

Lesson Plan–15CE101–BASIC CIVIL ENGINEERING

Academic year 2016-17 (Semester commencing in February 2016)

Instructional objectives number	Instructional objectives (IO)
1	To know about different materials and their properties
2	To know about engineering aspects related to buildings
3	To know about importance of surveying and the transportation systems
4	To get exposed to the rudiments of engineering related to dams, water supply, and sewage disposal

Student Outcome

Student outcome number	Student outcome (SO)
a	an ability to apply knowledge of mathematics, science, and engineering
e	an ability to identify, formulate, and solve engineering problems
k	an ability to use the techniques, skill, and modern engineering tools necessary for engineering practice.

Mapping of Instructional Objectives (IOs) with Student Outcomes (SOs) 15CE101

Instructional objectives		Student Outcomes		
		a	e	k
1	To know about different materials and their properties	X	x	
2	To know about engineering aspects related to buildings	X	X	X
3	To know about importance of surveying and the transportation systems	X	X	X
4	To get exposed to the rudiments of engineering related to dams, water supply, and sewage disposal	X	X	X

15CE101	BASIC CIVIL ENGINEERING	Lecture Hours (L)	Tutorial Hours (T)	Practical Hours (P)	Credits (C)
		2	0	0	2
Prerequisites Nil					

Lesson Plan – 2015-16

Revision: 0 dated 23/02/2015

Lecture No.	Topic	No. of hours	IOs	SO	Reference
1.2	Introduction – Civil Engineering – Materials: Bricks –composition-classification-properties-uses-stones-classification-quarrying-dressing-properties-uses	2	1	a, e	1.2,3,4,5
3.4	Timber - properties –uses –ply wood. Cement – grades-types-properties-uses	2	1	a, e	1.2,3,4,5
5.6	Steel – types – mild steel – medium steel – hard steel-properties-uses-market form-concrete-grade-properties-uses	2	1	a, e	1.2,3,4,5
7.8	Stress – strain – types – Hook’s law – three moduli of elasticity-poisson’s ratio-relationship-factor of safety	2	1	a, e	1.2,3,4,5
	CYCLE TEST-1				
9.10	centroid-centre of gravity-problems in symmetrical section(L.T & CHANNEL SECTIONS)	2	1,2	a,e,k	1,3
11.12	Moment of inertia, parallel, perpendicular axis theorems and radius of gyration(definitions only)	2	1,2	a,e,k	1,3

13.14	Building – selection of site – classification – components-foundations-functions-classification-bearing capacity	2	2	a.e.k	1.3
15.16	Flooring – requirements – selection – types – cement concrete marble-terrazo floorings	2	2	a.e.k	1.3
17.18	Roof – types and requirements.	2	2	a.e.k	1.3
19.20	Surveying – objectives – classification – principles of survey	2	3	a.e.k	1.3
	CYCLE TEST-2				
21.22	Transportation – classification – cross section and components of road-classification of roads-	2	3	a.e.k	1.3
23.24	Water way – docks and harbor – classifications – components -bridges-components of bridges	2	4	a.e.k	1.3
25.26	Dams – purpose – selection of site – types – gravity dam(cross section only)	2	4	a.e.k	1.3
27.28	Water supply – objective – quantity of water – sources-standards of drinking water-distribution	2	4	a.e.k	1.3
29.30	Sewage – classification – technical terms – septictank-components-functions	2	4	a.e.k	1.3
	MODEL EXAMINATION				
	Total hours	30			

The faculty members handling the course may conduct surprise test according to their convenience. However a question paper in hard copy as well as key shall be made available for the surprise test. The process shall be same as that of cycle tests.

TEXT BOOKS

1. Raju K.V.B., Ravichandran P.T., “Basics of Civil Engineering”, Ayyappa Publications, Chennai, 2012
2. Rangwala,S.C.,” Engineering Material”s, Charotar Publishing House, Anand, 2012

REFERENCE BOOKS


1. Ramesh Babu, “Civil Engineering” , VRB Publishers, Chennai, 2000
2. National Building Code of India, Part V, “Building Material”s, 2005
3. Surendra Singh, “Building Material”s, Vikas Publishing Company, New Delhi, 1996

Course Coordinators

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Faculty members handling the course

Mr.Arunkumar	Ms.Indhu	Mr.Sabarigirivasan	Mr.Sivaprakash
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Mr.Ganapathy Ramasamy	Mr.Lokeshwaran	Mr.Nanthakumar	Mr.Syed Abdul Rahman
Ms.Ganga	Mr.Manigandan	Ms.Nagavinothini	Mr.Arulprakash
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