CURRICULUM STRUCTURE

II Semester Scheme of Studies – Diploma In Architecture Assistantship (C-21)

SL. No	Course Category / Teaching Department	Course Code	Course Title	Hours per week			Total contact Hrs/ week	Credits	CIE Marks		SEE Marks		Total Marks	Min Marks for passing (Including CIE Marks)	Assigned	Grade Point	SGPA and CGPA
				L	T	P			Max	Min	Max	Min					
THEORY COURSES																	
1	BS/SC	1421	Engineering Mathematics	4	0	0	4	4	50	20	50	20	100	40			
2	ES/AR	1422	Project Management skills	2	0	4	6	4	50	20	50	20	100	40			SGPA & CGPA for 2nd Semester
PRACTICAL COURSES																	
3	ES/AR	1423	Visual Art and Drawing	2	0	4	6	4	60	24	40	16	100	40			
3	ES/CS	1424	IT Skills	2	0	4	6	4	60	24	40	16	100	40			
4	HS/EG	1425	Communication Skills in English	2	0	4	6	4	60	24	40	16	100	40			
AUDIT COURSES																	
5	AU/KA	21KA21/ 21NK21	Kannada- I/ Sahithya Sinchana – I / Balake Kannada - I	2	0	0	2	2	50	20	-	-	50	20			
6	AU/SL		Sign Language – II	2	0	0	2	Not for Examination									
7	AU/Psy		Psychology and Counselling– II	2	0	0	2	Not for Examination									
			Total	18	0	16	34	22	330	132	220	88	550	220			

T:- Theory P:- Practical D:-Drawing E:- Elective BS:- Basic Science ES:- Engineering Science HS-Humanities & Social Science AU:- Audit Course EG:- English SC:-Science

Note:

1.   Assigned Grade, Grade Point, SGPA and CGPA to be recorded in the Grade/ Marks card.
2.   Theory course Semester End Examination (SEE) is conducted for 100 marks (3 Hours duration)
3.   Practical course CIE and SEE is conducted for 100 marks (3 Hours duration)
4.   The First digit in the Course code indicates the "Dept. Code", 2nd Digit indicates " Number of Curriculum Revisions", 3rd digit indicates : "Semester", 4th Digit indicates "Course Sl. No."

Government of Karnataka
Department of Collegiate and Technical Education
JSS Polytechnic for the Differently Abled (Autonomous)

ENGINEERING MATHEMATICS

Course Code	1421	Semester	II
Course Name	ENGINEERING MATHEMATICS	Course Group	AR/CS/EC
Number of Credits	4	Type of Course	Lecture
Course Category	BS	Total Contact Hours	4 Hrs. / Week
			64 Hrs. / Semester
Prerequisites	SSLC Mathematics	Teaching Scheme	[L : T : P] = 4 : 0 : 0
CIE Marks	50	SEE Marks	50

RATIONALE:

Engineering Mathematics provides students a strong foundation to develop their skills in the areas of analytical, problem solving, real time applications and to understand the world better. This course enable students to develop mathematical conceptualization, inquiry, reasoning and communication skills and the ability to use mathematics to formulate and solve problems in all areas of engineering and technology. This course provides opportunities for students to remember understand and apply the knowledge studied in engineering problems through the three major areas of learning: Algebra, Trigonometry and Calculus. Most of the differently Abled students are having learning difficulties due to their disabilities, specifically lack of analytical and reasoning skills, this course provides a strong foundation to bridge their level of understanding through mathematics.

1. **COURSE SKILL SET**

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

1. Solve system of linear equations arise in different engineering fields.

2. Incorporate the knowledge of calculus to support their concurrent and subsequent engineering studies.

3. Adopt quantitative problem solving skills.

4. Ability to understand both concrete and abstract problems.

5. Apply mathematical abilities in real time situation.

6. Improve the analytical and communication skills.

2. COURSE OUTCOMES

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

CO-1	Apply the concepts of matrices and determinants to solve the system of linear equations and find Eigen values of square matrices of order 2.
CO-2	Find the equation of straight lines of different forms and to determine the parallelism and perpendicularity of straight lines.
CO-3	Calculate trigonometric ratios of allied and compound angles and also transformation of sum into product and vice versa.
CO-4	Differentiate various functions and apply the concept of real time problems.
CO-5	Integrate various functions and apply the concept of evaluating the area and volume through definite integrals.

3. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARKS

UNIT NO.	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)			
			R	U	A	TOTAL
1	Matrices and Determinants	12	8	20	12	40
2	Straight Lines	11	8	20	12	40
3	Trigonometry	12	8	20	12	40
4	Differential Calculus and Applications	13	8	20	12	40
5	Integral Calculus andApplications	13	8	20	12	40
	CIE Tests	03				
	Total	**64**	**40**	**100**	**60**	**200**

(R = Remember, U = Understand, A = Apply and above levels (Bloom's Revised Taxonomy)

4. DETAILS OF COURSE CONTENT

The following topics / subtopics is to be taught and accessed in order to develop Unit Skill Sets for achieving CO to attain identified skill sets:

UNIT NO.	UNIT SKILL SET	TOPICS / SUBTOPICS	HOURS L-T-P
UNIT-1 MATRICES AND DETERMINANTS	Use algebraic skills which are essential for the study of systems of linear equations, matrix algebra and Eigen values.	1.1 Matrix and types 1.2 Algebra of Matrices (addition, subtraction, scalar multiplication and multiplication) 1.3 Evaluation of determinants of a square matrix of order 2 and 3. Singular matrices 1.4 Cramer's rule for solving system of linear equations involving 2 and 3 variables 1.5 Ad joint and Inverse of matrices of order 2 and 3 1.6 Characteristic equation and Eigenvalues of a square matrix of order 2	12-0-0
UNIT – 2 STRAIGHT LINES	❖ Able to find the equation of a straight line in different forms ❖ Determine whether the lines are parallel or perpendicular	2.1 Slope of a straight line 2.2 Intercepts of a straight line 2.3 Intercept form of a straight line 2.4 Slope-intercept form of a straight line 2.5 Slope-point form of a straight line 2.6 Two-point form of a straight line 2.7 General form of a straight line 2.8 Angle between two lines and conditions for lines to be parallel and perpendicular 2.9 Equation of a straight line parallel to the given line 2.10 Equation of a straight line perpendicular to the given line	11-0-0
UNIT – 3 TRIGONOMETRY	❖ Use basic trigonometric skills in finding the trigonometric ratios of allied and compound angles ❖ Able to find all the measurable dimensions of a triangle	3.1 Concept of angles, their measurement, Radian measure and related conversions. 3.2 Signs of trigonometric ratios in different quadrants (ASTC rule) 3.3 Trigonometric ratios of allied angles (definition and the table of trigonometric ratios of standard allied angles say $90^0\pm\Theta$, $180^0\pm\Theta$, $270^0\pm\Theta$ and $360^0\pm\Theta$) 3.4 Trigonometric ratios of compound angles (without proof) 3.5 Trigonometric ratios of multiple angles 3.6 Transformation formulae	12-0-0

UNIT NO.	UNIT SKILL SET	TOPICS / SUBTOPICS	HOURS L-T-P
UNIT – 4 DIFFEREN TIAL CALCULUS AND APPLICATIONS	❖ Able to differentiate algebraic, exponential, trigonometric, logarithmic and composite functions ❖ Able to find higher order derivatives ❖ Understand and work with derivatives as ratesof change in mathematical models ❖ Find local maxima and minima of a function	4.1 Derivatives of continuous 4.2 functions in an interval (List of formulae) 4.3 Rules of differentiation 4.4 Successive differentiation (up to second order) 4.5 Applications of differentiation	13-0-0
UNIT – 5 INTEGRAL CALCULUS AND APPLICATIONS	❖ Understand thebasic rules of integration and ❖ Evaluate integralswith basic integrands. ❖ Identify the methodsto evaluate integrands ❖ Apply the skills to evaluate integrals representing areasand volumes	5.1 List of standard integrals and Basic rules of integration 5.2 Evaluation of integrals of simple function and their combination 5.3 Methods of integration 5.4 Concept of definite integrals 5.5 Applications of definite integrals	13-0-0

5. MAPPING OF CO WITH PO

CO	Course Outcome	PO Mapped	Unit Linked	CL R/U/A	Theory inHrs.	Total Marks
1	Determine the inverse of a square matrixusing matrix algebra. Apply the concepts of matrices and determinants to solve system of linear equations and find Eigen values associated with the square matrix.	1, 7	1	R/U/A	12	40
2	Find the equation of straight line in Different forms. Determine the parallelism and perpendicularity of lines.	1, 7	2	R/U/A	11	40
3	Calculate trigonometric ratios of allied angles and compound angles. Transform sum (difference) of trigonometric ratios Into product and vice versa.	1, 7	3	R/U/A	12	40
4	Differentiate various continuous functions And apply the concept in real lifesituations.	1, 3,7	4	R/U/A	13	40
5	Integrate various continuous functions and apply the concept in evaluating the areaand volume through definite integrals.	1, 3,7	5	R/U/A	13	40
Total					**61**	**200**

6. LEVELS OF CO AND PO MAPPING

Course	CO's	Programme Outcomes (POs)						
		1	**2**	**3**	**4**	**5**	**6**	**7**
ENGINEERING MATHEMATICS	**CO-1**	3	1	0	0	0	0	3
	CO-2	3	1	0	0	0	0	3
	CO-3	3	1	0	0	0	0	3
	CO-4	3	1	3	0	0	0	3
	CO-5	3	1	3	0	0	0	3

Levels: 3 – Highly Mapped, 2 – Moderately Mapped, 1- Low Mapped and 0 – Not Mapped

7. INSTRUCTIONAL STRATEGY

These are sample Strategies, which teacher can use to accelerate the attainment of the various course outcomes

1. Explicit instruction will be provided in intervention classes or by using different differentiation strategies in the main classroom.

2. Lecturer method (L) does not mean only traditional lecture method, but different type of teaching method and media that are employed to develop the outcomes.

3. Observing the way their more proficient peers use prior knowledge to solve current challenges and persevere in problem solving will help struggling students to improve their approach to engaging with rich contextual problems.

4. Ten minutes a day in homeroom, at the end of class, or as a station in a series of math activities will help students build speed and confidence.

5. Topics will be introduced in a multiple representation.

6. The teacher is able to show different ways to solve the same problem and encourage the students to come up with their own creative ways to solve them.

7. In a perfect world, teacher would always be able to demonstrate how every concept can be applied to the real world - and when that's possible, it helps improve the students' understanding. When a concept cannot be applied in that manner, we can still share how it might be applied within mathematics.

8. SUGGESTED LEARNING RESOURCES:

Sl. No.	Author	Title of Books	Publication / Year
1.	B.S. Grewal	Higher Engineering Mathematics	Khanna Publishers, New Delhi, 40th Edition,2007
2.	G. B. Thomas, R. L. Finney	Calculus and Analytic Geometry	Addison Wesley, 9th Edition, 1995
3.	S.S. Sabharwal, Sunita Jain, Eagle Parkashan	Applied Mathematics, Vol. I & II	Jalandhar.
4.	Comprehensive Mathematics	Comprehensive Mathematics Vol. I & II	Laxmi Publications, Delhi
5.	Reena Garg & Chandrika Prasad	Advanced Engineering Mathematics	Khanna Publishing House, New Delhi

9. COURSE ASSESSMENT AND EVALUATION CHART

SL. NO.	Assessment	Duration	Max Marks	Conversion
1.	CIE Assessment – 1(Written Test – 1) At the end of 3rd Week	80 Minutes	30	Average of three written tests 30 Marks
2.	CIE Assessment – 2(Written Test – 2) At the end of 7th Week	80 Minutes	30	
3.	CIE Assessment – 3(Written Test – 3) At the end of 13th Week	80 Minutes	30	
4.	CIE Assessment 4 (MCQ / Quiz) At the end of 5thWeek	60 Minutes	20	Average of three 20
5.	CIE Assessment 5(Open book Test) At the end of 9th Week	60 Minutes	20	
6.	CIE Assessment 6 (Student Activity / Assignment)At the end of 11th Week	60 Minutes	20	
Total Continuous Internal Evaluation (CIE) Assessment				**50**
7.	Semester End Examination (SEE) Assessment (Written Test)	3 Hours	100	50
Total Marks				**100**

Note:

1. SEE (Semester End Examination) is conducted for 100 Marks theory courses for time duration of 3 Hours.
2. Three CIE (written test), each of 30 marks for a time duration of 80 minutes shall be conducted. Also, three CIE (MCQ or Quiz/Open book test/student activity or assignment) each of 20 marks for the time duration of 60 minutes shall be conducted. Any fraction at anystage during evaluation will be rounded off to the next higher digit
3. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator. The secured mark in each case is rounded off to the next higher digit.

10. DETAILED COURSE CONTENTS

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
UNIT-1 MATRICES AND DETERMINANTS	Definition and types of matrices	1	1, 7	1	12
	Algebra of Matrices (addition, subtraction and scalar multiplication) problems	1	1, 7	1	
	Multiplication of Matrices(problems)	1	1, 7	1	
	Evaluation of 2x2 ,3x3 determinants and Singular matrices and problems in finding unknown variable	1	1, 7	2	
	Cramer's rule to solve system of linear equation with 2 variables	1	1, 7	2	
	Minors, Cofactors of elements of square matrices of order 2 and 3 and problems	1	1, 7	1	
	Adjoint and Inverse of a square matrix of order 2 and problems	1	1, 7	2	
	Characteristic equation and Eigen values of a2x2 matrix and problems	1	1, 7	2	
UNIT-2 STRAIGHTLINES	Slope of the straight line(provided with inclination and two points on the line aswell) and problems	2	1, 7	1	11
	Intercepts of a straight line and problems	2	1, 7	1	
	Intercept form of a straight line and problems	2	1, 7	1	
	Slope-intercept form of a straight line and problems	2	1, 7	1	
	Slope-point form of the straight line andproblems	2	1, 7	1	
	Two-point form of a straight line and problems	2	1, 7	1	
	General form of a straight line and problems on finding slope and intercepts.	2	1, 7	1	
	Angle between two straight lines and conditions for the lines to be parallel and perpendicular and related problems	2	1, 7	2	
	Equation of a line parallel to the given line and problems	2	1, 7	1	
	Equation of a line perpendicular to the given Line and problems	2	1, 7	1	

