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Virtual University	CS501-Advanced Computer (Solved Macq's) LECTURE FROM (23 to 45)	VU LMS HELP vulmshelp.com
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1. A software routine performed when an interrupt is received by the computer is called as

   a. Interrupt
   b. Interrupt handler
   c. Exception
   d. Trap

2. Which of the following pins of the processor is designated for maskable interrupts?
   a. NMI
   b. MI
   c. INTR
   d. RINT

3. ET = ____
   a. CP x IC x T
   b. CPI x IC x T
   c. CPI / IC x T
   d. CPI x IC/T

4. By which file extension does the FALCON-A assembler loads a FALCON-Aassembly file?
   a. .asmfa
   b. .org
   c. .exe
   d. .src

5. In which one of the following methods, does the CPU poll to identify the interrupting module and branches to an interrupt service routine on detecting aninterrupt?
   a. Daisy chain
   b. Software poll
   c. Multiple interrupt lines
   d. All of given option

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_____signal has output direction with respect to printera.

O<7…0>

b. STROBE#

c. INT#

d. ACKNLG#

6. _____is said to occur when a 0 is received instead of a stop bit

a. Framing error

b. Party error

c. Block error

d. Over-run error

7. A component connected to the system bus and having control of it during aparticular bus cycle is called _____

a. Slave component

b. Master component

c. System bus

d. Buffer component

8. The information about the interrupt vector is given in 8-bit from 0 to 7, which istranslated to bit_____on the data bus

a. 16 to 32

b. 11 to 18

c. 0 to 7

d. 8 to 15

9. An interface that can be used to connect the microcomputer bus to_____iscalled as I/O port

a. Flip flop

b. Memory

c. Peripheral devices

d. Multiplexers

10. _____allows a peripheral to read and write memory without interventionby the CPU

a. Programmed I/O

b. Interrupt driven I/O

c. Direct memory access(DMA)

d. Polling

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11. Every interrupt handler has an interrupt return (IRET) instruction, this instruction is an example of_____return
    - **a.** NEAR
    - **b.** **FAR**
    - **c.** SHORT
    - **d.** RELATIVE
12. Which I/O technique will be used by a sound card that may need to access datastored in the computer`s RAM?
    - **a.** Programmed I/O
    - **b.** Interrupt driven I/O
    - **c.** **Direct memory access(DMA)**
    - **d.** Polling
13. What should be the behavior of interrupt during critical section?
    - **a.** **Must remain disable**
    - **b.** Must remain enable
    - **c.** Depends on current situation
    - **d.** Only important interrupts be enable
14. Identify the type of serial communication error condition in which "0" isreceived instead of stop bit(which is always a "1")
    - **a.** **Framing error**
    - **b.** Parity error
    - **c.** Overrun error
    - **d.** Under run error
15. The Pentium does allow the use of some part of its____accumulator registerEAX
    - **a.** 8 bits
    - **b.** 16 bits
    - **c.** **32 bits**
    - **d.** 64 bits

16. is an electrical pathway through which the processor communicates with the internal and external devices attached to the computer
    - **a.** **Computer bus**
    - **b.** **Hazard**
    - **c.** **Memory**
    - **d.** **Disk**

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17. Where does the processor store the address of the first instruction of the ISR?
    - **a. Interrupt vector**
    - **b.** Interrupt request
    - **c.** Interrupt handler
    - **d.** All of the given options
18. _____is the time needed by the CPU to recognize (not service) aninterrupt request.
    - **a. Interrupt latency**
    - **b.** Response deadline
    - **c.** Timer delay
    - **d.** Throughput
19. At the start of the transfer operation in synchronous communication, the masteractivates the_____signal.
    - **a. Read**
    - **b.** Enable
    - **c.** Data
    - **d.** Acknowledge
20. Which is the last instruction of the ISR that is to be executed when the ISR terminates?
    - **a. IRET**
    - **b.** IRQ
    - **c.** INT
    - **d.** NMI
21. Which one of the following methods for resolving the priority makes use ofindividual bits of a priority encoder?
    - **a.** Daisy-Chaining Priority
    - **b.** Asynchronous Priority
    - **c. Parallel Priority**
    - **d.** Semi-synchronous Priority
22. If a character is not available at the beginning of an interval, an_____is saidto occur.
    - **a. Under-run Error**
23. Tri-state buffers are used for removing_____.
    - **a.** Instruction collision
    - **b.** bus collision
    - **c.** Instruction contention
    - **d. bus contention**
24. When a particular sector is found, the data is transferred to_____.
    - **a.** RAM

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b. I/O module
c. Cache memory
d. Instruction register

25. Identify the following type of serial communication error condition:
"The prior character that was received was not still read by the CPU and is overwritten by a new received character."
a. Framing error
b. Parity error
c. Overrun error
d. Under-run error

26. Taking control of the system bus for a few bus cycles is known as _____.
a. Bus Stealing
b. Cycle Stealing
c. Cycle Transferring
d. None of given

27. The average latency to the desired data is halfway round the disk so, what willbe the average rotation latency of the disk rotates at 20,000rpm.
a. 1.25ms
b. 1.5ms
c. 1.0ms
d. 2.0ms

28. What is the status of the ACKNLG# signal when a character is completelyreceived by the printer?
a. It goes from low to high
b. . It goes from high to low page 239
c. It toggles its state
d. It remains unaffected

29. Interrupt driven I/O is better than_____.
a. Polling
b. Data forwarding
c. Stall
d. First In First Out

31. Select the parts of a hard disk.
a. Header only
b. Data section and a trailer
c. Data section only

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d. Header, data section and a trailer

