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Section : **Computer Science and Engineering CSE**

Q.1 The time between receiving of an interrupt and its service is _____

- A. Interrupt delay
- B. Interrupt latency
- C. Cycle time
- D. Switching time

Ans ☒ 1. A

☒ 2. B

☒ 3. C

☒ 4. D

Question ID : 5834935714

Q.2 In IEEE 32-bit floating point representation, the mantissa of the fraction is said to occupy ____ bits

- A. 24
- B. 23
- C. 20
- D. 16

Ans ☒ 1. A

☒ 2. B

☒ 3. C

☒ 4. D

Question ID : 5834935722

Q.3 Operating system function that is ensuring efficient operation of the system

- A. File system
- B. Error detection
- C. Resource allocation
- D. User interface

Ans ☒ 1. A

☒ 2. B

☒ 3. C

☒ 4. D

Question ID : 5834935710

Q.4 In 8086 microprocessor, the memory address in vector table for Non Maskable Interrupt (NMI) is ____.

- A. 00000H
- B. 00004H
- C. 00008H
- D. 0000CH

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935678

Q.5 Output of the given C code fragment is _____

```
char s[7] = {'W', 'e', 'l', 'c', '\0', 'm', 'e'}  
printf ("%s", s);
```

- A. Welc0me
- B. Welc0m
- C. Welc0
- D. Welc

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935695

Q.6 In the 8086, Which Software interrupt is used for inserting breakpoints for debugging the program?

- A. INT 3
- B. INT 0
- C. INT 2
- D. INT 4

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935680

Q.7 Key to represent the relationship between tables is called _____

- A. Primary key
- B. Secondary key
- C. Foreign key
- D. None of the above

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935723

Q.8 Assuming the size of int & float as 4 bytes, find the output of the following code fragment.

```
union {  
    int i;  
    float f;  
    float f2;  
}u;  
void main () {  
    printf ("%d", sizeof (u));  
}
```

- A. 4
- B. 8
- C. 12
- D. 16

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935694

Q.9 In binary search tree which traversal is used for getting the values in ascending order?

- A. preorder
- B. inorder
- C. postorder
- D. any order

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935735

Q.10 The floating-point representation is used to store _____

- A. Boolean values
- B. Whole numbers
- C. Real numbers
- D. Rational numbers

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935716

Q.11 The order of any node in a strictly binary tree is

- A. 0
- B. 1
- C. 2
- D. 4

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935737

Q.12 How many edges are there in a forest with 'v' vertices and 'k' components?

- A. $(v + 1) - k$
- B. $\frac{(v+1)}{2} - k$
- C. $v + k$
- D. $v - k$

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935740

Q.13 Address Resolution Protocol (ARP)

- A. dynamically binds IP address to physical hardware address
- B. dynamically binds Domain name to physical hardware address
- C. dynamically binds IPX address to physical hardware address
- D. dynamically binds SPX address to physical hardware address

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935689

Q.14 For a binary half subtractor having two inputs A and B the correct set of logical expression for the outputs D (A minus B) and X (barrow) are_____.

- A. $D = AB + A\bar{B}, X = \bar{A}B$
- B. $D = A\bar{B} + \bar{A}B, X = \bar{A}\bar{B}$
- C. $D = A\bar{B} + \bar{A}B, X = \bar{A}B$
- D. $D = AB + A\bar{B}, X = A\bar{B}$

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935669

Q.15 Corruption of more than one bit in a data unit is termed as

- A. parity error
- B. burst error
- C. double error
- D. binary error

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935685

Q.16 The expression for carry C in the half adder with inputs A, B is given by _____.

- A. $A+B$
- B. AB
- C. $\bar{A}\bar{B}$
- D. None of the above

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935662

Q.17 To completely load and then unload an 8bit register requires how many clock pulses?

- A. 2
- B. 4
- C. 8
- D. 16

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935665

Q.18 Block or buffer caches are used

- A. To handle interrupts
- B. To increase the capacity of main memory
- C. To speed up main memory read operations
- D. To improve disk performance

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935706

Q.19 What is the output of the code fragment given below?

```
struct s {  
    int a;  
    int b; } str [3], *p;  
void main () {  
    p = str;  
    p->a = 3;  
    p->b = p->a + 2;  
    printf ("%d, %d", str[0].a, str[0].b);  
}
```

- A. 3,3
- B. 3,4
- C. 5,3
- D. 3,5

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935699

Q.20 The layer between hardware and user program is

- A. Operating system
- B. Virtual memory
- C. Application software
- D. BIOS software

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935704

Q.21 In 8086, which of the following is not a data copy/transfer instruction?

- A. MOV
- B. PUSH
- C. DAS
- D. POP

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935674

Q.22 In a class C address of IPV4, maximum number of hosts & networks possible are _____ & _____ respectively.

