Learning Outcomes-based Curriculum Framework (LOCF)

for

B.Sc. (Multimedia)

A Three Year Bachelor Degree Programme

under

Choice Based Credit System (CBCS)/Learning Outcomes-based Curriculum Framework(LOCF)

w.e.f. Academic Session 2020-21.
Eligibility : 10+2 in any discipline

Institute of Mass Communication & Media Technology
Kurukshetra University, Kurukshetra

9039

PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN B.Sc. MULTIMEDIA PROGRAMME

Semester	CORE COURSE (CC) @ 6 Credits	Ability Enhancement Compulsory Course (AECC) @ 2 Credits	Skill Enhancement Course (SEC) @ 2 Credits	Discipline Specific Elective DSE @ 6 Credits
I	CC- 1 CC- 2 CC- 3 CC- 4	(English/MIL Communication)/Environmental Studies		
II	CC- 5 CC- 6 CC- 7 CC- 8	(English/MIL Communication) / Environmental Studies, Hindi		
III	CC- 9 CC- 10 CC- 11 CC- 12		SEC-1	
IV	CC- 13 CC- 14 CC- 15 CC- 16		SEC -2	
V			SEC -3/MOOC*	DSE-1 (Elective Subject)
				DSE-2 (Elective Subject)
				DSE-3 (Elective Subject)
	Internship/Industry Training **			
VI			SEC-4	DSE-4 (Elective Subject)
				DSE-5 (Elective Subject)
				DSE-6 (Elective Subject)

AECC will be offered according to the time table adjustments in the Institute/Department.

*MOOC Course from Swayam Portal.
** SEC can be offered in 3rd/4th/5th semester according to the time table adjustments in the institute.

****Internship/Industry Training** A candidate must complete industry training of 4 to 6weeks after completion of theory examination of 4th semester. The internship report will be submitted in 5th semester.

General instructions:

- One credit equivalent to 1 hour of teaching/2 hours of Practical work

- Teaching workload will be calculated on the basis of teaching contact hours of the course
- One credit (theory /Practical) equivalent to 25 marks

Total No. of Courses, Credit and Marks

Course	No. of Courses	Credits Teaching/Week	Credits Practical/ Week	Credits Tutorials/Week	Total Credits	Marks
Core Courses	16	3x5=15 13x4=52 Total=67	13x2=26	3x1=3	15+52+26 +3=96	16x150 =2400
AECC	3	3x2=6	--	--	6	3x50=150
SEC	4	4x2=8	--	--	8	4x50 =200
DSE	6	6x4=24	6x2=12	--	24+12=36	6x150 =900
Industrial Training	--	--	--	--	2	1x50 =50
Total	**29**	**105**	**38**	**3**	**148**	**3700**

Scheme of Examination of B.Sc Multimedia under CBCS/LOCF for Institute of Mass Communication & Media Technology (IMC&MT, KUK) w.e.f. Academic Session2020-21

Semester-I

Course Code	Course Title	Course Type	Contact Hours per Week				Credits	Total Credits	Marks				Duration of Exam
			L	T	P	Total			T	P	IA	Total	
AECC-100	Communicative English	AECC-1	2	-	-	2	2	2	40	-	10	50	2 Hours
B-MMT 101	Art & Creativity (Theory)	CC-1	4	-	-	4	4	6	80	-	20	100	3 Hours
B-MMT 102	Art & Creativity (Practical)		-	-	2	4	2		-	40	10	50	3 Hours
B-MMT 103	Fundamentals of Computer (Theory)	CC-2	4	-	-	4	4	6	80	-	20	100	3 Hours
B-MMT 104	Fundamentals of Computer (Practical)		-	-	2	4	2		-	40	10	50	3 Hours
B-MMT 105	Computer Programming (Theory)	CC-3	4	-	-	4	4	6	80	-	20	100	3 Hours
B-MMT 106	Computer Programming (Practical)		-	-	2	4	2		-	40	10	50	3 Hours
B-MMT 107	Fundamentals of Multimedia	CC-4	5	1	-	6	6	6	120	-	30	150	3 Hours
							Total Credits	**26**	**Total Marks**			**650**	

Semester-II

Course Code	Course Title	Course Type	Contact Hours per Week				Credits	Total Credits	Marks				Duration of Exam
			L	T	P	Total			T	P	IA	Total	
B-EVS 100	Environmental Studies	AECC-2	2	-	-	2	2	2	40	-	10	50	3 Hours
B-HIN 100	Communicative Hindi	AECC-3	2	-	-	2	2	2	40	-	10	50	2 Hours
B-MMT 201	Graphic Design (Theory)	CC-5	4	-	-	4	4	6	80	-	20	100	3 Hours
B-MMT 202	Graphic Design(Practical)		-	-	2	4	2		-	40	10	50	3 Hours
B-MMT 203	Audio Production (Theory)	CC-6	4	-	-	4	4	6	80	-	20	100	3 Hours
B-MMT 204	Audio Production (Practical)		-	-	2	4	2		-	40	10	50	3 Hours
B-MMT 205	Basics of Animation	CC-7	5	1	-	6	6	6	120	-	30	150	3 Hours
B-MMT 206	Web programming using HTML (Theory)	CC-8	4	-	-	4	4	6	80	-	20	100	3 Hours
B-MMT 207	Web programming using HTML (Practical)		-	-	2	4	2		-	40	10	50	3 Hours

Total Credits	28	Total Marks	700	

List of Total Subjects in B.Sc. Multimedia:

Sr. No.	Course Type	Number of Subjects
1	CC	16
2	AECC	03
3	SEC	04
4	DSE	06
	Total	**29**

Semester I	Course Type	Number of Subjects
	CC	4
	AECC	1
Semester II	CC	4
	AECC	2
Semester III	CC	4
	SEC	1
Semester IV	CC	4
	SEC	1
Semester V	SEC	1
	DSE	3
Semester VI	SEC	1
	DSE	3
Total		**29**

List of Abbreviations

L -Lecture
T- Tutorial
P- Practical
IA – Internal Assessment
CC- Core Course
AECC- Ability Enhancement Compulsory Course
SEC- Skill Enhancement Course
DSE- Discipline Specific Elective

PROGRAMME OUTCOMES

On successful completion of the programme, the student will be able to:-

PO1 Acquire knowledge related to the discipline under study.