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
UNIT – 3 TRIGONOMERY	Concept of angles and their measurement. Radian measures and related conversions (degree to radian and vice-versa) and problems	3	1, 7	2	12
	Signs of trigonometric ratios in differentquadrants (ASTC rule)	3	1, 7	2	
	Trigonometric ratios of allied angles (definition and the table of trigonometric ratios of standard allied angles say 90⁰±Ө,180⁰±Ө, 270⁰±Ө and 360⁰±Ө) and relatedproblems	3	1, 7	2	
	Trigonometric ratios of compound angles (without proof)	3	1, 7	2	
	Trigonometric ratios of multiple angles (sin2A, cos2A, tan2A, sin3A, cos3A and tan3A) and related problems	3	1, 7	2	
	Transformation formulae (without proof) assum to product. (Simple problems)	3	1, 7	1	
	Transformation formulae (without proof) as product to sum. (Simple problems)	3	1, 7	1	
UNIT – 4 DIFFERENTIAL CALCULUS AND APPLICATIONS	Definition of a derivative of a function. Listing the derivatives of standard functions.(Algebraic, trigonometric, exponential, logarithmic & inverse trigonometric functions)	4	1, 3, 7	1	13
	Addition and subtraction rule of differentiation and problems	4	1, 3, 7	2	
	Product rule and quotient rule of differentiation and problems	4	1, 3, 7	2	
	Composite functions and their derivatives. (CHAIN RULE)	4	1, 3, 7	1	
	Successive differentiation up to second order	4	1, 3, 7	2	
	Slope of the tangent and normal to the givencurve and their equations and problems	4	1, 3, 7	2	
	Rate measure: velocity and acceleration at a point of time and problems	4	1, 3, 7	2	
	Maxima and Minima of a function and problems	4	1, 3, 7	1	

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
UNIT – 5 INTEGRAL CALCULUS AND APPLICATIONS	Definition of an indefinite integral. Listingthe Integrals of standard functions. (Algebraic, trigonometric, exponential, logarithmic and inverse trigonometric functions)	5	1, 3, 7	1	13
	Rules of Integration. Evaluation of integralswith simple integrands and their combinations and related problems	5	1, 3, 7	2	
	Evaluation of integrals by Substitution method	5	1, 3, 7	2	
	Evaluation of integrals by Integration by parts	5	1, 3, 7	2	
	Definition of definite integrals and their evaluation and related problems	5	1, 3, 7	2	
	Area enclosed by the curves by integral method	5	1, 3, 7	2	
	Volume generated by the curve rotatedabout an axis by integral method	5	1, 3, 7	2	

First/Second Semester Examination, Model Question Paper – 2021

ENGINEERING MATHEMATICS

Duration: 3 Hours]　　　　**Subject Code: 3411/5411/1411**　　**[Max. Marks: 100**

***Instruction:** Answer all the questions considering the internal choice in each section. Eachsection carries 20 marks.*

SECTION – 1　　　　　　　　**[20 Marks]**

[Questions from Unit 1 - Matrices and Determinants which covers CO-1 and POs 1 & 7]

Q. No.		Marks
1	Multiple choice Four questions	**4**
2	a) **OR** b)	8
3	a) **OR** b)	8

SECTION – 2　　　　　　　　**[20 Marks]**

[Questions from Unit 2 – Straight Lines which covers CO-2 and POs 1 & 7]

Q. No.		Marks
4	Multiple choice Four questions	**4**
5	a) **OR** b)	8
6	a) **OR** b)	8

SECTION – 3　　　　　　　　**[20 Marks]**

[Questions from Unit 3 – Trigonometry which covers CO-3 and POs 1 & 7]

Q. No.		Marks
7	Multiple choice Four questions	**4**
8	a) **OR** b)	8
9	a) **OR** b)	8

SECTION – 4   [20 Marks]

[Questions from Unit 4 – Differential Calculus & Applications which covers CO-4 and POs 1, 3 & 7]

Q. No.		Marks
10	Multiple choice Four questions	**4**
11	a) **OR** b)	8
12	a) **OR** b)	8

SECTION – 5   [20 Marks]

[Questions from Unit 5 – Integral Calculus & Applications which covers CO-5 and POs 1, 3 & 7]

Q. No.		Marks
13	Multiple choice Four questions	**4**
14	a) **OR** b)	8
15	a) **OR** b)	8

Government of Karnataka
Department of Collegiate and Technical Education
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PROJECT MANAGEMENT SKILLS

Course Code	1422	Semester	II
Course Title	PROJECT MANAGEMENT SKILLS	Course Group	AR/CS/EC
No. of Credits	4	Type of Course	Activity based study
Course Category	ES	Total Contact Hours	6 Hrs Per Week (2Theory +4 hrs of classroom activities)
			96 Hrs Per Semester
Prerequisites	10th Level Mathematics	Teaching Scheme	4 hrs per week classroom sessions dedicated to case studies & activities
CIE Marks	50	SEE Marks	50

RATIONALE

Project Management is a confluence of Management principles and Engineering subject area. This course enables the students to develop conceptualization of Engineering Management principles and apply the same for their engineering projects, in their domains, example, Software Development project or Construction Project and so on. The course integrates three core areas of Planning, Execution and Auditing of Projects.

1. COURSE SKILL SET

Student will be able to:

1. Understand what constitutes a project, Plan for the execution of the project bybreaking into manageable work units, and Prepare necessary project artifacts

2. Track and control the Project while preparing verifiable records for Project Inspections and Audits

3. Inspect and Audit projects for Milestones or other project completion criteria andother metrics, Defects and remediation, Project learning's

4. Gain knowledge and develop curiosity on latest technology trends in Project management

2. COURSE OUT COMES

At the end of the course, student will be able to

CO1	Apply the concepts of Project Management to real projects which are expressedin the form of the Project reports or Engineering drawings
CO2	Estimate Project resources needed Time, Material and Effort, and Plan for execution
CO3	Understand, analyze and assess the risks involved in a project and plan formanaging them
CO4	Use Project Management Software and processes to track and control Projects
CO5	Conduct inspection of Projects and audit progress and bills Understand the Digital Technology trends in Project management and conceptslike Smart cities

3. SUGGESTED SPECIFICATION TABLE WITH HOURS & MARKS

UNITNO	UNIT TITLE	TEACHING HOURS (L-T-P)	MARKS DISTRIBUTION(THEORY)			
			R LEVEL	U LEVEL	A LEVEL	TOTAL
1	Introduction	02-00-06	8	8	4	20
2	Project Administration	06-00-14	8	12	20	40
3	Project Lifecycle	06-00-14	8	12	20	40
4	Project Planning, Schedulingand Monitoring	06-00-14	8	12	20	40
5	Project Control, Review & Audit and Digital Project Management	08-00-20	16	20	24	60
	Total	28-00-68=96	**48**	**64**	**88**	**200**

Legends: R = Remember; U = Understand; A = Apply and above levels
(Bloom's revisedtaxonomy)

4. DETAILS OF COURSE CONTENT

The following topics/subtopics is to be taught and assessed in order to develop Unit Skill sets

for achieving CO to attain identified skill sets.

UNIT NO	Unit skill set (In cognitive Domain)	Topics / Subtopics	Hours L-T-P
1. Introduction	Use Basic Science, Math's skills to understand Project management and project planning, execution and control.	Introduction and definition, Features of a Project, Types of Projects, Benefits and Obstacles in Project Management, Project Management Profession, Role of Project manager, Consultants, Project and Operation, Project Management Process, Project Scope.	02-00-06
2. Project Administration	Able to develop WBS, PEP and PM processes for Project with given inputs	Project Administration, Project Team, Project Design, Work Breakdown Structure (WBS), Project Execution Plan (PEP), Systems and Procedure Plan, Project Direction, Communication and Co- ordination, Project Success. **Case Study 1**	06-00-14
3. Project Lifecycle	Use project administration and project lifecycle knowledge to Assess and plan for project risk	Project Life Cycle, Phases - Project Planning, Project Execution, Project Closure, Project Risks, Project Cost Risk Analysis, Time and Cost overruns. **Case Study 2a**	06-00-14
4. Project Planning, Project Scheduling and Project Monitoring and Implementation	Able to develop a detailed project plan given the inputs on manpower, funds availability and time availability	Project Planning Function, Structure, Project Scheduling, Project monitoring and Project evaluation **Case Study 2b**	06-00-14
5. Project Control, Review and Audit and Digital Project Management	Use Project Management lifecycle knowledge to Control project parameters, review and audit project performance Understand latest trends of digital technologies impacting the domain of project management and application of the same in multiple scenario	Project Control, Problems of Project Control, Gantt Charts, Milestone Charts, Critical Path Method (CPM), Network Technique in Project Scheduling, Crashing Project Duration through Network, Project Review, Initial Review, Performance Evaluation, Abandonment Analysis, Project Audit **Case Study 2c**. Digital Technology trends in Project management, Cloud Technology, IoT, Smart cities, Data and analytics, case studies **Case study 3**	08-00-20

5. MAPPING OF CO WITH PO

CO	Course Outcome	PO Mapped	UNIT Linked	CL R/U/A	Sessionsin Hrs	TOTAL Marks
CO1	Understand the concepts of Project Management in relationto real projects which are expressed in the form of the Project reports or Engineering drawings **Case Study - 1**	**1, 2, 5, 7**	**1, 2**	**R/U/A**	08	20
CO2	Estimate Project resources needed Time, Material and Effort, and Plan for execution **Case study-2a**	**1, 2, 3, 7**	2, 3	**R/U/A**	20	40
CO3	Evaluate the risks involved in a project and Plan for managing them **Case Study - 2a**	**1,2,3,7**	2,3	**R/U/A**	20	40
CO4	Use Project Management methods with Software and/orprocesses to track and control Projects **Case Study-2b**	**1, 4, 6, 7**	4	**R/U/A**	20	40
CO5	Conduct inspection of Projectsand audit progress and bills. Understand the Digital Technology trends in Project management, and EngineeringIndustries **Case Study- 2c** **Case Study-3**	**1, 2, 5, 7**	5	**R/U/A**	28	60
				Total	96	100

	CO's	Programme Outcomes (POs)							Programme Specific Outcomes (PSOs)	
		1	**2**	**3**	**4**	**5**	**6**	**7**	**1**	**2**
Project Management	CO1	3	3	-	-	2	-	1	-	-
	CO2	3	3	3	-	-	-	1	-	-
	CO3	3	-	-	3	-	3	1	-	-
	CO4	3	-	-	3	-	3	1	-	-
	CO5	3	2	-	-	2	-	2	-	-
A Average		3	2.6	3	3	2	3	1.2	-	-
Level 3- Highly Mapped, Level 2-Moderately Mapped, Level 1-Low Mapped, Level 0-Not										

6. INSTRUCTIONAL STRATEGY

These are sample Strategies, which teacher can use to accelerate the attainment of thevarious course outcomes

1. Explicit instruction will be provided in intervention classes or by using differentdifferentiation strategies in the main classroom.
2. Lecturer method (L) does not mean only traditional lecture method, but different type ofteaching method and media that are employed to develop the outcomes.
3. Observing the way their more proficient peers use prior knowledge to solve current challenges and persevere in problem solving will help struggling students to improve their approach to engaging with rich contextual problems.
4. Topics be introduced always with a real life example and then answering What, how, whyand when.
5. The teacher is able to show different ways to solve the same problem and encourage the students to come up with their own creative ways to solve them.
6. In a perfect world, teacher would always be able to demonstrate how every concept can be applied to the real world - and when that's possible, it helps improve the students' understanding. When a concept cannot be applied in that manner, we can still share howit might be applied within mathematics.
7. Use oral and Sign language in the class room as many of the students are hearing impaired.
8. Use of Audio and Visual techniques like E-Books, PPT, Videos ete
9. Teaching through group discussion, Guest lecture ete.
10. Providing course materials.
11. Providing extra inputs through industrial visits, employability skills and career awareness programs.
12. Additional inputs' through MOOCs and NPTEL courses.
13. Hands on training through demonstration to tutorial classes in laboratories.

7. SUGGESTED LEARNING RESOURCES:

Sl. No.	Author	Title of Books	Publication/Year
1	Dr. Lalitha Balakrishnan & Dr. Gowri amachandran	Project Management	Himalaya Publishing, 2019
2	Shailesh Kumar Shivakumar	Complete Guide to Digital Project Management	Apress, 2019
3	Prasanna Chandra	Project planning, analysis, selection, implementationand review	Tata McGraw Hill
4	Gopala Krishnan	Project Management	Mc Millan India Ltd.

8. COURSE ASSESSMENT AND EVALUATION CHART

Sl. No	Assessment	Duration	Max marks	Conversion
1	CIE Assessment 1 (Written Test -1) At the end of 6 th week	80 minutes	30	Average of threewritten tests 30
2	CIE Assessment 2 (Written Test -2) At the end of 10th week	80 minutes	30	
3	CIE Assessment 3 (Written Test -3) At the end of 15th week	80 minutes	30	
4	CIE Assessment 4 (Group Assignment -1) At the end of 8th week	60 minutes	20	Average of three 20
5	CIE Assessment 5 (Group Assignment -2) At the end of 13th week	60 minutes	20	
6	CIE Assessment 6 (Individual Student activity/Assignment) At the end of 16th week	60 minutes	20	
Total Continuous Internal Evaluation (CIE) Assessment				50
8	Semester End Examination (SEE) Assessment (Written Test)	3 Hrs	100	50
Total Marks				100

Note:

1. SEE (Semester End Examination) is conducted for 100 Marks theory course for a time duration of 3 Hrs

2. Three CIE (written test), each of 30 marks for a time duration of 80 minutes shall be conducted. Also, three CIE (MCQ or Quiz/Group Assignment/Individual student activity or assignment) each of 20 marks for the time duration of 60 minutes shall be conducted. Any fraction at any stage during evaluation will be rounded off to the nexthigher digit

3. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator. The secured mark in each case is rounded off to the next higher digit.

