

Computer System Architecture

18UIT102

K LEVEL QUESTIONS

K1 LEVEL QUESTIONS

UNIT I

1. Which among the following is a set of instructions that specify the operation?

- a) Register **b) program** c) operation d) operator

2. Which is the address of the operand in a computation type instruction?

- a) **Effective address** b) program address c) operation address d) operator address

3. Recall BUN

- a) Branch unconditionally** b) Branch conditionally c) Bring unconditionally d) Bring conditionally

4. How many bit characters will input register received from input device?

- a) 5 b) 6 c) 7 **d) 8**

5. What the instruction code consist of ?

- a) Group of bits** b) Group of digits c) Group of number d) Group of code

6. PC holds address of which instruction?

- a) Next** b) previous c) first d) Last

7. Which is the first phase of an instruction cycle?

- a) Decode **b) fetch** c) execute d) Read

8. Recall LDA

- a) Load to Address b) Load to Accumulator c) Low to Accumulator
d) Low to Address

9. Which unit receives the instruction from memory?

a) **Control** b) memory c) operation d) none of these

10. How many bits are there in FGI?

a) Three b) two c) **one** d) four

UNIT II

1. Which is the part of the computer that performs bulk of data processing?

a) **CPU** b) ALU c) Register d) Memory

2. Which among the following communicates with each other and also perform various micro operations?

a) Memory b) **Register** c) CPU d) control unit

3. Which performs the required micro operations for executing the instructions?

a) Control unit b) **ALU** c) SPC d) Memory

4. List the number of main parts of CPU

b) a) 2 b) 4 c) **3** d) 5

5. Choose the expansion of LIFO

a) **Last In First Out** b) Least In First Out c) Last in first off d) Last In First Order

6. Recall another name for AND instruction

a) **Mask** b) clear c) complement d) bit

7. Identify that which one is data manipulation instructions

a) **Shift instructions** b) or instruction c) program control d) logical instruction

8. Which is another name for deletion operation?

a) sink b) push c) register d) **Pop**

9. Which register holds address of the stack?

a) **Stack pointer** b) stack c) memory d) register

10. Which is another name for insertion operation in stack?

a) Pop b) **push** c) register d) sink

UNIT III

1. Input or output devices attached to the computer are called as-----

- a. keyboard
- b. monitor
- c. peripheral**
- d. printers

2. Recall CRT

- a. Campus Ray Tube
- b. Cathode Ray Tube**
- c. Character Rays Tube
- d. Compass Ray Tube

3. The permanent record of computer output data on paper is given by

- a. printers**
- b. monitor
- c. scanner
- d. magnetic disk

4. Magnetic disk is coated with which material?

- a. charcoal
- b. granite
- c. gold
- d. magnetic material**

5. The standard binary code for alphanumeric characters is

- a. ASCII**
- b. SBC
- c. ASCCI
- d. ASSII

6. ASCII is a

- a. 5 bit code
- b. 7 bit code**
- c. 6 bit code
- d. 8 bit code

7. The I/O bus to all peripheral interfaces is attached through the

- a. printer
- b. CPU
- c. processor**
- d. desktop

8. To test various status conditions in the interface we use

- a. control command
- b. output data
- c. input data
- d. status command**

9. The memory read and write control lines are enabled during

- a. data transfer
- b. memory transfer**

c. control transfer

d. I/O transfer

10. The timing relationship existing between the control signal and the data in the buses is shown by

a. timing diagram

b. lining diagram

c. status bar

d. sequential diagram

UNIT IV

1. Which of the following refers to speed up the computer processing?

a) Computation

b) pipelining

c) throughput

d) vectors

2. Which organisation refers to a computer system capable of processing several programs at same time?

a) SIMD

b) SISD

c) MIMD

d) parallel

3. Who introduced the classification of computers?

a) M.J.flynn

b) S. A. Ward

c) B. Zoe

d) stallings

4. The sequence of instruction read from memory is

a) Instruction stream

b) vector stream

c) parallel throughout d) computation

5. According to Flynn's classification, computers are divided into how many types?

a) 4

b) 5

c) 3

b) 6

6. Vector processing deals with computation involving which of the following?

a) Delay and loop

b) large vectors and matrices

c) loop buffer and branching

7. Name the technique of decomposing a sequential process into sub operations.

a) Computation

b) background

c) looping

d) pipelineing

8. The behavior of a pipeline can be illustrated with which of the following?

a) Single cycle

b) space time diagram

c) ALU operations

d) instruction

fetch

9. Which procedure is employed in most RISC processor?

a) Target buffer

b) loop buffer

c) delayed branch

d) delayed load

10. Which processor is used in medical diagnosis?

a) Array process

b) branch process

c) vector Process

d) pipeline process

UNIT V

1. Which memory unit will communicate directly with the computer?

A) Auxiliary memory **B) main memory**

C) Secondary memory. D) Hard disk

2. Which is the Device that provides backup storage?

A) Auxiliary memory. B) main memory

C) Secondary memory. D) Hard disk

3. Where the programs currently needed by the processor resides?

A) Auxiliary memory **B) main memory**

C) Storage space. D) Virtual memory

4. Where the programs and data that are not currently used by the processor reside?

A) Main memory. B) Virtual memory

C) Auxiliary memory. D) Main memory

5. Which is the special very high speed memory?

A) Main memory. B) Auxiliary memory

C) Secondary memory. **D) Cache memory**

6. Which is the part of the computer system that supervises the flow of information between auxiliary memory and main memory?

