

# Question Paper



## MANIPAL UNIVERSITY

SCHOOL OF INFORMATION SCIENCES (SOIS)  
SECOND SEMESTER MASTER OF ENGINEERING - ME (VLSI DESIGN)  
DEGREE EXAMINATION - APRIL 2017

Friday, 21, 2017

Time : 10:00 AM - 1:00 PM

### Universal Verification Methodology [EDA 610]

Marks: 100

Duration: 180 mins.

#### Answer all the questions.

- 1) Explain the functionality of following components with example. (5 + 5 = 10 marks) (10)
  - a. Monitor
  - b. Scenario Generator
- 2) Explain Arrays in SystemVerilog. (10)
- 3) Explain the functionality of following with example (5 + 5 = 10 marks) (10)
  - a. Encapsulation
  - b. Polymorphism
- 4) Explain the functionality of following with example (5 + 5 = 10 marks) (10)
  - a. uvm\_object class
  - b. uvm\_component class
- 5) Explain the functionality of following (5 + 5 = 10 marks) (10)
  - a. Block level environment
  - b. Integration level environment
- 6) Explain different components in UVM Testbench. (10)
- 7) Illustrate UVM Factory coding convention 2 and convention 3 with example. (10)
- 8) Explain about UVM factory overrides. (10)
- 9) Write a note on creation of transaction using uvm\_sequence with an example. (10)

10)

Explain the functionality of uvm\_driver with example.

(10)