32. 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 inthe series?
    - **a.** Asynchronous
    - **b. Daisy-Chaining Priority**
    - **c.** Parallel
    - **d.** Semi-synchronous
33. Identify the following type of serial communication error condition in which nocharacter is available at the beginning of an interval.
    - **a.** Framing error
    - **b.** Parity error
    - **c.** Overrun error
    - **d. Under-run error**
34. In the little-endian format exchanging data between computer, the data transmitted by one will be received in a "swapped" form by the other.
    - **a.** Organized
    - **b.** Signals
    - **c. Swapped**
    - **d.** Arranged
35. The source file of FALSIM should contain_____text only.
    - **a.** Unicode
    - **b. ASCII**
    - **c.** ANSI
    - **d.** UTF

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36. A component connected to the_____and with which the master componentcan communicate during a particular bus cycle. Normally the CPU with its bus control logic is the master component.
    - **a.** Slave component
    - **b. System bus**
    - **c.** Master component
    - **d.** Bus component

37. In which technique does the hardware directly access host memory for readingor writing

independent of CPU?

a. Direct Memory Access (DMA)
b. Programmed I/O
c. Interrupt driven I/O
d. Polling

38. Most parallel I/O ports used with peripheral devices are mapped on a range of _____.

a. Bus addresses
b. Direct memory access
c. Contiguous addresses
d. Cache

39. _____signal is used in printer with DB-25 interface to reset its controller.

a. #PE
b. #STROB
c. #INIT
d. #SLCT

40. Why DMA is faster than Programmer I/O technique because?

a. DMA transfers data directly using CPU
b. DMA transfers data directly without using CPU CONCEPTUAL
c. DMA uses buffers with CPU
d. DMA uses interrupted driven I/O

41. _____is a technique in which some of the CPU's address lines formingan input to the address decoder are ignored?

- Microprogramming

b. Instruction pre-fetching
c. Pipelining
d. Partial decoding

42. In 8086/8088 processor, interrupt vector table is located at the memory location _____.

a. 0
b. 4
c. 256
d. 1024

43. When an I/O module has a capability of executing a specific set of instructionsfor specific I/O devices in the memory without the involvement of CPU is called _____

a. Selector Channel

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b. I/O Channel

c. I/O processors

d. Cycle Stealing

44. How does DMA saves CPU time?

a. By controlling transfer between I/O devices and memory directly

b. By storing all data in a buffer to be later transferred to the CPU

c. By periodically polling

d. By issuing a interrupt request to the CPU to request attention 45.Connection to a CPU that provides a data path between the CPU and external devices, such as a keyboard, display, or reader is called _____

a. Buffer

b. I/O port

c. Memory mapping

d. Processor

46. _____lets the user execute the program, one instruction at a time.

a. Single Step

b. Execute

c. Change PC

d. List File

47. In_____a separate address space of the CPU is reserved for I/O operations.

a. Isolated I/O

b. Memory Mapped I/O

c. All of above

d. None of above

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48. Which one of the following is NOT a technique used when the CPU wants toexchange data with a peripheral device?

a. Direct Memory Access (DMA)

b. Interrupt driven I/O

c. Programmed I/O

d. Virtual Memory

49. A computer interface is an_____circuit that matches the requirement of thetwo subsystems between which it is connected.

a. Digital

b. Electronic
c. Primary
d. Obituary

50. _____the device usually means reading its status register every so oftenuntil the device's status changes to indicate that has completed the request.
a. Interrupting
b. Masking
c. Polling
d. Executing

51. For input ports, the incoming data should be placed on the data bus only duringthe I/O read bus cycle. For this purpose,_____are used.
a. Flip Flops
b. Tri-state Buffers
c. AND Gates
d. Registers

52. Which of the following is not true regarding serial communication?
a. Easy to implement
b. Inefficient
c. High cost
d. Slow

53. In a printer with DB-25 interface,_____signal is better for edgetriggered systems.
a. BUSY#
b. PE#
c. ACKNLG#
d. STROB#

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54. The_____can be determined from the number of platters and the numberof tracks.
a. Speed of processing
b. Execution time
c. Storage capacity
d. Latency

55. The directive_____is used to define variables.
a. .equ
b. .db
c. .sw

d. .org

56. _____means that the CPU should input data from an input device only when the device is ready to provide data and send data to an output device onlywhen it is ready to receive data.
    a. Data location
    b. Data synchronization
    c. Data transfer
    d. Asynchronous transmission
57. The main issue/s in error control is/are_____.
    a. Detection of Error
    b. Correction of Error
    c. Both Detection of Error and Correction of Error
    d. Avoidance of Error
58. _____signal has input direction with respect to printer
    a. BUSY
    b. STROBE#
    c. PE#
    d. ACKNLG#
59. A parallel port can be considered to be a big_____gate.
    a. OR
    b. AND
    c. NOR
    d. NOR
60. Every time you press a key, an interrupt is generated. This is an example of
    a. Hardware interrupt
    b. Software interrupt
    c. All of the given
    d. None of the given
61. How Interrupt driven I/O is better than polling because?
    a. Interrupt driver I/O is easy to design
    b. Interrupt driver I/O is enhanced version of polling
    c. Interrupt driver I/O does not waste time on checking which device isavailable
    d. Interrupt driven I/O is easy to program62.How can you define an interrupt?
    a. A process where an external device can speedup the working of the microprocessor
    b. A process where memory can speed up programs execution speed

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c. **A process where an external device can get the attention of the microprocessor**
d. A process where input devices can takeover the working of the microprocessor

63. _____is/are example(s) of synchronous communication.
a. Register to Register
b. Register to Memory
c. Memory to Memory
d. All of the given

64. _____depends upon the present position of the head and the position ofthe required sector.
a. Direct memory Access
b. Execution time
c. Throughput
d. Seek time

65. 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

66. Type A format of SRC uses instructions

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

67. 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

68. 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

69. 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

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

70. Which operator is used to name registers, or part of registers, in the Register Transfer Language?
- □ **:= (Page 66)**
- □ &
- □ %
- □ ©