9. DETAILED COURSE CONTENT

Unit No And Name	DETAILED COURSE CONTENT	CONTACT HRS	TOTAL
1.Introduction	1.1 Introduction	4	08
	1.2 Meaning of Project		
	1.3 Definition and No Change Mode		
	1.4 Features of a Project		
	1.5 Types of Projects		
	1.6 Benefits of Project Management		
	1.7 Obstacles in Project Management		
	1.8 Project Management A Profession		
	1.9 Project Manager and His Role		
	1.10 Project Consultants		
	1.11 What is Operation?	4	
	1.12 Difference between Project and Operation		
	1.13 What is Process in Project Management and Process Groups?		
	1.14 What is Scope? Difference between Project Group Objectives and		
	1.15 Project Scope		
2. Project Administration	2.1 Essentials of Project Administration	3	20
	2.2 Project Team		
	2.3 Project Design		
	2.4 Work Breakdown Structure (WBS)		
	2.5 Project Execution Plan (PEP)	8	
	2.6 Contracting Plan		
	2.7 Work Packing Plan		
	2.8 Organization Plan	3	
	2.9 Systems and Procedure Plan		
	2.10 Project Procedure Manual		
	2.11 Project Diary	3	
	2.12 Project Execution System		

Unit No And Name	DETAILED COURSE CONTENT	CONTACT HRS	TOTAL
	2.13 Project Direction		
	2.14 Communication in a Project		
	2.15 Project Co-ordination	3	
	2.16 Pre-requisites for Successful Project Implementation		
3. Project Life cycle	3.1 Introduction		20
	3.2 Phases of Project Life Cycle		
	3.3 Project Management Life Cycle General	10	
	3.4 Project Planning		
	3.5 Project Execution		
	3.6 Project Closure		
	3.7 Project Risks		
	3.8 Types of Risks: Illustrations	5	
	3.9 Risk Assessment Techniques with Illustrations		
	3.10 Project Cost Risk Analysis		
	3.11 Estimating Time and Cost Overrun Risks		
	3.12 Organisation/Procedural/Systemic Reasonsfor Project Cost Overruns	5	
	3.13 Time Overruns		
4. Project Planning, Schedulingand Monitoring	4.1 Introduction		20
	4.2 Nature of Project Planning		
	4.3 Need for Project Planning		
	4.4 Functions of Project Planning		
	4.5 Steps in Project Planning	6	
	4.6 Project Planning Structure		
	4.7 Project Objectives and Policies		
	4.8 Tools of Project Planning		
	4.9 Project Scheduling		
	4.10 Time Monitoring Efforts		
	4.11 Bounding Schedules	6	
	4.12 Scheduling to Match Availability of Manpower		

Unit No And Name	DETAILED COURSE CONTENT	CONTACT HRS	TOTAL
	4.13 Scheduling to Match Release of Funds		
	4.14 Problems in Scheduling Real-life Projects		
	4.15 Introduction	4	
	4.16 Situation Analysis and Problem Definition		
	4.17 Setting Goals and Objectives		
	4.18 Generating Structures and Strategies		
	4.19 Implementation		
	4.20 What is Project Evaluation?	4	
	4.21 Why is Project Evaluation Important?		
	4.22 What are the Challenges in Monitoring and Evaluation?		
5. Project Control, Review and Audit and Digital Project Management	5.1 Introduction	6	28
	5.2 Projected Control Purposes		
	5.3 Problems of Project Control		
	5.4 Gantt Charts		
	5.5 Milestone Charts		
	5.6 Critical Path Method (CPM)	6	
	5.7 Construction of a Network		
	5.8 Network Technique in Project Scheduling		
	5.9 Crashing Project Duration through Network		
	5.10 Project Review	4	
	5.11 Initial Review		
	5.12 Post Audit		
	5.13 Performance Evaluation		
	5.14 Abandonment Analysis		
	5.15 Objectives of Project Audit	4	
	5.16 Functions of Project Auditor		
	5.17 Project Audit Programme		
	5.18 Difficulties in Establishing Audit Purpose andScope		

5.19 Digital Technology trends in Project management	2	
5.20 Cloud Technology, IoT, AR and VR applications in Project management, Smart Cities	2	
5.21 Data Science and Analytics in Project Management	2	
5.22 Case Studies	2	

Case Studies:

Please note: The Tutors can either use the following Case studies and activities or Design on their own, with the overall Learning Outcomes being met.

Case Study 1: Residential House – Project Execution Plan

Dr. Sunil Kulkarni wants to build a house on his 9000 square feet (90x100) vacant plot in Bengaluru. His requirements were given below.

i)   He lives with his wife, parents and two college going children.

ii)   He likes open space around his house and likes to do gardening during free time

iii)   His wife teaches Yoga and about 30 middle aged and old people attend the daily sessions.

iv)   He has a budget limitation of INR 230,00,000 for this project and wants to present to his wife on their 20th wedding anniversary which is 18 months away.

v)   His parents cannot climb stairs and hence prefer a ground floor room

vi)   All the rooms should have attached bathrooms

How-ever the Civil contractor who took the work, overshot the time and money available and hence Dr Sunil was unhappy with the Architect firm who recommended the Contractor.

Task:
- Split the class into groups of three
- Ask them to prepare 2D drawings with Plan, Elevation, Sections and perspectives.
- Prepare the detailed WBS, a Project execution plan and Project communication plan for contractors
- Estimate the quantities
- Discuss on the possible reasons for delay and methods with which performance to both

time and budget could have been achieved

- Present it in a seminar, with each group getting 5-10 minutes to present their idea.

Case Study 2a:

The Columbus Hospital proposed in Hubli is a 200 bed speciality private hospital for treatment of Cancer. The hospital will come up on a 12 acre plot between Hubli-Dharwad. A leading construction company has come forward to complete the hospital works from concept to commissioning in 9 months. The promoters are willing to spend a premium to complete the hospital in 9 month time and are not particular about type of construction, ie, RCC, Steel frame etc.

The key requirements are as follows:

i)   200 bed hospital of which 40 are for critical care (ICU), 40 for pre and post Operative care

ii)   4 Operation Theatres - 2 Major (Minimum 800 SFT each) and 2 minor (minimum 400 sft each)

iii)   One full fledged Diagnostic laboratory (1500 Sft)

iv)   One 24x7 pharmacy (360 Sft min)

v)   Doctors rooms, Nurses enclosures, Change rooms

vi)   Office with billing counters (min 2000 sft) for all administrative staff

vii)   Wheel chair parking bays, Stretcher parking bays in all floors

viii) One Cafeteria with 50 person capacity

ix)   One conference room with Multimedia equipment (300 sft min)

x)   Parking for ambulances, 4 wheelers, two wheelers

xi)   Reception and enquiry counter

xii)   All amenities should be accessible for disabled persons

xiii) Incinerator, Waste storage and disposal area

xiv)   Generator and fuel storage area

Discuss

i) The various alternative approaches available to complete the hospital.

ii) Look into National Building Code and BIS standards for arriving at approximate(+/-10%) super built-up area required, amenities to be planned

iii) The various phases of the project according to Project lifecycle and durations

iv) Prepare the detailed WBS, Project Organization required and Project Dairytemplate

v) Prepare a Project Plan with risks involved and the risk management plan.

vi) Estimate the cost of time overrun if the project is delayed by 114 calendar daysdue to issues with approvals

Case Study 2b:

For case study 2 above, prepare an Implementation Plan using spreadsheet software.

Discuss

i) What happens if a pandemic affects the project in its 7th Month. How do you mitigate the possible issues in implementation?

ii) What happens if during the fourth month of projects the client decides to reducefunds for the month by 50%?

Case Study 2c: For case study 2 above, prepare a Critical Path method Chart (CPM) showing all mainactivities in the WBS with milestones.

Discuss

i) What happens if the client decides to complete the ground floor roof 15 days earlier?

ii) What happens if the client reduces the inflow of project funds by 50% for themonth 4?

iii) Write an Audit report for the project at the end of 6th month

Case Study 3:

This will be done as a student activity and has two components.

i) Research on 3D printing in any industry and prepare a three page article

ii) Study usage of Drones in different Industries and evaluate the Cost benefits ofusing the same for any one scenario.

Model Question Paper
I A Test (CIE)

Programme:			Semester: I		
Course:			Max Marks: 30		
Course Code:			Duration: 1 Hr 20 minutes		
Name of the course coordinator:			Test: I/II/III		
Note: Answer one full question from each section. One full question carries 10 marks.					

Qn.No	Question	CL	CO	PO	Marks
	Section-1				
1.a)					
b)					
c)					
2.a)					
b)					
c)					
	Section-2				
3.a)					
b)					
c)					
4.a)					
b)					
c)					
	Section-3				
5.a)					
b)					
c)					
6.a)					
b)					
c)					

Model Question Paper for End Examination

PROJECT MANAGEMENT SKILLS

Duration: 3 Hours] **Subject Code: 1422** **[Max. Marks: 100**

Instruction: *Answer all the questions considering the internal choice in each section. Each section carries 20 marks.*

SECTION – 1 **[20 Marks]**

Q. No.		Marks
1	Multiple choice Four questions	**4**
2	a) **OR** b)	8
3	a) **OR** b)	8

SECTION – 2 **[20 Marks]**

Q. No.		Marks
4	Multiple choice Four questions	**4**
5	a) **OR** b)	8
6	a) **OR** b)	8

SECTION – 3 **[20 Marks]**

Q. No.		Marks
7	Multiple choice Four questions	**4**
8	a) **OR** b)	8
9	a) **OR** b)	8

SECTION – 4 **[20 Marks]**

Q. No.		Marks
10	Multiple choice Four questions	**4**
11	a) **OR** b)	8
12	a) **OR** b)	8

SECTION – 5   **[20 Marks]**

Q. No.		Marks
13	Multiple choice Four questions	**4**
14	a) **OR** b)	8
15	a) **OR** b)	8

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VISUAL ART & DRAWING

Course Code	1423	Semester	II
Course Title	VISUAL ART & DRAWING	Course Group	AR
No. of Credits	04	Type of Course	Lecture & Practice
Course Category	ES	Total Contact Hours	6 Hrs Per Week
			96 Hrs Per Semester
Prerequisites	Enthusiasm to learn the subject/ Visualizing/ Creativity	Teaching Scheme	(L:T:P)-1:0:2
CIE Marks	60	SEE Marks	40

1. **COURSE RATIONALE:**

Visual Art is an effective language of Architects. Visual skills are essential for a refined workforce in Architecture Education; these arts can help students in bringing out creativity as well as developing an overall personality. Moreover, it is the transmitting link between ideas and realization.

2. **LIST OF COMPETENCIES**

The course content should be taught and implemented with the aim to develop different types of skills leading to the achievement of the following competencies:
  • Facilitate to use one's visual perception to develop a sense of scale, proportion, depth, mass, light and shade.
  • Explore different media for visual communication.

3. **COURSE OUT COMES**

CO1	Apply the knowledge of various techniques in freehand drawing and Apply the knowledge of free hand Lettering and Calligraphy.
CO2	Represent proportionate natural forms.
CO3	Reproduce symmetrical forms.
CO4	Sketch manmade forms and Prepare Artistic drawing by applying Principles of Rendering in Different media.

4. **INSTRUCTIONAL STRATEGY**
1. Different methods of teaching and media to be used to attain classroom attention.
2. Massive open online courses (MOOCs) may be used to teach various topics/subtopics.
3. 15-20% of the topics which are relatively simpler of descriptive in nature should be given to the students for self-learning and assess the development of competency through classroom presentations.
4. Micro-projects may be given to group of students for hand-on experiences.
5. Encouraging students to observe and replicate the existing design and forms.

5. **a CONTENTS**
The following topics/subtopics is to be taught and assessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets.

5b. COURSE CONTENT DETAILS

Unit	Major Learning Topics and Sub- Topics	Outcomes (in cognitive domain)	Hours L-T-P
UNIT - I Introduction to Visual Art and Lettering	1.1 Use and understanding of different materials like pencil, charcoal, pastels, water color, poster color, brushes, Frottage, collage and mono prints.	1. Prepare Collage and mono prints.	7-0-14
		2.Express sensitivity of using line, volume, tone, texture etc.	
	1.2 Express sensitivity of using Line, volume, tone, texture, pencil and paints.etc.		
	1.3 Free Hand Lettering in different styles	3.Practice Free Hand Lettering in different styles	
	1.4 Calligraphy	4.Create Roman and Gothic Letterings	
		5.Identify Lettering in calligraphy	
UNIT - II Sketching Of Natural Forms	2.1 Sketching of natural forms- plants, trees etc.	1.Sketch Natural Forms	4-0-08
	2.2 Free hand drawing	2.Prepare Free hand sketch using Natural Forms	
	2.3 Sketching natural elements and rendering	3. Create Light and Shadow effect by using rendering principles to a natural form.	
UNIT - III Symmetrical Forms	3.1 Study and design symmetrical forms	1. Study symmetrical forms	6- 0-12
	3.2 Draw using geometrical ornamentals and natural forms	2. Prepare symmetrical forms using geometrical shapes.	
	3.3 Sketch and render geometrical forms	3. Create Symmetrical design using natural forms.	
	3.4 Sketch and render ornamental forms	4. Practice Symmetrical forms using Ornamental design.	
	3.5 Sketch and render natural forms		
UNIT - IV Sketching of Manmade Objects and Object Drawing	4.1 Study of manmade objects	1. Study and Sketch manmade objects like stool, chair, table and dressing unit.	13-0-26
	4.2 Sketch Manmade objects and rendering	2. Create Light and Shadow effect by using rendering principles to furniture's like stool, chair, dressing table, etc .	
	4.3 Draw and render furniture like stool, chair, dressing table, etc.		
	4.4 Draw and render different objects	3. Prepare an object drawing using different types of models.	
	4.5 Sketch different objects using materials	4. Produce object drawing using different materials.	
	4.6 Study of shade and light by using different media like pencil, pastel, charcoal etc.	5. Create a composition of multiple objects and render the same.	
		TOTAL	**30-0-60**

6. LIST OF PRACTICAL EXERCISES

The exercises/practical/experiments should be properly designed and implemented with an attempt to develop different types of skills leading to the achievement of the competency. Following is the list of exercises/practical/experiments for guidance.

Unit No.	Practical Exercises (Outcomes in Psychomotor Domain)	Hours L-T-P
1	1. Teacher will demonstrate the use of a. Drawing instruments. b.Material application like pencil, charcoal, pastels, water colour, poster colour, brushes, Frottage, collage and mono prints.	2-0-4
	Practice Free Hand Lettering in different styles	1-0-2
	Create Roman and Gothic Letterings with application of pencil	2-0-4
	Lettering in calligraphy using calligraphy pen.	2-0-4
2	Sketch and prepare free hand sketch using Natural Forms.	2-0-4
	Create Light and Shadow effect by using rendering principles to a natural form using application of material like pencil, charcoal, pastels, etc.	2-0-4
3	Study and prepare symmetrical forms using geometrical shapes	1-0-2
	Create and practice Symmetrical design using natural forms and geometrical shapes.	1-0-2
	Sketch and rendering principles to a natural form using application of material like pencil, charcoal, pastels, etc.	2-0-4
4	Study and Sketch manmade objects like stool, chair, table and dressing unit.	3-0-6
	Create Light and Shadow effect by using rendering principles to furniture's like stool, chair, dressing table, etc.	3-0-6
	Prepare and reproduce an object drawing using different types of models.	6-0-12
	Create a composition of multiple objects and render the same.	3-0-6
	TOTAL	**30-0-60**

7. SUGGESTED LIST OF STUDENTACTIVITIES.

SL.NO.	ACTIVTY
1	Create a greeting Card using different type of Lettering.
2	Take two simple objects. Sketch isometric of them and render the same.
3	Reproduce the existing Facade of small building.
4	Create an outdoor Landscape using Colours, Pencil, Charcoal, Pastels, etc.

8. SUGGESTED LEARNING RESOURCES:

1. The Thames and Hudson manual of rendering with Pen and Ink – Robert W Gill
2. Architectural rendering Techniques- Mike W. Lin, Alsa
3. Lettering for Architects and designers I& II Martha Sutherland

9. SOFTWARE/ LEARNING WEBSITES

1. www.visualartists.co

2. www.visual-arts-cork.com/definitions/

10. Mapping of Course Outcomes with Programme Outcomes (Suggestive only)

Course	CO's	Programme Outcomes(PO's)						
		1	2	3	4	5	6	7
Visual Art and Drawing	CO 1	3	-	2	3	-	-	1
	CO2	3	-	3	3	-	-	1
	CO3	3	-	3	-	-	-	1
	CO4	3	-	3	3	-	-	1

Level 3- Highly Mapped, Level 2-Moderately Mapped, Level 1-Low Mapped, Level 0- Not Mapped

Method is to relate the level of PO with the number of hours devoted to the COs which maps the given PO.

