SchemeofTeaching andExamination2021-22

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

(Effectivefromtheacademicyear2022-23)

Programme: B. Tech: Civil Engineering

IIISEMESTER

				Teaching	TeachingH Examination ours/week			nation	- X			
No.	Sl. CourseCode No.		CourseTitle	Department	Theory Lecture	Tutorial	Practic al/Dra	Duration	CIEMarks	SEEMarks	Total Marks	Credits
1	DC	013 f A F 01	E : Mal : W	3.6.4	L	T	P	2	50		100	02
1	BS	21MAT31	EngineeringMathematics-III	Mathematics	3			3	50	50	100	03
2	PCC	21CV32	Mechanics of Materials		3	1		3	50	50	100	04
3	PCC	21CV33	Fluid Mechanics		2	1		3	50	50	100	03
4	PCC	21CV34	Basic Surveying		2	1		3	50	50	100	03
5	PCC	21CV35	Building Materials and Construction Technology		1	1		3	50	50	100	02
6	PCC	21CVL36	Building Material Testing Lab				2	3	50	50	100	01
7	PCC	21CVL37	Surveying Practice-I Lab				2	3	50	50	100	01
8	PCC	21CVL38	Applied Engineering Geology Lab				2	3	50	50	100	01
9	PW	21PRJ39	Project-III				2	3	50	50	100	01
10	HSS	21KANKK310	KannadaKali-III	Humanities	1			2	50	50	100	01
10	нээ	21KANAK310	AydaKategalu	numamues	1			2	30	30	100	UI
11	AEC	21ACV311X	Ability Enhancement Course-III				2	3	50	50	100	01
	Total				12	4	10	32	550	550	1100	21

Note:BS-BasicScience- Programme Core Course,PW-ProjectWork, AEC- Ability Enhancement Course,HSS-HumanityandSocialScience,NCMC-NonCreditMandatoryCourse

21KANKK310KannadaKali-IIIisfornonKannadaspeaking,readingandwritingstudentsand21KANAK310AydaKategaluisforthestudentswhospeak, readand write Kannada.

Project(PRJ):Basedontheability/abilitiesofthe student/andrecommendationsofthe mentor, a singledisciplineormultidisciplinaryminiprojectcanbe Assigned to an individual students ortoa grouphaving not more than 4 students. **Ability Enhancement Course-3** Course code under 21ACV311X Course Title 21ACV3111 Microsoft Office Course sprescribed to lateral entry Diploma holders admitted to III semester of Engineering programs and the contraction of t21MATDIP31 AdditionalMathematics—I 12 **Mathematics** 00 100 100 00 NCMC

- 1) Non Credit Mandatory Courses (NCMC) Additional Mathematics-I and II prescribed for III and IV semesters respectively, to the lateral entryDiploma holders admitted to III semester of B. Tech. programs, shall attend the classes during the respective semesters to complete all theformalities of the course and appear for the university examination. In case any student fails to register for the said course/fails to secure theminimum 50% of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the students have to fulfill therequirements during subsequent semester/s to appear for SEE.
 - 2) These courses shall not be mandatory for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Coursesprescribedtolateral

entry B. Sc. degree holders admitted to III semester of Engineering programs

Lateral entry students from B.Sc. stream, shall clear the non credit courses Computer Aided Engineering Drawing, Elements of Civil Engineering of First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

AICTE Activity Points to be earned by students admitted to B.Tech. programme(For more details refer to Chapter 6,AICTE Activity PointProgramme,ModelInternshipGuidelines):

Over and above the academic grades, every regular student admitted to the 4 years Degree programme and every student entering 4 years Degreeprogramme through lateral entry, shall earn 100 and 75 Activity points respectively for the award of degree through AICTE Activity PointProgramme. Students transferred from other universities to fifth semester are required to earn 50 activity points from the year of entry to SharnbasvaUniversity. The Activity Points earned shall bereflected on the students eighthsemester Gradecard.

Theactivities can be spread over the years, any time during these mester weekends holidays, as pertheliking and convenience of the student from the year of entry to the programme. However, minimum hours requirement should be fulfilled. Activity Points (non credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression.

