KARNATAK UNIVERSITY, DHARWAD
ACADEMIC (S&T) SECTION
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
ವಿದ್ಯಾಮಂಡಳ (ಎಸ್&ಟಿ) ವಿಭಾಗ

Tele: 0836-2215224
e-mail: academic.st@kud.ac.in

Pavate Nagar,Dharwad-580003
ಪಾವಟಿ ನಗರ, ಧಾರವಾಡ – 580003

NAAC Accredited
'A' Grade 2014

website: kud.ac.in

No. KU/Aca(S&T)/SSL-394A/2022-23/ 1055

Date: 2 3 SEP 2022

ಅಧಿಸೂಚನೆ

ವಿಷಯ: 2022–23ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳಿಗೆ 3 ಮತ್ತು 4ನೇ ಸೆಮೆಸ್ಟರ್
NEP-2020 ಮಾದರಿಯ ಪಠ್ಯಕ್ರಮವನ್ನು ಅಳವಡಿಸಿರುವ ಕುರಿತು.

ಉಲ್ಲೇಖ: 1. ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿಗಳು(ವಿಶ್ವವಿದ್ಯಾಲಯ 1) ಉನ್ನತ ಶಿಕ್ಷಣ ಇಲಾಖೆ ಇವರ
ಆದೇಶ ಸಂಖ್ಯೆ: ಇಡಿ 260 ಯುಎನ್ಇ 2019(ಭಾಗ–1), ದಿ:7.8.2021.

2. ಸಮಾಜವಿಜ್ಞಾನ ನಿಖಾಯ ಸಭೆಯ ತರಾವುಗಳ ದಿನಾಂಕ: 12.09.2022

3. ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ನಿರ್ಣಯ ಸಂ. 04, ದಿನಾಂಕ: 17.09.2022

4. ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶ ದಿನಾಂಕ: 22-09-2022

——————

ಮೇಲ್ಕಾಣಿಸಿದ ವಿಷಯ ಹಾಗೂ ಉಲ್ಲೇಖಿಗಳನ್ವಯ ಮಾನ್ಯ ಕುಲಪತಿಗಳ ಆದೇಶದ ಮೇರೆಗೆ, 2022–23ನೇ
ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಅನ್ವಯವಾಗುವಂತೆ, **ಸಮಾಜವಿಜ್ಞಾನ** ನಿಖಾಯದ ಎಲ್ಲ ಸ್ನಾತಕ ಕೋರ್ಸಗಳ ರಾಷ್ಟ್ರೀಯ ಶಿಕ್ಷಣ ನೀತಿ
(NEP)-2020 ರಂತೆ 3 ಮತ್ತು 4ನೇ ಸೆಮೆಸ್ಟರ್‌ಗಳಿಗಾಗಿ ವಿಶೇಷ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಅನುಮೋದಿತ
ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಪ್ರಕಟಪಡಿಸಿದ್ದು, ಸದರ ಪಠ್ಯಕ್ರಮಗಳನ್ನು ಕ.ವಿ.ವಿ. www.kud.ac.in ಅಂತರ್ಜಾಲದಿಂದ ಡೌನಲೋಡ
ಮಾಡಿಕೊಳ್ಳಲು ಸೂಚಿಸುತ್ತಾ, ವಿದ್ಯಾರ್ಥಿಗಳು ಹಾಗೂ ಸಂಬಂಧಿಸಿದ ಎಲ್ಲ ಬೋಧಕರ ಗಮನಕ್ಕೆ ತಂದು ಅದರಂತೆ
ಕಾರ್ಯಪ್ರವೃತ್ತರಾಗಲು ಕವಿವಿ ಅಧೀನದ / ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ ಸೂಚಿಸಲಾಗಿದೆ.

ಅಡಕ: ಮೇಲಿನಂತೆ

ಕುಲಸಚಿವರು.

