



CS501- Advance Computer Architecture
Solved MCQS
From Midterm Papers

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PSMD01

FINAL TERM EXAMINATION
Fall 2008
CS501- Advance Computer Architecture

Question No: 1 (Marks: 1) - Please choose one

Which one of the following is the memory organization of **SRC processor**?

- $2^8 * 8$ bits
- $2^{16} * 8$ bits
- **$2^{32} * 8$ bits (Page 46)**
- $2^{64} * 8$ bits

Question No: 2 (Marks: 1) - Please choose one

Type A format of SRC uses -----instructions

- **Two (Page 47)**
- three
- four
- five

Question No: 3 (Marks: 1) - Please choose one

The instruction -----will **load** the register R3 with the contents of the memory location M [PC+56]

- Add R3, 56
- lar R3, 56
- **ldr R3, 56 (Page 47)**
- str R3, 56

دنیا میں سب سے مشکل کام اپنی اصلاح اور سب سے آسان کام دوسروں پر نکتہ چینی کرنا ہے

Question No: 4 (Marks: 1) - Please choose one

Which format of the instruction is called the accumulator?

- 3-address instructions
- 3-address instructions
- 2-address instructions
- **1-address instructions** (Page 32)
- 0-address instructions

Question No: 5 (Marks: 1) - Please choose one

Which one of the following are the **code size** and the **Number of memory bytes** respectively for a 2-address instruction?

- 4 bytes, 7 bytes
- **7 bytes, 16 bytes** (Page 36)
- 10 bytes, 19 bytes
- 13 bytes, 22 bytes

Question No: 6 (Marks: 1) - Please choose one

Which operator is used to name registers, or part of registers, in the Register Transfer Language?

- **:=** (Page 66)
- &
- %
- ©

Question No: 7 (Marks: 1) - Please choose one

The transmission of data in which each character is self-contained units with its own start and stop bits is -----

- **Asynchronous** [Click here for detail](#)
- Synchronous
- Parallel
- All of the given options

Question No: 8 (Marks: 1) - Please choose one

Circuitry that is used to move data is called -----

- **Bus** [click here for detail](#)
- Port
- Disk
- Memory

خدا کے سوا کسی سے امید مت رکھو

Question No: 9 (Marks: 1) - Please choose one

Which one of the following is **NOT** a technique used when the CPU wants to exchange data with a peripheral device?

- Direct Memory Access (DMA).
- Interrupt driven I/O
- Programmed I/O
- **Virtual Memory (Page 268)**

Question No: 10 (Marks: 1) - Please choose one

Every time you press a key, an interrupt is generated. **This is an example of**

- **Hardware interrupt (Page 275)**
- Software interrupt
- Exception
- All of the given

Question No: 11 (Marks: 1) - Please choose one

The interrupts which are pre-programmed and the processor automatically finds the address of the ISR using interrupt vector table are

- Maskable
- Non-maskable
- Non-vectored
- **Vectored (Page 277)**

Question No: 12 (Marks: 1) - Please choose one

Which is the last instruction of the ISR that is to be executed when the ISR terminates?

- **IRET (Page 278)**
- IRQ
- INT
- NMI

Question No: 13 (Marks: 1) - Please choose one

If NMI and INTR both interrupts occur simultaneously, then which one has the precedence over the other

- **NMI (Page 279)**
- INTR
- IRET
- All of the given

بری صحبت سے تنہائی بہتر ہے اور تنہائی سے نیک صحبت بہتر ہے

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Question No: 14 (Marks: 1) - Please choose one

Identify the following type of serial communication error condition:

The prior character that was received was not still read by the CPU and is over written by a new received character.

- Framing error
- Parity error
- **Overflow error** (Page 240)
- Under-run error

Question No: 15 (Marks: 1) - Please choose one

-----the device usually means reading its status register every so often until the device's status changes to indicate that it has completed the request.

- Executing
- Interrupting
- Masking
- **Polling** [click here for detail](#)

Question No: 16 (Marks: 1) - Please choose one

Which I/O technique will be used by a sound card that may need to access data stored in the computer's RAM?

- Programmed I/O
- Interrupt driven I/O
- **Direct memory access(DMA)** [Click here for detail](#)
- Polling

Question No: 17 (Marks: 1) - Please choose one

For increased and better performance we use _____ which are usually made of glass.

- Coaxial Cables
- Twisted Pair Cables
- **Fiber Optic Cables** (Page 390)
- Shielded Twisted Pair Cables

Question No: 18 (Marks: 1) - Please choose one

In _____ if we find some call party busy we can have provision of call waiting.