 $In case students fail to earn the prescribed activity points, Eighthsemester Grade Cardshall be issued only after earning the required activity points. \\ Students hall be admitted for the award of the degree only after the release of the Eighthsemester Grade Card.$

Scheme of Teaching and Examination 2021-22

Outcome Based Education(OBE) and Choice Based Credit System(CBCS)

(Effective from the academic year2022-23)

Programme: B. Tech: Civil Engineering

IVSEMESTER

				ng ent		Ceachi urs/w	_		E	Examin	50 100 0 50 100 0 50 100 0 50 100 0 50 100 0		
Sl. No.		CourseCode	CourseTitle	Teaching Department	Theory Lecture	Tutorial	Practic al/Dra	Duration inHours	CIEMarks	SEEMarks	Total Marks	Credits	
1	BS	21MAT41	EngineeringMathematics-IV	Mathematics	1 3	T	P	3	50	50	100	03	
2	PCC	21CV42	Structural Analysis-I		3	1		3	50			04	
3	PCC	21CV43	Hydraulics and Hydraulic Machines		2	1		3	50			03	
4	PCC	21CV44	Basic Geotechnical Engineering		2	1		3	50	50	100	03	
5	PCC	21CV45	Concrete Technology		1	1		3	50	50	100	02	
6	PCC	21CVL46	Computer AidedBuilding Planning and Drawing-Lab				2	3	50	50	100	01	
7	PCC	21CVL47	Surveying Practice-II Lab				2	3	50	50	100	01	
8	PCC	21CVL48	Fluid Mechanics and Hydraulic Machines Lab				2	3	50	50	100	01	
9	PW	21PRJ49	Project-IV				2	3	50	50	100	01	
10	HSS	21KANKK410 21 KANMD410	KannadaKali-IV Mahadasohigalu	Humanities	1			2	50	50	100	01	
11	AEC	21ACV411X	Ability Enhancement Course-IV				2	3	50	50	100	01	
Total					12	4	10	32	550	550	1100	21	

Note:BS-BasicScience,PCC- Programme Core Course,PW-ProjectWork,AEC- Ability Enhancement Course,HSS-HumanityandSocialScience,NCMC-NonCreditMandatoryCourse

21KANKK410KannadaKali-IVisfornonKannadaspeaking,readingandwritingstudentsand21KANMD410Mahadasohigaluisforthestudentswhospeak, readand write Kannada.

	dationsofthementor, a single discipline or multidisciplinary miniproject can be
Ţ	oagrouphavingnotmorethan 4students.
Course code under 21AEC411X	Course Title
21ACV4111	Staad-Pro 2D
	ersadmittedtoIIIsemesterofEngineeringprograms
10 NCMC 21MATDIP41 AdditionalMathematics—II	Mathematics 3 1 - 3 00 100 100 00
· · · · · · · · · · · · · · · · · · ·	s-I and II prescribed for III and IV semesters respectively, to the lateral
entryDiploma holders admitted to III semester of B. Tech. program	is, shall attend the classes during the respective semesters to complete all
	ion. In case any student fails to register for the said course/fails to secure
	emed to have secured F grade. In such a case, the students have to fulfill
1	quent semester/s to appear for SEE.
	outcompletionofthecoursesshallbemandatoryfortheawardofdegree.
-	cribedtolateral
	oIIIsemesterofEngineeringprograms
	ses Computer Aided Engineering Drawing, Elements of Civil Engineering
	redforverticalprogression, but completion of the courses shall be mandatory
	ardofdegree.
AICTE Activity Points to be earned by students admitted to B.Tecl	
Activity PointProgramme,Mode	•
	d to the 4 years Degree programme and every student entering 4 years
	ity points respectively for the award of degree through AICTE Activity
	semester are required to earn 50 activity points from the year of entry to
•	all bereflected on thestudentseighthsemesterGradecard.
	weekends holidays, as per the liking and convenienceof the student from the
	ement should be fulfilled. Activity Points(non credit) have no effect
	consideredforvertical progression.
Incasestudentsfailtoearntheprescribedactivitypoints, Eighthsemes	terGradeCardshallbeissuedonlyafterearningtherequiredactivitypoints.

 $Students hall be admitted for the \ award of the degree only \ after the release \ of the Eighthsem ester \ Grade Card.$

Scheme of Teaching and Examination 2021-22

Outcome Based Education(OBE) and Choice Based Credit System(CBCS)

(Effective from the academic year2023-24)