If> 50% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 3

If 30 to 50% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 2 If 5 to 30% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 1

If< 5% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is considered not mapped i.e. Level 0

11. Course Assessment and Evaluation Chart

SI. No	Assessment	Time frame in semester	Duration	Max marks	Conversion
1	Portfolio Evaluation of Drawings		**-**	30	30
2	Skill Test-1	- At the end of 8th week	3 Hrs	20	Average of two skill tests 20
3	Skill Test-2	- At the end of 15th week	3 Hrs	20	
4	Student Activity	- At the end of 16th week	-	10	10
5	**Total Continuous Internal Evaluation (CIE) Assessment**			**60**	60
6	**Semester End Examination (SEE) Assessment (Written Test)**		**3 Hrs**	**100**	40
				TOTAL	**100**

Note:

1. Graded exercises will be evaluated by Continuous internal evaluation.

2. Student Activity will be evaluated by appropriate rubrics.

12. SCHEME OF EVALUATION FOR SEE(SUGGESTIVE)

Qn. No.	Question	Marks	CL	CO	PO
1	Print the following sentence in Gothic or any style using Pen & Ink or colour marker . The lettering should well compose within the area of 30cm x 25cm. "TRAIN YOURSELF TO TAKE NOTHING PERSONALLY" Lettering - Rendering -	04 06	*R/U/A*	1	1,3,4,7
2	Study and sketch a complete plant with maximum details like stem, branches, leaves etc. Render the same in dry media, using different graded pencils like 2B, 3B, 4B,6B etc., to create depth effect. Sketching Plant - Rendering -	06 04		2	1,3,4,7
	OR Create and draw a symmetrical decorative design with in an area of 12cm x 15cm and apply attractive colours. Designing - Rendering -	05 05		3	1,3,7
4	Draw a neat 3 dimensional free hand sketch of an Office table with maximum details and render the same in dry media. Drawing of table- Rendering -	12 08			1,3,4,7
	OR Compose the objects like Cuboids, Pyramid ,sphere, cube, cone, cylinder etc.,(any 4 objects)within an area of 20cmX 15cm. Study the light, shade and shadow using different graded pencils . Drawing objects- Rendering -	12 08		4	1,3,4,7

13. MODEL QUESTION BANK

Sl.no	Questions	CL	CO	Marks
	UNIT-I			
1	Collage and mono prints. Express sensitivity of using line, volume, tone, texture etc.	R	1	10
2	Free Hand Lettering in different styles	R	1	10
3	Write a given sentence in a Gothic style or Calligraphy.	R	1	10
	UNIT-II			
4	Draw a natural forms and render the same using different materials like pencil, charcoal through expressing sensitivity of using line, volume, tone, texture etc.	R	2	10
	UNIT-III			
5	Draw a symmetrical design within an area of 15cm x 20cm using decorative forms. Render the same with attractive colours. 	R	3	10
6	Recreate and design the remaining half of the given symmetrical form with an area of 20cm x 20cm. Ink the design and render with attractive colors using color pencils. 	R	3	10
	UNIT-IV			
7	Sketch manmade objects like stool, chair, table and dressing unit. Rendering the same using different materials like pencil, charcoal..etc.	R	4	20
8	Compose the manmade objects using stool and dressing table.Render the same using different materials like pencil, charcoal..etc.	R	4	20

Sl.no	Questions	CL	CO	Marks
9	Draw and render different objects and show the effect of shade and light by using different media like pencil, pastel, charcoal etc. 	R	4	20
10	Compose any five vegetables and fruits of your imagination. Show the same with light, shade and texture to impart the depth effect. 	R	4	20
11	Make an interesting three dimensional stable composition by using cuboid, ball and a pyramid. Show the same with effect of light and shadow of the composition.	R	4	20

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IT SKILLS

Course Code	1424	Semester	I/II
Course Title	IT SKILLS	Course Group	AR/CS/EC
No. of Credits	4	Type of Course	Lecture + Practice
Course Category	ES	Total Contact Hours	6 Hrs Per Week
			96 Hrs Per Semester
Prerequisites	Basic Computer Skills	Teaching Scheme	(L:T:P)= 1:0:2
CIE Marks	60	SEE Marks	40

1. RATIONALE

Information Technology is crucial to the majority of the business and has a great influence on innovation and engineering. Every branch of engineering and every organization opt for computers and IT skills for business automation, communication/connectivity, resource planning, work automation and securing information etc. All engineering diploma students must be conversant with the basic IT skills which empower them to learn new technologies, adapt to changes, business development, communication etc.

2. COURSE SKILL SET

The aim of the course is to help the student to attain the following industry identified competency through various teaching –learning experiences.

Perform jobs related to web design and maintenance, business process automation tool management, cyber security and safety and program assistant.

3. COURSE OBJECTIVES

1. Demonstrate the basics of coding.
2. Design and develop web pages that include static and dynamic content.
3. Describe the basic concepts of Cloud and IoT.
4. Express the workflow and business automation
5. Recognize the best practices of Cyber Safety and security.

4. JOB ROLE

SL.NO	LEVEL	JOB ROLES
1	3	Junior software developer - web.
2	3	Junior Creative Designer/Digital Artist

5. PREREQUISITES

STUDENT	Basic Computer skills (Students without basic computer skills should be taught basic skills)
TEACHER	Computer science faculty with required knowledge of IT Skills.

6. COURSE OUT COMES

On successful completion of the course, the students will be able to demonstrate industry orientedCos associated with the above mentioned competency:

	COURSE OUTCOME	UNIT LINKED	CL	LINKED PO	TEACHING HOURS
C01	Illustrate the basics of coding and develop simple applications for android phones	1	U,A	1,4,7	18
C02	Design and Develop Websites.	2	U,A	1,4,7	33
C03	Identify Cloud Services LOT applications and Apply Workflow and use ERP for simple project plan	3	U	1,4,7	30
C04	Implement best practices of Cyber safety and Security in the workplace	4	U,A	1,4,7	15
	TOTAL				**96**

7. INSTRUCTIONAL STRATERGY

These are sample strategies, which teacher can use to accelerate the attainment of the variouscourse outcomes

1. Lecturer method(L) does not mean only traditional lecture method, but different type of teachingmethod and media visual/graphical content that are employed to develop the outcomes

2. Massive Open on-line courses (MOOCS) can be used to teach various topics/subtopics.

3. Online coding platform wherever mentioned.

4. Hands on coding should be practiced.

5. About 15 to 20% of the topics/subtopics which are relatively simpler or descriptive in nature is to be given to the students for self-directed learning

6. Use oral and Sign language in the class room as many of the students are hearing impaired.

7. Use of Audio and Visual techniques like E-Books, PPT, Videos ete.

8. Teaching through group discussion, Guest lecture ete.

9. Providing course materials.

10. Providing extra inputs through industrial visits, employability skills and career awareness programs.

11. Additional inputs' through MOOCs and NPTEL courses.

12. Hands on training through demonstration to tutorial classes in laboratories.

8. DETAILS OF COURSE CONTENT

The following topics/subtopics is to be taught and assessed in order to develop Unit Skill sets for achieving CO to attain identified skill sets

UNIT NO	Topics/Sub topics	Unit skill set/Learning outcomes (In cognitive domain)	Hours L-T-P
1	**UNIT 1 - INTRODUCTION TO BASICS OF CODING**		6:0:12
	1.1 Introduction to computer programming 1.2 Algorithms –With sufficient examples 1.3 Flowcharts – With sufficient examples 1.4 Execute simple programs **Note: Below listed or any other suitable online/offline coding platforms should be used to demonstrate and provide coding experience to students.** a. **https://scratch.mit.edu/**	1. Understand computer programming 2. Create and write Algorithm for programmable problems. 3. Design Flowchart for programmable problems. 4. Develop simple Android application.	

	b. **https://studio.code.org/projects** Suggested programs are listed in Table 1 1.5 Introduction to Application development 1.6 Simple android application development (No knowledge of programming language is required). **Note:** i. *The purpose of application development is to ignite and promote programming skills.* ii. *Application development should be done using any App builder platforms such as* iii. *MITApp Inventor: https://appinventor.mit.edu/* iv. *Thunkable: https://thunkable.com/* v. *ibuildapp: https://ibuildapp.com/* vi. *The student should be introduced to the android application development environment for further research and learninghttps://developer.android.com/* Activity: create a simple Android application (Unique for each student) publish on the learning management system.		
2	**UNIT 2 - DESIGN AND DEVELOP WEB PAGES**		11:0:22
2	2.1 Basic web technologies • Browser • Web –Server • Client-Server Model • URL • SEO techniques • Domain names and domain name system. Creating Web-pages with HTML5 - Static	1. Understand and examine basic web technologies 2. Creating static web pages 3. Formatting Webpages with cascading style sheets (CSS) 4. Creating Dynamic web pages with JavaScript	

web pages. • Introduction, Editors • Tags, Attributes, Elements, Headings • Links, Images, List, Tables, Forms • Formatting, Layout, Iframes. Formatting web pages with style sheets(CSS3). • Introduction to CSS • Inline CSS, Internal CSS, Classes and IDs • div, Color, Floating, Positioning • Margins, Padding, Borders • Fonts, Aligning Text, Styling Links Creating a web page dynamic usingJavaScript. • Dynamic web page and Introductionto JS • Basic syntax • Functions • Events Note: Refer https://www.w3schools.com **2.6** Creating dashboards in websites. **2.6 Activity: Personal website design and launch with a free platform or Create a Blogging website.** • **Online platforms (Learning and executing)** • **https://www.w3schools.com/** • **https://studio.code.org** • **https://www.khanacademy.org** **Note:** **1) The student must be introduced to website development platforms - worldpress.com.** **2) The student must be made familiar with launching websites.**	5. Creating and launching dashboard based personalwebsite.

	Certification available:
	
	   • HTML - W3schools
	   • CSS - W3schools
	   • JavaScript - W3schools		

3	**UNIT 3 -BUSINESS PROCESS AUTOMATION/ERP & INTRODUCTION TO CLOUD AND IOT CONCEPTS**		10:0:20

3	3.1 Introduction to business process automation.
	
	3.2 Organization structure and functions composition-Properties and applications
	
	   • Structure
	   • Types
	   • Functional Units
	
	Note: Students should be made familiar with organization, types and components of a big enterprise to make him understand the working of organization keeping him as part of org.
	
	3.3 Workflows
	
	   • Introduction
	   • Components
	   • Use and use cases
	
	Note: Use free and open-source platform to demonstrate and create workflows.
	
	Example:
	
	   https://airflow.apache.org/
	   https://taverna.incubator.apache.org/
	   https://trello.com/
	   https://www.processmaker.com/
	
	3.4 Enterprise resource planning
	
	   • History
	   • Evolution
	   • Uses of ERP
	   • ERP software tools.
		1. Identify and examine the needsof business process automation.
		
		2. Understand Organization structure and functions
		
		3. Create and use workflows
		
		4. Use Enterprise resource planning in workplace.	

Note: The student should be introduced into Enterprise resource planning software tools to understand importance of ERP. **Examples:** • **https://erpnext.com/** • **www.bitrix24.com** • **https://www.odoo.com/**		
3.5 Fundamentals of cloud 3.6 Cloud service models • IaaS (Infrastructure-as-a-Service) • PaaS (Platform-as-a-Service) • SaaS (Software-as-a-Service) 3.7 Cloud deployment types • Public, • Private, • Hybrid • Community Cloud 3.8 Cloud services: • Google Drive - file storage and synchronization service developed by Google; • Google docs- bring your documents to life with smart editing and styling tools to help you easily format text and paragraphs; • Google Co-lab (Usage of Jupyter Notebook): • *Colab* notebooks allow you to combine	1. Understand Cloud concepts 2. Identify and use Cloud services 3. Understand IoT concepts 4. Identify IoT applications	

executable code and rich text in a single document, along with images, HTML, LaTeX, and more.

- Google App Engine: Google App Engine is a Platform as a Service and cloud computing platform for developing and hosting web applications in Google-managed data centers. Applications are sandboxed and run acrossmultiple servers.

Note: Above cloud services are not compulsoryfor all branches; teacher can recommendother cloud service based on need of engineering branch.

3.9 Working of IoT and IoT components (Only brief introduction and demonstration through videos)

3.10 Explain concept of Internet of Things with examples
- Smart home
- Smart city
- Smart farming

Note:

a. **Teacher can also select specific area of work where Things (autonomous computing devices) could be interconnected over TCP/IP to establish IoT.**

b. **The students should be introduced to the IoT environment for further research and study**.

Example:

- **https://www.raspberrypi.org/**
- **https://www.arduino.cc/**

	3.11Activity: • **Project plan for summer internship - use open source ERP Software** • **Identify different components of nearby organization with recourseplan and workflow design.** • **Identify types of ERP software available with their market share.** • **Create your cloud service account and demonstrate using cloud services.** • **Identify cloud service provider with respect to service models and deployment types.** • **Identify areas where Internet of Things could bring positive changes.**		
4	**UNIT 5 - CYBERSECURITY AND SAFETY**		5:0:10

	4.1Introduction to Cyber security and cybersafety.
	
	• Brief awareness on cyber safety measures
	
	• Identification of basic security issues in mobile phones and personal computers
	
	• Installation of Antivirus software
	
	• Firewall concepts
	
	• Browser settings
	
	• Importance of privacy and Password policy (Best practices).
	
	4.2 Common threats - Demonstration
	   • Phishing
	   • DoS attack
	   • Man in the middle attack
	   • Eavesdropping
	   • Spamming
		1. Identify need for Cyber security and cyber safety
		
		2. Identify basic security issues in mobile phones and personal computers
		
		3. Examine Importance of privacy, Password policy
		
		4. Implement best practices of cyber safety and security in work place	

4.3 Activity
• **Identification of basic security issues in computers of your college and fixing the same.**
• **Visit nearby government organization.**
  o **Identify basic cyber security issuesand fixing the same**
  o **Demonstrate the importance ofcyber security, password policy, and cyber safety.**

SUGGESTED PRACTICAL SKILL EXERCISES

TABLE-I

Sl. No.	Practical Out Comes/Practical exercises	Unit No.	PO	CO
1	Write an algorithm for programmable problems Example for Reference: • Add/subtract two numbers • Find the largest/smallest of 3 numbers • Calculate and print sum of 'N' numbers	1	1,4,7	1
2	Design a flowchart for programmable problems Example for Reference: Add/subtract two numbers Find the largest/smallest of 3 numbers Calculate and print sum of 'N' numbers	1	1,4,7	1
3	Design and create simple game using MIT-scratch/Code.org	1	1,4,7	1
4	Design and create simple android application (MIT App Inventor)	1	1,4,7	1
5	Design and create webpage for displaying your poem (Title, header, paragraph, formatting tags)	2	1,4,7	2
6	Design and create webpage for your wish list (What you want to do). Also list challenges and opportunities along with images to present your dreams (List ordered and unordered, Image, table)	2	1,4,7	2
7	Design and create webpage using HTML and CSS about an awesome animal (Use necessary CSS tags)	2	1,4,7	2
8	Design and create web page for a travel book/recipe book with more than 3 pages, table to list places/recipes (iframe, hyperlink)	2	1,47	2
9	Design and create web page with JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient	2	1,4,7	2
10	Design and create a personal webpage with dashboard	2	1,4,7	2
11	Design and create web page about advantages of business process automation with respect to your branch of engineering	2,3	1,4,7	2,3
12	Create a workflow for education loan approval in bank/diploma admission process (Use any tool)	3	1,4,7	3

13	Demonstrate ERP with ERPNext Demo for manufacturing, retail and service sector (Use any other ERP tools)	3	1,4,7	3
14	Create user account and demonstrate use of Google drive, Google docs, Google Co-lab (Usage of Jupyter Notebook)	4	1,4,7	3
15	1.1 Demonstrate Internet of Things using with examples a. Smart home b. Smart city c. Smart farming Note: Teacher can also select specific area of work where Things (autonomous computing devices) could be interconnected over TCP/IP to establish IoT.	4	1,4,7	3
16	Installation of Antivirus software	5	1,4,7	4
17	Demonstration and hands on browser settings	5	1,4,7	4
18	Demonstration and hands on privacy settings and password policy	5	1,4,7	4
19	Demonstration of common security threats (using videos) a. Phishing b. DoS attack c. Man in the middle attack d. Spamming e. Virus	5	1,4,7	4

The suggested practical activities (TABLE-I) in this section are demonstrated for the attainment of the competency. These practical activities can also be used for the student assessment in portfolio mode for awarding CIE marks. **The lecturer can enhance the competency level of the students by sketching more practical exercises.**

NOTES:

1. It is compulsory to prepare log book/record of exercises. It is also required to get each exercise recorded in logbook, checked and duly dated signed by the teacher

2. Student activities are compulsory and are also required to be performed and noted in logbook.

3. Student activity is compulsory and part of skill assessment. The activity enable student to explore the course, help student to demonstrate creativity & critical thinking.

