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

III SEMESTER

				Teaching		Teach ours/v	_	Exa		Examir	xamination		
Sl. No.	Course Coue		Course Title	Department	Theory Lecture	Tutorial	Practic al/Dra	Duration in Hours	CIE Marks	SEE Marks	Total Marks	Credits	
					L	T	P						
1	BS	21MAT31	Engineering Mathematics-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	HCC	21KANKK310	Kannada Kali-III	Humanities	1			2	50	50	100	0.1	
10	HSS	21KANAK310			1			2	50	50	100	01	
11	AEC	21ACV311X	Ability Enhancement Course-III				2	3	50	50	100	01	
	Total					4	10	32	550	550	1100	21	

Note: BS-Basic Science- Programme Core Course, PW-Project Work, AEC- Ability Enhancement Course, HSS-HumanityandSocialScience, NCMC-NonCreditMandatoryCourse

21KANKK310KannadaKali-IIIisfornonKannada speaking, reading and writing studentsand21KANAK310AydaKategaluisforthestudentswhospeak, read and write Kannada.

Project(PRJ):Based on the ability/abilities of the student/and recommendations of the mentor, a single discipline or multi disciplinary mini project can be

Assigned to an individual students or to a group having not more than 4students.

	Ability Enhancement Course-3												
Course code under 21ACV311X				Course Title									
	21ACV3111				Microsoft Office								
	Coursesprescribedtolateral entryDiplomaholdersadmittedtoIIIsemesterofEngineeringprograms												
12 NCMC 21MATDIP31 AdditionalMathematics—I Mathematics 3 1 - 3 00 100 100 00										00			

- 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.

Course sprescribed to lateral

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 awardofdegree.

AICTE Activity Points to be earned by students admitted to B.Tech. programme (For more details refer to Chapter 6,AICTE Activity Point Programme, Model Internship Guidelines):

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

Incasestudentsfailtoearntheprescribedactivitypoints, Eighthsemester Grade Cardshall beissued only after earning the required activity points. Studentshall bead mitted 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

					Teaching Hours/week				Examination				
Sl. No.		CourseCode	CourseTitle	Teaching Department	Theory Lecture	Tutorial	Practic	Duration inHours	CIEMarks	SEEMarks	Total Marks	Credits	
1	BS	21MAT41	Engineering Mathematics-IV	Mathematics	3		1	3	50	50	100	03	
2	PCC	21CV42	Structural Analysis-I		3	1		3	50	50	100	04	
3	PCC	21CV43	Hydraulics and Hydraulic Machines		2	1		3	50	50	100	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 Aided Building 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	
		21KANKK410	KannadaKali-IV										
10	HSS	21 KANMD410	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-Basic Science, PCC- Programme Core Course, PW-Project Work, AEC- Ability Enhancement Course, HSS-Humanity and Social Science, NCMC-Non Credit Mandatory Course

readand write Kannada.

²¹KANKK410KannadaKali-IV is for non Kannada speaking, reading and writing students and 21KANMD410 Mahadasohigalu is for the students who speak,

Project(PRJ):Basedontheability/abilitiesofthestudent/sandrecommenda	ationsofthementor	asingl	edisc	iplineo	multidi	sciplina	ryminini	oiectcan	be
assigned to anindividual students orto	· · · · · · · · · · · · · · · · · · ·	, .		1		o i p i i i u	,	Sjeetean	~ ~
Ability Enhance	cement Course-4								
Course code under 21AEC411X					rse Titl				
21ACV4111				Staad	l-Pro 2D)			
Coursesprescribedtolateral entryDiplomaholde	readmittedtoIIIse	mosto	rofF	nginga	ringnro	grame			
10 NCMC 21MATDIP41 AdditionalMathematics–II	Mathematics Mathematics	3	1	-	3	00	100	100	00
3) Non Credit Mandatory Courses (NCMC) Additional Mathematics		d for I	II and	IV sen	nesters r	espectiv			
entryDiploma holders admitted to III semester of B. Tech. programs	-					-	•		
theformalities of the course and appear for the university examination				_	_			_	
theminimum 50% of the prescribed CIE marks, he/she shall be deep									
therequirements during subsequ		_			a case,	tile state	ones na v	e to iuiii	
4) These courses shall not be mandatory for vertical progression, bu					datoryfo	r theaw	ardofdes	ree.	
<u> </u>	ribedtolateral				<i>J</i>			,	
entryB.Sc.degreeholdersadmittedto		gineer	ingpı	ogram	ıs				
Lateral entry students from B.Sc. stream, shall clear the non credit course	es Computer Aide	d Engi	neeri	ng Drav	wing, El	lements	of Civil	Engineer	ring
of First Year Engineering Programme. These Courses shall not be considered as the considered and the considered as the	edforverticalprogr	ession	,butco	ompleti	onofthe	coursess	hallbem	andatory	
forthe awa	ardofdegree.								
AICTE Activity Points to be earned by students admitted to B.Tech.	programme (Fo	r mor	e deta	ails ref	er to Cl	napter 6	,AICTE	C	
Activity Point Programme, Model	Internship Guide	elines)	:						
Over and above the academic grades, every regular student admitted to t	he 4 years Degree	progr	amme	e and ev	ery stud	dent ent	ering 4 y	ears Deg	gree
programme through lateral entry, shall earn 100 and 75 Activity poin	ts respectively for	the av	ward o	of degre	ee throu	gh AIC	ΓΕ Activ	ity Point	
Programme. Students transferred from other universities to fifth semester	are required to ear	n 50 a	ctivit	y points	s from tl	he year	of entry	to Sharnl	oasva
University. The Activity Points earned shall bere	eflected on thestud	lentsei	ghth	semeste	erGrade	card.			
The activities can be spread over the years, anytime during the semester w	veekends holidays,	, as per	the l	iking a	nd conv	enience	of the st	udent fro	mthe
year of entry to the programme. However, minimum hours require	ment should be fu	lfilled	. Acti	vity Po	ints(nor	credit)	have no	effect	
onSGPA/CGPA and shall not be of		-	_						
In case students fail to earn the prescribed activity points, Eighth semeste	er Grade Card shall	l be iss	sued o	only aft	er earni	ng the re	equired a	activity p	oints.