A) Data management system. **B) Memory management system**

C) Data management. D) Memory management

7. Recall that RAM chips are available in _____ possible modes.

A) 2. B) 4

C) 5. D) 6

8. Which is easier to use and has shorter read and write cycles?

A) Binary RAM. B) Dynamic RAM

C) Binary ROM **D) static RAM**

9. Which offers reduced power consumption and larger storage capacity in a single memory chip?

A) Dynamic ROM.

B) Static ROM

C) Static RAM.

D) Dynamic RAM

10. Which ROM portion of a main memory is needed is needed storing an initial program?

A) Bootstrap loader.

B). Computer startup

Computer System Architecture

18UIT102

K2 LEVEL QUESTIONS

UNIT I

1. Compare direct address and indirect address
2. Define Effective address
3. Define accumulator
4. List out any four registers used in computers
5. Compare instruction code with operation code
6. Outline the need of PC
7. Contrast load and store
8. Demonstrate the instruction format
9. Interpret the instruction cycle
10. State the need of AR

UNIT II

1. Define CPU
2. List the major parts of CPU
3. Explain the operation of stack
4. List the types of stack
5. Define the stack pointer
6. Illustrate the stack
7. Label the types of CPU organisation
8. Describe data manipulation instructions
9. Define ALU

10. What is register?

UNIT III

1. Classify some of the peripheral devices.
2. Outline types of printers
3. Demonstrate about the three control characters?
4. Comment in short about control command.
5. Explain data input command.
6. Summarize the types of command received by an interface?
7. Define memory mapped I/O.
8. Illustrate the ways that buses used to communicate with memory and I/O.
9. Describe in short about synchronous.
10. Give a comment on handshaking?

UNIT IV

- 1) What is throughput?
- 2) What is mean by multiple functional units?
- 3) Write Flynn's classification for computer
- 4) Outline MIMD
- 5) Demonstrate pipelining
- 6) Define task.
- 7) Describe arithmetic pipeline
- 8) Illustrate sub operations
- 9) Interpret instruction cycle.
- 10) Infer delayed load.

UNIT V

1. What is mean by mapping?
2. What is cache memory?
3. Describe hit ratio.
4. What is mean by tag field?

5. Which condition is called page fault?
6. Demonstrate page replacement.
7. Define main memory.
8. Recall Virtual address.
9. Discuss about memory management system.
10. What is mean by Locality of reference?

Computer System Architecture

18UIT102

K 3 LEVEL QUESTIONS

UNIT I

1. Describe the instruction code with example
2. Explain in detail about instruction set completeness
3. Examine the stored program organisation
4. Categorize the types of computer registers
5. Classify the basic computer instruction format

UNIT II

1. Examine the general register organization?
2. Explain register stack
3. Illustrate different instruction formats
4. Classify the logical and bit manipulation instructions
5. Illustrate the program control

UNIT III

1. Analyze peripheral devices.
2. Examine the need of input output interface.
3. Explain briefly about the types of commands.
4. Conclude note on I/O command.
5. Illustrate in detail about strobe control.

UNIT IV

1. Describe about parallel processing
2. Explain about the pipelining with example.

3. Analyze arithmetic pipeline with suitable understanding.
4. Dissect the four segment instruction pipeline.
5. Classify RISC pipeline.

UNIT V

1. Compare main memory and cache memory.
2. List the features of main memory.
3. Explain RAM and ROM chips.
4. Illustrate multiprogramming.
5. Illustrate magnetic disk with example.

Computer System Architecture

18UIT102

K 4 AND K5 LEVEL QUESTIONS

UNIT I

1. Analyse about instruction cycle
2. Explain in detail about common bus system with a neat diagram
3. Examine memory-reference instruction
4. Inspect Input-output interrupt
5. Examine the working of PC register

UNIT II

1. Determine the data transfer instructions
2. Explain the types of addressing modes
3. Examine the stack organisation
4. Describe the data manipulation instructions
5. Evaluate three types of CPU organization

UNIT III

1. Analyze on different modes of transfer
2. Demonstrate in detail about Asynchronous Data Transfer with neat diagram.
3. Detect the working of Direct Memory Access controller
4. Give a brief conclusion about Input Output Processor.
5. Contrast I/O versus Memory bus and Isolated versus Memory-Mapped I/O.

UNIT IV

1. Illustrate the vector processing.
2. Evaluate the parallel processing with example.

3. Demonstrate the RISC pipeline with the various steps.
4. Describe instruction pipeline's various steps with example.
5. Explain array processing with SIMD explanation.

UNIT V

1. Inspect memory hierarchy.
2. Analyze Auxiliary memory working.
3. Examine match logic in associative memory.
4. Classify mapping types in cache memory.
5. Inspect virtual memory page replacement.