- A. 254, 2^{21}
- B. 255, 2^{21}
- C. 254, 2^{24}
- D. 255, 2^{24}

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935691

Q.23 The universal gate is _____.

- A. NAND gate
- B. OR gate
- C. AND gate
- D. None of the above

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935663

Q.24 The ALU makes use of _____ to store the intermediate results

- A. Accumulator
- B. Registers
- C. Heap
- D. Stack

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935715

Q.25 Physical layer is responsible for

1. Line coding 2. Error control 3. Modulation 4. Multiplexing

- A. 1, 3
- B. 2, 3
- C. 3, 4
- D. 2, 4

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935688

Q.26 During DMA acknowledgement cycle, CPU relinquishes _____

- A. Address bus only
- B. Address bus and Control bus
- C. Data bus and address bus
- D. Control bus and data bus

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935741

Q.27 Which of the following sorting algorithms has the lowest worst-case complexity?

- A. Quick sort
- B. Merge sort
- C. Bubble sort
- D. Selection sort

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935733

Q.28 ECC is used to

- A. Carry out data mining
- B. Prevent data corruption
- C. Identify & Correct corrupted data
- D. Create corrupted data

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935703

Q.29 _____, _____ are the data units of _____, _____ layers respectively in OSI model.

- A. PPDU, Packet, Session, Transport
- B. SPDU, Frame, Presentation, Data link
- C. Packet, Frame, Network, Transport
- D. Bit, Segment, Physical, Transport

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935690

Q.30

Which is not POSIX thread function call?

- A. Pthread_join
- B. Pthread_yield
- C. Pthread_attr_init
- D. Pthread_separate

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935711

Q.31

The technique which move the program blocks to or from the physical memory is called as _____

- A. Paging
- B. Virtual Memory Technique
- C. Overlays
- D. Framing

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935719

Q.32

The average number of comparisons in a binary search on a sorted array of 6 consecutive integers starting from 1 is

- A. 2.177
- B. 2.333
- C. 2.585
- D. 3.000

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935739

Q.33

A memory efficient data structure to group different data types under single name is _____

- A. structure
- B. union
- C. stack
- D. array

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935696

Q.34 The range of numbers which can be represented by 9 bits when 2's complement integer representation is used

- A. -256 to + 255
- B. -255 to + 256
- C. -512 to + 511
- D. 0 to 1024

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935721

Q.35 The instructions that are used to call a subroutine from the main program and return to the main program after execution of called function are _____.

- A. CALL,JMP
- B. JMP,RET
- C. CALL,RET
- D. JNZ,RET

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935679

Q.36 In computer networks context, a block of data augmented with error detecting code as field is known as _____

- A. Frame check sequence
- B. Frame data error sequence
- C. Error sequenced data frame
- D. Data sequenced error frame

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935687

Q.37 Name of the default offset registers to access the data from stack segment register of 8086 microprocessor

- A. SI&DI
- B. SP&BP
- C. AX&BX
- D. IP&BP

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935676

Q.38 The 8086 Bus Interface Unit fills the queue when the queue contains empty spaces of _____ bytes

- A. 2
- B. 3
- C. 4
- D. 6

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935677

Q.39 The position of the cache memory exists between

- A. Main memory and Secondary memory
- B. CPU and Main memory
- C. RAM and ROM
- D. CPU and Secondary memory

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935713

Q.40 $F = XY + \bar{X}Z$ in a product of sum (POS) form is _____.

- A. $(X + Y + Z)(\bar{X} + \bar{Y} + Z)(\bar{X} + Y + Z)$
- B. $(X + Y + Z)(\bar{X} + Y + \bar{Z})(\bar{X} + \bar{Y} + Z)$
- C. $(X + Y + Z)(X + \bar{Y} + Z)(\bar{X} + Y + Z)(\bar{X} + Y + \bar{Z})$
- D. $(X + Y + Z)(X + Y + \bar{Z})(X + \bar{Y} + Z)(\bar{X} + Y + Z)$

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935671

Q.41 If we want to retain all duplicates, we must write _____ in any place of union

- A. Union all
- B. Union some
- C. Intersect all
- D. Intersect some

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935730

Q.42 Assume transaction A holds a shared lock R, if transaction B also request for a shared lock on R, it will

- A. Result in a deadlock situation
- B. Immediately be granted
- C. Immediately be rejected
- D. Be generated as soon as it is released by A

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935732

Q.43 When an E-R model is converted to a relational database

- A. Entity become tables and relationship becomes fields
- B. Entity become fields and relationship becomes tables
- C. Both entities and relationships becomes tables
- D. Entity become tables and relationship becomes keys

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935726

Q.44 Simplify the expression $\overline{\overline{AB}} + C$

- A. $\overline{AB} + C$
- B. $AB\overline{C}$
- C. $AB + \overline{C}$
- D. $(A + B)C$

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935664

Q.45 The 8086 program executes a WAIT instruction and then waits for _____ input signal to restart the program.