- **Delay System** (Page 381)
- Loss System
- Single Server Model
- None of the given

اللہ کا خوف سب سے بڑی دانائی ہے

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Question No: 19 (Marks: 1) - Please choose one

In ____ technique memory is divided into segments of variable sizes depending upon the requirements.

- Paging
- **Segmentation** (Page 365)
- Fragmentation
- None of the given

Question No: 20 (Marks: 1) - Please choose one

For a request of data if the requested data is not present in the cache, it is called a ____

- **Cache Miss** (Page 358)
- Spatial Locality
- Temporal Locality
- Cache Hit

Question No: 21 (Marks: 1) - Please choose one

An entire ____ memory can be erased in one or a few seconds which is much faster than EPROM.

- PROM
- Cache
- EEPROM
- **Flash Memory** (Page 356)

Question No: 22 (Marks: 1) - Please choose one

____ chips have quartz windows and by applying ultraviolet light data can be erased from them.

- PROM
- Flash Memory
- **EPROM** (Page 356)
- EEPROM

Question No: 23 (Marks: 1) - Please choose one

The ____ signal coming from the CPU tells the memory that some interaction is required between the CPU and memory.

- **REQUEST** (Page 350)
- COMPLETE
- None of the given

دنیا کی سب سے بڑی فتح نفس پر قابو رکھنا ہے

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Question No: 24 (Marks: 1) - Please choose one

_____ is a combination of arithmetic, logic and shifter unit along with some multiplexers and control unit.

- Barrel Rotator
- Control Unit
- Flip Flop
- **ALU** (Page 347)

Question No: 25 (Marks: 1) - Please choose one

In Multiple Interrupt Line, a number of interrupt lines are provided between the _____ modules.

- **CPU and the I/O** (Page 283)
- CPU and Memory
- Memory and I/O
- None of the given

Question No: 26 (Marks: 1) - Please choose one

The data movement instructions _____ data within the machine and to or from input/output devices.

- Store
- Load
- Move
- **None of given** (Page 141)

Question No: 27 (Marks: 1) - Please choose one

CRC has ----- overhead as compared to Hamming code.

- Equal
- Greater
- **Lesser** (Page 329)
- None of the given

Question No: 28 (Marks: 1) - Please choose one

The _____ is w-bit wide and contains a data word, directly connected to the data bus which is b-bit wide memory address register (MAR) .

- Instruction Register(IR)
- memory address register (MAR)
- **memory Buffer Register(MBR)** (Page 350)
- Program counter (PC)

ایماندار کو غصہ دیر سے آتا ہے اور جلدی دور ہو جاتا ہے

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Question No: 29 (Marks: 1) - Please choose one

In _____ technique, a particular block of data from main memory can be placed in only one location into the cache memory .

- Set Associative Mapping
- **Direct Mapping** (Page 360)
- Associative Mapping
- Block Placement

Question No: 30 (Marks: 1) - Please choose one

_____ indicate the availability of page in main memory.

- Access Control Bits
- Used Bits
- **Presence Bits** [click here for detail](#)
- None of the given

**FINAL TERM EXAMINATION
FALL 2006
CS501 - ADVANCE COMPUTER ARCHITECTURE**

Question No: 1 (Marks: 1) - Please choose one

The _____ RTN describes the overall effect of instructions on the programmer visible registers.

- ▶ **Abstract** [click here for detail](#)
- ▶ Concrete
- ▶ Absolute
- ▶ Basic

Question No: 2 (Marks: 1) - Please choose one

The instruction set is of _____ importance in governing the structure and function of the pipeline.

- ▶ Least
- ▶ **Primary** [click here for detail](#)
- ▶ Secondary
- ▶ No

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Question No: 3 (Marks: 1) - Please choose one

_____ is the most general and least useful performance metrics for RISC machines.

- ▶ **MIPS** [click here for detail](#)
- ▶ Instruction Count
- ▶ Number of registers
- ▶ Clock Speed

Question No: 4 (Marks: 1) - Please choose one

A _____ provides four functions: Select, DataIn, DataOut and Read/Write.

- ▶ ALU
- ▶ Bus
- ▶ Register
- ▶ **Memory Cell** (Page 351)

Question No: 5 (Marks: 1) - Please choose one

We can classify or partition the SRC instructions by their overall _____ behavior.

