

## **Part A**

- 1.a.** With neat diagram explain basic functional units of computer. (*5 marks*)
- 1.b.** With neat diagram compare the lifecycle of workflow and life cycle of computer program. (*6 marks*)
- 1.c.** Discuss the services offered by Amazon web service access from AWS management console. (*6 marks*)

## **Part B**

- 2.a.** Discuss the classification of workflow patterns. (*5 marks*)
- 2.b.** Write the VHDL program for Full Subtractor. (*5 marks*)
- 2.c.** Compare the services provided by Google and windows. (*5 marks*)

## **Part C**

- 3.a.** Implement the Boolean function with OR and INVERTER gates only  $F = xz + x'z' + x'y$  (*4 marks*)
- 3.b.** With neat diagram explain NIST reference model. (*5 marks*)
- 3.c.** Explain in brief VMM Virtualizes the CPU and Memory. (*6 marks*)

## **Part D**

- 4.a.** This is Testing, Question? (*5 marks*)
- 4.b.** Define cloud computing. List 5 characteristics cloud computing. (*5 marks*)
- 4.c.** Basic Performance Equation (*3 marks*)