- A. ALE
- B. $\overline{INTA}$
- C. $\overline{TEST}$
- D. CLK

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935675

Q.46 A cache memory needs an access time of 30 ns and main memory 150 ns, what is the average access time of CPU? (assume hit ratio = 80%)

- A. 60 ns
- B. 30 ns
- C. 150 ns
- D. 70 ns

Ans ✓ 1. A

✗ 2. B

✗ 3. C

✗ 4. D

Question ID : 5834935720

Q.47 Simplify the Boolean function $F(X, Y, Z) = \Sigma(2,3,4,5)$

- A. $XY + YZ$
- B. $\bar{X}Y + X\bar{Y}$
- C. $\bar{X}Z + YZ$
- D. $\bar{X}\bar{Y} + XY$

Ans ✗ 1. A

✓ 2. B

✗ 3. C

✗ 4. D

Question ID : 5834935670

Q.48 What is the output of given C code fragment?

```
int n = 4;
if (n / 2 + 2 - 3) printf ("%n");
else printf ("%d", n-1);
```

- A. 4
- B. 1
- C. Blank
- D. 3

Ans ✗ 1. A

✗ 2. B

✓ 3. C

✗ 4. D

Question ID : 5834935697

Q.49 Which is NOT the method of passing parameters to Operating System

- A. Register
- B. Address of a block of memory
- C. Stack
- D. Socket

Ans ✗ 1. A

✗ 2. B

✗ 3. C

✓ 4. D

Question ID : 5834935709

Q.50 Suppose each element is stored in a circular queue with N memory cells. The number of elements in a deque in terms of LEFT and RIGHT is

- A. $\text{RIGHT} - \text{LEFT} - 1 \pmod{N}$
- B. $\text{RIGHT} + \text{LEFT} - 1 \pmod{N}$
- C. $\text{RIGHT} + \text{LEFT} + 1 \pmod{N}$
- D. $\text{RIGHT} - \text{LEFT} + 1 \pmod{N}$

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935738

Q.51 What is the output of the given C code fragment?

```
int main () {  
    void f1();  
    printf ("Nice ");  
    f1();  
}  
void f1(){  
    printf ("Day");  
}
```

- A. Nice Day
- B. NiceDay
- C. Niceday
- D. Nice day

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935692

Q.52 The expression for EX-OR is given by _____.

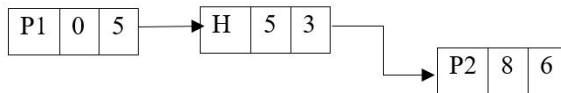
- A. $(\overline{A} + \overline{B})(AB)$
- B. $AB + \overline{A}\overline{B}$
- C. $(A + B)(\overline{A}\overline{B})$
- D. None of the above

Ans  1. A
 2. B
 3. C
 4. D

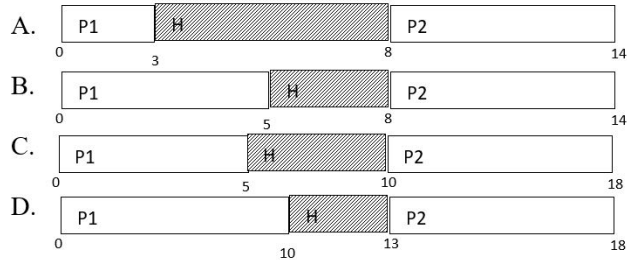
Question ID : 5834935668

Q.53

The following is a linked list of memory



Which of the following indicates process and hole allocation of above?



Ans ☒ 1. A

☒ 2. B

☒ 3. C

☒ 4. D

Question ID : 5834935712

Q.54 Value of y at the end of the given program is _____

```

int f1 (int x) {
    static int temp = 1;
    return (temp += x);
}

void main () {
    int x, y;
    for (x=0; x<=3; x++) y = f1(x);
}
  
```

A. 6

B. 7

C. 4

D. 8

Ans ☒ 1. A

☒ 2. B

☒ 3. C

☒ 4. D

Question ID : 5834935702

Q.55 Which of the following is an advantage of virtual memory?

- A. Processes can be given priority
- B. Programs larger than the physical memory size can be run
- C. Faster access to memory on an average
- D. Linker can assign addresses independent of where the program will be loaded in physical memory

Ans ☒ 1. A

☒ 2. B

☒ 3. C

☒ 4. D

Question ID : 5834935717

Q.56

```
int i = 5;  
int *j = &i;  
scanf ("%d", j);  
printf ("%d", i+5);
```

Study the above code fragment and choose the correct option

- A. 5 added to i
- B. Syntax error in scanf - & missing
- C. 5 added to user input
- D. 5 added to address of i

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935700

Q.57 An 8086 microprocessor is of _____ pins.

