Electronics Engineering Department

Subject: EL43: Computer Organization and Architecture

Class: S.E ETRX   Sem IV
Staff Name: Manish M. Parmar   ESE Reexam
January 2020
Marks: - 100

Q.1 (a)

Answer:- (1) Minimum five points of difference..........................[10 marks]

Q.1 (b)

   Answer:- (1) Diagram of ARM core.....................[4 marks]

              (2) Features and block justification.........[6 marks]

Q.2 (a)

Answer:- (1) Draw the flow chart.......................[2 marks]
            (2)... Example....................................[8 marks]

OR

Answer:- (1) Draw the flow chart.......................[2 marks]
            (2)... Example....................................[8 marks]

Q.2 (b)

Answer:- (1) Instruction interpretation.............................[5 marks]
            (2) Instruction sequencing.................................[5marks]

Q.3 (a)

Answer:- (1) Define and give the concept of control unit functions
            (2) State two techniques of design of the control unit.
            (3) State various techniques of Microprogrammed control unit design......[3 marks]
            (4) Design one of the technique with diagram.........................[7 marks]

OR

Answer:- (1) Define and give the concept of control unit functions
            (2) State two techniques of design of the control unit.
            (3) State various techniques of Hardwired control unit design......[3 marks]
            (4) Design one of the technique with diagram.........................[7 marks]

Q.3 (b)

Answer:- (1) Von Neumann and Harwards definition...[2 marks]
         (2) Give 6 to 8 points of difference with examples........[8 marks]

Q.4 (a)

Answer:- (1) LRU replacement policy...............................[5 marks]
         (2) FIFO replacement policy..............................[5 marks]

OR

Answer:- (1) Segmentation concept................................[5 marks]
         (2) Paging concept...[5 marks]

Q.4 (b)

Answer:- (1) Necessity of cache memory.......................[3 marks]
         (2) Definition of various terms......................[3 marks]
         (3) Factors affecting Hit rate..[4 marks]

Q.5 (a)

Answer:- (1) Define Hazard.....Instruction Hazard............................   [4 marks]
         (2) Data Hazard..[3 marks]
         (3) Structural Hazard...................................... [3 marks]

Q.5 (b)

Answer:- (1) Interrupt driven I/O........................[5 marks]
         (2) DMA I/O................................. ..[5 marks]