مدونة المناهج السعودية

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الموقع التعليمي لجميع المراحل الدراسية

في المملكة العربية السعودية

Ch1

1- --------- **is the systematic study of the structure and behavior of computational system**

a- **Computer science** b - **Computer scientists** c- **algorithm**

2- - ----------design and analyze algorithms to solve computationally intensive problems مسائل حسابيه كثيفه

a- **Computer science** b- **Computer scientists** c- **algorithm**

3- Computer scientists Use

1- mathematics 2- art 3- **algorithm**

4- a sequence of steps required to **implement** a solution using given resources.

1- Computer science 2- Computer scientists 3- algorithm

5- **The success depends on things**

1- **TheoryMathematics 2- Understanding the Tool 3- Mastering the implementation Techniques 4 all**

6- **Components of Computer Science is**

1- **Theory:& Tools& Techniques**

2- **2- Computer science**

7- ---------- computation, algorithms and data structures

1- Theory:& **Tools& Techniques**

8- ---------- Computer elements and architecture

2- Theory:& **Tools& Techniques**

9- ---------- Programming methodology and languages

1- Theory:& **Tools& Techniques**

10- • A computer is used **for mathematical computations and calculations**.

1- **Alu** ----2- RAm -------- 3-processor

11- The primary component responsible for these computations is called

1- Alu ----2- RAM -------- 3- processor

12- Its brain of computer

a- Alu ---- RAM-------- processor

13- A processor has two main functions

a- -Control unit b- Register File c - Instruction decoder:

d- Data Path- **Control unit**

14- Control unit Control unit has two type

a- Control Register - Instruction decoder b B- Register File-

Arithmetic and Logical Unit (ALU)

15- small memory component used to hold the data

A- temporarily for the ALU

B- **Register File**

C- - **Control Register**

16- Data Path

a-Control Register - Instruction decoder

b- Register File- Arithmetic and Logical Unit (ALU)

17- Ability to perform different mathematical operation

c- Alu b- Register File

18- part of very small memory component Which receives instructions AND keep track ins that need executed

a- Control Register-

b- **Instruction decoder**

19- determines what the instruction means. What needs to be done for the instruction to be executed.

a- Control Register-

B- Instruction decoder

20- Second most important function of processor to receive program ins one by one determines the ins mean and take appropriate action to execute the ins

a- Control Unit **b- data path**

21- A processor whose registers have a sizeof 32 bits is called a

a- **32-bit processor architecture**

B- 64-bit processor architecture

22- Some processors used for complex applications are still 8-bits or 16-bits.

a- True

c- false

23- • most high-performance processors used in scientific applications are 128-bit architectures.

a- True

b- false

24- its The bit size and it a processor determines the magnitude of integers that it can process

a- True

c- Flues

25- The complete list of instructions that a processor can understand and execute is called its

1- instruction set or instruction set architecture (ISA).

2- Arithmetic and Logical Unit

26- Types of Instructions classified into types

1- Arithmetic / Logic Instructions

2- Data Transfer Instructions

3- Branch & Jump Instructions.

4- All

27:- ADD, SUB, XOR. Its a

a- **Arithmetic / Logic Instructions**

b- **Data Transfer Instructions**

c- **Branch & Jump Instructions**

28- registers & vise versa.• E.g.: MOV, LOAD

a- Arithmetic / Logic Instructions

b- Data Transfer Instructions

d- Branch & Jump Instructions

29- instructions & jumping to instructions at various other locations•

a- . **Arithmetic / Logic Instructions**

c- Data Transfer Instructions

e- Branch & Jump Instructions

30- ISA that implements basic operations

1- is called a Reduced Instruction SetComputer (RISC).

2- ISA that implement complex operations is called a Complex Instruction Set Computer

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31- ISA that implement complex operations is called

a **Complex** **2- BASIC**

32- **Complex** Instruction Set Computer

1- CISC

3- (RISC).

32- only requires simple hardware,resulting in small-sized inexpensive

Processors Risc

33- results in higher performance but requires more expensive hardware

1- CISC

2- (RISC).

34- ---------- memory stores the data as long as power is available

1- Volatile Memory

3- Non-Volatile Memory

35- - keeps its data even when the power is turned off.

1- Volatile Memory

3- Non-Volatile Memory

36- new data can be stored on it flash memory and Cd card

1- **Volatile Memory**

2- **Non-Volatile Memory**

36- Main memory ex for

1- Ram 2- hard disk

37- It stores input data, intermediate results, programs, and other information Temporarily

1- Main memory

2- Rom

3- RAM

38- The processor gets all the instructions from it ----- and stores all its data in it.

1- Ram 2- Rom

39- There are some programs and instructions which the computer needs whenever it turns on.

1- **Basic Input Output System (BIOS)**

2- **RAM**

40- **Read-only Memory (ROM)** is **permanent** memory.non-volatile.permanent

1- RAM 2- BIOS

41- it booting up the system

2- RAM 2- BIOS

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42 - How much memory can be connected to a processor depends on the bit-size of the processor.it know address space

1- TRUE

2- FOLSE

42- most program tend to reuse data and ins they have used recently

1- Principle of locality

3- Main memory

43- There are two kind of locality in soft were

1- Temporal locality

2- Spatial locality

2- Principle of locality

4-4 :- pertain item that whose address are near one another and tend to be referenced closely together in time يتعلق بالعنصر الذى يكون عنوانه قريبا من الاخر و يميل ال الرجوع اليه معا فى وقت قريب محلى

1- Temporal locality

2- Spatial locality

3- Principle of locality

44- pertains to recently accessed item are likely to be accessed in the near future

احتمال ان يتم الوصول الى العنصر الذى تم لوصول اليه موخرا فى الوقت القريب

1- Temporal locality

2- Spatial locality

4- Principle of locality

44• Any hardware that is physically placed closer to the processor is faster.