ಗೆ,
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಬರುವ ಎಲ್ಲ ಅಧೀನ ಹಾಗೂ ಸಂಲಗ್ನ ಮಹಾವಿದ್ಯಾಲಯಗಳ
ಪ್ರಾಚಾರ್ಯರುಗಳಿಗೆ. (ಕ.ವಿ.ವಿ. ಅಂತರ್ಜಾಲ ಹಾಗೂ ಮಿಂಚಂಚೆ ಮೂಲಕ ಬಿತ್ತರಿಸಲಾಗುವುದು)

ಪ್ರತಿ:
1. ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
2. ಕುಲಸಚಿವರ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
3. ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ) ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿಗಳು, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
4. ಅಧೀಕ್ಷಕರು, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ / ಗೌಪ್ಯ / ಜಿ.ಎ.ಡಿ. / ವಿದ್ಯಾಂಡಳ (ಪಿ.ಜಿ.ಪಿಎಚ್.ಡಿ) ವಿಭಾಗ, ಸಂಬಂಧಿಸಿದ
ಕೋರ್ಸಗಳ ವಿಭಾಗಗಳು ಪರೀಕ್ಷಾ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.
5. ನಿರ್ದೇಶಕರು, ಕಾಲೇಜು ಅಭಿವೃದ್ಧಿ / ವಿದ್ಯಾರ್ಥಿ ಕಲ್ಯಾಣ ವಿಭಾಗ, ಕ.ವಿ.ವಿ. ಧಾರವಾಡ.

1

KARNATAK UNIVERSITY, DHARWAD

B.A. Program

***

SYLLABUS

Course: Computer Application

With Effect from 2021-22

DISCIPLINE SPECIFIC CORE COURSE (DSCC) FOR SEM III & IV,

OPEN ELECTIVE COURSE (OEC) FOR SEM III& IV and

SKILL ENHANCEMENT COURSE (SEC) FOR SEM III

AS PER N E P - 2020

Karnatak University, Dharwad
Four Years Under Graduate Program in **Computer Applications** for B.A.
With Effect from 2022-23

Sem.	Type of Course	Theory/ Practical	Course Code	Course Title	Instruction hour per week	Total hours of Syllabus / Sem	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks	Credits
III	DSCC 5	Theory	013CAP011	**Object Oriented Programming using JAVA**	04hrs.	52	02 hrs.	40	60	100	04
	DSCC -6	Practical	013CAP012	Java Programming Lab	04 hrs.	52	03 hrs.	25	25	50	02
	OEC-3	Theory	003CAP051	Python Programming Concepts	03 hrs.	42	02 hrs.	40	60	100	03
	SEC-2	Practical	013CAP061	Artificial Intelligence (SEC-Model 2)	03 hrs.	39	02 hrs.	25	25	50	02
IV	DSCC -7	Theory	014CAP011	Multimedia and Animation	04 hrs.	52	02 hrs.	40	60	100	04
	DSCC -8	Practical	014CAP012	Multimedia and Animation LAB	04 hrs.	52	03 hrs.	25	25	50	02
	OEC-4	Theory	004CAP051	Electronic Commerce	03 hrs.	42	02 hrs.	40	60	100	03
	Details of the other Semesters will be given later										

<div align="center">

Name of Course (Subject):Computer Application

ProgramSpecific Outcome (PSO):

</div>

On completion of the 03/ 04 years Degree in Computer Sciencestudents will be able to:

PSO 1 : Efficiently use Office Automation Tools like word processors, spreadsheets and presentation tools.

PSO 2 : Develop simple programming constructs in a Programming Language.

PSO 3 : Use multimedia authoring tools to design small applications using sound, audio, and video/animation.

PSO 4 : Develop simple websites using HTML/DHTML, CSS and JavaScript programming codes.

PSO 5 : Handle Computer Networks, modems and routers, and efficiently use Internet.

PSO 6 : Develop and implement a simple project based on case studies.

