

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 : 14EC2016
Sub. Name : CAD for Electronics Engineers

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.	What is modular programming?	CO2	(1)
	b.	Define Sub –VI in LabVIEW.	CO2	(1)
	c.	Explain the need of icon and connector pane.	CO2	(2)
	d.	What is default icon and custom icon?	CO2	(2)
	e.	Create a VI to find the average of two numbers and convert a section of VI in to a sub V. List down the steps followed in front panel and block diagram	CO2	(14)
(OR)				
2.	a.	_____ is the key used to	CO2	(1)
	b.	Difference between waveform chart and waveform graph?	CO2	(1)
	c.	List the steps to create an 2D array	CO2	(2)
	d.	Differentiate array and matrix.	CO2	(2)
	e.	Create a sub VI that takes a number representing Celsius and convert in to number representing Fahrenheit. Build a sub-VI for conversion of Celsius to Fahrenheit. List down the steps to be followed in making front panel and block diagram	CO2	(14)
3.	a.	Function can call _____ but cannot call _____	CO3	(1)
	b.	How to introduce propagation delay for the gates with syntax?	CO3	(1)
	c.	State the objectives of Global Routing.	CO3	(2)
	d.	With suitable example, explain Task and Functions.	CO3	(6)
	e.	Explain the Logic synthesis design flow with neat diagram	CO3	(10)
(OR)				
4.	a.	_____ can be used for modelling both combinational and sequential.	CO3	(1)
	b.	What is the difference between wire and reg?	CO3	(1)
	c.	List all the net types and register types in Verilog.	CO3	(2)
	d.	Explain with suitable examples on data types and data operators in Verilog	CO3	(8)
	e.	Explain Routing and their techniques in detail	CO3	(10)
5.	a.	Explain about the features of Object Oriented Programming.	CO1	(10)
	b.	Explain Merge Sort with an example in MATLAB class.	CO1	(10)
(OR)				
6.	a.	Explain about the concept of inheritance. Write a MATLAB class program with one superclass and two subclasses, considering the superclass as 'Shape' having a center position and color. Take the sub classes as circle and rectangle which should inherits the superclass functions and also calculates the area of its own shape. Also give the steps to find its output in command window.	CO1	(20)
7.	a.	Portray the simulink model for sampling theorem and give a procedural description of the same.	CO1	(10)

	b.	Using the concept of functions, write matlab code for solving, $Y = 8x^5 + 6x^3 + 5x^2 + 2x + 7$.	CO1	(10)
(OR)				
8.	a.	Write the MATLAB script for Plotting two curves on the same graph: $F = 1/(1+x^2)$ and $G = x^3$ Plot the points at 33 points equally spaced between 0 and 1, Use green *'s for F and blue +'s for G, Label the horizontal and vertical axes, Create a title (including your name) and a legend	CO1	(20)
		<u>Compulsory:</u>		
9.	a.	For the differential equation $\ddot{x} = 8\sin(3t)$, Build a Simulink model to find the response of the system.	CO1	(10)
	b.	Explain the concept of multiple input and multiple output functions with an example program	CO1	(10)

ALL THE BEST