PO2 Communicate and reflect effectively and efficiently on the issues related to the discipline.

PO3 Exhibit the professional skills and competencies acquired during the Programme of study.

PO4 Apply the knowledge and skills acquired in planning, organizing, evaluation and decision making.

PO5 Explore, analyze and provide solutions to the problems related to the discipline and life.

PO6 Develop exposure to actual working environment leading to employability and entrepreneurship.

PO7 Exhibit scientific & research capabilities in academic, professional and general life pursuits.

PO8 Recognize, appreciate and follow ethical issues relating to the discipline and society.

Programme Specific Outcomes:

After completion of under graduate programme in Multimedia, the learner will be able to :

PSO1 Acquire fundamental knowledge of the field of multimedia as a mass communication tool.

PSO2 Analyze usage/applications of the multimedia components in various real life situations.

PSO3 Develop competency for employability and entrepreneurship by practicing techniques and tools for creating interactive multimedia applications.

PSO4 Demonstrate both theoretical and practical aspects in designing multimedia applications.

PSO5 Create interface between teacher and learner using new media tools in the virtual learning /e-learning systems.

AECC-100: Communicative English

Time:2 Hrs. Total Marks: 50
Credits: 2 Practical: 40
Internal Assessment: 10

Course objectives: The paper is designed to enhance proficiency in English Language. It seeks to develop the basics of English Language through different modules. Each unit will enable and capacitate the learner to have communication competence which is required in the present-day world. The basic knowledge of communication will enable the learners to share and enliven ideas, experience and know-how ubiquitous in the world.

Course Learning Outcomes:
After completing the Course, the student will be able to:
AECC 100.1:Learn the rhetorics of presentation
AECC 100.2: Learn, comment and respond to correspondence .
AECC 100.3: Learn the basics of grammar and composition.
AECC 100.4: Acquaint with verbal and non-verbal communication.

Note : All questions are compulsory.

Q.1. The paper setter will set two question from unit-II. The student shall attempt one out of the given two. (10)

Q.2. This question shall be based on unit-III. The student shall attempt one out of the given two. (10)

Q.3. There will be 25 grammatical items based on unit-IV. The student shall attempt any 20 items. (10)

Internal Assessment: The students shall be required to make presentation /PPT based on unit-I.

Unit-I

Listening and Speaking skills

Listening skills (Active-passive, Accent)
Speaking Skills (Accent, Stress ,Intonation, Assertion, Rhetorical questions, Pause, Pitch)
Oral presentation, Debates, Elocution and Extempore

Unit-II

Writing skills

Report writing
Paragraph writing
Letter writing

Unit-III

Technical and Modern communication

Resume writing
E-mail
Blogs and comments on social media

Unit-IV

Grammar

Noun, Pronoun, Verb, Adverb, Adjective, Preposition, Conjunction and their uses
Common errors in the use of English (Noun ,Pronoun, Adjective, Adverb, Conjunctions)
Correct use of verbs and Articles
Vocabulary: Homonyms, Homophones, Pair of words

References:

- Communicative English, Dr. Jimmy Sharma, Arihant Parkashan Pvt. Ltd.
- Strengthen Your English, Bhaskaran and Horsburgh, Oxford University Press
- Basic Communication Skills for Technology, and area J Rutherfoord, Pearson Education Asia.
- Murphy's English Grammar with CD, Murphy, Cambridge University Press
- English Skills for Technical Students by Orient Longman
- Everyday Dialogues in English by Robert J. Dixson, Prentice-Hall of India Ltd., 2006.

AECC-100: Communicative English

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
AECC 100.1	2	2	2	2	2	2	2	2
AECC 100.2	2	2	2	2	2	2	2	2
AECC 100.3	2	2	2	2	2	2	2	2
AECC 100.4	2	2	2	2	2	2	2	2
Average	2	2	2	2	2	2	2	2

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
AECC 100.1	2	2	2	2	2
AECC 100.2	2	2	2	2	2
AECC 100.3	2	2	2	2	2
AECC 100.4	2	2	2	2	2
Average	2	2	2	2	2

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
AECC 100.1	2	2	2	2	2	2	2	2	2	2	2	2	2
AECC 100.2	2	2	2	2	2	2	2	2	2	2	2	2	2
AECC 100.3	2	2	2	2	2	2	2	2	2	2	2	2	2
AECC 100.4	2	2	2	2	2	2	2	2	2	2	2	2	2
Average	2	2	2	2	2	2	2	2	2	2	2	2	2

B-MMT 101: Art & Creativity (Theory)

Time:3 Hrs. Total Marks: 100
Credits: 4 Theory: 80
Internal Assessment: 20

Course Objectives: This course is designed for theoretical understanding of aesthetics of arts and creating sense of creativity, colours, and design for making artistic content for multimedia composition.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 101.1: Understand art aesthetics including Indian concept of aesthetics.
B-MMT 101.2: Acquire skills to create interesting and interactive components for multimedia.
B-MMT 101.3: Develop the capacities to design, assess, enact with creative projects.
B-MMT 101.4: Develop the ability to link art theory with using creative practices.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit-I

Art: Meaning and Definition of Art
Indian Aesthetics : Ras, Bhav, shadaang, Auchitya, Alankaar, Rasa Nispatti
Elements of Art: Point, Line, Form, Shape, Space, Colour, Texture, Value
Understanding of Light and Shadow
Perception of Color and Color Wheel

Unit II

Principles of Art: Balance, Rhythm, Harmony, Contrast, Proportion, Dominance, Unity
Perspectives on the Creative Process
Landscapes and Composition
Technique of different Art styles: Watercolor, Acrylic painting, pencil color, spray painting, pastel color

Unit –III

Design: concept, 2D shape design,
Character Designing: Creating appealing characters with a distinctive personality, creating a range of characters that work together as a "Cast"
Typography and its types
Calligraphy