1- T 2- F

•45- Which is not directly addressable by the processor but is accesse through an input/output device interface AND It refers to a kind of non-volatile long term memory.

1- RAM

2- STOGRE UNIT

3- MAIN MEMORY

46- is safe place for store thing it is first level of memory

1- Cach

2- cache hit

3- cache miss

47- Cach is type of memory it pace so close to processor

Processor finds request data item in cache it called

1- cache hit

2- cache miss

48- Processor don't found request or data call

1- cache miss

2- cache hit

49- example for storage unit

1- hard disk

2- Magnetic Tape

3- **Solid State Drive**

4- All

50- **Solid State Drive**

1- They provide high data rates, fast access, have no moving parts

2- thus, they provide longer life and higher reliability.

4- based on non-volatile flash memory, which stores data using transistors

5- ALL.

51- :- used to specify the address of device or memory location to communicate it

1- Address Bus

2- Data bus

6- Control bus

4- 52:- used to transfer data between the address specified by address bus and processor

1- Address Bus

2- Data bus

7- Control bus

Bus speed rate data can enter and leave processor (/)

53:- **used to control the timing , event and transaction such as read and write operation , enabling and disabling of component** 1- Address Bus

3- Data bus

8- Control bus

54:- is the speed at which the data is passed from one component to another in a computer system and Used when comparing two processor same architecture

1- **Clock speed** -:

4- Ins per secand

55- **number of ins aprocessor can process in one second it important when comparing two processors and consider better metric of performance**

1- Clock speed -:

2- Ins per second

56:- **Bench marks :- standardized stander method**

- **T**
- **F**

56- data bus called

1- Back side bus

2- Front side bus

3- Processor bus

4 All

57:- storage used

1- Optical

2- Flash

5- Magnetic

58- magnetic tapes are good media for

Backup and high velum data

a- True b- f

59-Average time necessary for correct sector adisk to arrive at read write head is

Rotational delay

t,f

60- Isa consist

1- Complex Instruction Set Computer

2- Reduced Instruction SetComputer (RISC)

4- All

61-- Complex Instruction Set Computer

1- RISC) 2- **cisc**

62 - Reduced Instruction SetComputer

RISC) 2- **cisc**

62- ----------keeps its data evenwhen the power is turned off untemporary

a- Volatile Memory

b- Non-VolatileMemory

c- • The processor gets all the instructions from RAM and stores all its data in it.

62- ----------can be read and written on, and is **usually volatile.** processor gets all the instructions from it and stores all its data in it.

متطايره هى و خلالها من الكتابه و القراءه يمكن

الاوامر كل فيها تخزن و منها المعلومات ياخد عادتا المعالج ,

63- a-RAM

B- ROM

63- ----------is the speed at which the data is passed from one component to another in a computer system.

هو سرعه عندما تعبر البيانات من مكون الى اخر داخل الحاسب

a- **Clock speed**

b- The bus speed

64- slower cock speed mean slower computer (/)

64- ---------- dictates the rate at which data can enter and leaves the processor chips

a- **Clock speed**

b- **The bus speed**

65- ----------the number of instructions a processor can process in one second

c- A- **Clock speed**

d- **The bus speed**

f- Instructions-per-speed

66- higher cock speed mean processor think faster (/)

67- ----------is a high-speed access area that can be a reserved section of

a- main memory

b- cache

68- **Stander method of measure processor performance is through standardized programs Diff processor are geared towords موجهه نحو diff kind of application**

a- clock speed **b- Benchmarks**

69- the best way for compare two processor different instruction

a- clock speed **b- Benchmarks** **C INS per secand**

70- Hard disk have two important parameter which determine access speed

a- **1-** Seek time 2- Rotational delay

b- **Ram** **2- rom**

71- time take to position the head on specific track

a- **1**- Seek time 2- Rotational delay

72- the time required to move a requested sector under the head

a- **1**- Seek time 2- Rotational delay

73- Core I7 runing at 3 GHZ faster then core I7 run at 2.8 GHZ (/)

74- The fastest Celeron chip clock speed 2.8 ghz (/)

75 - Larger cache means system can hold more data very close the processor which increase probability of cach hit (/)

76 Main memory has kind -1 RAM (/)

77 AVERAGE time necessary for correct sector of disk to arrive at read write head - call rotational delay (/)

78 Hard slower then RAM because RAM electronic element hard mechanic part (/)

79- data locality if data at particaler adress have been used recently data at near by address will be used soon (/)

80- hard disk same as ssd in teacincaly but diff operation and straction diff(/)

81-diff processor have diff set of instruction ex intel x 86 isa has very diff capability perform and set ins compared to arm (/)

82- acess time is sum of two delay (/)

83- most high performance computer are base on CISC ISA x 86 (/)

84- most embedded computer employed in simpler device suck h as tv microwaves use RISC ISA ARM(/)