B.A. Semester –III

Course: Computer Applications
Discipline Specific Course (DSC)

The course Computer Application **in III semester has two papers (Theory Paper –I for 04 credits&Practical Paper -II for 2 credits) for 06 credits: Both the papers are compulsory. Details of the courses are as under.**

Course No.3 (Theory): Object Oriented Programming using JAVA
Course Code: 013CAP011

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour perweek	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-03	DSCC-5	Theory	04	04	52hrs.	2hrs.	40	60	100

Course Outcomes (COs):

At the end of the course, (Theory), students will be able to:

      CO 1: Explain the object-oriented concepts using JAVA.

      CO 2: Write JAVA programs using OOP concepts like Abstraction, Encapsulation, Inheritance and Polymorphism.

      CO 3: Implement Classes and multithreading using JAVA.

      CO 4: Demonstrate the basic principles of creating Java applications with GUI.

DSCC 3: Object Oriented Programming using JAVA

Unit I	**Introduction to Java:** Basics of Java programming, Data types, Variables, Operators, Control structures including selection, Looping, Java methods, Overloading, Math class, Arrays in java. **Objects and Classes:** Basics of objects and classes in java, Constructors, Finalizer, Visibility modifiers, Methods and objects, Inbuilt classes like String, Character, String Buffer, File, this reference.	13 hrs.
Unit II	**Inheritance and Polymorphism:** Inheritance in java, Super and sub class, Overriding, Object class, Polymorphism, Dynamic binding, Generic programming, Casting objects, Instance of operator, Abstract class, Interface in java, Package in java, UTIL package.	13 hrs.
Unit III	**Event and GUI programming:** Event handling in java, Event types, Mouse and key events, GUI Basics, Panels, Frames, Layout Managers: Flow Layout, Border Layout, Grid Layout, GUI components like Buttons, Check Boxes, Radio Buttons, Labels, Text Fields, Text Areas, Combo Boxes, Lists, Scroll Bars, Sliders, Windows, Menus, Dialog Box, Applet and its life cycle, Introduction to swing, Exceptional handling mechanism.	13 hrs.
Unit IV	**I/O programming:** Text and Binary I/O, Binary I/O classes, Object I/O, Random Access Files. Multithreading in java: Thread life cycle and methods, Runnable interface, Thread synchronization, Exception handling with try catch-finally, Collections in java, Introduction to JavaBeans and Network Programming	13 hrs.

References:
1. Programming with Java, By E Balagurusamy – A Primer, 4th Edition, McGraw Hill Publication.
2. Core Java Volume I – Fundamentals, By Cay S. Horstmann, Prentice Hall.
3. Object Oriented Programming with Java: Somashekara M.T., Guru, D.S., Manjunatha K.S, 1st Edition, PHI Learning 2017.
4. Java 2 - The Complete Reference, Herbert Schildt, 5th Edition, McGraw Hill Publication, 2017.
5. Java - The Complete Reference, Herbert Schildt, 7th Edition, McGraw Hill Publication, 2017.

B.A. Semester –III

Course: Computer Applications
Discipline Specific Course (DSC)

Course No.3 (Practical): JAVA programming Lab

Course Code: 013CAP012

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-03	DSCC-6	Practical	02	04	52 hrs.	3hrs	25	25	50

Course Outcomes (COs):

At the end of the course, (Practical), students will be able to:

CO: Student would be able to implement OOP's concepts using JAVA.

List of Experiments for 52 hrs. / Semester.

Operators, Decision making and Loops:

1. Write a Java program to read the radius of a circle and to find the area and circumference.
2. Write a program to demonstrate String Operators.
3. Write a Java program to find N prime numbers reading N as command line argument.
4. Write a program to find factorial of N numbers reading N as command line argument.
5. Write a program to read N numbers and sort them using one-dimensional arrays.

Classes and Methods:

6. Write a Java program to illustrate Method Overloading.
7. Write a Java program to illustrate Operator Overloading.
8. Write a program to demonstrate Single Inheritance.
9. Write a program to illustrate Constructor Overloading
10. Write a program to illustrate Method Overriding

Packages, Threads and Exception Handling:

11. Write a Java program demonstrating Multithreading.
12. Write a Java program demonstrating Exception Handling.
13. Write a Java program to demonstrate user defined package program.

