

Note: Practical Examiner can ask questions from the theory portion also

Course Contents:

- Introduction to Digital Audio
- Sound recording Studio
- Introduction to Adobe Sound booth
  - Interface, Customizing, Dock, group and float panels
  - Working with multiple monitors
  - Managing workspace, Predefined Workspaces, Customize.
- Workflow of Sound booth
- Various effects for Sound Recording and Editing
  - Effects reference, Standard and Advanced effects
  - Analog Delay effect
  - Chorus/ flanger effect, Compressor effect, Convolution Reverb effect, Distortion and dynamics effect
  - EQ:Graphic, EQ:Parametric effect
  - Mastering effect, Phaser effect, Vocal enhancer effect.
- Multitrack mixing and editing
- Audio formats
- Video and AAC formats
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – III

PAPER – III: FILM EDITING

Time Allowed: 3 Hours
Max. Marks: 50
Practical: 50 Marks

Note: Practical Examiner can ask questions from the theory portion also

Course Contents:
- Post–Production Workflow and Industry Workflow
- Nonlinear and Nondestructive Editing, Video Formats Compatible with Final Cut Pro
- Formats Compatible with Final Cut Pro
- Understanding Projects, Clips, and Sequences
- Overview of the Final Cut Pro Interface
- Editing in Final Cut Pro
- Preferences and presets, Getting Media into FCP, Working with view and clips, Time line
- Canvas, Sequence and Editing, Trimming Edits, Transitions, Compositing and Special Effects
- Rendering, Final Output, Effects and FX Builder.

Text and References:
- Apple Pro Training Series: Final Cut Express 4 by Diana Weynand
- Apple Pro Training Series: Final Cut Pro 6: Beyond the Basics by Michael Wohl
- Apple Pro Training Series: Motion Graphics and Effects in Final Cut Studio 2 by Mark Spencer, Jem Schofield
- Apple Pro Training Series: Final Cut Pro 6 by Diana Weynand
PAPER – IV: EDITING AND MANIPULATING IMAGES
(Theory)

Time Allowed: 3 Hours

Max. Marks: 100
Theory: 50 Marks

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
- Introduction to graphics, vector graphics & bitmaps
- Understanding image size & resolution

Section B
- Relation between resolution, File sizes & output
- Concept of Path (Segment, Anchor, Curved, Closed, Open, Subpath)

Section C
- Importing & Exporting images
- Working with Layers, Channels & paths, Actions, History

Section D
- Understanding Digital Images
EDITING AND MANIPULATING IMAGES (Practical)

Time Allowed: 3 Hours  Practical: 50 Marks

Note: Practical Examiner can ask questions from the theory portion also

Course Contents:

- Using navigator & Photoshop plug-in
- Integrating with Web pages
- Working with Photoshop Tools
- Working with Masks & Histogram
- Using Menu & Colour palettes
Project is based on the combination of recording techniques and photography learned in the semester.
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – IV

PAPER – I: COMPOSITING WITH AFTER EFFECTS
(Theory)

Time Allowed: 3 Hours

Max. Marks: 100
Theory: 50 Marks

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
- Introduction to After Effects
- Importing media
- Working with imported footage

Section B
- Composition setting
- Creating mattes
- Transform modes

Section C
- Working with render queue
- Using effects
- Working with text

Section D
- Working with 3D composition
- Expression
- Working with audio

Text and References:
- The Visual Effects Arsenal: VFX Solutions for the Independent Filmmaker by Bill Byrne
- The Visual Effects Producer: Understanding the Art and Business of VFX by Charles
- VFX Artistry: A Visual Tour of How the Studios Create Their Magic
- The Art and Technique of Matchmoving: Solutions for the VFX Artist by Erica Hornung
- The Green Screen Handbook: Real–World Production Techniques by Jeff Foster
COMPOSITING WITH AFTER EFFECTS
(Practical)

Time Allowed: 3 Hours

Practical: 50 Marks

Note: Practical Examiner can ask questions from the theory portion also

Course Contents:

- Introduction to After Effects
- Importing media
- Working with imported footage
- Composition setting
- Creating mattes
- Transform modes
- Working with render queue
- Using effects
- Working with text
- Working with 3D composition
- Expression
- Working with audio
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – IV

PAPER – II: FILM STUDIES
(Storyboarding and Script writing)
(Theory)

Time Allowed: 3 Hours
Max. Marks: 50
Theory: 50 Marks

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

Script Writing:
- Terminology, Concepts, Themes & Loglines
- Beat Sheets, Treatments & Outlines
- Approaches to Developing Character and Dialogue
- Screenplay Format and Conflict
- Writing Scenes