71. The transmission of data in which each character is self-contained units with its own start and stop bits is ------
- □ **Asynchronous**
- □ Synchronous
- □ Parallel
- □ All of the given options

72. Circuitry that is used to move data is called ----------
- □ **Bus**
- □ Port
- □ Disk
- □ Memory

73. 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)**

74. 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

75. 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)**

76. Which is the last instruction of the ISR that is to be executed when the ISR terminates?
- □ **IRET (Page 278)**
- □ IRQ
- □ INT
- □ NMI

77. If NMI and INTR both interrupts occur simultaneously, then which one has the precedence over the other
- □ **NMI (Page 279)**
- □ INTR

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□ IRET
□ All of the given

78. 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
□ **Overrun error (Page 240)**
□ Under-run error

79 ----------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**

80. 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)**
□ Polling

81. 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

82. 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

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

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

84. 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

85. An entire_memory can be erased in one or a few seconds which is much faster than EPROM.

□ PROM
□ Cache

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□ EEPROM
□ **Flash Memory (Page 356)**

86. ____chips have quartz windows and by applying ultraviolet light data can be erased from them.
□ PROM
□ Flash Memory
□ **EPROM (Page 356)**
□ EEPROM

87. 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

88. ___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)**

89. 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

90. The data movement instructions____data within the machine and to or from input/output devices.
□ Store
□ Load
□ Move
□ **None of given (Page 141)**

91. CRC has----- overhead as compared to Hamming code.
□ Equal
□ Greater
□ **Lesser (Page 329)**
□ None of the given

92. 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)

93. 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

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94. ____indicate the availability of page in main memory.

- □ Access Control Bits
- □ Used Bits
- □ **Presence Bits**
- □ None of the given

95. The_____RTN describes the overall effect of instructions on the programmer visible registers.

- ► **Abstract**
- ► Concrete
- ► Absolute
- ► Basic

96. The instruction set is of_____importance in governing the structure and function of the pipeline.

- ► Least
- ► **Primary**
- ► Secondary
- ► No

97. _____is the most general and least useful performance metrics for RISC machines.

- ► **MIPS**
- Instruction Count
- ► Number of registers
- ► Clock Speed

98. A_____provides four functions: Select, DataIn, DataOut and Read/Write.

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

99. We can classify or partition the SRC instructions by their overall___behavior.

- ► **Register transfer**
- ► Memory transfer
- ► Execution
- ► Logical

100. The__RTN describes detailed register transfer steps in the data path that produce the overall effect.

- ► Abstract
- ► **Concrete**
- ► Absolute
- ► Basic

101. All members of the MC68000 family are_____processors.

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► **32-bit**
► 16-bit
► 64-bit
► 8-bit

102. _____Operations refers to a processor that can issue more than one instruction simultaneously.

► Macro
► Micro
► Scalar
► **Superscalar**

103. Exceptions which are___occur in response to events that are paced by the internal processor clock.

► Asynchronous
► **Synchronous**
► Internal
► External

104. 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**
► 1

105.
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

106.
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)**

107. **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

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

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□ **Interrupt vector (Page 277)**
□ Interrupt request
□ Interrupt handler
□ All of the given options

109. 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

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

□ **Interrupt Latency (Page 279)**
□ **Response**
□ **Deadline Timer**
□ **delay Throughput**

111. 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
□ A process where input devices can takeover the working of the microprocessor

112. A software routine performed when an interrupt is received by the computer is called as ____

□ Interrupt
□ **Interrupt handler**
□ Trap

113.
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**
□ Parallel
□ Semi-synchronous

114.
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)**

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□ Parity error
□ Overrun error
□ Under-run error

115. 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)

116.

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**
□ DMA
□ Interrupt driven I/O
□ Polling

117.

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

□ **Interrupt vector**
□ Interrupt service *
□ routine Exception
□ Mask

118.

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

119.

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

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the Microprocessor

□ Maskable
□ **Non-maskable**
□ Non-vectored
□ Vectored

120.

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

□ software hardware
□ **software**
□ machine
□ internal

121.

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.

122.

In Single-Precision Binary Floating Point Representation the exponent is _

- **8 bits (Page 348)**
- 11 bits
- 1 bit
- 23 bits

123.

The_____is m-bits wide and contains memory address generated by the CPU directly connected to the m-bit wide address bus Booth Recording

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

124.

A combination of parallel and sequential hardware used to build a multiplier is known as __

- Parallel Array
- Multiplier Booth Recording
- **Series Parallel Multiplier (Page 342)**
- None of the given

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125.
The register file is a collection of_bit wide registers used for data transfer between memory and the CPU .

- 8
- 16
- 32 (Page 350)
- 64

126.
The_____of an m digit number x is xc'=bm -1- x

- Radix Compliment
- **Diminished Radix Compliment (Page 337)**
- Signed Magnitude Form
- Biased Representation

127.
Shifting of the radix point towards left or right

- Shifting
- Logical
- Shift Right Shift
- Scaling (Page 335)

128.
In_____adder circuit we feed carry out from the previous stage to the next stage and so on.

- **Ripple Carry Adder (Page 341)**
- Carry Look Ahead Adder
- Complement Adder
- 2's Complement Adder

129.
_____are computed by the ALU and stored in processor status register.

- **Condition codes(Page 334)**
- Conditional Branches Fraction
- Division
- None of the

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given

130.
A_____signal decides whether the input word should be shifted or bypassed.

- Control Read
- **Shift/bypass (Page 346)**
- Control Write
- None of the given

131.
In____recording ,bits are encoded in pairs so there are only ' n/2' additions instead of 'n'.

- Booth Recording
- **Bit Pair Recording (Page 343)**
- Integer division
- None of the given

132.
Given an m-digit base b number x, the_of x is xc = (bm– x) mod bm

- **Radix Compliment (Page 337)**
- Diminished Radix
- Compliment Signed
- Magnitude Form

Biased Representation

133.
For_____of an error we just need to know that there exists an error.

- **Detection (Page 328)**
- Correction
- Both Correction and Detection
- None of the give

134.
In Double-Precision Binary Floating Representation the function is_

- 23 bits
- **52 bits (Page 348)**
- 1 bits

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- 1 bit

135.