- ▶ **Register transfer** [click here for detail](#)
- ▶ Memory transfer
- ▶ Execution
- ▶ Logical

Question No: 6 (Marks: 1) - Please choose one

The _____ RTN describes detailed register transfer steps in the data path that produce the overall effect.

- ▶ Abstract
- ▶ **Concrete** [click here for detail](#)
- ▶ Absolute
- ▶ Basic

Question No: 7 (Marks: 1) - Please choose one

All members of the MC68000 family are _____ processors.

- ▶ **32-bit** [click here for detail](#)
- ▶ 16-bit
- ▶ 64-bit
- ▶ 8-bit

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Question No: 8 (Marks: 1) - Please choose one

_____ Operations refers to a processor that can issue more than one instruction simultaneously.

- ▶ Macro
- ▶ Micro
- ▶ Scalar
- ▶ **Superscalar** [click here for detail](#)

Question No: 9 (Marks: 1) - Please choose one

Exceptions which are _____ occur in response to events that are paced by the internal processor clock.

- ▶ Asynchronous
- ▶ **Synchronous** [click here for detail](#)
- ▶ Internal
- ▶ External

Question No: 10 (Marks: 1) - Please choose one

In the hazard detection by hardware, resolved by pipeline stalls, if the instructions are in the adjoining stages, then the hazard must be detected in stage _____.

- ▶ 4
- ▶ 2
- ▶ **3** [click here for detail](#)
- ▶ 1

**FINAL TERM EXAMINATION
SPRING 2006
CS501 - ADVANCE COMPUTER ARCHITECTURE**

Question No: 1 (Marks: 3) - Please choose one

16k x4 static RAM Chip is arranged in the form of four _____ cells.

- ▶ 16x512
- ▶ 32x512
- ▶ 256x512
- ▶ **64x256** (Page 352)

عقل مند کہتا ہے میں کچھ نہیں جانتا جبکہ بے وقوف کہتا ہے کہ میں سب کچھ جانتا ہوں

Question No: 2 (Marks: 3) - Please choose one

In a DRAM cell, the storage capacitor will discharge in around _____

▶ **4 -15 ms** (Page 354)

▶ 2 - 10 ms

▶ 5-20 ms

▶ 10-25 ms

Question No: 3 (Marks: 3) - Please choose one

1-bit sign, 8-bit exponent, 23-bit fraction and a bias of 127 is used for _____ Binary Floating Point Representation

▶ Double precision

▶ **Single Precision** (Page 348)

▶ All of above

▶ Half Precision

Question No: 4 (Marks: 3) - Please choose one

The average rotational latency if the disk rotated at 20,000rpm is _____

▶ 0.5 ms

▶ 3.5 ms

▶ 2.5 ms

▶ **1.5 ms** (Page 324)

Question No: 5 (Marks: 3) - Please choose one

A hard disk with 5 platters has 1024 tracks per platter, 512 sectors per track and 512 bytes/sector. What is the total capacity of the disk?

▶ 1.5 GB

▶ **1 GB** (Page 324)

▶ 2 GB

▶ 3 GB

خود کو تمہیں سے بڑھ کر کوئی اچھا مشورہ نہیں دے سکتا

CS501 – Final Term Quizzes

Quiz No.3 (Fall 2012)

Question # 1 of 10 (Total Marks: 1) Select correct option:

Where does the processor store the address of the first instruction of the ISR?

Interrupt vector (Page 277)

- Interrupt request
- Interrupt handler
- All of the given options

Question # 2 of 10 (Total Marks: 1) Select correct option:

In _____, a separate address space of the CPU is reserved for I/O operations.

Isolated I/O (Page 236)

- Memory Mapped I/O
- All of above
- None of above

Question # 3 of 10 (Total Marks: 1) Select correct option:

----- is the time needed by the CPU to recognize (not service) an interrupt request.

Interrupt Latency (Page 279)

- Response Deadline
- Timer delay
- Throughput

Question # 4 of 10 (Total Marks: 1) Select correct option:

_____ is a technique in which some of the CPU's address lines forming an input to the address decoder are ignored.

- Microprogramming
- Instruction pre-fetching
- Pipelining

Partial decoding (Page 255)

جو شخص ناکامیوں سے ڈر کر بھاگتا ہے کامیابی اس سے ڈر کر بھاگتی ہے

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Question # 5 of 10 (Total Marks: 1) Select correct option:

How can you define an interrupt?