Section B

- Daily Soap, Talk Shows, Music, Variety and Live Event scripts
- Feature Film, Documentaries, Docu–dramas and Multi–media
- Subplots, Pitches, Troubleshooting, and Marketing

Section C

Storyboard:
- Introduction
- Storyboarding Tools
- Methods and techniques
- Visual storytelling and narrative structure
Section D

- Story boarding for Animation, Feature Film, Theatre
- Advantages of Storyboarding
- Interactive Storyboarding
- Storyboard table
- Topic, Timeline, Character Development, Sketches
- Color scheme, Shot composition, Camera angle

Text and References:

- The Art of the Storyboard: A Filmmaker's Introduction by John Hart
- How to read a film by James Monaco, Oxford
- Documentary Storytelling by Bernard, Focal Press
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
The Motion Picture Industry (Indian)
- a) Production & Distribution
- b) Censorship
- c) Art and Technique of Motion pictures

Section B
Production Manipulation
- i) Script
- ii) Actors
- iii) Sets
- iv) Costumes
- v) Aspect Ratio
- vi) Film Stock

Section C
Manipulation during Filming
- i) Lenses
- ii) Camera Distance & Position
- iii) Composition
- iv) Camera Movement
- v) Lighting
- vi) Sound

Section D
Postproduction Manipulation
- i) Processing and Printing
- ii) Editing
- iii) Special effects
- iv) Music
- v) Sound Effects
- vi) Post Synchronization or dubbing

Text and References:
- Fundamentals of Television Production: Donald, Ralph & Spann
- Film Production Management: Bastian Cleve, Published 2003, Focal Press
- Editing Today: Smith, Ron F. & O'Connell, L.M, Published 2003, Blackwell Publishing
- Art and Production: Sarkar, N.N
FILM APPRECIATION
(Practical)

Time Allowed: 3 Hours

Practical: 50 Marks

Note: Practical Examiner can ask questions from the theory portion also

Course Contents:

The Motion Picture Industry (Indian)

a) Production & Distribution
b) Censorship
c) Art and Technique of Motion pictures

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

2. Manipulation During Filming
   i) Lenses
   ii) Camera Distance & Position
   iii) Composition
   iv) Camera Movement
   v) Lighting
   vi) Sound

3. Postproduction Manipulation
   i) Processing and Printing
   ii) Editing
   iii) Special effects
   iv) Music
   v) Sound Effects
   vi) Post Synchronization or dubbing
Course Contents:

- 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
PAPER – V: PROJECT–II

Time Allowed: 3 Hours

Max. Marks: 50
Practical: 50 Marks

Project is based on the combination of Compositing, Film study and makes a short film.
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
Each question carries 5 marks. Answer to each question should not exceed 2 pages.

Part-B, Essay type with inbuilt choice – 50 Marks
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.
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
• 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)
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
Time: 3 Hrs.  Practical: 50 Marks

Course Contents:


Section B: Light planning; Lighting on location: Natural light, night lighting, public events; Light approaches; studio shoots; Motion picture lighting: The master scene; Lighting Styles; Pictorial effect; Natural Lighting: Sunlight and the realities; Decorative Lighting: Animated Lighting, cast shadows, light patterns, light movement.

Section C: Soft and hard light sources; Light Accessories: light stands, boom light, diffusers, dimmers; Light sources: Regular tungsten lamps, studio tungsten lamps, tungsten halogen (quartz) lamps, internal reflector lamp, metal halides.

Text and References:

- Motion Picture and Video Lighting, Brown: Blain, Focal Press, 1996
- Television Production Handbook: Zettl, Herbert Published 2005, Thomson Wadsworth
- TV Production: Gerald Millerson Published 1993, Focal Press
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – V

PAPER – II: INTRODUCTION TO SCRIPTWRITING
(THEORY)

Time: 3 Hrs. Theory: 50 Marks

Instructions for Paper Setters:

Section A: 7 Very short answer type questions should be set out of which 5 have to be attempted of 6 marks each. (5x6=30)

Section B: 3 long answer type questions should be set out of which 2 have to be attempted of 10 marks each. (10x2=20)

Course Contents:

Section A: Structure of the Script: Characters, dialogues, Action line, Turning Point; Developing Narrative Strategies

Section B: Three Act Structure: Relating External and Internal Conflict, First, second and Third act Characteristics; Three Act Skeleton; Directionality;

Section C: Language of Television Writing; movies for television; Writing the episodic Program, Tele-scripting.