Programme: B.Tech: Civil Engineering

VSEMESTER

				s nt		Teachi urs/w	_					
Sl. No.		CourseCode	CourseTitle	Teaching Department	Theory Lecture	Tutorial	Practic	Duration inHours	CIEMarks	SEEMarks	Total Marks	Credits
1	HSS	21CV51	Construction Managementand Entrepreneurship		2	1		3	50	50	100	03
2	PCC	21CV52	Design of RCC Structures		2	1		3	50	50	100	03
3	PCC	21CV53	Structural Analysis -II		2	1		3	50	50	100	03
4	PEC	21CV54X	Professional Elective Course-I		2	1		3	50	50	100	03
5	OEC	21CV55X	Open Elective Course-I		3	1		3	50	50	100	04
6	PCC	21CVL56	Building Information ModelingLab				2	3	50	50	100	01
7	PCC	21CVL57	Concrete & Highway Materials Testing Lab				2	3	50	50	100	01
8	PEC	21CVL58	Geo technical engineering lab				2	3	50	50	100	01
9	PW	21PRJ59	Project-V				2	3	50	50	100	01
10	AEC	21ACV510X	Ability Enhancement Course-V				2	3	50	50	100	01
	Total					05	10	30	500	500	1000	21

Note:PCC- Programme Core Course, PEC-Professional ElectiveCourse,PW-ProjectWork,HSS-HumanityandSocialScience, OEC- Open Elective Course, AEC- Ability Enhancement Course.

Project(PRJ):Basedontheability/abilitiesofthestudent/sandrecommendationsofthementor,asingledisciplineormultidisciplinaryminiprojectcanbe assignedtoan individual studentsortoagroup havingnotmorethan4students

	Professional Elective Course-I
Coursecodeunder21CV54X	CourseTitle
21CV541	Advanced Geotechnical Engineering
21CV542	Masonry structure
	OpenElective Course-I
Coursecodeunder21CV55X	CourseTitle
21CV551	Alternative Building Materials
21CV552	Repair & Rehabilitation of Structures
	Ability Enhancement Course-V
Coursecodeunder21ACV510X	CourseTitle
21ACV5101	Field training
AICTEActivityPoints:Incasestudentsfailtoearn	theprescribedactivitypoints, Eighthsemester Grade Cardshall beissued only after earning the

AICTEActivityPoints:Incasestudentsfailtoearntheprescribedactivitypoints, Eighthsemester Grade Cardshallbeissuedonly after earning the required activity points. Studentshall be admitted for the award of the degree only after the release of the Eighthsemester Grade Card.

Scheme of Teaching and Examination 2021-22

Outcome Based Education(OBE) and Choice Based Credit System(CBCS)

(Effective from the academic year2023-24)

Programme: B.Tech: Civil Engineering

VISEMESTER

a.				g nt		Teachi urs/w	0		E	Examin	ination			
Sl. No.	CourseCode		CourseTitle	Teaching Department	Theory Lecture	- Tutorial	Dractic	Duration inHours	CIEMarks	SEEMarks	Total Marks	Credits		
1	PCC	21CV61	Design of Steel Structures		2	1		3	50	50	100	03		
2	PCC	21CV62	Hydrology and irrigation Engineering		2	1		3	50	50	100	03		
3	PEC	21CV63X	Professional Elective Course-II		3			3	50	50	100	03		
4	PEC	21CV64X	Professional Elective Course-III		3			3	50	50	100	03		
5	OEC	21CV65X	Open Elective Course-II		3	1		3	50	50	100	04		
6	PCC	21CVL66	Extensive Survey Lab				2	3	50	50	100	01		
7	PEC	21CVL67	Software Application Lab				2	3	50	50	100	01		
8	PEC	21CVL68	Environmental Engineering Lab				2	3	50	50	100	01		
9	PW	21PRJ69	Project-VI				2	3	50	50	100	01		
10	HSS	21HSM69	Professional Ethics	Humanities	1			3	50	50	100	01		
11	AEC	21ACV610X	Ability Enhancement Course-VI				2	3	50	50	100	01		
	Total					3	10	33	550	550	1100	22		

Note: PCC-Professional Core Course, PEC-Professional Elective Course, OEC-Open Elective Course, PW-Project Work, HSS-Humanity and Social Science, AEC-Ability Enhancement Course. Internship-Tobecarried outduring the vacation/s of VI and VIII semesters or VII and VIII semesters.

Project(PRJ):Basedontheability/abilitiesofthestudent/sandrecommendationsofthementor,asingledisciplineor multidisciplinarymini projectcanbe Assignedtoan individual studentsortoagroup havingnotmorethan4students.