4. Student activity report is compulsory part to be submitted at the time of practical ESE

5. Term work report is compulsory part to be submitted at the time of practical ESE.

6. Student activity and student activity reports must be uploaded to learning management system.

7. For CIE, students are to be assessed for Skills/competencies achieved.

11. MAPPING OF CO WITH PO and PSO

COURSE	COs	PROGRAMME OUTCOMES (PO's)							PROGRAMMED SPECIFIC OUTCOMES (PSO's)	
		1	2	3	4	5	6	7	1	2
IT SKILLS	CO1	3	-	-	3	-	-	3	2	3
	CO2	3	-	-	3	-	-	3	2	3
	CO3	3	-	-	3	-	-	-	2	3
	CO4	3	-	-	3	-	-	-	2	3
	Avg. Value	**3**	**-**	**-**	**3**	**-**	**-**	**3**	**2**	**3**
Level 3- Highly Mapped, Level 2-Moderately Mapped, Level 1-Low Mapped, Level 0- Not Mapped										

12 SUGGESTED LEARNING RESOURCES

	BOOKS
1	The Art of Programming Through Flowcharts & Algorithms, A. B. Chaudhuri, Firewall Media publication
2	HTML5 Black Book, by Publishing company Limited. Kogent Learning Solutions Inc.
3	"World Wide Web design with HTML", Xavier, Tata McGraw-Hill
4	Internet of Things – A Hands on Approach, By ArshdeepBahga and Vijay Madisetti Universities Press, ISBN: 9788173719547
	URL'S
1	https://scratch.mit.edu
2	https://studio.code.org
3	http://ai2.appinventor.mit.edu
4	https://www.w3schools.com
5	https://www.tutorialspoint.com/javascript/index.htm
6	https://www.geeksforgeeks.org/html-tutorials/
7	Android: https://developer.android.com
8	https://www.khanacademy.org
9	b. Tools for Web Development: a. https://www.wix.com b.https://atom.io/ c. https://www.openelement.com/ d.https://www.layoutit.com

13. SUGGESTED LIST OF PROPOSED STUDENTS ACTIVITY

Note: Refer activities mentioned in DETAILS OF COURSE CONTENT table

14. COURSE ASSESSMENT AND EVALUATION CHART

	SL.NO	ASSESSMENT	Duration (in minutes)	MAX MARKS	CONVERSION
DIRECT ASSESSMENT	1	CIE Assessment 1 (Written Test -1 TH) - At the end of 3 d week	60	20	Average of two written tests 20
	2	CIE Assessment 2 (Written Test -2 TH) - At the end of 13 week	60	20	
	3	CIE Assessment 3 (Skill Test) - At the end of 5 week	3 hrs	20	Average of three skill test 20
	4	CIE Assessment 4 (Skill Test) - At the end of 7 week	3 hrs	20	
	5	CIE Assessment 5 (Skill Test) - At the end of 9 week	3 hrs	20	
	6	CIE Assessment 6 (Student activity)- At the end of 11 week	-	20	20
	7	**Total Continuous Internal Evaluation (CIE) Assessment**			**60**
	8	Semester End Examination (SEE) Assessment (Practical Test)	3 hrs	100	40
			TOAL MARKS		**100**
INDIRECT ASSESSMENT METHODS	Student Feedback on course	Students	Middle of the Course	Feedback forms	
	End of Course Survey		End of the Course	Questionnaire	
	Note: CIE written test is conducted for 20 marks (Two sections). Each section shall have two full questions of same CL, CO. Student shall answer one full question from each section.				

15. RUBRICS FOR ACTIVITY

RUBRICS FOR ACTIVITY (Example Only)						
Appropriate rubrics shall be developed by the concerned faculty						
Dimension	**Poor**	**Below Average**	**Average**	**Good**	**Exemplary**	**Student Score**
	4	**8**	**12**	**16**	**20**	
Concept	Does not collect any information relating to the concept	Collects very limited information; some relate to the concept	Collect much information; but very limited relate to the concept	Collects some basic information; most refer to the concept	Collects a great deal of information; all refer to the concept	8
Design	Design is not acceptable/ very poorly structured	Design is poor and not well structured.	Design Fallowed layout samples and well structured	Design & convey both content and context	Design considered all aspect of concept, concept and presentation (UI)	6
Creativity	Very little creativity in design/implementation	Creativity in concept or design or implementation	Creativity in concept /design/implementation	Creativity in concept /design/implementation which complements each other	Creative concept, content, presentation and implementation	8
Implementation	Poorly implemented	Partially implemented	Implemented on time with results (content)	Product convey both content and context	Product is creative with easy-to-use UI, structure	8
Average / Total Marks: (8+6+8+8)/4						**7.5 = 8**

16. RUBRICS for Skill Test Evaluation (Both for CIE & SEE)

Sl No	Parameter to be Observed	Marks Allotted
1	Design-Written Skill Test 1: Algorithm / Flowchart/Visual DesignSkill Test 2: Web site visual design Skill Test 3: Work flow or Project plan or cyber security plan or Cloud service Concept	30
2	Implementation Skill Test 1: Android application Skill Test 2: Web site / Web pages Skill Test 3: Create or use cloud service account orCyber safety and security- Antivirus Installation or browser settings	50
3	Appeal and Presentation	20
Total		**100**

17. SYSTEM REQUIREMENTS:

Sl. No.	Specification	Quantity
1.	Computers with HD Graphics Card	20
2.	Software: GIMP, KRETA, BLENDER, PHOTOSHOP or any other relevant open-source software.	-
3.	Internet Connectivity	-

Note: Above specification is for a batch of 20 students

Government of Karnataka
Department of Collegiate and Technical Education
JSS Polytechnic for the Differently Abled (Autonomous)

COMMUNICATION SKILLS IN ENGLISH LAB

Course Code	1425	Semester	II
Course Name	Communication Skills in English Lab	Course Group	AR/CS/EC/JD&T
No. of Credits	4	Type of Course	Lecture + Practice
Course Category	HS	Total Contact Hours	6 Hrs. / Week
			96 Hrs. / Semester
Prerequisites	English Knowledge	Teaching Scheme	[L : T : P] = 0: 2 : 4
CIE Marks	60	SEE Marks	40

1. COURSE SKILL SET

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

1. Enable critical thinking
2. Empower with active learning skills
3. Enable team work/collaboration
4. Develop Reading and communication skills
5. Speak formally and informally in the day-to-day context.

2. COURSE OUTCOMES

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

	Course Outcome
CO1	Acquire Knowledge functional grammar concepts& Reading.
CO2	Inculcate Importance of Body language and its impact.
CO3	Acquire Knowledge on Articulate ideas and engage in impromptu conversations.
CO4	Acquire knowledge on confidence in presenting written content in logical and organized manner.

3. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS	DISTRIBUTION LEVELS (Marks)			TOTAL
			R	U	A	
01	**Parts of Speech**	24	05	05	-	10
02	**Non-Verbal Communication**	24	-	05	05	10
03	**Communication skills**	24	05	-	05	10
04	**Writing skills**	24	05	-	05	10
	CIE Tests					
	Total	**96**	**15**	**10**	**15**	**40**

(R = Remember, U = Understand, A = Apply and above levels (Bloom's Revised Taxonomy)

4. DETAILS OF COURSE CONTENT

The following topics / subtopics is to be taught and accessed in order to develop Unit

Skill Sets for achieving CO to attain identified skill sets:

UNIT NO.	UNIT SKILL SET	TOPICS / SUBTOPICS	HOURS L-T-P
UNIT-1. Parts of Speech	Understand of Functional Grammar Concepts	2.1 Definitions- Meanings of Parts of speech 2.2 Parts of speech Sentence structure 2.3 Examples of right sentences 2.4 Reading Comprehension 2.5 Reading a paragraph in Braille/ text 2.6 Time Concept Activities 2.7 Reading Fluency Activities 2.8 Comprehending the read message and understanding it, reproduce with the write up - Exercises/ Activities	0-15-09

UNIT– 2 Non-Verbal Communication	Understand the strategies for effective body language	2.1 Body language tips:
		• Keep appropriate distance
		• Take care of your appearance
		• Maintain eye contact
		2.2 Do's in Non-Verbal Communication
		• Smile
		• stand up confident and straight
		• use appropriate hand gestures
		• Make eye contact with audience
		• Hold neat note cards while presenting content
		2.3 Don'ts in Non-Verbal Communication
		• point at anyone
		• rock backwards and forwards
		• pace across front of room
		• read off slides read off notes
		• Techniques of categorizing sentences, understanding how to build with punctuation and effectively use in the verbal and non-verbal communication. This involves more of hands-on activities.
		2.4 Ten Different types of Non-Verbal Communication
		  a) Facial Expressions
		  b) Gestures
		  c) Paralinguistic's
		  D) PROXIMIC" (PROXIMITY/PERSONAL SPACE)
		  e) EYE CONTACT/EYE GAZE
		  f) HAPTIC (PHYSICAL TOUCH)
			0-14-10

UNIT– 3 **Communication skills**	Understand and apply knowledge on Communication and demonstration skills	3.1 Language Functions 3.2 General Knowledge Questions – Factual propositions, Argumentative issue 3.3 The nature of group Discussion – Opinion forming, storming, Norms and Performing-Leadership Roles 3.4 Dialogue presentation. 3.5 Role Play – Sales man, Guide, Narration, News and Views – Jobs, Business and everyday activities – Programme and plans -Giving message. 3.6 Starting Conversation with a stranger – Making Request-Expression Gratitude – Complimenting and congratulating – Apologizing and Responding to an Apology – Expressing Sympathy – Seeking Permission – Introducing – Leave taking – Request for Repetition – Asking for Information – Offering to help – Agreeing and Disagreeing 3.7 Webinar / Web Presentation (zoom, Google meet, Skype)	0-14-10
UNIT– 4 **Writing Skills**	Understand and apply knowledge on writing skills	4.1 Present content in the PPT format efficiently. 4.2 Job Interviews Preparation- To understand and Practice Questions and effective replies at a job interview. 4.3 Preparing CV in a latest Format. 4.4 Personal Details – Interview Manners -HR questions. 4.5 Passage comprehension Conversation comprehension; 4.6 Reports using MS Word 4.7 Different types of emails: Job application, request letter, letter writing and quick notes	0-13-11

Course Class Activity List (Unit-wise)

The following are the various activities that faculty could conduct for each unit are presented below;

Unit No.	Unit Title	Unit Activities
UNIT 1:	Parts of speech	Parts of Speech: building sentence using parts of speech: Demonstration by teacher: (Will be explained in the book as an example) Jumbled parts of speech: Student should pick the right order to build meaningful sentence: (More samples will be provided in the workbook) • College goes to you every day. • Makes spider web a Gender, Singular and Plurals: Match the following activity for singular and plural • Fill in the blanks activity for genders Reading & Comprehension: Conversation • Conversation at the bank (provided in the workbook along with few more conversation samples) • Questions based on this conversation will be provided in the workbook
Unit 2:	Non-verbal communication	Body language Instructions and set up: 1.Series of instructions to the group that are to be copied/reproduced. Start slowly and increase the pace 2.State the following actions as YOU do them: 3.Put your hand to your nose 4.Clap your hands 5.Stand up 6.Turn around 7.Touch your shoulder 8.Sit down 9.Stamp your foot 10.Cross your arms 11.Put your hand to your forehead – BUT WHILE SAYING THIS PUT YOUR HAND TO YOUR NOSE 12.Observe the number of group members who copy what you did rather than what you said. Outcome of this activity: Discuss how body language can reinforce/influence verbal communication and drive the importance of body language and how to work on it

UNIT 3:	Communication skills	- Reading passage (Provided in workbook) - Reading passage from the text book - Comprehension: Passage & Conversation (will be provided in workbook) Chunking words and reading activities - Presentation: o About learning in the communication class o Concept presentation Hosting online meeting using online meeting tools Inviting people
Unit 4:	Writing Skills	- Email writing activities: Writing emails using email provider. Theme based email writing - Report writing assignment Additional essential writing skills – Framework will be provided and assignments will be advised: - Resume writing /Curriculum Vitae - Report Writing - Portfolio writing Formal letters Writing about a machinery tool/interior designing plan? Related to the diploma stream. - Resume writing assignment - Data handling: Collecting data about machines/number of students passed out of college for last three years and creating graph about it. o Sharing screen Email communication & using technical jargons: Sample letter writing as assignment to students. (List will be provided in the text book – Request, apology, job application and relevant email formats that are useful for students post diploma course) - There will be at least one assignment that utilizes technical jargons in email communication.

6. MAPPING OF CO WITH PO

CO	Course Outcome	PO Mapped	Unit Linked	CL R/U/A	Theory in Hrs.	Total Marks
1	Acquire Knowledge functional grammar concepts& Reading.	1,6,7	1	R/U/A	24	10
2	Inculcate Importance of Body language and its impact.	1,6,7	2	R/U/A	24	10
3	Acquire Knowledge on Articulate ideas and engage in impromptu conversations.	1,6,7	3	R/U/A	24	10
4	Acquire knowledge on confidence in presenting written content in logical and organized manner.	1,6,7	4	R/U/A	24	10
	Total				96	40

7. LEVELS OF CO AND PO MAPPING

Course	CO's	Programme Outcomes							Programme Specific Objectives		
	Sl.No	1	2	3	4	5	6	7	1	2	3
Communication skills in English lab	CO1	3	-	-	-	-	2	3	2	3	-
	CO2	3	-	-	-	-	2	3	2	3	-
	CO3	3	-	-	-	-	2	3	2	3	-
	CO4	3	-	-	-	-	2	3	2	3	-

Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.
Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.
If >40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3
If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2
If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1
If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.