_____is the simplest form for representing a signed number

- Based representation
- Diminshed Redex Complement Form
- **Sign Magnitude Form (Page 336)**
- None of the given

136.

In computers, floating-point representation uses_to encode significand, exponent and their sign in a single word

- Decimal Numbers
- **Binary Numbers (Page 347)**
- Octal Numbers
- Hexa decimal Numbers

137.

Which one of the following registers store a previously calculated value or a value loaded from the main memory?

► **Accumulator**
► Address Mask
► Instruction Register
► Program Counter

138.

Which one of the following portions of an instruction represents the operation to be performed?

► Address
► Instruction code
► **Opcode (Page 33)**
► Operand

139.

_____control signal enable the input to the PC for receiving a value that is currently on the internal processor bus.

► **LPC (Page 172)**
► INC4
► LC
► Cout

140.

What is the instruction length of the FALCON-E processor?

- 8 bits
- 16 bits
- **32 bits (Page 134)**
- 64 bits

141.

Which type of instructions enables mathematical computations?

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► **Arithmetic (Page 92)**
► Control
► Data transfer
► None of the given

142.
What is the instruction length of the SRC and Falcon E processor?
► 8 bits
► 16 bits
► **32 bits (Page 134)**
► 64 bits

143. An instruction that specifies one operand in memory and one operand in a register would be known as a_____address instruction.
►2-1/2
► **1-1/2 (Page 37)**
►0
►2

144.
In floating point representations__is also called mantissa.
► Sign
► Base
► **Significant (Page 347)**
► Exponent

145. What should be the behavior of interrupts during critical sections?
► **Must remain disable (Page 197)**
► Must remain Enable
► Can be either enable or disable
► only important interrupts be enable

148. Which one of the following is a binary cell capable of storing one bit of information?
► Decoder
► **Flip-flop (Page 76)**
► Multiplexer
► Diplexer

149. Which type of instructions load data from memory into registers, or store data from registers into memory and transfer data between different kinds of special-purpose registers?
► Arithmetic
► Control
► **Data transfer (Page 88)**
► Floating point

150.
What does the RTL expression [M(1234)] means?
► **The contents of memory whose address is 1234.**
► The contents of data register 1234
► The effective address of register 1234
► The address of memory whose address is 1234.

151. Which one of the following languages presents a simple, human-oriented language to specify the operations, register communication and timing of the steps that take place within a CPU to carry out higher level (user programmable) instructions?

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► Assembly Language
► OOP(Object Oriented Language)
► **RTL (Register Transfer Language)**
► UML(Unified Modeling language)

152.
Which one of the following instructions is used to load register from memory using a relative address?
► la
► lar

► **ldr (Page 145)**
► str

153.
Taking control of the system bus for a few bus cycles is known as____.

► Bus Stealing
► **Cycle Stealing (Page 317)**
► Cycle Transfering
► None of given

154. In ----address mode, the actual data is stored in the instruction.

► Direct
► Indirect
► **Immediate**
► Relative

155. Keyboard Interrupt (INT 9) is an example of interrupt.

► **Hardware**
► Software

156. A user program has to delete a file. The user program will be executing in the user mode. When it makes the specific system call to delete the file, an interrupt will be generated, this will cause the processor to halt its current activity and switch to supervisor mode. Once in supervisor mode, the operating system will delete the file and then control will return to the user program. This is an example of

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

157. By which file extension does the FALCON-A Assembler loads a FALCON-A assembly file?

► **[illegible] (Page 8)**

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►.org
►.exe
►.src

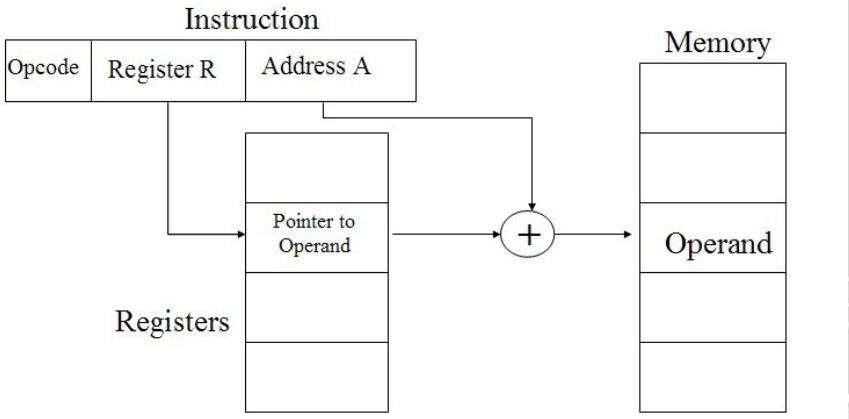
157.
All ----------interrupts have priority over all interrupts

►**internal, external (Page 279)**
►external, internal

158. The can also be used anywhere in the source file to force code at a particular address in the memory.

►.end directive
►.start directive
►.label directive
►**.org directive (Page 298)**

Question No:106



In this figure, the constant value specified by the immediate field is added to the register value, and the resultant is the index of memory location that is referred i.e. Effective Address = A + (content of R) .
Identify the addressing mode.

► **Displacement(Page 139)**
► Immediate
► Indexed
► Relative

159. In which one of the following addressing modes, the operand does not specify an address but it is the actual data to be used.

► Direct

- Indirect
- **Immediate**
- Relative

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160. When is the “Divide error interrupt‖ generated?

► When an attempt is made to divide by decimal number
► When an attempt is made to multiply by zero
► **When an attempt is made to divide by zero (Page 197)**
► When negative number is stored in a register

161. Which one of the following is a term used to describe a storage systems' resilience to disk failure through the use of multiple disks and by the use of data distribution and correction techniques?