Unit IV

Music Theory: History of Indian Music, Vedic Period to 12th century, general discussion on the sangeet, swar, saptak, shruti, thath, raag. naad, gamak, taan and alankar

Chord Progression: basic theory of chords, uses of chords and application of chords for music production

Learn to make chords from ten (10) Thath to all scales

References:

- Jansen, Charles R. *Studying Art History,* Prentice Hall Engle word cliffs, M.J.07632, 1986
- Dhawan, A. K., Dhawan's *Hand Book of History of Art*, Tip Top Trading Co., B-N-1076, HenrySally, *Clay Modeling*,2008
- Huguette Kirby, *Crafts from Modeling Clay*,2006
- Ghertner, ed. *Layout and Composition for Animation*, Focal Press, New York Dennis, H.J., *Elementary Perspective*, BailliereTindall and Cox,
- Ghertner, ed. *Layout and Composition for Animation*, Focal Press, New York
- Srivastav, Harish Chandra, *Raag Paricha;* Sangeet Sadan Prakash*;1971*
- Fox, Dan; *Chord Progression theory and practice;*Alfred Music*;2013*

B-MMT 101: Art & Creativity (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 101.1	3	3	3	3	3	3	3	3
B-MMT 101.2	2	3	3	2	3	3	3	3
B-MMT 101.3	3	2	3	3	3	3	3	3
B-MMT 101.4	3	3	3	3	2	3	3	3
Average	2.75	2.75	3	3	2.75	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 101.1	3	3	3	3	3
B-MMT 101.2	3	3	3	3	3
B-MMT 101.3	3	3	2	3	2
B-MMT 101.4	3	3	3	3	3
Average	3	3	2.75	3	2.75

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 101.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 101.2	2	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 101.3	3	2	3	3	3	3	3	3	3	3	2	3	2
B-MMT 101.4	3	3	3	3	2	3	3	3	3	3	3	3	3
Average	2.75	2.75	3	3	2.75	3	3	3	3	3	2.75	3	2.75

B-MMT 102: Art & Creativity (Practical)

Time:3 Hrs.
Credits: 2

Total Marks: 50
Practical: 40
Internal Assessment: 10

Course Objectives: This course is designed for practical understanding of arts and creating sense towards creativity and design for making artistic contents for multimedia composition.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 102.1: Understand Drawing anatomy and Pencil shading techniques.
B-MMT 102.2: Understand various 2D design patterns
B-MMT 102.3: Demonstrate about 3D textures
B-MMT 102.4: Identify and produce different styles of calligraphy

Note:- The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

List of Practical Exercises:
Drawing anatomy
Pencil shading techniques
Analogous Colors and Color Wheel
Composition in Art
Landscape drawing
Cartoon character sketch
Patterns and 2D design
Textures and 3D design
Calligraphy
living and non living objects.
Basic concepts in music – pitch, melody, harmony, rhym. ,
Types of musical instruments– string, wind
Percussion and electronic instruments
Indian Classical Music
Western Music: orchestra, instrumentation. Form – song, concerto, symphony, sonata, opera, dance, music
Jazz, country music, rock and roll, blues and heavy metal – Indian Film Music

B-MMT 102: Art & Creativity (Practical)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 102.1	3	3	3	3	2	3	2	3
B-MMT 102.2	3	3	3	3	2	3	2	2
B-MMT 102.3	3	2	3	3	3	3	2	2
B-MMT 102.4	3	3	3	3	2	3	2	2
Average	3	2.75	3	3	2.25	3	2	2.25

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 102.1	3	2	3	3	3
B-MMT 102.2	3	2	3	3	3
B-MMT 102.3	3	2	3	3	3
B-MMT 102.4	3	2	2	3	3
Average	3	2	2.75	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 102.1	3	3	3	3	2	3	2	3	3	2	3	3	3
B-MMT 102.2	3	3	3	3	2	3	2	2	3	2	3	3	3
B-MMT 102.3	3	2	3	3	3	3	2	2	3	2	3	3	3
B-MMT 102.4	3	3	3	3	2	3	2	2	3	2	2	3	3
Average	3	2.75	3	3	2.25	3	2	2.25	3	2	2.75	3	3

B-MMT 103: Fundamentals of Computer (Theory)

Time: 3 Hrs. Total Marks: 100
Credits: 4 Theory: 80
Internal Assessment: 20

Course Objectives: This course is designed for theoretical understanding of computer system and its components, functioning and its application software exposure.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 103.1: Understand the basic knowledge of computer system.
B-MMT 103.2: Know about the functioning of different parts of computer.
B-MMT 103.3 Understand the basic concept of Internet and computer networks .
B-MMT 103.4: Understand the basics of Application Software.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit - I

Computer- Origin, Evolution and Generation of Computer
Types of Computer
Basic Components of a Computer- Input Devices, Output Devices, Storage Devices
Introduction to Software
Types of Software - System software, Application software
Introduction of Windows and its various versions

Unit- II

Introduction to Internet and Its applications
Browser, Search Engine, FTP, URL
Email and Blog
Introduction to Network- LAN, WAN, MAN,
Network Topologies - Ring, Bus, Star, Mesh and Tree topologies
Hardware requirements for Network

Unit - III

Introduction to MS Word and its uses
Various Menus, Toolbars & Buttons
Paragraph and Page Formatting
Creation & Working with Tables, Mail Merge

Unit - IV

Introduction to MS Excel and its uses
Creating Spreadsheet
Creating Tables and Charts
Use of basic arithmetic formulas
Introduction to MS PowerPoint and its uses
Creating a New Presentation
Slide transition and Custom Animation

References:

- Ram, B. 4th ed New Age; ***Computer Fundamentals: Architecture & Organization*** Sinha, P. K. BPB; ***Computer Fundamentals: Concepts, Systems & Applications***
- Sinha, P. K/ Sinha, P. 3rd ed BPB; ***Computer Fundamentals: Concepts, Systems & Applications***
  Data Communications and Networking b**y** Behrouz A. Forouzan, Sophia Chung Fegan; Published by Huga Media.2011
- **Goel, Anita Pearson;** *Computer Fundamentals*

B-MMT 103: Fundamentals of Computer (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 103.1	3	3	3	3	3	3	3	3
B-MMT 103.2	3	3	3	3	3	3	3	3
B-MMT 103.3	3	3	3	3	3	3	3	3
B-MMT 104.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 103.1	3	3	3	3	3
B-MMT 103.2	3	3	3	3	3
B-MMT 103.3	3	3	3	3	3
B-MMT 103.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 103.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 103.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 103.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 103.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3

B-MMT 104: Fundamentals of Computer (Practical)

Time: 3 Hrs.
Credits: 2

Total Marks: 50
Practical: 40
Internal Assessment: 10

Course Objectives: This course is designed for practical understanding of commonly used application software and its functioning to the students.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 104.1: Use MS-Word
B-MMT 104.2: Use MS-Excel
B-MMT 104.3: Use Powerpoint
B-MMT 104.4: Create Email account, compose & send emails for personal and professional communication.