8. INSTRUCTIONAL STRATEGY

To achieve course objectives, it is important to provide the blended mode of instruction for each of the concepts. This blended mode of instruction enables and empowers students with:

Understanding of Concept   (Theory):

Through definitions,   discussions,   explanation,   conclusions.

Through demonstrations: Show films or other workplace clips that model   various conversation skills.   This provides greater clarity of the concept by enabling observation skills

- Helping in expression of gesture
- Building confidence

Application of Concept (Learning by doing): It is imperative that to become a good communicator, the skills have to be built by applying the concept in the hypothetically created real life situations. Students are encouraged to participate in each of these activities during lab session to   help build the effective communication skills.

Use of technology tools like audio books, apps like voice thread or paper telephone, etc. To help in workplace conversions.

- To increase active listening, pronunciation
- To help invoice modulation Group discussion Reinforce active listening
- Enable group debate to imbibe healthy communication strategies
- Sharpen the skills of "Asking clarifying questions"
- Sharpen Feedback/Response skills Time management skills Group   presentations   / peer reviews
- Enable team work
- Assess concept understanding
- Sharpen both oral and written communication skills Group activities:
- Foster critical thinking
- Enable reflective learning Tool's usage:
- Understand the difference between a Dictionary and a Thesaurus
- Understand "When" and "How" to use these tools for communication.

8. SUGGESTED LEARNING RESOURCES:

Recommended Learning Resources https://www.englishclub.com/grammar/parts-of-speech.htm

Watch Amy Cuddy's TED Talk: Your Body Language Shapes Who You Are

 Additional Reading: http://money.cnn.com/2000/05/03/career/q body language/

9. COURSE ASSESSMENT AND EVALUATION CHART

Sl. No	Assessment	Schedule	Duration	Max. Test marks
1	SkillTest1	Attheendof3rd weekofthesem	2 Hrs	20
2	SkillTest2	Attheendof7th weekofthesem	2 Hrs	20
3	SkillTest3	Attheendof13th weekofthesem	2 Hrs	20
			Total	60

Scheme of Valuation for CIE

Serial no	Assessment	Marks
1	**Portfolio Evaluation of activities / exercises conducted upto the schedule of Skill Test. (Work Book Based)**	**10**
2	**Assessment of any one through qualitative assessment (Rubrics)**	**10**
	TOTAL	**20**

RUBRICS FOR ASSESSMENT OF ACTIVITY (10marks) (Qualitative Assessment)						
Dimension	Beginner	Intermediate	Good	Advanced	Expert	Student Score
	2	**4**	**6**	**8**	**10**	
	Descriptor	Descriptor	Descriptor	Descriptor	Descriptor	
	Descriptor	Descriptor	Descriptor	Descriptor	Descriptor	
	Descriptor	Descriptor	Descriptor	Descriptor	Descriptor	
	Descriptor	Descriptor	Descriptor	Descriptor	Descriptor	

Note:

1. SEE (Semester End Examination) is conducted for 80 Marks Practical courses for a time duration of 3 Hours.

2. Two CIE (written test),(Theory Test) each of 20 marks for a time duration of 60 minutes shall be conducted. Two CIE (written test),(Practical Test) each of 20 marks for a time duration of 60 minutes shall be conducted Also, Three CIE (MCQ or Quiz/ /student activity or assignment) each of 20 marks for the time duration of 60 minutes shall be conducted. Any fraction at any stage during evaluation will be rounded off to the next higher digit

3. Assessment of assignment and student activity is evaluated through appropriate rubrics by the respective course coordinator. The secured mark in each case is rounded off to the next higher digit.

10. DETAILED COURSE CONTENTS

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
1. Parts of speech	1.1 Definitions- Meanings of Parts of speech	1	1,7	4	24
	1.2 Parts of speech Sentence structure	1	1,7	4	
	1.3 Examples of right sentences	1	1,7	4	
	1.4 Reading Comprehension	1	1,7	3	
	1.5 Reading a paragraph in braille/ text	1	1,7	2	
	1.6 Time Concept Activities	1	1,7	2	
	1.7 Reading Fluency Activities	1	1,7	2	
	1.8 Comprehending the read message and understanding it, reproduce with the write up	1	1,7	3	
	Exercises/ Activities				
3. Non-verbal communication	2.1 Body language tips:	2	1,6,7	4	24
	• Keep appropriate distance	2	1,6,7	4	
	• Take care of your appearance	2	1,6,7	4	
	• Maintain eye contact	2	1,6,7	4	
	2.2 Do's in Non-Verbal Communication	2	1,6,7	4	
	• smile				
	• stand up confident and straight				
	• use appropriate hand gestures				
	• Don'ts in Non-Verbal Communication				
	2.3 Don'ts in Non-Verbal Communication				
	• point at anyone				
	• rock backwards and forwards				
	• pace across front of room				
	• read off slides read off notes				
	• Techniques of categorizing sentences, understanding how to build with punctuation and effectively use in the verbal and non-verbal communication. This involves more of hands-on activities.				
	2.4 Ten Different types of Non-Verbal Communication				
	• Facial Expressions				
	• Gestures				
	• Paralinguistics				
	• Proxemic" (proximity/personal space)				
	• Eye contact/eye gaze				
	• Haptic (physical touch)				

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
3. Communication Skills	3.1 Language Functions	3	1,6,7	4	24
	3.2 General Knowledge Questions – Factual propositions, Argumentative issue	3	1,6,7	4	
	3.3 The nature of group Discussion – Opinion forming, storming, Norms and Performing- Leadership Roles	3	1,6,7	3	
	3.4 Dialogue presentation.	3	1,6,7	3	
	3.5 Role Play – Sales man, Guide, Narration, News and Views – Jobs, Business and everyday activities – Programme and plans -Giving message.	3	1,6,7	3	
	3.6 Starting Conversation with a stranger – Making Request-Expression Gratitude	3	1,6,7	4	
	– Complimenting and congratulating – Apologizing and Responding to an Apology – Expressing Sympathy – Seeking Permission				
	– Introducing – Leave taking – Request for Repetition – Asking for Information – Offering to help – Agreeing and Disagreeing				
	3,7 Webinar / Web Presentation (zoom, Google meet, Skype)				
4. Presentation Skills	4.1 Present content in the PPT format efficiently.	4	1,6,7	6	24
	4.2 Job Interviews Preparation- To understand and Practice Questions and effective replies at a job interview.	4	1,6,7	4	
	4.3 Preparing CV in a latest Format.	4	1,6,7	2	
	4. 4Personal Details – Interview Manners -HR questions	4	1,6,7	2	
	4. Reports using MS Word	4	1,6,7	2	
	4.6Apologizing and Responding to an Apology	4	1,6,7	2	
	4. Different types of emails: Job application, request letter, letter writing and quick notes	4	1,6,7	2	
	4.8Introducing – Leave taking – Request for Repetition–	4	1,6,7	2	
	4.9Asking for Information – Offering to help – Agreeing and Disagreeing	4	1,6,7	2	
Total					90

First Semester Examination, Model Question Paper – 2021

Communication Skills in English Lab

Duration: 3 Hours]   **Course Code: 6424**   **[Max. Marks: 100**

Instruction: Answer all the questions considering the internal choice in each section.

 Each section carries 20 marks**.**

SECTION – 1 [20 Marks]

[Questions from Unit 1 – which covers CO-1 and POs 1]

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 2 [20 Marks]

[Questions from Unit 2 - Forms of Business Organization which covers CO-2 and POs 1&2]

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 3 [20 Marks]

[Questions from Unit 3 - Business Services which covers CO-3 and POs 1]

Question Number	Question 1		Question 2	Marks
1	State the question	OR	State the question	5
2	State the question		State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 4 [20 Marks]

[Questions from Unit 4 - Emerging Modes of Business which covers CO-4 and POs 1,5&7]

Question Number	Question 1		Question 2	Marks
1	State the question		State the question	5
2	State the question	OR	State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

SECTION – 5 [20 Marks]

[Questions from Unit 5 -Social Responsibility of Business and Business Ethics which covers CO-5 and POs 1,5&7]

Question Number	Question 1		Question 2	Marks
1	State the question		State the question	5
2	State the question	OR	State the question	5
3	State the question		State the question	5
4	State the question		State the question	5

Government of Karnataka

Department of Collegiate and Technical Education

JSS Polytechnic for the Differently Abled (Autonomous)

ಬಳಕೆ ಕನ್ನಡ –1

Course Code	21NK21	Semester	II
Course Title	ಬಳಕೆ ಕನ್ನಡ –1	Course Category Course Group/	HS AR/CS/EC/JD&T/ CP/CA
No. of Credits	2	Type of Course	AU
Total Contact Hours	2 Hrs Per Week 32 Hrs Per semester	Teaching Scheme [L : T : P] 2:0:0	CIE Marks : 50 SEE Marks: Nil

ದ್ವಿತೀಯ ಸೆಮಿಸ್ಟರ್

ಕನ್ನಡ ಬಾರದ / ಕನ್ನಡೇತರ ಡಿಪ್ಲೋಮಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನಿಗಧಿಪಡಿಸಿದ ಪಠ್ಯಪುಸ್ತಕ

ಬಳಕೆ ಕನ್ನಡ –1 (ಕಾರ್ಯಪುಸ್ತಕ)   Course Code: 21NK21

Table of Contents (ಪರಿವಿಡಿ)

PART - I	Teaching Hours
Introduction to the Book, Necessity of learning a local language, Tips to learn the language with easy methods. Easy learning of a Kannada Language : A few tips. Hints for correct and polite conservation. Instructions to teachers for Listening and Speaking Activities.	
PART – II	
Key to Transcription for Correct Pronunciation of Kannada Language, Instructions to Teachers to teach Kannada Language	
PART – III Lessons to teach Kannada Language -	
CO-1: baLake Kannada – Parichaya (Introduction)	
1.1 ಕನ್ನಡ ಅಕ್ಷರಮಾಲೆ ಹಾಗೂ ಉಚ್ಚಾರಣೆ Kannada Alphabets and Pronuciation 1.2 Kannada Stress letters – vattakshara (also often written as Ottakashara) 1.3 Kannada Khaghunitha (Prounced as ka-gunitha) 1.4 Pronuciation (Uchcharane), Memorisation and usage of the Kannada Letters 1.5 (D) Vargeeya Vyanjanagala Uchcharane (Pronuciation of Structured Consonants) 1.6 (E) Avareeya Vyanjanagala Uchcharane Uchcharane (Pronuciation of Unstructured Consonants) **1.7** Exercise – 1 to 7	08

CO -2:	
2.1 Introduction	04
2.2 Ekaavachana mattu Bhahuvachana (Singular and Plural Nouns) - ಏಕವಚನ ಮತ್ತು ಬಹುವಚನ	
2.3 Linga (Gender) - ಲಿಂಗ	
2.4 Pullinga (Masculine gender) - ಪುಲ್ಲಿಂಗ	
2.5 Stree linga (Feminine gender) - ಸ್ತ್ರೀ ಲಿಂಗ	
2.6 Napumsakaa linga (Neuter gender) - ನಪುಂಸಕ ಲಿಂಗ	
2.7 Samanya linga (Common gender) - ಸಾಮಾನ್ಯ ಲಿಂಗ	
2.8 Exercise	
2.9 Prashnarthaka Padagalu (Interrogative words) - ಪ್ರಶ್ನಾರ್ಥಕ ಪದಗಳು	
2.10 Viruddha Padagalu / Virodarthaka Padagalu (Antonyms) - ವಿರುದ್ಧ/ವಿರೋದಾರ್ಥಕಪದಗಳು.	
2.11 Asamanjasa Uchcharane (Inappropriate Pronounciation) - ಅಸಮಂಜಸ ಉಚ್ಚಾರಣೆ	
CO – 3:	
3.1 Sankhya Vyavasthe (Numbers system) – ಸಂಖ್ಯಾ ವ್ಯವಸ್ಥೆ	08
3.2 Kannada moolaankagalu (Cardinal numbers), Stanasuchaka / Sankeyyegalu / Kramasuchaka sanekyyegalu (ordinal numbers) ಸ್ಥಾನಸೂಚಕ ಸಂಖ್ಯೆಗಳು / ಕ್ರಮ ಸೂಚಕ ಸಂಖ್ಯೆಗಳು	
3.3 Reading Practice : 1 and Reading Practice: 2, Reading Practice: 3 (Exercises)	
3.4 Fractional weights and measurements	
3.5 Gunitha Chinnhegalu (Mathematical symbols) – ಗಣಿತ ಚಿಹ್ನೆಗಳು	
3.6 Bhinnamshagalu (Fractions) - ಭಿನ್ನಾಂಶಗಳು	
3.7 List of Vegetables	
3.8 Tindiya Hesarugalu / Belagina upaharagala Hesarugalu – Menu (Names) of the breakfast items - ತಿಂಡಿಯ ಹೆಸರುಗಳು	
3.9 Aaharakke sambandhisida padagalu / Aahara padarthagala Hesarugalu (Names connected with food) – ಆಹಾರಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪದಗಳು	
3.10 Samaya / Kalakke Sambhandhisida padhagalu (Words Relating to Time) – ಸಮಯ / ಕಾಲಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತಹ ಪದಗಳು	
3.11 Dikkugalige sambhadisida padhagalu (Words Relating to Direcctions) – ದಿಕ್ಕಿಗೆ ಸಂಬಂಧಿಸಿದಂತಹ ಪದಗಳು	
3.12 Manavana Bhavanegalige sambhanddisida Padagalu (Words Relating to Human's feelings and Emotions) – ಮಾನವ ಭಾವನೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಪದಗಳು	