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 year2023-24)

Programme: B.Tech: CivilEngineering

V SEMESTER

	ığ ent		Teaching Hours/week			Examination						
Sl. No.		CourseCode	CourseTitle	Teaching Department	Theory Lecture	Tutorial	Practic → al/Dra	Duration in Hours	CIEMarks	SEEMarks	Total Marks	Credits
1	HSS	21CV51	Construction Management and 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 Modeling Lab				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
			11	05	10	30	500	500	1000	21		

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

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

	Professional Elective Course-I
Coursecodeunder21CV54X	Course Title
21CV541	Advanced Geotechnical Engineering
21CV542	Masonry structure
	Open Elective Course-I
Coursecodeunder21CV55X	Course Title
21CV551	Alternative Building Materials
21CV552	Repair & Rehabilitation of Structures
Abi	ility Enhancement Course-V
Coursecodeunder21ACV510X	CourseTitle
21ACV5101	Field training
AICTEActivityPoints:Incasestudents failtoearn thepre	escribedactivitypoints, Eighthsemester Grade Cardshall beissued only after earning the

AICTEActivityPoints:Incasestudents failtoearn theprescribedactivitypoints, Eighthsemester Grade Cardshall beissued 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 year2023-24)

Programme: B.Tech: Civil Engineering

VI SEMESTER

a.				g ut		Teachi urs/w	_		Examination			lits
Sl. No.		CourseCode	CourseTitle	Teaching Department	Theory Lecture	Tutorial	Practic al/Dra	Duration in Hours	CIEMarks	SEEMarks	Total Marks	Credits
					L	T	P					
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-ProfessionalElectiveCourse,OEC-OpenElectiveCourse,PW-ProjectWork,HSS-HumanityandSocialScience, AEC- Ability Enhancement Course. Internship-Tobecarried outduringthevacation/s ofVIand VIIsemesters orVIIandVIIIsemesters

Project(PRJ):Basedontheability/abilitiesofthestudent/sandrecommendationsofthementor,asingledisciplineor multi disciplinary mini projectcanbe Assigned to an individual students or to a group having notmore than 4 students.

Pro	ofessional Elective Course-II
Coursecodeunder21CV63X	Course Title
21CV631	Environmental Engineering
21CV632	Sustainability concepts in Engineering
Prof	essional Elective Course-III
Coursecodeunder 21CV64X	Course Title
21CV641	Highway Engineering
21CV642	Ground improvement techniques
Ope	en Elective Course-II
Course code under 21CV65X	Course Title
21CV651	Solid Waste Management
21CV652	Air pollution & control
Abi	lity Enhancement Course-VI
Coursecodeunder21ACV610X	Course Title
21ACV6101	Construction project management using primavera P-6
21ACV6102	Quantity Estimation
AICTEActivityPoints: In casestudentsfail to earnthe pr	escribedactivitypoints. EighthsemesterGradeCardshall beissued onlyafterearningthe

AICTEActivityPoints: In casestudentsfail to earnthe prescribedactivitypoints, EighthsemesterGradeCardshall beissued onlyafterearningthe requiredactivitypoints.Studentshall beadmitted forthe award ofthedegreeonlyafterthereleaseof theEighth semesterGradeCard.

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	Teachi	Ü		dits			
Sl. No.	CourseCode		Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total Marks	Credits
		T				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 Organisational Behaviour	Humanities	1			3	50	50	100	01
	Total						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 (S	Same 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
<u>, </u>	Open Elective Course-IV
Coursecodeunder21CV74X	Course Title
21CV751	Green Building
21CV752	Intelligent Transport system

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

				ng ent		Teachi urs/w	_		Examination			dits	
Sl. No.	CourseCode				Teaching Department	Theory Lecture	Tutorial	Practic al/Dra	ıtio Iou	\TEMarks	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.