Note:- The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

List of Practical Exercises:
To create a new document, save, open an existing document
Typing and editing texts in a document (*.doc) file.
Apply formats on Texts like Bold, Italics, Underline, font type, colour and size etc.
Apply features like bullet, numbering, breaks, hyphenation
Indentation, leading and kerning using space bar and TAB
Insert images, symbols and mathematical equations
Create and manipulate tables.
Page layout, Page Setup, Paragraph setting
Page Break, Page Numbering, Find & Replace Text, Header & Footer
Designing Resume, timetable of a class, mail merge
Print a document
Create a Spread Sheet, Cell formatting, Basic arithmetic formulas, Freeze Pane and Sort & Filter, Inserting the chart
Basic operations of Power point, Create PPT and inset and delete slides.
Use of Mater Slide in Presentation.
Apply basic formatting features in presentation like font, font size, font colour, text fill, spacing and line spacing Formatting text boxes, word arts, styles bullet and numbering.
Working with drawing tools, Applying shape or picture styles, Applying object borders, object fill, object effects
Adding slide transition, animation effect, adding custom animation
Working with video, Link to video and sound files.
Creating Email- composing and sending a mail, attachment a file, forwarding the email, changing and setting the password

B-MMT 104: Fundamentals of Computer (Practical)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 104.1	3	3	3	3	2	3	3	3
B-MMT 104.2	3	3	3	3	2	3	3	3
B-MMT 104.3	3	3	3	3	2	3	3	3
B-MMT 104.4	3	3	3	3	2	3	3	3
Average	3	3	3	3	2	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 104.1	3	3	3	3	3
B-MMT 104.2	3	3	3	3	3
B-MMT 104.3	3	3	3	3	3
B-MMT 104.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 104.1	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 104.2	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 104.3	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 104.4	3	3	3	3	2	3	3	3	3	3	3	3	3
Average	3	3	3	3	2	3	3	3	3	3	3	3	3

B-MMT 105: Computer Programming (Theory)

Time:3 Hrs. Total Marks: 100
Credits: 4 Theory: 80
Internal Assessment: 20

Course Objectives: This course is designed for theoretical understanding of computer programming terms and concepts for creating an interface between a computer system and users.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 105.1: Understand the keywords and syntax of C programming.
B-MMT 105.2: Write the C code for a given algorithm.
B-MMT 105.3: Understand and trace the execution of programs written in C language.
B-MMT 105.4: Write program that perform operations using various data types.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit-I

C fundamentals: Problem definition, algorithms, flow charts and their symbols
Variables, C Expressions, C Tokens, Constant
Data Types
Standard library: Input / output

Unit-II

Operator and Expressions: Precedence of Arithmetic Operations,
Type Conversion in Expression, Operator Precedence & Associability
Managing Input and Output Operations
Decision Making Statements

Unit-III

Array: One Dimensional Array, Declaration and Initialization of One Dimensional Array, Two Dimensional Array, Multi-dimensional Array
String: Declaring and Initializing Variables, String Handling Functions,

Unit-IV

Functions: Definition of Functions, Elements of user Defined functions,
Return values and their types, Function calls, Function Declaration, Recursion
Structures and Union: Defining structures, declaring structure variables,
Accessing Structure variables, Structure initialization, union

References:

- *Kernighan, Brian; Ritchie, Dennis (1988). The C Programming Language (2 ed.). Prentice Hall.*
- *Plauger, P.J. (1992). The Standard C Library (1 ed.). Prentice Hall.*
- *Banahan, M.; Brady, D.; Doran, M. (1991). The C Book: Featuring the ANSI C Standard (2 ed.). Addison-Wesley.*
- *Harbison, Samuel; Steele Jr, Guy (2002). C: A Reference Manual (5 ed.). Pearson.*
- *King, K.N. (2008). C Programming: A Modern Approach (2 ed.). W. W. Norton.*

B-MMT 105: Computer Programming (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 105.1	3	3	3	3	3	3	3	3
B-MMT 105.2	3	2	3	3	3	3	3	2
B-MMT 105.3	3	3	2	3	3	3	3	2
B-MMT 105.4	3	2	3	3	2	2	2	2
Average	3	2.5	2.75	3	2.75	2.75	2.75	2.25

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 105.1	3	2	3	3	2
B-MMT 105.2	3	2	3	3	2
B-MMT 105.3	3	2	3	3	2
B-MMT 105.4	3	2	3	3	2
Average	3	2	3	3	2

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 105.1	3	3	3	3	3	3	3	3	3	2	3	3	2
B-MMT 105.2	3	2	3	3	3	3	3	2	3	2	3	3	2
B-MMT 105.3	3	3	2	3	3	3	3	2	3	2	3	3	2
B-MMT 105.4	3	2	3	3	2	2	2	2	3	2	3	3	2
Average	3	2.5	2.75	3	2.75	2.75	2.75	2.25	3	2	3	3	2

B-MMT 106: Computer Programming (Practical)

Time: 3 Hrs. Total Marks: 50
Credits: 2 Practical: 40
Internal Assessment: 10

Course Objectives: This course is designed for those who want to advance structured and procedural understanding and to improve c programming skills.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 106.1: Implement the algorithms and draw flowcharts.
B-MMT 106.2: Demonstrate an understanding of computer programming language concepts
B-MMT 106.3: Define data types and use them.
B-MMT 106.4: Use the concepts of arrays, functions and structure.

