

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 : **16CE2001**
Sub. Name : **INTELLIGENT BUILDINGS**

Semester : **2016-17 ODD**
Duration : **3hrs**
Max. marks : **100**

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Explain the evolution of intelligent buildings?	CO3	10
	b.	Give an account of major aspects of intelligent buildings?	CO3	10
(OR)				
2.	a.	Explain the LEED rating system used in Green buildings?	CO3	10
	b.	Give an account of intelligent building based on performance, services and system?	CO3	10
3.	a.	Explain energy efficiency in HVAC systems?	CO2	5
	b.	Explain the different classifications of air-conditioners?	CO2	5
	c.	With the block diagram explain the power transmission system?	CO3	10
(OR)				
4.	a.	What is earthing and explain different types of earthing with neat sketches?	CO3	10
	b.	Explain the different types of protective device used for electrical installations?	CO3	10
5.	a.	Name the four stages of development of fire?	CO1	5
	b.	Explain the different steps adopted in fire management in buildings to protect the life safety and property of buildings?	CO3	10
	c.	Explain different types of fire?	CO1	5
(OR)				
6.	a.	Write notes on: i) Sprinkler heads ii) Microprocessor based fire alarm systems	CO2	10
	b.	Write notes on the different fire escape elements in buildings?	CO3	10
7.	a.	Give the need for using security systems in different countries?	CO2	5
	b.	Explain the intelligent and non intelligent readers?	CO1	5
	c.	With the help of neat sketch explain access control system?	CO3	10
(OR)				
8.	a.	Give an account on video surveillance using closed circuit television system?	CO3	10
	b.	Give an account of interior and exterior intrusion sensors?	CO3	10
<u>Compulsory:</u>				
9.	a.	Write the uses of structural health monitoring systems?	CO3	5
	b.	Explain the microprocessor system hardware with the diagram?	CO3	5
	c.	Explain the architecture of satellite communication?	CO3	10

ALL THE BEST

- CO1 - The students will be able to understand the concept of intelligent building
- CO2 - Analyze the different HVAC and security systems
- CO3 - Evaluate systems to automate buildings