

**ASSIGHMENT NO: 02**

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**DEPARTMENT: BS(CS)**

**SUBJECT: MICRO PROCESSOR & ASSEMBALY  
LANGUAGE**

**SEMESTER: 5<sup>th</sup>**

QNo 1:

The central processor unit (CPU) contain register and what other basic element?

Ans:

Ans. control unit  
Arithmetic logic unit and  
the clocks.

QNo 3:

Why does memory access take more machine cycle than register access?

Ans: Conventional memory is outside the CPU and it represent responds more slowly to access requests. Register are hard-wired inside the CPU.

QNo: 4 what are the three basic steps in the instruction execution cycle?

Ans:

Ans ~~Fetch~~, Fetch, decode, execute.

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Q No 2:

The central processors unit is connected to the rest of the computer system using what three buses?

Ans: Data, Address and control buses.

Q 5: which two additional steps are required in the instruction execution cycle when a memory operand is used?

Ans:

Ans: Fetch and store

Q No 10: Describe SRAM and its most common use?

Ans: Stand for Static random access memory is semiconductor memory that holds data in static form and static memory does not need to be refreshed periodically. faster than DRAM. require power to follow follow

(3)

Continuously in order to store bits of info. Also more expensive than DRAM. used mostly as cache memory in personal computers.

Q No 6:

What are the x86 processor three basic mode of operation?

Ans.

Some basic architectural features that the x86 processor include various mode of operation. These processors have three mode of operation that are primary primarily used: protected mode, real address mode as well as a system or system management mode. Addition to these three, there exists a sub-mode, virtual-8086, which is a variant of the protected mode.

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Q No 11

Describe VRAM.?

Ans: Special purpose memory which is used to images data for display of computer used by video adapters. simultaneously can be accessed by two device which are different from each other.

Buffer between video card and CPU to provide better graphics performance to computer display.

Q No 12

List at least two features found in the intel P905 Express chipset?

Ans.

High definition audio chip and adapted memory access.

Q No 13 NAME FOUR type of RAM maintained in the computer?

Ans: DRAM (Dynamic Read only memory)  
SRAM (Static Read only memory)

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VRAM (video Read only memory)  
and (MOS RAM read only memory)

Q No 14

What is the purpose of the 8259A PIC controller?

Ans: Provides 8 interrupt input of a time which are also known as interrupt request.

Q No 15

Of the four levels of input/output in a computer system which is the most universal and portable?

Ans: High level language function or application program such as C++ or Java are the most universal and portable.

Q No 16

What characteristics distinguish Bios level input/output?

Ans: non-persistent (powered on self test).

bootstrap, loader and system routine

(6)

2.

Q No: 17

Why are device drivers necessary given that the BIOS already that communicates with the computer hardware.

Small computer software that control a particular hardware device connected to a computer operating system. connection b/w operating system and hardware device communication without the device driver device such as printers, webcam, CD-ROM cannot perform their functions.

Q No: 18

In the example regarding displaying a string at chapters which levels exist between the operating system and the video card?

Ans: The BIOS level it convert characters or bytes the characters into some particular type of font provides display onto the screen of computer.

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Q No. 19

Is it likely that the BIOS for a computer running MS-Windows would be different from that used by a computer running Linux?

Ans:

No, they don't differ if you buy a computer running windows then you can install linux on it or run linux from a live CD/USB stick and it won't affect the BIOS at all. Similarly you can buy a computer sold running linux and then install windows on it.

Q No. 7

NAME all type eight 32 bit general purpose registers?

Ans: Intel assembly has 8 general purpose 32-bit registers `eax`, `ebx`, `ecx`, `edx`, `esi`, `edi`, `ebp`, `esp`. Although any data can be moved between any of these registers compilers commonly use the same the registers for the same uses.



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and some instruction (such as multiplication and division) can only use the register they are designed to use.

Q No: ~~10~~: 9

What special purpose does the EAX register serve?

Ans:

EAX is a 32-bit general purpose register with two common uses to store the return value of a function and as a special register for certain calculation.

It is technically a volatile register.

Since the value isn't preserved instead its value is set to the return value of a function before a function returns.

Q No: 08: Name all six segment registers?

Ans: CS (code segment), DS (data segment)

ES FS and GS (extra segment registers)

SS (Stack segment)