Java Applet Programming

14. Write an Applet program to display Geometrical Figures using objects.
15. Write an Applet program which illustrate Scroll bar object.
16. Write an Applet program to change the background color randomly.
17. Write an Applet program to change the color of applet using combo box.
18. Write an Applet program to implement Digital Clock using thread.

Event Handling:

19.Write an Applet program to implement Mouse events.
20. Write an Applet program to implement Keyboard events.

Note: A minimum of 20 assignments should be done by each student.

General Instructions

Implement all programs using JAVA.

Scheme of Practical Examination (distribution of marks): 25 marks for the Semester end examination

1. **7 Marks (Writing Program 1 + Execution without error)**

2. **7 Marks (Writing Program 2 + Execution without error)**

3. **Viva 6 marks**

4. **Journal 5 Marks**

   Total 25 Marks

Note: Same scheme may be used for IA (Formative Assessment) examination.

B.A. Semester –III

Course: Computer Applications

Open Elective Course (OEC-2)

(OEC for other students)

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC-2	OEC	Theory	03	03	42 hrs.	2hrs.	40	60	100

Course Outcomes (COs):

At the end of the course, (Practical), students will be able to:

CO 1: Explain the fundamentals of Computers.

CO 2: Explain the basic concepts of Python Programming.

CO 3: Demonstrate proficiency in the handling of loops and the creation of functions.

CO 4: Identify the methods to create and store strings.

OEC-2: Python Programming Concepts

Course Code: 003CAP051

Unit I	**Fundamentals of Computers**Introduction to Computers - Computer Definition, Characteristics of Computers, Evolution and History of Computers, Types of Computers, Basic Organization of a Digital Computer; Number Systems – different types, conversion from one number system to another; Computer Codes – BCD, Gray Code, ASCII and Unicode; Boolean Algebra – Boolean Operators with Truth Tables; Types of Software – System Software and Utility Software; Computer Languages - Machine Level, Assembly Level & High Level Languages, Translator Programs – Assembler, Interpreter and Compiler; Planning a Computer Program - Algorithm, Flowchart and Pseudo code with Examples.	11 hrs.
Unit II	**Python Basics** Introduction to Features and Applications of Python; Python Versions; Installation of Python; Python Command Line mode and Python IDEs; Simple Python Program. Identifiers; Keywords; Statements and Expressions; Variables; Operators; Precedence and Association; Data Types; Indentation; Comments; Built-in Functions- Console Input and Console Output, Type Conversions; Python Libraries; Importing Libraries with Examples; Illustrative programs.	11 hrs.

Unit III	**Python Control Flow:** Types of Control Flow; Control Flow Statements- if, else, elif, while loop, break, continue statements, for loop Statement; range() and exit () functions; Illustrative programs.	10 hrs.
Unit IV	**Python Functions:** Types of Functions; Function Definition- Syntax, Function Calling, Passing Parameters/arguments, the return statement; Default Parameters; Command line Arguments; Key Word Arguments; Illustrative programs.	10 hrs.

References

1. Computer Fundamentals (BPB), P. K. Sinha & PritiSinha
2. Think Python How to Think Like a Computer Scientist, Allen Downey et al., 2nd Edition, Green Tea Press. Freely available online 2015.@https://www.greenteapress.com/thinkpython/thinkCSpy.pdf
3. Introduction to Python Programming, Gowrishankar S et al., CRC Press, 2019.
4. http://www.ibiblio.org/g2swap/byteofpython/read/
5. http://scipy-lectures.org/intro/language/python_language.html
6. https://docs.python.org/3/tutorial/index.html

B.A. Semester – III

Course: Computer Applications
Skill Enhancement Course (SEC-2)

Title of the Paper: Artificial Intelligence
Course Code: 013CAP061

Type of Course	Theory / Practical	Total No. of Lectures/Hours / Semester	Credits	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
SEC-II	Theory (13 hrs.)+ Practical (26 hrs.)	39 hrs.	02	2 hrs.	25	25	50

Course Outcomes (COs):

At the end of the course, students will be able to:

CO 1: Appraise the theory of Artificial intelligence and list the significance of AI.