Note:- The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

List of Practical Exercises:
Sum of three Number
Simple interest
Find Even/odd number
Largest among two numbers
Largest among three number using control statement
Fibonacci Series.
Prime number
Factorial.
Sum of Digits.
Reverse Number.
Swap two numbers
Table of a number
Create and initialize array
Create student records using structure and union.

B-MMT 106: Computer Programming (Practical)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 106.1	3	3	3	3	3	3	3	3
B-MMT 106.2	3	2	3	3	3	3	3	2
B-MMT 106.3	3	3	2	3	3	3	3	2
B-MMT 106.4	3	2	3	3	2	2	2	2
Average	3	2.5	2.75	3	2.75	2.75	2.75	2.25

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 106.1	3	2	3	3	2
B-MMT 106.2	3	2	3	3	2
B-MMT 106.3	3	2	3	3	2
B-MMT 106.4	3	2	3	3	2
Average	3	2	3	3	2

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 106.1	3	3	3	3	3	3	3	3	3	2	3	3	2
B-MMT 106.2	3	2	3	3	3	3	3	2	3	2	3	3	2
B-MMT 106.3	3	3	2	3	3	3	3	2	3	2	3	3	2
B-MMT 106.4	3	2	3	3	2	2	2	2	3	2	3	3	2
Average	3	2.5	2.75	3	2.75	2.75	2.75	2.25	3	2	3	3	2

B-MMT 107: Fundamentals of Multimedia

Time: 3 Hrs. Total Marks: 150
Credits: 6 Theory: 120
Internal assessment: 30

Course objectives: This course aims to introduce the fundamental elements of multimedia. The emphasis will be on learning the representations, perceptions and applications of multimedia.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 107.1 Understand the basic concepts of Multimedia.
B-MMT 107.2 Differentiate the various features and capabilities of different application software.
B-MMT 107.3 Communicate ideas and concepts by using the multimedia.
B-MMT 107.4 Identify and describe the function of the general skill sets in the multimedia industry.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit-I

Introduction to multimedia
Key elements of multimedia: text, audio, video, graphics, animation
Hardware and software requirements for multimedia
Multimedia equipments
Applications of multimedia

Unit-II

Desktop publishing
Basic design concepts
User interface design
Hypermedia authoring concepts

Unit-III

Process of multimedia production
Various file formats of text, audio, video, graphics and animation
File compression techniques
Creating web based multimedia

Unit-IV

Introduction to animation
Basic audio and video integration techniques
Animation effects
Production process of animation

References:

- Multimedia Basics, Volume 1 by Andreas Holzinger, Firewall Media.
- Fundamentals of Multimedia, Ze-Nian Li, Mark S. Drew, Pearson Prentice Hall, 2004
- Multimedia Basics, Suzanne Weixel, Jennifer Fulton, Karl Barksdale, Cheryl Morse, Bryan Morse, Thomson/Course Technology
- Malik and Agarwal, S. and A. (October 2012). "Use of Multimedia as a New Educational Technology Tool–A Study"(PDF). *International Journal of Information and Education Technology*.

B-MMT 107: Fundamentals of Multimedia

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 107.1	3	3	3	3	3	3	3	3
B-MMT 107.2	3	3	3	3	3	3	3	3
B-MMT 107.3	3	3	3	3	3	3	3	3
B-MMT 107.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 107.1	3	3	3	3	3
B-MMT 107.2	3	3	3	3	3
B-MMT 107.3	3	3	3	3	3
B-MMT 107.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 107.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 107.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 107.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 107.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3

B-EVS 100 : Environment Studies

Time: 3 Hrs.
Credits: 2

Total Marks: 50
Theory: 40
Internal Assessment: 10

Scheme of paper: Total number of questions will be nine. Students have to attempt five questions in all. Questions no. 1 is compulsory. All questions carry equal marks. Each question is of 8 marks.

Course objectives: The aim of this course is to aware the students about the environmental problems and current global issues related to environment. It provides knowledge about the topics like ecosystem and biodiversity and develops interest in the students about their role in conservation of environment and reducing pollution and waste generation in their surroundings. By understanding the environmental problems, their causes and solutions, the students can apply it to their daily lives also.

Course Outcomes:

COs	On successful completion of the course, the students will be able to:
1	Understand the definition of environmental studies, its scope and importance in the conservation of environment.
2	Understand the concept of ecosystem and different types of natural and artificial ecosystems in the world, the biogeochemical cycling and energy flow in an ecosystem.
3	Describe the various renewable and non-renewable natural resources and their over-exploitation due to increasing demands of rising population.
4	Become aware about our biodiversity, its importance and the various threats that are a problem for the biodiversity. They will understand the endangered species and their conservation measures that are needed to be adopted at different levels.
5	Have understanding about the types of pollution and how to reduce those pollution levels in air, soil, water, land and from marine bodies as well. They will develop interest in reducing the solid waste generation as well as its management at household level.

6	Gain knowledge of various global environmental issues like climate change, global warming and ozone depletion and also about different environmental laws implemented to conserve the environment.
7	Explain the concept of population growth and drug abuse.

Unit 1: Introduction to environmental studies

Multidisciplinary nature of environmental studies;

Scope and importance; Concept of sustainability and sustainable development. (2 lectures)

Unit 2: Ecosystems

What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession.

Case studies of the following ecosystems :

a) Forestecosystem
b) Grasslandecosystem
c) Desertecosystem
d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) (6 lectures)

Unit 3: Natural Resources: Renewable and Non-renewable Resources

Land resources and landuse change; Land degradation, soil erosion and desertification.

Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.

Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).

Energy resources: Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies. (8 lectures)

Unit 4: Biodiversity and Conservation

Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots

India as a mega-biodiversity nation; Endangered and endemic species of India

Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

Unit 5 : Environmental Pollution

Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution

Nuclear hazards and human health risks

Solid waste management: Control measures of urban and industrial waste.

Pollution case studies. (8 lectures)

Unit 6 : Environmental Policies & Practices

Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture

Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).

Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

Unit 7: Human Communities and the Environment

Human population growth: Impacts on environment, human health and welfare.

Resettlement and rehabilitation of project affected persons; case studies.

Disaster management: floods, earthquake, cyclones and landslides.

Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.

Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.

Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi)

Drugs and their effects; Useful and harmful drugs; Use and abuse of drugs; Stimulant and depressant drugs. Concept of drug de-addiction. Legal position on drugs and laws related to drugs.

(6 lectures)

Unit 8: Field work

Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.

Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.

Study of common plants, insects, birds and basic principles of identification.

Study of simple ecosystems-pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

Suggested Readings:

1) Carson, R. 2002. Silent Spring. Houghton MifflinHarcourt.
2) Gadgil,M.,&Guha,R.1993.ThisFissuredLand:AnEcologicalHistoryofIndia.Univ.ofCalifor niaPress.
3) Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London,Routledge.
4) Gleick,P.H.1993.WaterinCrisis.PacificInstituteforStudiesinDev.,Environment&S ecurity. Stockholm Env. Institute, Oxford Univ.Press.
5) Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates,2006.
6) Grumbine,R.Edward,andPandit,M.K.2013.Threats fromIndia's Himalayadams.Science,339:36-37.
7) McCully, P. 1996. Rivers no more: the environmental effects of dams (pp. 29-64). ZedBooks.
8) McNeill,JohnR.2000.SomethingNewUndertheSun:AnEnvironmentalHistoryoftheTw entieth Century.
9) Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia:Saunders.
10) Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science.Academic Press.
11) Rao, M.N. & Datta, A.K. 1987. Waste Water Treatment. Oxford and IBH Publishing Co. Pvt. Ltd.
12) 12.Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8th edition. John Wiley & Sons.
13) Rosencranz,A.,Divan,S.,&Noble,M.L.2001.Environmentallawandpolicyin India.Tripat hi1992.
14) Sengupta, R. 2003. Ecology and economics: An approach to sustainable development.OUP.
15) Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, NewDelhi.
16) Sodhi,N.S.,Gibson,L.&Raven,P.H.(eds).2013.ConservationBiology:VoicesfromtheTro pics.John Wiley &Sons.
17) Thapar, V. 1998. Land of the Tiger: A Natural History of the Indian Subcontinent.
18) Warren, C. E. 1971. Biology and Water Pollution Control. WBSaunders.
19) Wilson, E. O. 2006. The Creation: An appeal to save life on earth. New York:Norton.
20) World Commission on Environment and Development. 1987. Our Common Future. OxfordUniversity

B-HIN 100 : Communicative Hindi

Time: 2 Hrs. Total Marks: 50
Credits: 2 Theory: 40
Internal assessment: 10

Course Objectives: The Paper is designed to enhance proficiency in Hindi Language. It seeks to develop the basic of Hindi Language through different modules. Each unit will enable the learner to have the communication in Hindi and to share and express ideas and experiences.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-HIN 100.1: Develop the knowledge of basics of Hindi language.
B-HIN 100.2: Improve vocabulary in Hindi language.
B-HIN 100.3: : Inculcate the knowledge of grammar in Hindi language
B-HIN 100.4: Learn correct uses of Hindi language in media writing

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

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bZdkbZ ¼2½

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B-HIN100 : Communicative Hindi

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-HIN100.1	3	3	3	3	2	2	2	3
B-HIN100.2	3	3	3	3	2	2	2	3
B-HIN100.3	3	3	3	3	2	2	2	3
B-HIN100.4	3	3	3	3	2	2	2	3
Average	3	3	3	3	2	2	2	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-HIN100.1	2	2	2	2	2
B-HIN100.2	2	2	2	2	2
B-HIN100.3	2	2	2	2	2
B-HIN100.4	2	2	2	2	2
Average	2	2	2	2	2

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-HIN100.1	3	3	3	3	2	2	2	3	2	2	2	2	2
B-HIN100.2	3	3	3	3	2	2	2	3	2	2	2	2	2
B-HIN100.3	3	3	3	3	2	2	2	3	2	2	2	2	2
B-HIN100.4	3	3	3	3	2	2	2	3	2	2	2	2	2
Average	3	3	3	3	2	2	2	3	2	2	2	2	2

B-MMT 201: Graphic Design (Theory)

Time:3 Hrs. Total Marks: 100
Credits: 4 Theory: 80
Internal assessment: 20

Course Objectives: This course is designed for thorough understanding of computer graphic designing software concepts and their user interface and for learning the graphic tools using that interface.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 201.1: Understand the basic concepts of graphic elements
B-MMT 201.2: Know the functioning of basic colour aesthetics
B-MMT 201.3: : Develop the capacities to elaborate the process of graphic design
B-MMT 201.4: Develop ability to design various real world graphic applications.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit-I

Introduction to graphics, tools of graphics
Uses & Types of graphics
Meaning, definition, Elements and principles of graphic design
Study of vector images- its advantage and application areas,
Difference between vector and raster images

Unit-II

Introduction to Photoshop Tools and Menus
Layers and blending modes
Color theory; saturation, tint, shades, tones
Color modes, editing a Swatch, using patterns,
Working with brushes

Unit-III

Working with texts: Threading text, using text effects and styles, wrapping text
Introduction to Logo: types, elements and purpose of logo
Process of logo designing
Introduction to poster and types

Unit-IV

Social media posts:
Pamphlets, ad banners,
Designing Photo Collage, Black & White images to Color
WebBanner with different sizes for Websites

Facebook covers, Magazine covers designing
E-mailers design

References:

- Computer Graphics, C Version By Hearn & Becker, Pearson Education, India
- Computer Graphics by Sinha & Udai, Tata McGraw Hill, India
- Fundamentals of Computer Graphics By Peter Shirley, Michael Ashikhmin, Steve Marschner, CRC Press
- Fundamentals of Computer Graphics And Multimedia by D. P. Mukherjee, PHI Learning Pvt. Ltd.
- Graphic Designers : Occupational Outlook Handbook:U.S. Bureau of Labor Statistics

B-MMT 201: Graphic Design (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 201.1	3	3	3	3	3	3	3	3
B-MMT 201.2	3	3	3	3	3	3	3	3
B-MMT 201.3	3	3	3	3	3	3	3	3
B-MMT 201.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 201.1	3	3	3	3	3
B-MMT 201.2	3	3	3	3	3
B-MMT 201.3	3	3	3	3	3
B-MMT 201.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 201.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 201.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 201.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 201.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3

B-MMT 202: Graphics Design (Practical)

Time:3 Hrs. Total Marks: 50
Credits: 2 Practical: 40
Internal Assessment: 10

Course Objectives: This course is designed for practical understanding of graphic designing and menus, tools and its applications and production formats.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 202.1: Make use of graphic elements
B-MMT 202.2: Demonstrate the concept of image retouching, smoothing.
B-MMT 202.3: Design ad banners for websites and digital campaigning banners.
B-MMT 202.4: Design different logos.