► Interrupt handling
► Programmed I/O
► Polling
► **RAID** click here for detail

162. _____is the time for first bit of the message to arrive at the receiver including delays.
► Transmission Time
► Latency
► Transport Latency
► **Time of Flight (Page 388)**

163.
Falcon-A Simulator loads a FALCON-A binary file with a extension and presents its contents into different areas of the simulator.

► .bin
► **.binfa (Page 5)**
► .fa
► None of the given

164. In machines where instructions can be executed in parallel or out of order, two additional hazards can occur: WAW and ----------

► None fo the given
► **WAR**
► RAW
► RAR

165. For___of an error we just need to know that there exists an error.

► None of the given
► Correction
► **Detection (Page 328)**
► Both Correction and Detection

166. Identify the type of serial communication error condition in which 0 is

received instead of a stop bit (which is always a 1)?

► **Framing error (Page 240)**
► Parity error
► Overrun error
► Under-run error

167. is/are defined as the number of instructions processed per second

► **Throughput (Page 203)**
► Latency Time to process 1 request.
► Throughput and Latency
► None of the given

168. Raid Level is not a true member of the RAID family.

► **0 (Page 330)**
►2
►3
►4

169. Which one of the following is an address (binary bit pattern) issued by CPU?

► Memory
► **Effective (Page 39)**
► Base
► Next instruction

170. Which one the following interrupts is initiated with an INT instruction?

► Hardware
► **Software**
► Both hardware and Software
► None of the given

171. An -- is a program that takes basic computer instructions and converts them into a pattern of bits that the
computer's processor can use to perform its basic operations.

► **Assembler**
► Debugger
► Editor
► Console

172. Dirty bit is a status bit which is used to indicate whether_____.

a. The block is accessible or not
b. The block has been modified or not page 327
c. The block is valid or not

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d. The block has been accessed frequently or not

173. In 1x8 memory cell arrangement, each block is connected through a bi-directional data bus implemented with___tri-state buffer(s).

a. 1

b. 2 page 317

c. 4

d. 8

174. The register file is a collection of____bit wide registers used for data transfer between memory and the CPU.

a. 8

b. 16

c. 32 page 316

d. 64

175. Human works with base 10 and computers work with base_____.

a. 8

b. 10

c. 2 page 301

c. 16

176. Raid level___distributes the parity strips across all disks.

a. 2

b. 3

c. 4

d. 5 page 300

177. Shifting of the radix point towards left or right is called _____

a. Shifting

b. Logical Shift

c. Right Shift

d. Scaling page 302

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178. In computers, floating-point representation uses_____to encode significand, exponent and their sign in a single word
    a. Decimal Numbers
    b. Binary Numbers page 313
    c. Octal Number
    d. Hexa decimal Numbers
179. 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).
    a. Memory Buffer Register (MBR) page 316
    b. Program Counter (PC)
    c. Instruction Register (IR)
    d. Memory Address Register (MAR)
180. Adding a data pin to a chip with 2^m words of s bits increases the number ofbits it can store by only a factor of ___
    a. s/(s+1)
    b. (s+1)/s page 320
    c. (s+2)/s
    d. s^2/s
181. A given block in cache is identified uniquely by its main memory blocknumber, referred to as___.
        i. Ticket
        ii. Serial
    c. Tag page 323
    d. Label
182. The conversion of numbers from a representation in one base to another isknown as___.
    a. Radix Conversion page 301
    b. Number Representation
    c. Decimal representation
    d. Hexadecimal Representation
183. Multiple copies of the same data can exist in memory hierarchy simultaneously. The Cache needs updating mechanism to prevent old datavalues from being used. This is the problem of____.
    a. Cache Miss
    b. Dirty bit
    c. Cache Coherence page 327
    d. Write Allocate

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184. Raid Level_____is not a true member of the RAID family.

a. 0 page 298

b. 2

c. 3

d. 4

185. In Double-Precision Binary Floating Point Representation the fraction is _____

a. 23 bits

b. 52 bits page 314

c. 11 bits

d. 1 bit

186. ____is nonvolatile and may be written into only once.

a. PROM page 321

b. EPROM

c. EEPROM

d. Main memory

187. _____ is non volatile i-e it retains the information in it when power is removed from it

a. RAM

b. Hard Disc

c. ROM page 320

d. Cache

188. A typical one level decoder has____input(s) and_____ output(s).

i. n, n

ii. 2^n, n

iii. n, n^2

d. n, 2^n page 318

189. Along with the information bits, we add up another bit, which is called?

a. Start bit

b. Header bit

c. Parity bit page 297

d. Stop bit

190. Which of the following is NOT a function of memory cell?

a. Activate page 317

b. DataIn

c. DataOut

d. Read/Write

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191. The_____of an m digit number x is \[{x^c} = {b^m} - 1 - x\]

a. Radix Compliment

b. Diminished Radix Compliment page 304

c. Signed Magnitude Form

d. Biased Representation

192. The memory management unit (MMU) is located between_____and _____.

a. Main memory and secondary memory

b. The CPU and the physical memory page 328

c. Secondary memory and Virtual memory

d. ROM and RAM

193. Given an m-digit base b number x, the_____of x is

$x^c = (b^m - x) \bmod b^m$

a. Radix Compliment page 304

b. Diminished Radix Compliment

c. Signed Magnitude Form

d. Biased Representation

194. For___ of an error we just need to know that there exists an error.

a. Detection page 297

b. Correction

c. Both Correction and Detection

d. None of the given

195. __is much faster than EPROM.

a. Main memory

b. Rom

c. Hard disk

d. Flash Memory page 321

196. CRC has_____overhead as compared to Hamming code.

a. Equal

b. Greater

c. Lesser page 298

d. None of the given

197. very large page size results in increased_____.