CO 2: Discuss the various components that are involved in solving an AI problem.

CO 3: Illustrate the working of AI Algorithms in the given contrast.

CO 4: Analyze the various knowledge representation schemes, Reasoning and Learning techniques of AI.

CO 5: Apply the AI concepts to build an expert system to solve the real-world problems.

Unit –I	**Overview of AI:** Definition of Artificial Intelligence, Philosophy of AI, Goals of AI, Elements of AI system, Programming a computer without and with AI, AI Techniques, History of AI. **Intelligent Systems:** Definition and understanding of Intelligence, Types of Intelligence, Human Intelligence vs Machine Intelligence.	**05 hrs.**
Unit- II	**AI Applications:** Virtual assistance, Travel and Navigation, Education and Healthcare, Optical character recognition, E-commerce and mobile payment systems, Image based search and photo editing. **AI Examples in daily life:** Installation of AI apps and instructions to use AI apps.	**05 hrs.**
Unit- III	**Robotics:** Introduction to Robotics, Difference in Robot System and Other AI Program, Components of a Robot.	**03 hrs.**

Laboratory Activities: • **Amazon Alexa:** https://play.google.com/store/apps/details?id=com.amazon.dee.app&hl=en&gl=US • **Google Lens:** https://play.google.com/store/search?q=google+lens&c=apps&hl=en&gl=US • **Image to Text to Speech ML OCR:** https://play.google.com/store/apps/details?id=com.mlscanner.image.text.speech&hl=en_IN&gl=US • **Google Pay:** https://play.google.com/store/apps/details?id=com.google.android.apps.nbu.paisa.user&hl=en_IN&gl=US • **Grammarly:** https://play.google.com/store/search?q=grammarly&c=apps&hl=en_IN&gl= • **Google Map:** https://play.google.com/store/search?q=google+maps&c=apps&hl=en&gl=US • **FaceApp:** https://play.google.com/store/apps/details?id=io.faceapp&hl=en_IN&gl=US • **Socratic:** https://play.google.com/store/apps/details?id=com.google.socratic&hl=en_IN&gl=US • **Google Fit: Activity Tracking:** https://play.google.com/store/apps/details?id=com.google.android.apps.fitness&hl=en_IN&gl=US • **SwiftKey Keyboard:** https://swiftkey-keyboard.en.uptodown.com/android • **E-commerce App:** https://play.google.com/store/apps/details?id=com.jpl.jiomart&hl=en_IN&gl=US	**26hrs**

Text Books:
1. Wolfgang Ertel, "Introduction to Artificial Intelligence", 2nd Edition, Springer International Publishing 2017.
2. Michael Negnevitsky, "Artificial Intelligence A Guide to Intelligent Systems", 2nd Edition, Pearson Education Limited 2005.

References:
1. https://www.tutorialspoint.com/artificial_intelligence/artificial_intelligence_tutorial.pdf
2. Kevin Knight, Elaine Rich, Shivashankar B. Nair, "Artificial Intelligence", 3rd Edition, July 2017.

