

Reg.No. \_\_\_\_\_



# Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)  
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

## End Semester Examination – Nov/Dec – 2016

Code : **13CE101**  
Sub. Name : **Basic Civil Engineering**

Semester : **VII**  
Duration : **3hrs**  
Max. marks : **100**

### ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	A series of offsets were taken from a chain line to a curved boundary line at a regular interval of 10 metres. The length of the offsets are 2.6 , 3.7 m, 4.8 m, 3.1 m, 1.6 m, 7.85 m, 3.9 m, 4.5 m, and 5.8 m. Find the area of strip between chain line and boundary line by Trapezoidal Rule and Simpson's Rule.	CO1	10
	b.	Explain the scope & Function of Civil engineers in detail.	CO1	10
<b>(OR)</b>				
2.	a.	A series of offsets were taken from a chain line to a curved boundary line at regular interval of 10m. The length of the offsets are 2.2m, 1.4m, 2.8m, 2.2m, 2.6m, 4m, 3.2m, 3.4m and 3.8m. Find the area of the strip between chain line and boundary line by all the available methods.	CO1	10
	b.	List out the characteristics of the following building materials a) Bricks b) Timber	CO1	10
3.	a.	Explain with neat diagram about Mat foundation , Pile foundation and spread footing.	CO1	10
	b.	Explain different bonds in brick masonry with sketch	CO1	10
<b>(OR)</b>				
4.	a.	Explain the classification of beams and columns with neat sketch	CO1	10
	b.	A building with plinth area of 100 m <sup>2</sup> was constructed over a plot area of 200 m <sup>2</sup> , about 10 years ago. Plinth area rate at the time of construction was Rs 900 per m <sup>2</sup> . Find the value of the building taking the life of the building as 50 years. Cost of the land is Rs 300 per m <sup>2</sup> . Also find the value of the total property if the cost of the land is Rs 300 per m <sup>2</sup> .	CO1	10
5.	a.	Illustrate the oxidation pond and write a neat diagram	CO1	10
	b.	Briefly explain with sketch about "the rain water harvesting" ?	CO1	10
<b>(OR)</b>				
6.	a.	Summarize the process involved in purification of water	CO1	10
	b.	Explain the process involved in collection and disposal of solid wastes	CO1	10
7.	a.	Formulate the general layout of harbour and its classification.	CO1	10
	b.	Draw the cross section of WBM roads and explain its components.	CO1	10
<b>(OR)</b>				
8.	a.	Sketch the various components of permanent way and explain it.	CO1	10
	b.	Enumerate the classification of Highway	CO1	10
<b><u>Compulsory:</u></b>				
9.	a.	Briefly describe the points to be considered in the selection of a site for a dam and Write notes on Arch dam	CO1	10
	b.	Define irrigation and its benefits.	CO1	10

**Course Outcome:**

Students at the end of the course will be able to:

**C.O.1:** To gain knowledge on the basic principles in the various fields of Civil Engineering