a. Through put

b. access time page 330

c. Delay

d. Execution time

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198. For write to complete in Write through, the CPU has to wait. This wait stateis called_.
   a. Write Buffer
   b. Cache Miss
   c. Write Allocate
   d. Write Stalls page 327

199. The___signal coming from the CPU tells the memory that some interaction is required between the CPU and memory.
   a. REQUEST page 316
   b. R/W
   c. COMPLETE
d. None of the given

200. A 64kx1 Static RAM Chip has a cell array which consists of _____ row(s) and_____column(s).
   a. 64, 1
   b. 1, 64
   c. 64, 256
   d. 256, 256 page 317

201. _____chips have quartz windows and by applying ultraviolet light data can be erased from them.
   a. PROM
b. Flash Memory
   c. EPROM page 321
   d. EEPROM

202. ____ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement.
   a. Paging
   b. Demand Paging page 329
   c. Segmentation
   d. Logical Partition

203. In virtual memory mechanism, pages are formulated in the _____ memory and brought into the_____memory.
   a. Secondary, cache
   b. Main, cache
   c. Main, secondary
   d. Secondary, main page 328

204. Which is a status bit that indicates whether the block in cache has been modified or not modified?
   a. Presence bit
   b. Dirty bit page 327
   c. Access bit
   d. End bit

205. _____refers to the fact that once a particular data item is accessed, it is likely that it will be referenced again within a short period of time.
   a. Spatial Locality
   b. Temporal Locality page 322
   c. Full Locality
   d. Half Locality

206. combination of parallel and sequential hardware used to build a multiplieris known as _____
   i. Parallel Array Multiplier
   ii. Both Recording
   iii. Series Parallel Multiplier
   iv. None of the given

207. When_____signal is high, this would correspond to a read operation equivalent to having an input data to the CPU and output from the memory.
   a. R/W page 316
   b. COMPLETE
   c. REQUEST
   d. None of the given

208. The_____ is m-bits wide and contains memory address generated by the CPU directly connected to the m-bit wide address bus Booth Recording
   a. memory address register (MAR) page 316
   b. memory Buffer Register(MBR)
   c. Program counter (PC)
   d. Instruction Register(IR)

209. Adding an address pin to a memory chip increases the capacity of memoryby a factor of__.
   a. 1.5
   b. 2 page 320
   c. 2.5
   d. 3

210. ____is a read-mostly memory that can be written into at any timewithout erasing prior contents

a. PROM
b. EPROM
c. Flash Memory
d. EEPROM page 321

211. A 16kx4 Static RAM Chip is arranged in the form of four_____memory cells

a. 64x256 page 318
b. 16x4
c. 4x16
d. 256x256

212. _____is the simplest form for representing a signed number

a. Biased Representation
b. Diminished Radix Compliment Form
c. Sign Magnitude Form page 304
d. None of the given

213. The Direct memory access (DMA) scheme results in direct link between _____ and_____.

a. the CPU and the physical memory
b. main memory and secondary memory page 331
c. Secondary memory and Virtual memory
d. Cache memory and Registers

214. An entire_____ memory can be erased in one or a few seconds whichis much faster than EPROM.

a. PROM
b. Cache
c. EEPROM
d. Flash page 321

215. _____refers to the fact when a given address has been referenced, the next address is highly probable to be accessed within a short period of time

a. Temporal Locality
b. Spatial Locality page 322
c. Full Locality
d. Half Locality

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216. A _____signal decides whether the input word should be shifted orbypassed.

a. Control Read

b. shift/bypass page 312

c. Control Write

d. None of the given

217. In___ adder circuit we feed carry out from the previous stage to the next stage and so on.

a. Ripple Carry Adder page 308

b. Carry Look Ahead Adder

c. Complement Adder

d. 2's Complement Adder

218. In Single-Precision Binary Floating Point Representation the exponent is _____

a. 8 bits page 313

b. 11 bits

c. 1 bit

d. 23 bits

219. Each memory reference issued by the CPU is translated from the logicaladdress space to_____.

a. Effective address

b. Physical address page 328

c. Virtual address

d. Cache address

220. _____are computed by the ALU and stored in processor status register.

a. Condition codes page 311

b. Conditional Branches

c. Fraction Division

d. None of the given

221. In_____, bits are encoded in pairs so there are only 'n/2' additions instead of 'n'.

a. Booth Recording

b. Bit Pair Recording page 309

c. Integer division

d. None of the given

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222. ___is a combination of arithmetic, logic and shifter unit along withsome multiplexers and control unit.

a. Barrel Rotator
b. Control Unit
c. Flip Flop
d. ALU page 313

223. The cache contains a copy of portions of the_____.

a. Main memory page 321
b. Rom
c. EPROM
d. Flash memory

224. What is the basic idea of "carry look ahead"?

a. To reduce congestion
b. To speed up the ripple carry page 308
c. To solve the redundancy
d. To synchronize with CPU clock

225. Along with the information bits we add up another bit which is called the _____bit.

a. CRC
b. Hamming
c. Error Detection
d. Parity page 297

226. Virtual memory acts as a cache between_____and_____.

a. Secondary memory and Virtual memory
b. Cache memory and Registers
c. ROM and RAM
d. Main memory and secondary memory page 328

227. - 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

228. Please choose one Type A format of SRC uses ----------instructions

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

229. - 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

230. - Please choose one Which format of the instruction is called the accumulator?
- 3-address instructions
- 2-address instructions
- 1-address instructions (Page 32)
- 0-address instructions

231. 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

232. - Please choose one Which operator is used to name registers, or part of registers, in the Register Transfer Language?
- := (Page 66)
- &
- %
- ©

233. - Please choose one The transmission of data in which each character is self-contained units with its own start and stop bits is ------
- Asynchronous
- Synchronous
- Parallel
- All of the given options

234. - Please choose one Circuitry that is used to move data is called ----------
- Bus
- Port
- Disk
- Memory