A process where an external device can speedup the working of the microprocessor

A process where memory can speed up programs execution speed

A process where an external device can get the attention of the microprocessor [click here for detail](#)

A process where input devices can takeover the working of the microprocessor

Question # 6 of 10 (Total Marks: 1) Select correct option:

An interface that can be used to connect the microcomputer bus to _____ is called an I/O Port.

Flip Flops

Memory

Peripheral devices (Page 234)

Multiplexers

Question # 7 of 10 (Total Marks: 1) Select correct option:

A software routine performed when an interrupt is received by the computer is called as -----

Interrupt

Interrupt handler [click here for detail](#)

Exception

Trap

Question # 8 of 10 (Total Marks: 1) Select correct option:

Which one of the following methods for resolving the priority makes use of individual bits of a priority encoder?

Daisy-Chaining Priority

Asynchronous Priority

Parallel Priority (Page 281)

Semi-synchronous Priority

جو لوگوں کے سامنے فخر کرتا ہے وہ لوگوں کی نظروں سے گر جاتا ہے

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Quiz No.3 (Fall 2012)

Question # 1 of 10 (Total Marks: 1) Select correct option:

In which one of the following methods for resolving the priority, the device with the highest priority is placed in the first position, followed by lower-priority devices up to the device with the lowest priority, which is placed last in the series?

Asynchronous

Daisy-Chaining Priority [Click here for detail](#)

Parallel

Semi-synchronous

Question # 2 of 10 (Total Marks: 1) Select correct option:

Identify the type of serial communication error condition in which A 0 is received instead of a stop bit (which is always a 1)?

Framing error (Page 240)

Parity error

Overrun error

Under-run error

Question # 3 of 10 (Total Marks: 1) Select correct option:

Identify the following type of serial communication error condition in which no character is available at the beginning of an interval.

Framing error

Parity error

Overrun error

Under-run error (Page 240)

Question # 4 of 10 (Total Marks: 1) Select correct option:

_____ is an electrical pathway through which the processor communicates with the internal and external devices attached to the computer.

Computer Bus [click here for detail](#)

Hazard

Memory

Disk

عقل مند اپنے عیب خود دیکھتا ہے اور بھو قوفوں کے عیب دنیا دیکھتی ہے

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Question # 5 of 10 (Total Marks: 1) Select correct option:

Connection to a CPU that provides a data path between the CPU and external devices, such as a keyboard, display, or reader is called-----

processer

program

Buses [click here for detail](#)

memory address

Question # 6 of 10 (Total Marks: 1) Select correct option:

VLIW stands for -----

Very Lengthy Interaction Word

Very Length Instruction Width

Very Long Instruction Word (Page 219)

none of given options

Question # 7 of 10 (Total Marks: 1) Select correct option:

A -----is a wiring scheme in which, for example, device A is wired to device B, device B is wired to device C, device C is wired to device D etc.

Daisy chain [click here for detail](#)

DMA

Interrupt driven I/O

Polling

Question # 8 of 10 (Total Marks: 1) Select correct option:

An ----- is the memory address of an interrupt handler.

Interrupt vector [click here for detail](#)

Interrupt service routine

Exception

Mask

Question # 9 of 10 (Total Marks: 1) Select correct option:

The conversion of numbers from a representation in one base to another is known as_____

Radix Conversion (Page 333)

Number Representation

Decimal representation

Hexadecimal Representation

بد صورت چہرہ بد صورت دماغ سے بہتر ہے

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Question # 10 of 10 (Total Marks: 1) Select correct option:

If an interrupt is set by the timer component or by the peripheral device then how would you categorize it?

Hardware [click here for detail](#)

Software

Exception

All of the given options

Quiz No.3 (Fall 2012)

Question # 1 of 10 (Total Marks: 1) Select correct option: 1

In which one of the following interrupts the device have to supply the address of the subroutine to the Microprocessor

Maskable

Non-maskable [click here for detail](#)

Non-vectored

Vectored

Question # 2 of 10 (Total Marks: 1) Select correct option:

----- interrupts are usually associated with the software

hardware

software [click here for detail](#)

machine

internal

Question # 3 of 10 (Total Marks: 1) Select correct option:

When the address of the subroutine is already known to the Microprocessor then it is called as ----- interrupt.

Maskable

Non-maskable

Non-vectored

Vectored [click here for detail](#)

Question # 4 of 10 (Total Marks: 1) Select correct option:

How Interrupt driven I/O is better than polling because?

Interrupt driver I/O is easy to design

Interrupt driver I/O is enhanced version of polling.

Interrupt driver I/O does not waste time on checking which device is available. (Page 274)

Interrupt driven I/O is easy to program.

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