Reference Links:
1. Voice Assistant: https://alan.app/blog/voiceassistant-2/
2. Browse with image: https://www.pocket-lint.com/apps/news/google/141075-what-is-google-lens-and-how-does-it-work-and-which-devices-have-it
3. OCR: https://aws.amazon.com/what-is/ocr/
4. Mobile Payment system: https://gocardless.com/en-us/guides/posts/how-do-mobile-payment-systems-work/
5. Grammarly: https://techjury.net/blog/how-to-use-grammarly/#gref
6. Travel & Navigation: https://blog.google/products/maps/google-maps-101-ai-power-new-features-io-2021/
7. AI in photo editing: https://digital-photography-school.com/artificial-intelligence-changed-photo-editing/
8. AI in education: https://www.makeuseof.com/what-is-google-socratic-how-does-it-work/
9. AI in health and fitness: https://cubettech.com/resources/blog/implementing-machine-learning-and-ai-in-health-and-fitness/
10. E-commerce and online shopping: https://medium.com/@nyxonedigital/importance-of-e-commerce-and-online-shopping-and-why-to-sell-online-5a3fd8e6f416

Implement Laboratory activities as specified tools in the SEC-3.

Scheme of Practical Examination (distribution of marks): 25 marks for the Semester end examination

1. **7 Marks (Writing Activity 1 + Execution without error)**

2. **7 Marks (Writing Activity 2 + Execution without error)**

3. **Viva 6 marks**

4. **Journal 5 Marks**

    Total 25 Marks

Note: Same scheme may be used for IA (Formative Assessment) examination.

Details of Formative assessment (IA)for DSCC theory/OEC: 40% weight age for total marks

Type of Assessment	Weight age	Duration	Commencement
Written test-1	10%	1 hr	8th Week
Written test-2	10%	1 hr	12th Week
Seminar	10%	10 minutes	--
Case study / Assignment / Field work / Project work/ Activity	10%	------	--
Total	40% of the maximum marks allotted for the paper		

Faculty of Social Science
04 - Year UG Honors programme:2022-23

GENERAL PATTERN OF THEORYQUESTION PAPER FOR DSCC/ OEC
(60 marks for semester end Examination with 2hrs duration)

Part-A
1. Question number 1-06carries 2 marks each. Answer any05 questions   :10marks

Part-B

2. Question number 07- 11 carries 05Marks each. Answer any 04questions   : 20 marks

Part-C

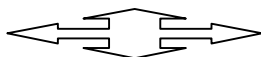**3.** Question number 12-15 carries 10 Marks each. Answer any 03 questions   : 30 marks

(Minimum 1 question from each unit and 10 marks question may have sub questions for 7+3 or 6+4 or 5+5 if necessary)

Total: 60 Marks

Note: Proportionate weightage shall be given to each unit based on number of hours prescribed.

B.A. Semester –IV

Course: Computer Applications
Discipline Specific Course (DSC)

The course Computer Application**in IV semester has two papers (Theory Paper –I for 04 credits & Practical paper-II for 2 credits) for 06 credits: Both the papers are compulsory. Details of the courses are as under.**

Title of the Course (Theory): Computer Multimedia & Animation
Course No.4 (Theory): Course Code: 014CAP011

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour perweek	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-04	DSCC-7	Theory	04	04	52hrs.	2hrs.	40	60	100

Course Outcomes (COs):

At the end of the course, students will be able to:

CO 1: Write a well-designed, interactive Web site with respect to current standards and practices.

CO 2: Demonstrate in-depth knowledge of an industry-standard multimedia development tool and its associated scripting language.

CO 3: Determine the appropriate use of interactive versus standalone Web applications.

DSCC-7: Computer Multimedia & Animation

	Description	Hours
Unit I	Web Design: Origins and evolution of HTML, Basic syntax, Basic text markup, Images, Lists, Tables, Forms, Frame, Overview and features of HTML5. CSS: Introduction, Levels of style sheets, Style specification formats, Selector forms, Property value forms, Font properties, List properties, Color, Alignment of text, The <span> and <div> tags; Overview and features of CSS3. JavaScript: Object orientation and JavaScript; General syntactic characteristics; Primitives, operations, and expressions; Screen output and keyboard input.	13 hrs.
Unit II	Animation: What is an Animation? The Start and End States, Interpolation, Animations in HTML. All About CSS Animations, Creating a Simple Animation, Detailed Look at the CSS Animation Property, Keyframes, Declaring Multiple Animations, Wrap-up. All About CSS Transitions, Adding a Transition, Looking at Transitions in Detail, The Longhand Properties, Longhand Properties vs. Shorthand Properties, Working with Multiple Transitions.	13 hrs.
Unit III	HTML5 – SVG: Viewing SVG Files, Embedding SVG in HTML5, HTML5 − SVG Circle, HTML5 − SVG Rectangle, HTML5 − SVG Line, HTML5 − SVG Ellipse, HTML5 − SVG Polygon, HTML5 − SVG Polyline, HTML5 − SVG Gradients, HTML5 − SVG Star.	13 hrs.