	Professional Elective Course-II
Coursecodeunder2	CV63X CourseTitle
21CV631	Environmental Engineering
21CV632	Sustainability concepts in Engineering
	Professional Elective Course-III
Coursecodeunder 2	CV64X CourseTitle
21CV641	Highway Engineering
21CV642	Ground improvement techniques
	Open Elective Course-II
Coursecodeunder2	CV65X CourseTitle
21CV651	Solid Waste Management
21CV652	Air pollution &control
	Ability Enhancement Course-VI
Coursecodeunder21ACV610X	CourseTitle
21ACV6101	Construction project management using primavera P-6
21ACV6102	Quantity Estimation
AICTEActivityPoints: In	sestudentsfail to earntheprescribedactivitypoints, EighthsemesterGradeCardshallbeissuedonlyafterearningthe

AICTEActivityPoints: In casestudentsfail to earntheprescribedactivitypoints, EighthsemesterGradeCardshallbeissuedonlyafterearningthe requiredactivitypoints.Studentshallbeadmittedforthe award ofthedegreeonlyafterthereleaseoftheEighthsemesterGradeCard.

Scheme of Teaching and Examination 2021-22

Outcome Based Education(OBE) and Choice Based Credit System(CBCS)

(Effective from the academic year2024-25)

Programme:B.Tech:Civil Engineering

VIISEMESTER

					Н	Teach	0		Exami	xamination			
Sl. No.	CourseCode		Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total Marks	Credits	
		T		T	L	T	P						
1	PCC	21CV71	Estimation ,Costing and Contract		2	1		3	50	50	100	03	
			Management										
2	PCC	21CV72	Design of RCC and Steel Structures		2	1		3	50	50	100	03	
3	PCC	21CV73	Railway, Harbour, Tunnel and Airport		3	0		3	50	50	100	03	
4	PEC	21CV74X	Professional Elective Course-IV		2	1		3	50	50	100	03	
5	OEC	21CV75X	Open Elective Course-III		3	1		3	50	50	100	04	
6	PCC	21CVL76	3D Modeling software lab				2	3	50	50	100	01	
7	PCC	21CVL77	Civil Workshop Lab				2	3	50	50	100	01	
8	PEC	21CVL78	Computer Aided Detailing of Structure Lab				2	3	50	50	100	01	
9	PW	21PRJ79	Project-VII				2	3	50	50	100	01	
10	HSS	21HSM710	Industrial Psychology and OrganisationalBehaviour	Humanities	1			3	50	50	100	01	
			Total		13	4	8	30	500	500	1000	21	

Note: PCC-Professional Core Course, PEC-Professional Elective Course, OEC-Open Elective Course, PW-Project Work, HSS-Humanity and Social Science, AEC- Ability Enhancement Course.

Project(PRJ): A batch of 4 to 5 students (Sam	ne branch or different branches) with a guide, may undertake one project (1 hour of theory/tutorial or two hours of practice /activities.									
Professional Elective Course-IV										
Course code under 21CV74X	Course Title									
21CV741	Municipal and industrial waste water Engineering									
21CV742	Pavement Design									
	Open Elective Course-IV									
Coursecodeunder21CV74X	Course Title									
21CV751	Green Building									
21CV752	Intelligent Transport system									
ATOMET A 41 14 D 1 4 T 1 1 C 11										

AICTE Activity Points: In case students fail to earn the prescribed activity points, Eighth semester Grade Card shall be issued only after earning the Required activity points. Student shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card.

Scheme of Teaching and Examination 2021-22

Outcome Based Education(OBE) and Choice Based Credit System(CBCS)

(Effective from the academic year2024-25)

Programme :B.Tech: Civil Engineering

VIIISEMESTER

				g nt		Teachi urs/w	_		E	xamin	redits	
Sl. No.	(CourseCode	CourseTitle	Teaching Department	Theory Lecture	Tutorial	Practic al/Dra	atio Iou	CIEMarks	SEEMarks	Total Marks	Cred
					L	T	P			S		
1	Project	21PRJ81	Research Project / Field Project -				16	3	50	50	100	08
			VIII									
2	Internship	21CVI82	Internship				12	3	50	50	100	06
	Total						18	06	100	100	200	14

Note:

PCC-Professional Core Course, PEC-Professional Elective Course, OEC-Open Elective Course, PW-Project Work, HSS-Humanity and Social Science, AEC- Ability Enhancement Course. Internship-To be carried out during the vacation/s of VI and VIIsemesters VIIIsemesters

Project(PRJ):Based on the ability/abilities of the student/sand recommendations of the mentor, assign discipline or multidisciplinary mini project can be assigned to individual students or to a group having more than four students.

Note: Project-8 Manufacturable and marketable project / Research project/Field Project.