Note:- The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

List of Practical Exercises:
Selection and cutting of objects
Creating backgrounds and textures
Image retouching, Smoothing skin & wrinkles
Photo Manipulation
Working with texts and paragraph styles
Creating of logo
Working with colours
Designing ad banners for websites
Creating digital campaigning banners

B-MMT 202: Graphic Design (Practical)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 202.1	3	3	3	3	3	3	3	3
B-MMT 202.2	3	3	3	3	3	3	3	3
B-MMT 202.3	3	3	3	3	3	3	3	3
B-MMT 202.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 202.1	3	3	3	3	3
B-MMT 202.2	3	3	3	3	3
B-MMT 202.3	3	3	3	3	3
B-MMT 202.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 202.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 202.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 202.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 202.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3

B-MMT 203: Audio Production (Theory)

Time: 3 Hrs.
Credits: 4

Total Marks: 100
Theory: 80
Internal assessment: 20

Course Objectives: This course is designed for the understanding of sound engineering concepts, audio recording and editing console and its work flow and reproduction formats..

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 203.1: Understand the principles of editing and enhancing film sound.
B-MMT 203.2: Identify the different stages of sound production.
B-MMT 203.3: Discuss the strategies used for the editing of audio production.
B-MMT 203.4: Demonstrate the initial steps to set up a control room mixing board for a multitrack.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit I

Principles of Sound- Quality, Intensity, Frequency, Noise, Amplitude, Velocity

Audio Equipments- Microphones, Monitors, MIDI, Audio Sound Card, Headphones, Signal Processing, Mixing Console

Unit II

Sound Interface: Panel, Track & Edit, Channel Setting, Tools, Snap Functioning, VST Fundamentals, Key Editor, Inspector Window, Zones, Strategies in Designing Sound

Unit III

Mix Console Fundamentals: Chords & Scale, Beat Designing, Uses of Automation, MIDI Programming, Layering and Arrangement, Equalization, Compressor, Understanding Frequency Bands

Unit IV

Audio Channel Output - Mono, Stereo, Dolby, Surround, Woofer, Tutor

Creative Uses of Sound - Studio, Live Speech, Music, Live Show, Interview, Audio Editing, Dubbing

Sound Isolation, Room Dimension, Acoustic Treatment, Control Room Design

References:

- Senior, Mike; Mixing Secrets for the Small Studio (2nd Edition), Published by Focal Press, a division of Taylor & Francis, ISBN 978-1-13-855637-9
- Cook, Frank D.; Cubase 101; Music Production with Cubase 10, Hal Leonard, 2019
- Kaye, Deena; Lebrecht, James (1992). Sound and Music For The Theatre. Back Stage Books, an imprint of Watson-Guptill Publications.

B-MMT 203: Audio Production (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 203.1	3	3	3	3	2	3	3	3
B-MMT 203.2	3	3	3	3	2	3	3	3
B-MMT 203.3	3	3	3	3	3	3	3	3
B-MMT 203.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	2.5	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 203.1	3	3	3	3	3
B-MMT 203.2	3	3	3	3	3
B-MMT 203.3	3	3	3	3	3
B-MMT 203.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 203.1	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 203.2	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 203.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 203.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	2.5	3	3	3	3	3	3	3	3

B-MMT-204: Audio Production (Practical)

Time: 3 Hrs. Total Marks: 50
Credits: 2 Practical: 40
Internal Assessment: 10

Course Objectives: This course is designed for practical understanding of audio recording and editing console and its work flow and reproduction formats.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 204.1 Design sound for the production.
B-MMT 204.2: Work on different stages of sound production.
B-MMT 204.3 Edit and amplify sound.
B-MMT 204.4 Add the special effect to the sound.

Note:- The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

List of Practical Exercises:
Dubbing – narration, commentary
Dubbing and multi-track recording
Multi track dubbing
Multi-track FX recording
Re-recording and final mix
FX- pre-mixing, BGM mixing
Multi track FX mixing and multitrack BGM mixing
Final mixing and Mastering Multi track voice levelling with mixing
multi track FX mixing
Multi track BGM mixing, Bouncing and Mastering

B-MMT 204: Audio Production (Practical)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 204.1	3	3	3	3	2	3	3	3
B-MMT 204.2	3	3	3	3	2	3	3	3
B-MMT 204.3	3	3	3	3	3	3	3	3
B-MMT 204.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	2.5	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 204.1	3	3	3	3	3
B-MMT 204.2	3	3	3	3	3
B-MMT 204.3	3	3	3	3	3
B-MMT 204.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 204.1	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 204.2	3	3	3	3	2	3	3	3	3	3	3	3	3
B-MMT 204.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 204.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	2.5	3	3	3	3	3	3	3	3

B-MMT 205: Basics of Animation (Theory)

Time: 3 Hrs.
Credits: 6

Total Marks: 150
Theory: 120
Internal assessment: 30

Course Objectives: This course is designed to teach the students very fundamentals of Animation. They will get to learn all the principles which will help them to learn and understand how actual animation works

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 205.1: Familiarize with various approaches, methods and techniques of Animation Technology.
B-MMT 205.2: Explore different approaches in computer animation.
B-MMT 205.3: Get knowledge about Flipbook, Storyboarding.
B-MMT 205.4: Get knowledge about production stages of animation.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit I