Unit IV	HTML5 – CANVAS: The Rendering Context, Browser Support, HTML5 Canvas Examples, Canvas - Drawing Rectangles, Canvas - Drawing Paths, Canvas - Drawing Lines, Canvas - Drawing Bezier Curves, Canvas - Drawing Quadratic Curves, Canvas - Using Images, Canvas - Create Gradients, HTML5 - Styles and Colors, Canvas - Text and Fonts, Canvas - Pattern and Shadow, Canvas - Save and Restore States, Canvas - Translation, Canvas - Rotation, Canvas - Scaling, Canvas - Transforms, HTML5 Canvas - Composition, Canvas – Animations.	13 hrs.

References:
1. The Complete Reference HTML and CSS, 5[th]Edition, Thomas A Powell, 2017.
2. Animation in HTML, CSS, and JavaScript,KirupaChinnathambi, 1st Edition, Createspace Independent Pub, 2013.
3. https://www.w3.org/Style/CSS/current-work#CSS3
4. http://bedford-computing.co.uk/learning/cascading-style-sheets-css/

B.A. Semester –IV

Course: Computer Applications
Discipline Specific Course (DSC)

Title of the Course (Practical): Computer Multimedia & Animation
Course No.2 (Practical): Course Code: 014CAP012

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour perweek	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
Course-04	DSCC-8	Practical	02	04	52 hrs.	3hrs.	25	25	50

Course Outcome (CO):

After completion of course (Practical), students will be able to:

CO : Students will learn HTML/DHTML, CSS, SVG, Canvas and JavaScript programming codes.

List of the Experiments for 52 hrs. / Semesters

HTML Programs

1. Print the numbers 1 - 10, each number being a different color.

2. Use table tag to format web page. Also create the Time Table of your class using table tag.

3. Print a paragraph that is a description of a book, include the title of the book as well as its author. Names and titles should be underlined, adjectives should be italicized and bolded.

4. Print the squares of the numbers 1 - 20. Each number should be on a separate line, next to it the number 2 superscripted, an equal sign and the result. (Example: $10^2 = 100$)

5. Create links to five different pages on five different websites that should all open in a new window.

CSS Programs

6. Setting a background image for a page and setting text , background color Using CSS

7. Setting the font type of text Setting the font size of text Setting the font color of text Setting the font style of text Using CSS

8. Create a webpage with two images which alternately changes on mouse over using CSS.

Java Script

9. Write a JavaScript program to display the current day and time

10. Write a JavaScript program to convert temperatures to and from Celsius, Fahrenheit.

HTML5-SVG

11.   Write a program to create a Line and Rectangle using.

12.   Write a program to create a polygon, polyline.

13.   Write a program to create a star .

HTML5-Canvas

14.   Write a program to create a Line and Rectangle

15.   Write a program to create Bezier Curves

16.   Write a program to create Draw Linear Gradient

17.   Write a program to rectangle translation .

18.   Write a program to rectangle rotation .

19.   Write a program to rectangle scaling using canvas.

Canvas-Animation

20.   Write a program to rotate a small image repeatedly.

Scheme of Practical Examination (distribution of marks): 25 marks for Semester end examination

1.   **7 Marks (Program 1 + Execution without error)**

2.   **7 Marks (Program 2 + Execution without error)**

3.   **Viva 6 Marks**

4.   **Journal 5 Marks**

     Total 25 marks

Note: Same Scheme may be used for IA(Formative Assessment) examination

B.A. Semester –IV
Course: Computer Applications
Open Elective Course (OEC-4)
(OEC for other students)

