## Scheme of Teaching and Examination 2017-2018

Choice Based Credit System (CBCS)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

### **B.E: CIVIL ENGINEERING**

### III SEMESTER

SI.			Teaching	Teaching	Hours /Week		Exami	nation		Credits
No.	I Allega Cada	e Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT31	Engineering Mathematics –III*	Maths	04		03	60	40	100	4
2	17CV32	Strength of Materials	Civil Engg.	04		03	60	40	100	4
3	17CV33	Fluid Mechanics	Civil Engg.	04		03	60	40	100	4
4	17CV34	Basic Surveying	Civil Engg.	04		03	60	40	100	4
5	17CV35	Engineering Geology	Civil Engg.	04		03	60	40	100	3
6	17CV36	Building Materials and Construction	Civil Engg.	03		03	60	40	100	4
7	17CVL37	Building Materials Testing Laboratory	Civil Engg.	01-Hour In 02-Hour Pr		03	60	. 40	100	2
8	17CVL38	Basic Surveying Practice	Civil Engg.	01-Hour In 02-Hour Pr		03	60	40	100	2
)   1	17KL/CPH39/49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	01		01	30	20	50	01
		TOTAL	1	Theory Practica	: 24hours al: 06 hours	25	510	340	850	28

<sup>1.</sup> Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

### 2. Audit Course:

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics - I, which is 03 contact hours per week.

1	1	17MATDIP31	Additional Mathematics –I	Maths	03	03	60	-	60	
- 1		1 TIME TO THE T						the second second second second second		and the second second second

(ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B.Sc candidates)

Dept. of Civil Engineering Alva's Institute of Engg. & Technology Mijar, Moodsidri - 574 225 4

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# Choice Based Credit System (CBCS)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS)

SCHEME OF TEACHING AND EXAMINATION 2017-2018

### **B.E: CIVIL ENGINEERING**

			Teaching	Teaching H	lours /Week		Exami	nation		Credits
SI. No.	Course Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17MAT41	Engineering Mathematics –IV*	Maths	04		03	60	40	100	4
2	17CV42	Analysis of Determinate Structures	Civil Engg.	04		03	60	40	100	3
3	17CV43	Applied Hydraulics	Civil Engg.	04		03	60	40	100	4
4	17CV44	Concrete Technology	Civil Engg.	04		03	60	40	100	4
		Basic Geotechnical Engineering	Civil Engg.	04		03	60	40	100	4
5	17CV45		Civil Engg.	03		03	60	40	100	4
6	17CV46	Advanced Surveying	Civil Engg.	01-Hour Inst	ruction	03	60	40	100	2
7	17CVL47	Fluid Mechanics Laboratory		02-Hour Pra	ctical					1 2
1			C' 11 F	T - 4			1	1 40	100	1 2

01-Hour Instruction

Theory: 24hours

Practical: 06 hours

02-Hour Practical

01

1. Kannada/Constitution of India, Professional Ethics and Human Rights: 50 % of the programs of the Institution have to teach Kannada/Constitution of India, Professional Ethics and Human Rights in cycle based concept during III and IV semesters.

**TOTAL** 

Civil Engg.

Humanities

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17CVL48

17KL/CPH39/49

(i) \*All lateral entry students (except B.Sc candidates) have to register for Additional Mathematics – II, which is 03 contact hours per week.

2. Audit Course:	except B.Sc candidates) have to register t	or Additional Matthe	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			60	
(i) *All lateral entry students (	CASOF -		03	03	60	- 00	
	Additional Mathematics -II	Maths	03				
17MATDIP41	Additional	The second secon	- 1:1-4		~ D/		

(ii) Language English (Audit Course) be compulsorily studied by all lateral entry students (except B.Sc candidates)

Alva's Institute of Engg. & Technology

**Engineering Geology Laboratory** 

Professional Ethics and Human Rights

Kannada/Constitution of India,

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### **B.E: CIVIL ENGINEERING**

V SI	MESTER		Teaching Department	Teaching	Hours /Week		Exami	nation		Credit
SI. No.	Course Code	Title	-	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17CV51	Design of RC Structural Elements	Civil Engg.	04		03	60	40	100	4
2	17CV52	Analysis of Indeterminate Structures	Civil Engg.	04		03	60	40	100	4
3	17CV53	Applied Geotechnical Engineering	Civil Engg.	04		03	60	40	100	4
4	17CV54	Computer Aided Building Planning and	Civil Engg.	04		03	60	40	100	4
_		Drawing	Civil Engg.	03		03	60	40	100	3
5	17CV55X	Professional Elective-1	Civil Engg.	03		03 .	60	40	100	3
6	17CV56X	Open Elective-1					- (0	40	100	2
7	17CVL57	Geotechnical Engineering Laboratory	Civil Engg.	01-Hour It 02-Hour P		03	60	40		
	17CVL58	Concrete and Highway Materials Laboratory	Civil Engg.	01-Hour II 02-Hour P		03	60	40	100	2
8	1/04136	0000000	TOTAL	Theory: Practical:	22hours	24	480	320	800	26

Open Electi	ive – 1*** (List offered by Civil Engg Board only)
	Traffic Engineering
	Sustainability Concepts in Engineering
	Remote Sensing and GIS
	Occupational Health and Safety
	NCC
	17CV561

\*\*\*Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives).

Selection of an open elective is not allowed, if:

The candidate has no pre - requisite knowledge.

· The candidate has studied similar content course during previous semesters.

The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s).

Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

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## Scheme of Teaching and Examination 2017-2018

**Choice Based Credit System (CBCS)** 

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

### **B.E: CIVIL ENGINEERING**

### VI SEMESTER

Sl.	Course	Title	Teaching Department		ng Hours Veek			Credits		
No.	Code	Title		Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17CV61	Construction Management and Entrepreneurship	Civil Engg.	04		03	60	40	100	4
2	17CV62	Design of Steel Structural Elements	Civil Engg.	04		03	60	40	100	4
3	17CV63	Highway Engineering	Civil Engg.	04		03	60	40	100	4
4	17CV64	Water Supply and Treatment Engineering	Civil Engg.	04		03	60	40	100	4
5	17CV65X	Professional Elective-2	Civil Engg.	03		03	60	40	100	3
6	17CV66X	Open Elective-2	Civil Engg.	03		03	60	40	100	3
7	17CVL67	Software Application Laboratory	Civil Engg.	01-Hour l	Instruction Practical	03	60	40	100	2
8	17CVL68	Extensive Survey Project /Camp	Civil Engg.	01-Hour 1 02-Hour	Instruction Practical	03	60	40	100	2
	<u> </u>		TOTAL	Theory:2	22hours 1: 06 hours	24	480	320	800	26

Dfeedens	l Elective-2	Open Elective	e – 2*** (List offered by Civil Engg Board only)
	Solid Waste Management	17CV661	Water Resource Management
17CV651	Matrix Method of Structural Analysis	17CV662	Environmental Protection and Management
17CV652	Alternative Building Materials	17CV663	Numerical Methods and Applications
		17CV664	Finite Element Analysis
17CV654	Ground Improvement Techniques	1.70,000	

<sup>\*\*\*</sup>Students can select any one of the open electives offered by any Department (Please refer to consolidated list of VTU for open electives). Selection of an open elective is not allowed, if:

· The candidate has no pre - requisite knowledge.

· The candidate has studied similar content course during previous semesters.

The syllabus content of the selected open elective is similar to that of Departmental core course(s) or to be studied Professional elective(s).

Registration to open electives shall be documented under the guidance of Programme Coordinator and Adviser.

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Scheme of Teaching and Examination 2017-2018

Choice Based Credit System (CBCS)

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2017-2018

# **B.E: CIVIL ENGINEERING**

### VII SEMESTER

SI			Teaching	Teaching	Hours /Week		Examin	ation		Credits
No		Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17CV71	Municipal and Industrial Waste Water Engineering	Civil Engg.	04		03	60	40	100	4
2	17CV72	Design of RCC and Steel Structures	Civil Engg.	04		03	60	40	100	4
3	17CV73	Hydrology and Irrigation Engineering	Civil Engg.	04		03	60	40	100	4
4	17CV74X	Professional Elective-3	Civil Engg.	03		03	60	40	100	3
5	17CV75X	Professional Elective-4	Civil Engg.	03		03	60	40	100	3
6	17CVL76	Environmental Engineering Laboratory	Civil Engg.	01-Hour II 02-Hour P		03	60	40	100	.2
7	17CVL77	Computer Aided Detailing of Structures	Civil Engg.	01-Hour II 02-Hour P		03	60	40	100	2
8	17CVP78	Project Work Phase-I + Project work Seminar	Civil Engg.		03	-	-	100	100	2
		TOTAL		Theory:18 Practical: 09 hours	3 hours and Project:	21	420	380	800	24

Professional	Flective-3	Professiona	l Elective-4
17CV741	Design of Bridges	17CV751	Urban Transportation and Planning
17CV741	Ground Water & Hydraulics	17CV752	Prefabricated Structures
	Design Concept of Building Services	17CV753	Rehabilitation and Retrofitting of Structures
17CV743		17CV754	Reinforced Earth Structures
17CV744	Structural Dynamics		

1. Project Phase - I and Project Seminar: Comprises of Literature Survey, Problem identification, Objectives and Methodology. CIE marks shall be based on the report covering Literature Survey, Problem identification, Objectives and Methodology and Seminar presentation skills

8

Dept. of Civil Engineering Institute of Engg. & Technology

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Scheme of Teaching and Examination 2017-2018

Choice Based Credit System (CBCS)

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SCHEME OF TEACHING AND EXAMINATION 2017-2018

## **B.E: CIVIL ENGINEERING**

### VIII SEMESTER

SI.	Course		Teaching	Teaching	Hours /Week		Examina	tion		Credits
No.	Code	Title	Department	Theory	Practical/ Drawing	Duration in hours	SEE Marks	CIE Marks	Total Marks	
1	17CV81	Quantity Surveying and Contracts Management	Civil Engg.	4	-	3	60	40	100	4
2	17CV82	Design of Pre Stressed Concrete Elements	Civil Engg.	4	-	3	60	40	100	4
3	17CV83X	Professional Elective-5	Civil Engg.	3	-	3	60	40	100	3
4	17CV84	Internship/ Professional Practice	Civil Engg.	Indus	stry Oriented	3	50	50	100	2
5	17CVP85	Project Work-II	Civil Engg.		6	3	100	100	200	6
6	17CVS86	Seminar on current trends in Engineering and Technology	Civil Engg.	-	4	-	-	100	100	1
		TOTAL			: 11 hours and Seminar: rs	15	330	370	700	2

Profession	al Elective -5	
17CV831	Earthquake Engineering	
17CV832	Hydraulic Structures	
17CV833	Pavement Design	
17CV834	Advanced Foundation Design	

1. Internship/ Professional Practice: 4 Weeks internship to be completed between the (VI and VII semester vacation) and/or (VII and VIII semester vacation) period

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