CO – 4:	
1.1 Manavana shareerada bagagalu / angagalu (Parts of the Human body) – ಮಾನವ ಶರೀರದ ಭಾಗಗಳು / ಅಂಗಗಳು	04
1.2 Manava sambhandhada / Sambhandhaakke sambhadisida padhagalu (Terms relating to Human Relationship) – ಮಾನವ ಸಂಬಂಧಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪದಗಳು	
1.3 Vaasada sstalakke sambhandisidanthaha padhagalu (Words Relating to Place of Living) – ವಾಸದ ಸ್ಥಳಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪದಗಳು	
1.4 Saamanya sambhashaneyalli Bhlasuvanthaha Padagala Patti (List of Words, used in the general conversation) – ಸಾಮಾನ್ಯ ಸಂಭಾಷಣೆಯಲ್ಲಿ ಬಳಸುವಂತಹ ಪದಗಳ ಪಟ್ಟಿ	
1.5 Bannagala Hesarugalu (Name of the Colours) – ಬಣ್ಣಗಳ ಹೆಸರುಗಳು	
CO – 5:	
Sambhashaneyalli Kannada Kannada in conversations 5.1 Introduction 5.2 naamapadagaLu (Nouns) – ನಾಮಪದಗಳು	04
5.3. SarvanaamapadagaLu (Pronouns) – ಸರ್ವಾಂನಾಮಪದಗಳು	
5.4. Kannada naamavisheshanagaLu (Kannada Adjectives and its usage) – ಕನ್ನಡ ನಾಮ ವಿಶೇಷಣಗಳು	
5.5 Kriya padagaLu (Kannada Verbs) - ಕ್ರಿಯಾಪದಗಳು	
5.6. KriyavisheshanagaLu (Adverbs in Kannada) – ಕನ್ನಡ ಕ್ರಿಯಾ ವಿಶೇಷಣಗಳು	
5.7 Kannadadalli SamyogagaLu (Conjuctions in Kannada) ಕನ್ನಡದಲ್ಲಿ ಸಂಯೋಗಗಳು	
5.8 Upasarga (Prepositions in Kannada) – ಉಪಸರ್ಗಗಳು	
5.9 Prashnarthaka padagalu (Interrogative words) – ಪ್ರಶ್ನಾರ್ಥಕ ಪದಗಳು	
5.10 vicharaneya / Vicharisuva / bedikeya vaakyagaLu (Enquiry/ Request sentences) – ವಿಚಾರಣೆಯ / ವಿಚಾರಿಸುವ / ಬೇಡಿಕೆಯ ವಾಕ್ಯಗಳು	
CO – 6 : 6.1 Activities in Kannada (Kannadadalli chatuvatike -1 (Activity -1) 6.2 Sambhashane – Conversation - ಸಂಭಾಷಣೆ – 1 and 2 with Exersies	04
6.3 Chatuvatike – 2 (Activity -2 Shabdakisha – Vocabulary –ಶಬ್ದಕೋಶ	
6.4 Sambhashane - Conversation - –ಸಂಭಾಷಣೆ –1,2 & 3 with Exersies	
Model Question Papers and Extra Actitie. –ಗ್ರಂಥಋಣ	
Total Teaching Hours	32 Hours

ಬಳಕೆ ಕನ್ನಡ–1 ಮತ್ತು ಸಾಹಿತ್ಯ ಸಿಂಚನ–1 ಪಠ್ಯಕ್ರಮಗಳಿಗೆ ನಿರಂತರ ಅಂತರಿಕ ಮೌಲ್ಯಮಾಪನದ ಮಾರ್ಗಸೂಚಿಗಳು

(COURSE ASSESSMENT AND EVALUATION CHART –CIE ONLY)

Sl. No	Assessment	Duration	Max Marks	Conversion
1	CIE Assessment – 1 (Written Test – 1) At the end of 6th Week (Theory Test)	80 Minutes	30	Average of two written tests 30 Marks
2	CIE Assessment – 2 (Written Test – 2) At the end of 10th Week (Theory Test)	80 Minutes	30	
3	CIE Assessment – 3 (Skill Test-1) At the end of 1th Week (Practical Test)	80 Minutes	30	Average of three Assessment
4	CIE Assessment – 4 (MCQ / Quiz) At the end of 8th Week	60 Minutes	20	
5	CIE Assessment – 5 (Open Book Test-3) At the end of 13th Week	60 Minutes	20	
6	CIE Assessment 6 (Student Activity / Assignment) At the end of 16th Week	60 Minutes	20	
Total Continuous Internal Evaluation (CIE) Assessment				50

COs : Kannada (baLake Kannada – 1)

CO – 1 : Understand & usage of Kannada alphabets

CO – 2 : Use of singular & plural nouns in Kannada language

CO – 3 : Usage of numbers and day-to-day application of Kannada language

CO – 4 : Know the human body parts & general conversation

CO – 5 : Apply knowledge acquired in Kannada Language & related activities

CO-PO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1	2	-	-	-	2	1	2
CO-2	2	-	-	-	2	1	2
CO-3	2	-	-	-	2	1	2
CO-4	2	-	-	-	2	1	2
CO-5	2	-	-	-	2	1	2

Government of Karnataka

Department of Collegiate and Technical Education

JSS Polytechnic for the Differently Abled (Autonomous)

ಸಾಹಿತ್ಯ ಸಿಂಚನ –1

(ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಪರಂಪರೆ ಕುರಿತು)

Course Code	21KA21	Semester	II
Course Title	ಸಾಹಿತ್ಯ ಸಿಂಚನ –1	Course Category Course Group/	HS AR/CS/EC/JD&T/ CP/CA
No. of Credits	2	Type of Course	AU
Total Contact Hours	2 Hrs Per Week 32 Hrs Per semester	Teaching Scheme [L : T : P] 2:0:0	CIE Marks : 50 SEE Marks : Nil

ದ್ವಿತೀಯ ಸೆಮಿಸ್ಟರ್

ಸಾಹಿತ್ಯ ಸಿಂಚನ – 1   Course Code: 21KA21

ಕನ್ನಡ ಬಲ್ಲ ಡಿಪ್ಲೋಮಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನಿಗಧಿಪಡಿಸಿ ಕಾರ್ಯಪಠ್ಯಪುಸ್ತಕ

(ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ ಮತ್ತು ಪರಂಪರೆ ಕುರಿತು)

ಪಠ್ಯ ಪುಸ್ತಕದ ಪರಿವಿಡಿ	ಬೋಧನಾ ಅವಧಿ
1. ಕರ್ನಾಟಕದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ ಮತ್ತು ಸಾಹಿತ್ಯದ ಬೆಳವಣಿಗೆ	02 ಗಂಟೆ
2. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಸಂಕ್ಷಿಪ್ತ ಚರಿತ್ರೆ	02 ಗಂಟೆ
3. ಹಳಗನ್ನಡ ಸಾಹಿತ್ಯ – ಪಂಪ ಪೂರ್ವ ಯುಗ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ರಚನೆಗೆ ಪ್ರಮುಖ ಪ್ರೇರಣೆಗಳು ಮತ್ತು ಪ್ರಭಾವಗಳು ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ರಾಜಾಶ್ರಯ ಕವಿರಾಜಮಾರ್ಗ ಮತ್ತು ವಡ್ಡಾರಾಧನೆ	04 ಗಂಟೆ
4. ಪಂಪ / ಚಂಪೂ ಯುಗದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಮತ್ತು ಪರಂಪರೆ ಆದಿಕವಿ ಪಂಪ, ರನ್ನ, ಪೊನ್ನ, ಜನ್ನ,ಒಂದನೇ ನಾಗವರ್ಮ ಮತ್ತು ನಾಗಚಂದ್ರ 10 ಮತ್ತು 12 ನೇ ಶತಮಾನದ ಸಮಕಾಲೀನ ಪ್ರಮುಖ ಕವಿಗಳು	04 ಗಂಟೆ
5. ನಡುಗನ್ನಡ ಸಾಹಿತ್ಯ – ವಚನ ಸಾಹಿತ್ಯ / ಬಸವ ಯುಗ ವಚನ ಸಾಹಿತ್ಯದ ಬೆಳವಣಿಗೆಗೆ ಕಾರಣಗಳು ಮತ್ತು ಅದರ ಮಹತ್ವ ಪ್ರಮುಖ ವಚನಕಾರರು, ವಚನ ಸಾಹಿತ್ಯದಲ್ಲಿ ವೈಚಾರಿಕತೆ ಮತ್ತು ಕಾಯಕ ತತ್ವ	06 ಗಂಟೆ
6. ಕುಮಾರವ್ಯಾಸ ಯುಗ ಮತ್ತು ಸಾಹಿತ್ಯದ ಇತರೆ ರೂಪಗಳು ರಗಳೆ – ಹರಿಹರ ಷಟ್ಪದಿ – ಕುಮಾರವ್ಯಾಸ, ಲಕ್ಷ್ಮೀಶ ಮತ್ತು ರಾಘವಾಂಕ ಸಾಂಗತ್ಯ — ರತ್ನಾಕರವರ್ಣಿ	04 ಗಂಟೆ
7. ದಾಸ ಸಾಹಿತ್ಯ / ಕೀರ್ತನೆಗಳು ಪುರಂದರದಾಸರು, ಕನಕದಾಸರು ಮತ್ತು ಇತರೆ ಕೀರ್ತನಕಾರರು	02 ಗಂಟೆ

8.　ಇತರೆ ಸಾಹಿತ್ಯದ ಪ್ರಕಾರಗಳು ತ್ರಿಪದಿ – ಸರ್ವಜ್ಞ ಜಾನಪದ ಸಾಹಿತ್ಯ ತತ್ವಪದಗಳು – ಶಿಶುನಾಳ ಶರೀಫರು	02 ಗಂಟೆ	
9.　ಮಹಿಳಾ ಸಾಹಿತ್ಯ : ಹೆಳವನಕಟ್ಟೆ ಗಿರಿಯಮ್ಮ ಮತ್ತು ಸಂಚಿಹೊನ್ನಮ್ಮ ಆಧುನಿಕ ಪೂರ್ವ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ಕೆಂಪುನಾರಾಯಣ ಮತ್ತು ಮುದ್ದಣ	04 ಗಂಟೆ	
10.　ಹಳೆಗನ್ನಡ ಮತ್ತು ನಡುಗನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆಯ ಒಂದು ಅವಲೋಕನ	02 ಗಂಟೆ	
ಒಟ್ಟು ಬೋಧನಾ ಅವಧಿ 32 ಗಂಟೆಗಳು	32 ಗಂಟೆಗಳು	

ಬಳಕೆ ಕನ್ನಡ–1 ಮತ್ತು ಸಾಹಿತ್ಯ ಸಿಂಚನ–1 ಪಠ್ಯಕ್ರಮಗಳಿಗೆ ನಿರಂತರ ಅಂತರಿಕ ಮೌಲ್ಯಮಾಪನದ ಮಾರ್ಗಸೂಚಿಗಳು

(COURSE ASSESSMENT AND EVALUATION CHART –CIE ONLY)

Sl. No	Assessment	Duration	Max Marks	Conversion
1	CIE Assessment – 1 (Written Test – 1) At the end of 6th Week (Theory Test)	80 Minutes	30	Average of two written tests 30 Marks
2	CIE Assessment – 2 (Written Test – 2) At the end of 10th Week (Theory Test)	80 Minutes	30	
3	CIE Assessment – 3 (Skill Test-1) At the end of 1th Week (Practical Test)	80 Minutes	30	Average of three Assessment
4	CIE Assessment – 4 (MCQ / Quiz) At the end of 8th Week	60 Minutes	20	
5	CIE Assessment – 5 (Open Book Test-3) At the end of 13th Week	60 Minutes	20	
6	CIE Assessment 6 (Student Activity / Assignment) At the end of 16th Week	60 Minutes	20	
Total Continuous Internal Evaluation (CIE) Assessment				50

At the end of each unit, the student be able to achieve the following course outcomes:

COs :　Kannada (Saahithya Sinchana -1)

CO – 1 : Understand the history of Kannada language.

CO – 2 : Familiarize the usage of old Kannada and Kannada heritage

CO – 3 : Understand Mid-age Kannada (Basava Yuga and Kumaravyasa Yuga)
Usage

CO – 4 : Know the Kannada Language through poems and Folk literature

CO – 5 : Familiarize the use of Kannada language through literature for women

CO-PO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO-1	2	-	-	-	2	1	2
CO-2	2	-	-	-	2	1	2
CO-3	2	-	-	-	2	1	2
CO-4	2	-	-	-	2	1	2
CO-5	2	-	-	-	2	1	2

Government of Karnataka
Department of Collegiate and Technical Education
JSS Polytechnic for the Differently Abled (Autonomous)

SIGN LANGUAGE II

Course Code		Semester	II
Course Title	**Sign Language II**	**Course Group**	**AR/CS/CP/EC/JD&T**
Type of Course	**AU**	**Total Contact Hours**	**2Hrs Per Week**
			32Hrs Per Semester
Prerequisites	**Knowledge of Basic Sign Language**	**Teaching Scheme**	**(L:T:P)=2:0:0**
CIE Marks	**50**	**SEE Marks**	**-**

COURSE OBJECTIVES:

1. Understand and apply signs of English, Banking and others.

2. Understand the Departmental Technical Terminology.

3. Understand and apply signs of Mathematical Terminologies.

COURSE OUTCOMES:

At the end of the course student will be able to achieve the following course outcomes:

CO1	Acquire and apply the signs of English and Computer terminology.
CO2	Acquire and apply the signs of Banking Terminologies.
CO3	Obtain and apply the signs of Department related Technical terms.
CO4	Acquire and apply the signs and Measuring Units.
CO5	Acquire and apply the signs of Mathematical terminologies.

COURSE CONTENT:

Unit No & Name	Detailed Course Content	CO	PO	Contact Hrs
1. English Terminologies and Computer Terminologies	1.1 Know the signs for English Terminology	CO1	1,5,6,7	2
	1.2 Know the signs for Computer Terminology	CO1	1,5,6,7	2
	1.3 Practice session	CO1	1,5,6, 7	1
	CIE Assessment 1			1
2. Banking Terminologies	2.1 Know the signs for Banking Terminology	CO2	1,5,6, 7	2
	2.2 Practice Session	CO2	1,5,6,7	1
	CIE Assessment 2			1
3. Department Related Words	3.1 Learning Department related words of Computer Science	CO3	1,5,6, 7	2
	3.2 Learning Department related words of Electronics & Communication Engineering	CO3	1,5,6,7	2
	3.3 Learning Department related words of Architecture	CO2	1,5,6,7	2
	3.4 Learn Department related words of Commercial Practice	CO3	1,5,6,7	2
	3.5 Learn Department related words of Jewellery Design & Technology	CO3	1,5,6,7	2
	3.6 Practice Session			3
	CIE Assessment 3			1
4. Measuring Units	4.1 Know the signs for Measuring Units 4.2 Practice Session	CO3	1,5,6,7	3
	CIE Assessment 4			1
5. Mathematical Terminologies	5.1 Know the signs for Mathematical Terminologies. 5.2 Practice Session	CO3	1,5,6,7	3
	CIE Assessment 5			1

References:

(a) Suggested Learning Resources:

Books:

1. Book on Sign Language, Ali Yavar Jung National Institute for the Hearing Handicapped, Training Center for Adult Deaf.

2. Indian Sign Language Dictionary, Ramakrishna Mission Vidyalaya.

3. Book on Hearing Impairment, Ali Yavar Jung National Institute for the Hearing Handicapped, Training Center for Adult Deaf.

