

Digital System Design Assignment-1

Last Date of Submission: April 04, 2016

Question 1.

- a) What is an entity declaration? Write down entity for 2*4 decoder circuit?
- b) Explain the concept of Identifiers & Object declaration in VHDL with example?
- c) What is VHDL? What are its specific capabilities?
- d) Explain the various design units in VHDL with example.

Question 2.

- a) Illustrate various classes of objects in VHDL with the help of examples.
- b) Design & Write VHDL code for full adder using structural style modeling?
- c) Write a short note on computer aided design tools for digital system?

Question 3.

- a) Differentiate between Behavioral, Dataflow & Structural modeling in VHDL with example.
- b) Design & Write VHDL behavioral model for 4:1 multiplexer using if statement.

Question 4.

- a) What are data types? Explain scalar data types used in VHDL briefly?
- b) Design & Write a VHDL code for 4-bit grey to binary code converter