OEC-4: Title of the Course: ELECTRONIC COMMERCE
Course Code: 004CAP051

Course No.	Type of Course	Theory / Practical	Credits	Instruction hour per week	Total No. of Lectures/Hours / Semester	Duration of Exam	Formative Assessment Marks	Summative Assessment Marks	Total Marks
OEC4	OEC	Theory	03	03	42 hrs.	2hrs.	40	60	100

Course Outcomes (COs):

CO 1: Compare how internet and other information technologies support business processes.

CO 2: Demonstrate an overall perspective of the importance of application of internet technologies in business administration

CO 3: Explain the basic business management concepts.

CO 4: Demonstrate the basic technical concepts relating to E-Commerce.

CO 5: Identify the security issues, threats and challenges of E-Commerce.

UNIT I	**Introduction to E-Commerce and Technology Infrastructure:**Working of Web - HTML Markup for Structure - Creating simple page - Marking up text - Adding Links - Adding Images - Table Markup - Forms - HTML5	**10 Hrs.**
UNIT II	**Building an E-Commerce Website, Mobile Site and Apps:**Systematic approach to build an E-Commerce: Planning, System Analysis, System Design, Building the system, Testing the system, Implementation and Maintenance, Optimize Web Performance – Choosing hardware and software – Other E-Commerce Site tools – Developing a Mobile Website and Mobile App	**11 Hrs.**
UNIT III	**E-Commerce Security and Payment Systems:**E-Commerce Security Environment – Security threats in E-Commerce – Technology Solutions: Encryption, Securing Channels of Communication, Protecting Networks, Protecting Servers and Clients – Management Policies, Business Procedure and Public Laws - Payment Systems	**10 Hrs.**

UNIT IV	**Business Concepts in E-Commerce:** Digital Commerce Marketing and Advertising strategies and tools – Internet Marketing Technologies – Social Marketing – Mobile Marketing – Location based Marketing – Ethical, Social, Political Issues in E-Commerce **Project Case Study:** Case Study: Identify Key components, strategy, B2B, B2C Models of E-commerce Business model of any e-commerce website - Mini Project : Develop E-Commerce project in any one of Platforms like Woo-Commerce, Magento or Opencart	11 Hrs.

Text Book:

1. Kenneth C. Laudon, Carol Guercio Traver - E-Commerce, Pearson, 10th Edition, 2016

References:

1. http://docs.opencart.com/
2. http://devdocs.magento.com/
3. http://doc.prestashop.com/display/PS15/Developer+tutorials
4. RobbertRavensbergen, ―Building E-Commerce Solutions with Woo Commerce‖, PACKT, 2nd Edition

Details of Formative assessment (IA) for DSCC theory/OEC: 40% weight age for total marks

Type of Assessment	Weight age	Duration	Commencement
Written test-1	10%	1 hr	8th Week
Written test-2	10%	1 hr	12th Week
Seminar	10%	10 minutes	--
Case study / Assignment / Field work / Project work/ Activity	10%	------	--
Total	40% of the maximum marks allotted for the paper		

Faculty of Social Science
04 - Year UG Honors programme:2022-23

GENERAL PATTERN OF THEORYQUESTION PAPER FOR DSCC/ OEC
(60 marks for semester end Examination with 2 hrs. duration)

Part-A

1. Question number 1-06 carries 2 marks each. Answer any 05 questions   : 10marks

Part-B

2. Question number 07- 11 carries 05Marks each. Answer any 04 questions   : 20 marks

Part-C

3. Question number 12-15 carries 10 Marks each. Answer any 03 questions   : 30 marks

   (Minimum 1 question from each unit and 10 marks question may have sub
    questions for 7+3 or 6+4 or 5+5 if necessary)

Total: 60 Marks

Note: Proportionate weight age shall be given to each unit based on number of hours prescribed.