4. Signing Naturally Level 1, Cheri Smith, Ella Mae Lentz , Ken Mikes.

5. Signing Naturally Level 2, Cheri Smith, Ella Mae Lentz , Ken Mikes

(b) Open source software and website address:

1) www.indiansignlnguage.org
2) www.islrtc.nic.in
3) www.talkinghands.co.in
4) www.def.org.in

Teaching strategies:

- Demonstrating the words using signs.
- Interaction with the students using sign language.
- Online assistance is given to the students
- Involving the students in group discussion

Mapping of Course Outcomes with Programme Outcomes

CO	Course Outcome	PO Mapped	Cognitive Level R/U/A	Units	Theory Sessions In Hrs
CO1	Acquire and apply the signs of English and Computer terminology.	1,5,6,7	R,UA	1	6
CO2	Acquire and apply the signs of Banking Terminologies.	1,5,6,7	R,U,A	2	4
CO3	Obtain and apply the knowledge of signing the Department related Technical terms.	1,5,6,7	R,U	3	14
CO4	Acquire and apply the signs and measuring units.	1,5,6,7	R,UA	4	4
CO5	Acquire and apply the signs of Mathematical terminologies.	1,5,6,7	R,UA	5	4
Total Hours of instruction					32

Level of Mapping PO's with CO's

Course	CO's	Programme Outcomes(PO's)						
		1	**2**	**3**	**4**	**5**	**6**	**7**
	CO1	2	0	0	0	2	2	2
	CO2	2	0	0	0	2	2	2
Sign Language-II	CO3	2	0	0	0	2	2	2
	CO4	2	0	0	0	2	2	2
	CO5	2	0	0	0	2	2	2

Level 3-Highly Mapped, Level 2-Moderately Mapped, Level 1- Low Mapped, Level 0-Not Mapped

Method is to relate the level of PO with the number of hours devoted to the CO's which maps the given PO.

If >50% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 3

If 30 to 50% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 2 If 5 to 30% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is mapped at Level 1

If < 5% of classroom sessions related to the CO are addressing a particular PO, it is considered that PO is considered not-mapped i.e.; Level 0

Course Assessment and Evaluation Chart

Sl. No	Assessment	Duration	Max marks	Conversion
1.	CIE Assessment 1 (Activity 1 - At the end of 3rd week	60 minutes	10	
2.	CIE Assessment 2 (Activity -2) - At the end of 5th week	60 minutes	10	
3.	CIE Assessment 3 (Activity -3) - At the end of 12th week	60 minutes	10	Total of all the CIE Assessment
4	CIE Assessment 4 (MCQ/Quiz) - At the end of 14th week	60 minutes	10	
5	CIE Assessment 5 (Activity/Assignment) - At the beginning of 16th week	60 minutes	10	
7.	Total Continuous Internal Evaluation (CIE) Assessment			50
Total Marks				**50**

Unit 1

1.1 English Terminologies
1. English
2. Words
3. Sentences
4. Paragraph
5. Essay
6. Story
7. Grammar
8. Noun
9. Common noun
10. Countable noun
11. Uncountable noun
12. Pronoun
13. Adjective
14. Verb
15. Adverb
16. Preposition
17. Singular
18. Plural
19. Prefix
20. Suffix
21. Past tense
22. Present tense
23. Future tense
24. Exclamatory
25. Comma
26. Full stop
27. Underline
28. Question mark
29. Example
30. Letter

1.2 Computer terminologies
1. Computer
2. Laptop
3. CPU
4. Keyboard
5. Mouse
6. Monitor
7. Web camera
8. CD
9. DVD
10. Pen drive
11. Projector
12. Xerox
13. Scan
14. Printer
15. Print out
16. Ms Office
17. Ms Word
18. Ms Excel
19. Ms Power point
20. Paint
21. File
22. Folder
23. Save
24. Edit
25. Cut
26. Copy
27. Paste
28. Internet
29. Network
30. Joystick

1.3 Practice Session

Unit 2

2.1 Banking Terminologies

1. Bank
2. Mobile bank
3. Internet banking
4. Manager
5. Account
6. Accountant
7. Cash
8. Cashier
9. Passbook
10. ATM Card
11. Withdraw
12. Demand Draft
13. Money
14. Deposit
15. Cheque
16. Loan
17. Transfer
18. Signature
19. Credit
20. Debit
21. Salary
22. Fixed Deposit
23. Recurring Deposit
24. Branch
25. Address
26. Proof
27. Online payment
28. Nominee
29. Interest
30. Signature

2. 3 Practice Session

Unit 3

Technical Signing words

3.1 Computer Science
1. Anti virus
2. App
3. Application
4. Bold
5. CD Writer
6. Cartridge
7. Copy
8. Cancel
9. Cursor/pointer
10. Data
11. Delete
12. Download
13. Install
14. Paste
15. Shut down
16. Virus
17. Connection
18. Underline
19. Zoom
20. Restart
21. E-mail
22. Browse
23. Logic
24. Operating system
25. Mistake, error

3.2 Electronics& Communication Engineering
1. Alkaline cell
2. Automation
3. Fuse
4. Generator
5. Inverter
6. Equipment
7. Electric tester
8. Ammeter
9. Soldering iron
10. Volt
11. Integrated Circuit
12. Analogy signal
13. Digital Signal
14. Radio
15. Electrical Energy
16. Electrician
17. Direct current
18. Electricity
19. conductor
20. Insulator
21. Wiring
22. Amplitude
23. Convertor
24. Anode
25. Cathode

3.3 Architecture
1. Architect
2. Building
3. Construction
4. Brick
5. Beam
6. Lintel
7. Sand
8. Wood
9. Cement
10. Gate
11. Paint
12. Window
13. Door
14. Compass
15. Depth
16. Draw
17. Cello tape
18. Curtains

3.4 Commercial Practice
1. Commerce
2. Tally
3. Amount
4. Interest
5. Process
6. Trust
7. Accounting year
8. Bill
9. Receipt
10. Payment
11. Commission
12. Discount
13. Customer
14. Financial year
15. Income

19. Plastering
20. Quantity
21. Measuring tape
22. Compass
23. Bedroom
24. Kitchen
25. Office

16. Insurance
17. Investment
18. Legal
19. Minor
20. Profession
21. Total
22. Sale
23. Cash
24. Transfer
25. Cheque

3.5 Jewellery Design
1. Jewellery
2. Wire
3. Link
4. Gem, precious stone
5. Melt
6. Bangle
7. Ring
8. Bracelet
9. Gold
10. Silver
11. Diamond
12. Copper
13. Clean
14. Sharp
15. Mix
16. Boil
17. Metal
18. Traditional
19. Concept
20. Drawing
21. Necklace
22. Earring
23. View
24. Modern
25. Mixture

3.6 Practice Session

Unit 4

4.1 Measuring units

1. Measure
2. Measurement
3. Weight
4. Kilogram
5. Gram
6. Distance
7. Kilometre
8. Meter
9. Height
10. Temperature
11. Degree
12. Litre
13. Millilitre
14. Force
15. Area
16. Centime
17. Inch
18. Millimetre
19. Mile
20. Mass

4.2 Practice Session

Unit 5

5.1 Mathematical terminologies

1. Math
2. Number
3. Addition
4. Subtraction
5. Multiplication
6. Division
7. Percentage
8. Average
9. Calculate
10. Integer
11. Decimal
12. Axis
13. Circumference
14. Fraction
15. Numerator
16. Denominator
17. Angle
18. Constant
19. Variable
20. Square
21. Rectangle
22. Triangle
23. Cone
24. Cube
25. Circle
26. Formula
27. Equal
28. Diagonal
29. Ascending
30. Descending

5.2 Practice Session

Government of Karnataka
Department of Collegiate and Technical Education
JSS Polytechnic for the Differently Abled (Autonomous)

PSYCHOLOGY AND COUNSELING - II

Course Code		Semester	II
Course Title	**Psychology and Counseling - II**	**Course Group**	**AR/CS/CP/EC/ JD&T/CA**
Type of Course	**AU**	**Total Contact Hours**	**2 Hrs. / Week**
			32 Hrs. / Semester
Prerequisites	**English Knowledge**	**Teaching Scheme**	**[L : T : P] 2:0:0**
CIE Marks	**50**	**SEE Marks**	**-**

1. COURSE OBJECTIVES

At the end of the course the students shall be able to:

1. Understand Psychology related problems and acquire problem solving skills.

2. Understand and learn to work in teams.

3. Adapt positive psychology in daily life.

4. Understand career planning and explore career options.

2. COURSE OUTCOMES

At the end of the course, the students shall be able to

	Course Outcomes
CO 1	Develop knowledge on problem solving skills.
CO 2	Work in teams.
CO 3	Acquire knowledge and adapt a good mental well-being.
CO 4	Obtain positive attitude and self esteem.
CO 5	Obtain knowledge about career planning and apply it.

3. COURSE CONTENT OUTLINE WITH TEACHING HOURS AND MARK

UNIT NO	UNIT TITLE	TEACHING HOURS	MARKS
01	Problems and problem solving skills	06	10
02	Working with groups	06	10
03	Positive Psychology	07	10
04	Attitude	07	10
05	Career Planning	06	10
Total		32	50

4. DETAILS OF COURSE CONTENTS

The following topics / subtopics are to be taught and accessed in order to develop Unit

Skill sets for achieving CO to attain identified skill sets:

UNIT NO.	SKILLS	TOPICS / SUBTOPICS	HOURS
UNIT– 1. Problems and problem solving skills	Understand and apply problem solving skills. Learn self value and live a well-balanced life.	1.1 Analyzing a problem 1.2 Problem solving skills 1.3 Forgiving self and understanding self-worth. 1.4 Well-balanced living.	06
UNIT – 2. Working with groups	Understand and learn to work/adjust in a groups.	2.1 Nature of groups. 2.2 Group productivity. 2.3 Leadership. 2.4 Success. 2.5 Understanding Pros and Cons of working in groups.	06
UNIT - 3 Positive Psychology	Understand the importance of staying positive and have a good mental health.	3.1 Science of happiness 3.2 Mindfulness 3.3 Positive thinking 3.4 Optimism 3.5 Mental well-being	07
UNIT - 4 Attitude	Understand the importance of positive attitude and self esteem.	4.1 Attitude 4.2 Factors Influencing our attitude 4.3 Changing attitude- negative to positive. 4.4 Building positive self-esteem and image. 4.5 Forming positive habits and characters. 4.6 Prejudice 4.7 Overcoming loneliness 4.8 Witnessing/ interacting with successful differently abled people.	07
UNIT - 5 Career Planning	Understand the importance of career planning and apply it in exploring suitable options.	5.1 Career planning 5.2 Features and importance of career planning. 5.3 Understanding job satisfaction. 5.4 Exploring career options suitable for their personality. 5.5 Goal setting and working towards it. 5.6 Time Management. 5.7 Decision Making	06

5. MAPPING OF CO WITH PO

CO	Course Outcome	PO Mapped	Unit	CL R/U/A	Theory in Hrs.
1	Develop knowledge on problem solving skills.	1,5,6,7	1	R/U/A	6
2	Work in teams.	1,5,6,7	2	R/U/A	6
3	Acquire knowledge and adapt a good mental well-being.	1,5,6,7	3	R/U/A	7
4	Obtain positive attitude and self esteem.	1,5,6,7	4	R/U/A	7
5	Obtain knowledge about career planning and apply it.	1,5,6,7	5	R/U/A	6
Total					32

6. LEVELS OF CO AND PO MAPPING

Psychology and Counselling	Programme Outcomes						
Course outcomes	1	2	3	4	5	6	7
CO1	2	0	0	0	3	1	2
CO2	2	0	0	0	3	1	2
CO3	2	0	0	0	3	1	2
CO4	2	0	0	0	3	1	2
CO5	2	0	0	0	3	1	2

Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.

Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO.

If >40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 3

If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2

If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1

If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not-

addressed.

7. COURSE ASSESSMENT AND EVALUATION CHART

Sl. No	Assessment	Duration	Max marks	Conversion
1.	CIE Assessment 1 (Activity) - At the end of 3rd week	60 minutes	10	Total of all the CIE assessments.
2.	CIE Assessment 2 (Activity) - At the end of 6th week	60 minutes	10	
3.	CIE Assessment 3 (MCQ/Quiz) - At the end of 9th week	60 minutes	10	
4.	CIE Assessment 4 (MCQ/Quiz) - At the end of 12th week	60 minutes	10	
5.	CIE Assessment 5 (Activity) - At the beginning of 15th week	60 minutes	10	
Total Continuous Internal Evaluation (CIE) Assessment				50
Total Marks				**50**

8. INSTRUCTIONAL STRATEGY

➢ Emphasis on demonstration based learning activities.

➢ Involve the students in the group discussions.

➢ Explain the students with real time problems.

➢ Providing the course materials in soft copy, power point presentation and hard copy to revise the contains in depth.

➢ Encourage innovative teaching by providing online references.

9. DETAILED COURSE CONTENTS

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
1. Problems and problem solving skills	Analyzing a problem	1	1,5,6,7	1	**06**
	Problem solving skills	1	1,5,6,7	1	
	Forgiving self and understanding self-worth	1	1,5,6,7	1	
	Well-balanced living.	1	1,5,6,7	1	
	Activity on problem solving.	1	1,5,6,7	1	
	CIE Assessment 1	1	1,5,6,7	1	
2. Working with groups	Nature of groups.	2	1,5,6,7	1	**06**
	Group productivity.	2	1,5,6,7	1	
	Leadership. Success.	2	1,5,6,7	1	
	Understanding Pros and Cons of working in groups	2	1,5,6,7	1	
	Activity on working in groups - 2 Tasks	2	1,5,6,7	1	
	CIE Assessment 2	2	1,5,6,7	1	
3. Positive Psychology	Science of happiness	3	1,5,6,7	1	**07**
	Mindfulness	3	1,5,6,7	1	
	Positive thinking	3	1,5,6,7	1	
	Optimism	3	1,5,6,7	1	
	Mental well-being	3	1,5,6,7	1	
	Activity on staying positive	3	1,5,6,7	1	
	CIE Assessment 3	3	1,5,6,7	1	
4. Attitude	Attitude Factors Influencing our attitude	4	1,5,6,7	1	**07**
	Changing attitude- negative to positive.	4	1,5,6,7	1	
	Building positive self-esteem and image.	4	1,5,6,7	1	
	Forming positive habits and characters.	4	1,5,6,7	1	
	Prejudice	4	1,5,6,7	1	

UNIT NO. AND NAME	DETAILED COURSE CONTENT	CO	PO	CONTACT HRS.	TOTAL
	Overcoming loneliness				
	Witnessing/ interacting with successful differently abled people.	4	1,5,6,7	1	
	CIE Assessment 4	4	1,5,6,7	1	
5. Career Planning	Career planning Features and importance of career planning.	5	1,5,6,7	1	**06**
	Understanding job satisfaction. Exploring career options suitable for their personality.	5	1,5,6,7	1	
	Goal setting and working towards it.	5	1,5,6,7	1	
	Time Management.	5	1,5,6,7	1	
	Decision Making	5	1,5,6,7	1	
	CIE Assessment 5	5	1,5,6,7	1	
Total					**32**

10. SUGGESTED LIST OF STUDENTS ACTIVITIES

Sl. No	Suggested Activities
1	Puzzle activity- to build their creativity.
2	Individual tasks in the classroom stage to build confidence
3	Healthy competitions to know their caliber and learn to encourage and support each other.
4	Group discussions
5	Mock Interview

11. SUGGESTED LEARNING REFERENCES

Sl.No	References
1	Introduction to Psychology by Morgan and king
2	Social Psychology by Shelley E. Taylor
3	Positive Psychology by Baumgardner Steve Crothers Marie
4	13 Things Mentally Strong People Don't Do by Amy Morin
5	The Righteous Life by A.P.J. Abdul Kalam
6	https://www.youtube.com/watch?v=ZnjJpa1LBOY
7	https://www.youtube.com/watch?v=_gJ5V525SCk