235. - 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)

236. 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

237. - 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)

238. - Please choose one Which is the last instruction of the ISR that is to be executed when the ISR terminates?
- IRET (Page 278)

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- IRQ
- INT
- NMI

239. - 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

240. 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
- Overrun error (Page 240)
- Under-run error

241. 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

242. - 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)
- Polling

243. - 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

244. - 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

245. In_____technique memory is divided into segments of variable sizes depending upon the requirements.
- Paging
- Segmentation (Page 365)
- Fragmentation
- None of the given

246. - 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

247. Please choose one An entire_____memory can be erased in one or a few seconds which is much faster than EPROM.

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

248. - 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

249. - 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

250. _____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)

251. - 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

252. - 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)

253. - Please choose one CRC has ---------- overhead as compared to Hamming code.
- Equal
- Greater
- Lesser (Page 329)
- None of the given

254. - 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)

255. 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

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256. - Please choose one_____indicate the availability of page in main memory.
- Access Control Bits
- Used Bits
- Presence Bits
- None of the given

257. The_____RTN describes the overall effect of instructions on the programmer visible registers.
- Abstract
- Concrete
- Absolute
- Basic

258. - Please choose one The instruction set is of_____importance in governing the structure and function of the pipeline.
- Least
- Primary
- Secondary
- No
- Uestion

259. - Please choose one_____is the most general and least useful performance metrics for RISC machines.
- MIPS
- Instruction Count
- Number of registers
- Clock Speed

260. - Please choose one A_____provides four functions: Select, DataIn, DataOut and Read/Write.
- ALU
- Bus
- Register
- Memory Cell (Page 351)

261. Question No: 5 (Marks: 1) - Please choose one We can classify or partition the SRC instructions by their overall _____behavior.
- Register transfer
- Memory transfer
- Execution
- Logical

262. - Please choose one The_____RTN describes detailed register transfer steps in the data path that produce the overall effect.
- Abstract
- Concrete
- Absolute
- Basic

263. Please choose one All members of the MC68000 family are _____ processors.
- 32-bit
- 16-bit
- 64-bit
- 8-bit

264. - Please choose one_____Operations refers to a processor that can issue more than one instruction simultaneously.
- Macro
- Micro

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- Scalar
- Superscalar click here for detail

265. - 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

266. - 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
- 1

267. Please choose one 16k x4 static RAM Chip is arranged in the form of four_____cells.
- 16x512
- 32x512
- 256x512
- 64x256 (Page 352)

268. - 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

269. 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

270. - 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)

271. 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

272. 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

273. In_____, a separate address space of the CPU is reserved for I/O operations.
- Isolated I/O (Page 236)

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

274. is the time needed by the CPU to recognize (not service) an interrupt request.
- Interrupt Latency (Page 279)
- Response Deadline
- Timer delay
- Throughput

275. _____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)

276. 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
- A process where input devices can takeover the working of the microprocessor

277. 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

278. A software routine performed when an interrupt is received by the computer is called as ---------
- Interrupt
- Interrupt handler
- Exception
- Trap

279. 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

280. 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
- Parallel
- Semi-synchronous

281. 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

282. 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)

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

- Computer
- Hazard
- Memory
- Disk

284. 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
- memory address

285. VLIW stands for ----------

- Very Lengthy Interaction Word
- Very Length Instruction Width
- Very Long Instruction Word (Page 219
-) none of given options

286. 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
- DMA
- Interrupt driven
- I/O Polling

287. Question # 8 of 10 (Total Marks: 1) Select correct option: An---------- is the memory address of an interrupt handler.

- Interrupt vector
- Interrupt service routine
- Exception
- Mask

288. 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

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

- Hardware
- Software
- Exception
- All of the given options

290. : 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

291. interrupts are usually associated with the software

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- Hardware
- software
- Machine
- internal

292. When the address of the subroutine is already known to the Microprocessor then it is called as ---------- interrupt.
- Maskable
- Non-maskable
- Non-vectored
- Vectored

293. 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.

294. In Single-Precision Binary Floating Point Representation the exponent is _____
- 8 bits (Page 348)
- 11 bits
- 1 bit
- 23 bits

295. : The_____is m-bits wide and contains memory address generated by the CPU directly connected to the m-bit wide address bus Booth Recording
- memory address register (MAR) (Page 350)
- memory Buffer Register(MBR)
- Program counter (PC)
- Instruction Register(IR)

296. A combination of parallel and sequential hardware used to build a multiplier is known as _____
- Parallel Array Multiplier
- Booth Recording
- Series Parallel Multiplier (Page 342)
- None of the given

297. The register file is a collection of_____bit wide registers used for data transfer between memory and the CPU .
- 8
- 16
- 32 (Page 350)
- 64

298. The_____of an m digit number x is xc'=bm -1- x
- Radix Compliment
- Diminished Radix Compliment (Page 337)
- Signed Magnitude Form
- Biased Representation

299. Shifting of the radix point towards left or right is called _____
- Shifting
- Logical Shift
- Right Shift
- Scaling (Page 335)

300. Question # 7 of 10 (Total Marks: 1) Select correct option: In_____adder circuit we feed carry out from the previous stage to the next stage and so on.
- Ripple Carry Adder (Page 341)
- Carry Look Ahead Adder
- Complement Adder

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- 2's Complement Adder

301. _____are computed by the ALU and stored in processor status register.
- Condition codes (Page 334)
- Conditional Branches
- Fraction Division
- None of the given

302. A_____signal decides whether the input word should be shifted or bypassed
- . Control Read
- Shift/bypass (Page 346)
- Control Write
- None of the given

303. Along with information bits we add up another bit which is called the_____bit.
- CRC
- Hamming
- Error Detection
- Parity (Page 328

304. In_____recording ,bits are encoded in pairs so there are only ' n/2' additions instead of 'n'.
- Booth Recording
- Bit Pair Recording (Page 343)
- Integer division
- None of the given