Text and References:

- The Complete Book of Scriptwriting by J. Michael Straczynski
- Alternative Scriptwriting by Ken Dencyger, Focal Press.
Course Contents:

Section A:  Structure of the Script: Characters, dialogues, Action line, Turning Point; Developing Narrative Strategies

Section B:  Three Act Structure: Relating External and Internal Conflict, First, second and third act Characteristics; Three Act Skeleton; Directionality;

Section C:  Language of Television Writing; movies for television; Writing the episodic Program, Tele-scripting.

Text and References:

- The Complete Book Of Scriptwriting by J. Michael Straczynski
- Alternative Scriptwriting by Ken Dencyger, Focal Press
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – V

PAPER – III: HIGH DEFINITION CINEMATOGRAPHY
(THEORY)

Time: 3 Hrs. 
Theory: 50 Marks

Instructions for Paper Setters:

Section A: 7 Very short answer type questions should be set out of which 5 have to be attempted of 6 marks each. 
(5x6= 30)

Section B: 3 long answer type questions should be set out of which 2 have to be attempted of 10 marks each. 
(10x2=20)

Course Contents:


Section B: 1080 versus 720 in Television; CCD Sensors, CMOS Sensors, CCDs versus CMOS Chips, Color Filtering in Single Sensors, Image Sensors, Sensor Chip

Section C: Data Files: RAW Data Files, Look-up Tables; Lighting and Exposing for HD: HD Camera’s Equivalent ASA Speed or ISO Ratings, Tonal Range, Lighting Ratios

Section D: Technology, Digital Tonal Range, Image Resolution, Required Resolution for HD, Data Quantity, High-Definition, The knowledge base, Editing and post production, formats to shoot, Progressive or interlace, Recording formats, HDV

Section E: HD affects other Crafts: Art and Design, Costume, Make-up and Hair, Sound, Scripts Supervision and Continuity, Second Assistant Cameraperson.

Text and Reference:

- High Definition Cinematography, Paul Wheeler, Focal Press
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – V

PAPER – III: HIGH DEFINITION CINEMATOGRAPHY
(PRACTICAL)

Practical: 50 Marks

Course Contents:


Section B: 1080 versus 720 in Television; CCD Sensors, CMOS Sensors, CCDs versus CMOS Chips, Color Filtering in Single Sensors, Image Sensors, Sensor Chip

Section C: Data Files: RAW Data Files, Look-up Tables; Lighting and Exposing for HD: HD Camera’s Equivalent ASA Speed or ISO Ratings, Tonal Range, Lighting Ratios

Section D: Technology, Digital Tonal Range, Image Resolution, Required Resolution for HD, Data Quantity, High-Definition, The knowledge base, Editing and post production, formats to shoot, Progressive or interlace, Recording formats, HDV

Section E: HD affects other Crafts: Art and Design, Costume, Make-up and Hair, Sound, Scripts Supervision and Continuity, Second Assistant Cameraperson.

Text and Reference:

- High Definition Cinematography, Paul Wheeler, Focal Press
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – V

PAPER – IV: HISTORY OF FILM AND THEATRE -I
(THEORY)

Time: 3 Hrs.                                      Theory: 50 Marks

Instructions for Paper Setters:

Section A:  7 Very short answer type questions should be set out of which 5 have to be attempted of 6 marks each. (5x6= 30)

Section B:  3 long answer type questions should be set out of which 2 have to be attempted of 10 marks each. (10x2=20)

Course Contents:

Section A: Brief introduction to Performing Art


Section B: History of Indian Cinema

a) Introduction, extent of industry b) A Multilanguage industry c) Hindi Film, the Bengal Art Film

Section C: Storytelling

Acting and storytelling; Applied storytelling; Platform storytelling

Section D: Film Theory

Early Film Theory; Critical Film theory

Text and References:

• Storytelling and Theatre by Michal Wilson
• Cinema, A Visual Anthropology by Gordan Gray
Course Contents:

Section A: The Motion Interface, Workspace Overview, Utility Window, Canvas, Project Pane, Timing Pane, Window Arrangements, HUD.

Section B: User Interface Controls, Toolbar Controls, Slider Controls, Coordinate Controls, Dial Value Field, Activation Checkbox, Menus, Source Well, Color Controls, Gradient Controls, Mini-Curve Editor, Generic Inspector Controls, Rasterization indicator,

Section C: Creating and Managing Projects, Creating and Managing Projects, Basic Compositing, Using the Timeline, Using Behaviors, Key Frames and Curves, Using the Record Button, Applying Movement to a Clip.