- A. 10
- B. 30
- C. 20
- D. 40

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935673

Q.58 A way of dealing with dedicated I/O devices in a multiprogramming system is called

- A. Paging
- B. Spooling
- C. Interrupt handling
- D. Interfacing

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935707

Q.59 Which of the following dictates exactly how many times the loop should run in the opening LOOP clause?

- A. CASE
- B. WHILE loop
- C. FOR loop
- D. Basic loop

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935728

Q.60 In the 8086, Identify the correct priority for various interrupts from high to low?

- A. INTO,NMI,INTR
- B. NMI,INTR, INTO
- C. NMI, INTO,INTR
- D. INTR,NMI,INTO

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935681

Q.61 Which one of the following is an arithmetic operation in C language?

- A. $n > 10$
- B. $n / 10$
- C. $n != 10$
- D. $n \& 10$

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935693

Q.62 The Boolean function $A + BC$ is a reduced form of

- A. $AB + BC$
- B. $(A + B)(A + C)$
- C. $\bar{A}B + A\bar{B}C$
- D. $(A + C)B$

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935667

Q.63 What is the output of the given code fragment?

```
int n = 0;
int a = 2;
if (!n) {
    printf ("%d SDSC ", ++a);
}
else
    printf ("%d SHAR ", a--);
printf ("ISRO");
```

- A. 3 SDSC ISRO
- B. 2 SDSC ISRO
- C. 2 SHAR
- D. 1 SHAR ISRO

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935701

Q.64 The purpose of FAT (File Allocation table) is to keep track of where to

- A. Find variables
- B. Find memory location
- C. Find files on the disk
- D. Find file on memory

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935705

Q.65 For accessing a member of a structure pointer, _____ operator is used.

- A. .
- B. &
- C. ->
- D. &&

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935698

Q.66 Which of the following are TRUE with regard to what an abstract data type specifies?

- I. the components
 - II. the structural relationship of the components
 - III. the list of operations that are allowed to be performed
- A. Only I and II
B. Only I and III
C. Only II and III
D. All I, II and III

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935736

Q.67 The _____ section of a PL/SQL block contains code that creates variable, cursors and types.

- A. DECLARE
B. BEGIN
C. EXCEPTION
D. END

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935724

Q.68 The term used for denoting the method of communication, where Transmission / reception takes place at one direction at a time, is _____

- A. Half duplex
B. Two wire model
C. Four wire model
D. Full duplex

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935684

Q.69 In 8086 microprocessor, _____ register is used as a default counter in case of string and loop instructions.

- A. AX
- B. BX
- C. CX
- D. DX

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935682

Q.70 What is the process state, in which all resources available that it needs to run, but the CPU is not currently working on this process?

- A. RUNNING
- B. READY
- C. WAITING
- D. TERMINATED

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935708

Q.71 Between what components of a computer does an I/O processor control the flow of information?

- A. I/O devices and cache memory
- B. I/O devices and main memory
- C. Two I/O devices
- D. Main memory and cache memory

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935718

Q.72 When E-R diagram is mapped to tables, the representation is redundant for

- A. Weak entity sets
- B. Weak relationship sets
- C. Strong entity sets
- D. Strong relationship sets

Ans  1. A
 2. B
 3. C
 4. D

Question ID : 5834935731

Q.73 In the 8086, how many registers are there in segment register group?

- A. 4
- B. 2
- C. 8
- D. 10

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935672

Q.74 FTP server and client translate _____ form to _____ form compatible with their respective environments during transmission.

- A. NVT, client
- B. Native, NVT
- C. NVT, native
- D. Server, NVT

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935686

Q.75 Which one of the following is not true for a VIEW?

- A. View is derived from other tables
- B. A view definition ID permanently stored as part of the database
- C. View is a virtual table
- D. View never contains derived columns

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935729

Q.76 A domain is atomic if elements of the domain are considered to be _____ units

- A. Different
- B. Indivisible
- C. Constant
- D. Divisible

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935725

Q.77 What is the worst-case computing time for any sorting algorithm which sorts by comparison?

- A. $O(n \log n)$
- B. $O(n^2)$
- C. $O(n^3)$
- D. $O(\log n)$

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935734

Q.78 Ethernet standard is called IEEE _____

- A. 802.3
- B. 802.4
- C. 802.5
- D. 802.11ac

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935683

Q.79 Number of 2×1 Multiplexers are required to implement 64×1 Multiplexers _____.

- A. 32
- B. 61
- C. 62
- D. 63

Ans  1. A

 2. B

 3. C

 4. D

Question ID : 5834935666

Q.80 SET concept used in _____

- A. Network model
- B. Hierarchical model
- C. Relational model
- D. Object oriented model

Ans  1. A

 2. B

 3. C

 4. D

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