305. _____signal is high, this would correspond to a read operation equivalent to having an input data to the CPU and output from the memory REQUEST .
- R/W (Page 350)
- COMPLETE
- REQUEST
- None of the given

306. Given an m-digit base b number x, the_____of x is xc = (bm– x) mod bm
- Radix Compliment (Page 337)
- Diminished Radix Compliment
- Signed Magnitude Form
- Biased Representation

307. For_____of an error we just need to know that there exists an error.
- Detection (Page 328)
- Correction
- Both Correction and Detection
- None of the given

308. In Double-Precision Binary Floating Representation the function is_____
- 23 bits
- 52 bits (Page 348)
- 1 bits
- 1 bit

309. :_____is the simplest form for representing a signed number
- Based representation
- Diminshed Redex Complement Form
- Sign Magnitude Form (Page 336)
- None of the given

310. In computers, floating-point representation uses_____to encode significand, exponent and their sign in a single word
- Decimal Numbers

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- Binary Numbers (Page 347)
- Octal Numbers
- Hexa decimal Numbers

311. : Which one of the following registers store a previously calculated value or a value loaded from the main memory?
► Accumulator
► Address Mask
► Instruction Register
► Program Counter

312. Which one of the following portions of an instruction represents the operation to be performed?
► Address
► Instruction code
► Opcode (Page 33)
► Operand

313. _____control signal enable the input to the PC for receiving a value that is currently on the internal processor bus.
► LPC (Page 172)
► INC4
► LC
► Cout

314. What is the instruction length of the FALCON-E processor?
► 8 bits
► 16 bits
► 32 bits (Page 134)
► 64 bit

315. Which type of instructions enables mathematical computations?
► Arithmetic (Page 92)
► Control
► Data transfer
► None of the given

316. What is the instruction length of the SRC and Falcon E processor?
► 8 bits
► 16 bits
► 32 bits (Page 134)
► 64 bits

317. : An instruction that specifies one operand in memory and one operand in a register would be known as a _____address instruction.
► 2-1/2
► 1-1/2 (Page 37)
► 0
► 2

318. In floating point representations_____is also called mantissa.
► Sign
► Base
► Significant (Page 347)
► Exponent

319. What should be the behavior of interrupts during critical sections?
► Must remain disable (Page 197)
► Must remain Enable
► Can be either enable or disable

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► only important interrupts be enable

320. Which one of the following is a binary cell capable of storing one bit of information?
► Decoder
► Flip-flop (Page 76)
► Multiplexer
► Diplexer

321. Which type of instructions load data from memory into registers, or store data from registers into memory and transfer data between different kinds of special-purpose registers?
► Arithmetic
► Control
► Data transfer (Page 88)
► Floating point

322. What does the RTL expression [M(1234)] means?
► The contents of memory whose address is 1234.
► The contents of data register 1234
► The effective address of register 1234
► The address of memory whose address is 1234.

323. Which one of the following languages presents a simple, human-oriented language to specify the operations, register communication and timing of the steps that take place within a CPU to carry out higher level (user programmable) instructions?
► Assembly Language
► OOP(Object Oriented Language)
► RTL (Register Transfer Language)
► UML(Unified Modeling language)

324. Which one of the following instructions is used to load register from memory using a relative address?
► la
► lar
► ldr (Page 145)
► str 23

325. Taking control of the system bus for a few bus cycles is known as_____.
► Bus Stealing
► Cycle Stealing (Page 317)
► Cycle Transfering
► None of given

326. : In ---------- address mode, the actual data is stored in the instruction.
► Direct
► Indirect
► Immediate
► Relative

327. Keyboard Interrupt (INT 9) is an example of ----- interrupt.
► Hardware
► Software

328. user program has to delete a file. The user program will be executing in the user mode. When it makes the specific system call to delete the file, an interrupt will be generated, this will cause the processor to halt its current activity and switch to supervisor mode. Once in supervisor mode, the operating system will delete the file and then control will return to the user program. This is an example of
► Hardware interrupt
► Software interrupt (Page 275)
► Exception

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► All of the given

329. By which file extension does the FALCON-A Assembler loads a FALCON-A assembly file?
► .asmfa (Page 8)
► .org
► .exe
► .src 24

330. All ----------interrupts have priority over all ---------interrupt
► internal, external (Page 279)
► external, internal

331. The-------- can also be used anywhere in the source file to force code at a particular address in the memory.
► .end directive
► .start directive
► .org directive (Page298)
► .label directive

332. : In this figure, the constant value specified by the immediate field is added to the register value, and the resultant is the index of memory location that is referred i.e. Effective Address = A + (content of R) . Identify the addressing mode.
► Displacement (Page 139)
► Immediate
► Indexed
► Relative

333. In which one of the following addressing modes, the operand does not specify an address but it is the actual data to be used.
► Direct
► Indirect
► Immediate click here for detail
► Relative 25

334. : When is the "Divide error interrupt‖ generated?
► When an attempt is made to divide by decimal number
► When an attempt is made to multiply by zero
► When an attempt is made to divide by zero (Page 197)
► When negative number is stored in a register

335. Which one of the following is a term used to describe a storage systems' resilience to disk failure through the use of multiple disks and by the use of data distribution and correction techniques?
► Interrupt handling
► Programmed I/O
► Polling
► RAID click here for detail

336. :_____is the time for first bit of the message to arrive at the receiver including delays.
► Transmission Time
► Latency
► Transport Latency\
► Time of Flight (Page 388)

337. Falcon-A Simulator loads a FALCON-A binary file with a_____extension and presents its contents into different areas of the simulator.
► .bin
► .binfa (Page 5)
► .fa
► None of the given

338. In machines where instructions can be executed in parallel or out of order, two additional hazards can occur:

WAW and ----------

- None fo the given
- WAR
- RAW
- RAR

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