Text and References:
- Apple Pro Training Series: Motion 4 by Marks Spencer.
- Apple Pro Training Series: Motion 3 by Damian Allen, Mark Spencer, Bryce Button, Tony Huet.
PAPER – VI: PROJECT-III

Practical: 50 Marks

Project is based on the combination of Software and make a short film.
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – VI

PAPER – I: DIRECTING FILM AND DOCUMENTARY
(THEORY)

Time: 3 Hrs. 

Theory: 50 Marks

Instructions for Paper Setters:
Section A: 7 Very short answer type questions should be set out of which 5 have to be attempted of 6 marks each. (05x06= 30)
Section B: 3 long answer type questions should be set out of which 2 have to be attempted of 10 marks each. (10x02=20)

Course Contents:
Section A: Introduction, history, and future: The Director’s Role, A brief And Function History of Documentary; Aesthetics and authorship: Authorship Challenges and Opportunities, Reconstruction, and docudrama, Documentary Theory, Project: Critical writing
Section B: Identity and authorship: Project: Recognizing your Creative Identity, Developing Your Story Idea; Screen craft: Screen Grammar, Project: screen craft Analysis, Projects; Basic Production
Section C: Production: Camera Equipment and Shooting Procedure, Lighting, Location Sound and Postproduction: Designing a Structure, Editing, Using Music and Working with a Composer, Fine Cut to Sound Mix
Section D: Shots, 180-Degree Rule, 30-Degree Rule, Screen Direction, Film-Time, Compression; Organizing Actions in a Dramatic Scene; Staging: Patterns of Dramatic Movement, Changing the Stage within a Scene, Staging as Part of a Film’s Design, Working with a Location Floor Plan; Camera: The Camera as Narrator, Objective Camera, Subjective Camera, Shot Lists, Storyboards and Setups.

Text and References:
• Directing the Documentary, Michael Rabiger, Focal Press
• Film Directing Fundamentals, Nicholas T. Proferes
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – VI

PAPER – I: DIRECTING FILM AND DOCUMENTARY
(PRACTICAL)

Course Contents:

Section A: Introduction, history, and future: The Director’s Role, A brief And Function History of Documentary; Aesthetics and authorship: Authorship Challenges and Opportunities, Reconstruction, and docudrama, Documentary Theory, Project: Critical writing

Section B: Identity and authorship: Project: Recognizing your Creative Identity, Developing Your Story Idea; Screen craft: Screen Grammar, Project: screen craft Analysis, Projects; Basic Production

Section C: Production: Camera Equipment and Shooting Procedure, Lighting, Location Sound and Postproduction: Designing a Structure, Editing, Using Music and Working with a Composer, Fine Cut to Sound Mix

Section D: Shots, 180-Degree Rule, 30-Degree Rule, Screen Direction, Film-Time, Compression; Organizing Actions in a Dramatic Scene; Staging: Patterns of Dramatic Movement, Changing the Stage within a Scene, Staging as Part of a Film’s Design, Working with a Location Floor Plan; Camera: The Camera as Narrator, Objective Camera, Subjective Camera, Shot Lists, Storyboards and Setups.

Text and References:
- Directing the Documentary, Michael Rabiger, Focal Press
- Film Directing Fundamentals, Nicholas T. Proferes
PAPER – II: 3DS Max  
(PRACTICAL) 

Course Contents: 

**Section A:** Introducing 3d Max, Exploring View Ports; Meeting The Max Interface; Command Panels; The Main Toolbar Options; Using Primitives & Splines; Selection & Transform Tools 

**Section B:** Pivot Points; Using the Align Command; Using Grids; Cloning Objects and Object Arrays; Grouping and Linking Objects 

**Section C:** Relationship Between Parent, Chills & Root Relationships; Linking & Unlinking Objects; Links & Hierarchies; Rearranging Nodes; Deleting Nodes; Node Colors; Changing The Object Color 

**Section D:** Modeling With Modifiers; Basic Axial Modifier: Bend; Taper, Twist, Stretch, Squeeze, Push, Mirror and Skew; Spline Based Modifiers; Mesh Level Modeling; Patch Modeling 

**Section E:** Compound Object; Working With Nurbs; Working With Lights; Basics Of Lightning; Types Of Light & Their Parameters; Camera & Camera types; Animation, Animation Parameters 

**Section F:** Introduction to Character Studio Max, Working, Animating and Creating with biped; Working with Facial Expressions, lip sync & Dialogue; Using freeform animation; Using IK constraints; Editing biped in figure mode; Working with footsteps, Understanding biped anatomy, Working with physique, Adjusting skin with biped, Crowd animation, Rigging: character control, props and mechanical. 