Principles of Sound- Quality, Intensity, Frequency, Noise, Amplitude, Velocity

Audio Equipments- Microphones, Monitors, MIDI, Audio Sound Card, Headphones, Signal Processing, Mixing Console

Unit II

Sound Interface: Panel, Track & Edit, Channel Setting, Tools, Snap Functioning, VST Fundamentals, Key Editor, Inspector Window, Zones, Strategies in Designing Sound

Unit III

Mix Console Fundamentals: Chords & Scale, Beat Designing, Uses of Automation, MIDI Programming, Layering and Arrangement, Equalization, Compressor, Understanding Frequency Bands

Unit IV

Audio Channel Output - Mono, Stereo, Dolby, Surround, Woofer, Tutor

Creative Uses of Sound - Studio, Live Speech, Music, Live Show, Interview, Audio Editing, Dubbing

Sound Isolation, Room Dimension, Acoustic Treatment, Control Room Design

B-MMT 205: Basics of Animation (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 205.1	3	3	3	3	3	3	3	3
B-MMT 205.2	3	3	3	3	3	3	3	3
B-MMT 205.3	3	3	3	3	3	3	3	3
B-MMT 205.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 205.1	3	3	3	3	3
B-MMT 205.2	3	3	3	3	3
B-MMT 205.3	3	3	3	3	3
B-MMT 205.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 205.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 205.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 205.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 205.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3

B-MMT 206: Web Programming using HTML (Theory)

Time: 3 Hrs. Total Marks: 100
Credits: 4 Theory: 80
Internal assessment: 20

Course Objectives: This course is designed for understanding the process of static website making and creating software application tools like lists, tables, hyperlinks etc. using html tags.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 206.1: Become familiar with web design and learn how to implement web theories into practice.
B-MMT 206.2: Learn the language of the web using HTML tags and CSS.
B-MMT 206.3: Use knowledge of HTML and CSS code and HTML editor to create personal and business websites following current professional and/or industry standards.
B-MMT 206.4: Use critical thinking skills to design and create websites.

Note:- The question paper will be divided into five Units containing nine questions. Students are required to attempt five questions in all. There will be two questions in each unit from I to IV and students are required to attempt one question from each unit. Unit V will have only one Compulsory question containing six short notes covering the entire syllabus and students are required to attempt any four. All questions will carry equal marks.

Unit I

Process of static web designing
Basic elements of web page
Role of typography
Aesthetics in colour and image selection

Unit II

HTML: introduction and basic elements;
Tags and functions
Head, title and body elements
Block and text level elements

Unit III

Layout designing of a webpage
Links, images, fonts, colour, style sheet and character entities
Text formatting
Interface between HTML and other coding languages

Unit IV

HTML tables and frames
Creating Page Structure with HTML Tables
Diagramming an HTML Table
Web browser support for HTML

References:

"An Introduction to HTML and JavaScript: for Scientists and Engineers" By David R. Brooks, Springer, 2007

"Head First HTML and CSS" By Elisabeth Robson, Eric Freeman, O'Reilly Media Inc.

"Schism's Easy Outline HTML" By David Mercer, Mcgraw Hill Professional

Matthew MacDonald, "HTML 5 - The Missing Manual", 3rd ed, 2015, O'Reilly

David Sawyer McFarland, "CSS 3 - The Missing Manual", 3rd ed, 2013, O'Reilly

W3School HTML/CSS Tutorials, References and Examples, http://www.w3schools.com

B-MMT 206: Web Programming using HTML (Theory)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 206.1	3	3	3	3	3	3	3	3
B-MMT 206.2	3	3	3	3	3	3	3	3
B-MMT 206.3	3	3	3	3	3	3	3	3
B-MMT 206.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 206.1	3	3	3	3	3
B-MMT 206.2	3	3	3	3	3
B-MMT 206.3	3	3	3	3	3
B-MMT 206.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 206.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 206.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 206.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 206.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3

B-MMT 207: Web Programming using HTML (Practical)

Time: 3 Hrs. Total Marks: 50
Credits: 2 Practical: 40
Internal Assessment: 10

Course Objectives: This course is designed for practical understanding of static website making and creating software application tools like lists, tables, hyperlinks etc. using html tags.

Course Learning Outcomes:
After completing the Course, the student will be able to:
B-MMT 207.1: Insert graphic elements within a webpage.
B-MMT 207.2: Create a link/hyperlink with in a webpage.
B-MMT 207.3: Insert table, headings, ordered list, unordered list with in a web
B-MMT 207.4: Use Cascading style sheet (CSS) with in a web page.

Note:- The students will do practical assignments assigned by the concerned teacher throughout the whole semester and will submit them in the form of hardcopy/softcopy to the teacher. External Examiner will evaluate the work done by the student, will conduct the practical and viva voce.

List of Practical Exercises:
Introduction to HTML. Create a basic HTML file
Create a static web page which defines all text formatting tags of HTML
Create a Time table using table tags of HTML
Create webpage using list tags of HTML(ordered, unordered, definition list)
Create webpage to include image using HTML tag
Create link using HTML tag
Create a layout of webpage using HTML tag
Create employee registration form using HTML tag
Apply style sheet in Web page (inline, embedded and link)
Create a static website using HTML tags according to their own interest

B-MMT 207: Web Programming using HTML (Practical)

CO-PO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
B-MMT 207.1	3	3	3	3	3	3	3	3
B-MMT 207.2	3	3	3	3	3	3	3	3
B-MMT 207.3	3	3	3	3	3	3	3	3
B-MMT 207.4	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3

CO-PSO Mapping Matrix

CO	PSO1	PSO2	PSO3	PSO4	PSO5
B-MMT 207.1	3	3	3	3	3
B-MMT 207.2	3	3	3	3	3
B-MMT 207.3	3	3	3	3	3
B-MMT 207.4	3	3	3	3	3
Average	3	3	3	3	3

CO-PO-PSO Mapping Matrix

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
B-MMT 207.1	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 207.2	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 207.3	3	3	3	3	3	3	3	3	3	3	3	3	3
B-MMT 207.4	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	3	3	3	3	3	3	3	3	3	3	3	3