**Assignment – Modeling and Animation**
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – VI

PAPER – III: HISTORY OF FILM AND THEATRE – II
(THEORY)

Time: 3 Hrs.                                           Theory: 50 Marks

Instructions for Paper Setters:
Section A: 7 Very short answer type questions should be set out of which 5 have to be attempted of 6 marks each.  (05x06= 30)
Section B: 3 long answer type questions should be set out of which 2 have to be attempted of 10 marks each.  (10x02=20)

Course Contents:
Section A: Types of Films
War Films, Horror Films, Detective, Thriller and Spy Films, Science Fiction, Social Fictions; Documentary Films; Ad Films
Section B: Modern Theatre
The Tradition of Modern theatre; Characteristics of Modern Theatre; Classical Traditions and its Predecessors
Section C: Art
The Nature of Art, the Theatre as a Fine Art; the Audience and Critics
Section D: Play
The Play Wright; the Director; Actor

Text and References:
• Indian theatre: tradition of Performance by Farley P. Richmond
• Theatre: Its art and Craft by Stephen Archer
BACHELOR OF VOCATION (B.Voc.)
(ENTERTAINMENT TECHNOLOGY) SEMESTER – VI

PAPER – IV: NUENDO
(THEORY)

Time: 3 Hrs.  

Total: 100 Marks
Theory: 50 Marks

Instructions for Paper Setters:
Section A: 7 Very short answer type questions should be set out of which 5 have to be attempted of 6 marks each. (05x06= 30)
Section B: 3 long answer type questions should be set out of which 2 have to be attempted of 10 marks each. (10x02=20)

Course Contents:
Section A: VST Connections: Setting up input and output busses, Introduction to Steinberg Nuendo; Toolbars, Playback and the Transport panel
Section B: Recording: Background, Basic recording methods, Audio recording specifics, MIDI Recording Specifics, Options and Settings
Section C: The Project Window; Folder tracks; Fades and crossfades; Using Markers; The Mixer, Audio Effects
Section D: Recording MIDI, MIDI tracks, VST instruments, Tempo Mapping; Surround Sound; Automation; Audio Processing and functions; sample Editor
Section E: Object and Range Selection, Advanced Editing, MIDI Editing; Track Sheet; Export Audio Mix Down; Customizing

Text and References:
• Nuendo 5 Power!: The Comprehensive Guide by Ashely Shepherd
• Nuendo 2 Media Production System, Steinberg
Course Contents:

Section A: VST Connections: Setting up input and output busses, Introduction to Steinberg Nuendo; Toolbars, Playback and the Transport panel

Section B: Recording: Background, Basic recording methods, Audio recording specifics, MIDI Recording Specifics, Options and Settings

Section C: The Project Window; Folder tracks; Fades and crossfades; Using Markers; The Mixer, Audio Effects

Section D: Recording MIDI, MIDI tracks, VST instruments, Tempo Mapping; Surround Sound; Automation; Audio Processing and functions; sample Editor

Section E: Object and Range Selection, Advanced Editing, MIDI Editing; Track Sheet; Export Audio Mix Down; Customizing

Text and References:

- Nuendo 5 Power!: The Comprehensive Guide by Ashely Shepherd
- Nuendo 2 Media Production System, Steinberg
Course Contents:

Section A: Animating Filters, Animation Behaviors, Animation Menu, The Reset Button, Animating in the Timeline, Modifying Key Frames in the Timeline, Animating in the Key Frame Editor, Filtering the Parameter List, Modifying Curves, Mini-Curve Editor, Animating on the Fly, Key Frame Thinning.

Section B: Working with Particles, Using the Replicator, Using Replicators in 3D Space

Section C: Creating and Editing Text, Animating Text, Text Animation and Text Sequence Behaviors Sequence, Text Behavior, Scroll Text Behavior, Text Tracking Behavior, Type on Behavior Preset Text Sequence Behaviors, Saving a Modified Text Behavior to the Library, Using Other Behaviors with Text, Using Behaviors to Animate Text in 3D.

Section D: Generators, Filters, Using Shapes, Masks and Paint Strokes, 3D Composing, Motion Tracking, Working with Audio, Key Framing Level and Pan Changes, Cross Fading Audio Track, Outputting Motion Projects.

Text and References:

- Apple Pro Training Series: Motion 4 by Marks Spencer.
- Apple Pro Training Series: Motion 3 by Damian Allen, Mark Spencer, Bryce Button, Tony Huet.
PAPER – VI: PROJECT-IV

Total Marks: 50
Practical: 50 Marks

Project is based on the combination of Software