

## CMC General Question

1. Mention five topics in which you are comfortable. (So be sure what are you comfortable with and in which topics you are quite confident of yourself.)
2. What are your future plans?
3. What is your EAMCET rank and why didn't you join other Engineering colleges?
4. Why did you opt for CMC?
5. What is your standing in your class?
6. If you are given a chance to choose higher studies and job, which would you prefer and why?

Technical:

1. In what way are data warehouses different from databases? (This has taken most of my time, since we got into a discussion of each and every aspect. Some important aspects touched upon are: OLTP transactions and OLAP transactions, querying, response-time of a database, load on the database, query processing etc.).
2. What is a view? What is the use of a view?
3. What do you find most interesting about Digital Signal Processing/Processors.
4. In what way a Digital Signal Processor is different from a generic Intel Processor
5. Could you draw the block diagram of a simple processor like INTEL 8088?
6. Can you give the number of address lines and data lines in INTEL 8088?
7. Could you pictorially draw the memory architecture in Digital Signal Processor?
8. Why need of a separate family of processors - Digital Signal Processors.
9. Could tell us just one practical application of Digital Signal Processor where it is highly relevant to use a DSP.
10. What is a dirty bit? What is it that led to the evolution of the whole concept of dirty bit?
11. What is an operating system?
12. On which operating systems have you worked?
13. Why do we need an Operating System?
14. I have to load a program/data into main memory whose size is more than that of main memory? Could you explain the process that takes place in the Operating System to manage such situations? (Paging and Buffer Management, explain)
15. How are priorities set to a process? Are they given by a user or by the system?
16. Are CPU Scheduling and Process Scheduling different?
17. How is memory allocated to processes in a multi-processing environment?
18. Which programming languages are you comfortable with?
19. What are various types on 'int' one can have in C?
20. What is the difference between those types i.e. short, long etc?
21. What is a structure in C? Why the need of such a feature? Could you write a sample structure and explain?
22. On which C compiler do you work? What is the length of short int?
23. What is the use of a static variable in C?

Nagendra

1. What is virtual Memory ?
2. Write the hexadecimal equivalent of 258.

3. What is Line Algorithm?
4. Why is the first form of normalization so defined ( Databases ).
5. Why do we have different forms like hexadecimal, 2's complement, octal etc ?
6. define operating system.
7. what is deadlock ? give a real-life example of deadlock .

- 1) What is Referential Integrity?
- 2) What is the advantage of maintaining the data in the database over storing it in flat files?
- 3) Explain the 3 normal forms?
- 4) Why do you have to normalize a schema?
- 5) What are the problems of having redundancy in the schema?
- 6) Have you heard of Codd's rules?
- 7) All variables in C should have a data type. Do you agree? The, what is the data type of a pointer?
- 8) If you write C code in Turbo C, compile and get an executable out of it, will you be able to run the executable in Unix or Linux? Why?
- 9) What is the size of an integer? Is it the same always & everywhere? If so , why cant you use the same object code (produced in one OS) and run it on another OS?
- 10) How about java? What makes java platform independent?
- 11) Write a program to count the number of 1's in the binary representation of a given number.
- 12) Denormalisation in DataWarehousing & Data Mining.? Have you heard of it in DWDM course? This was asked in the context of increased redundancy if normalisation not done.

Vijaya Chandra

- \* What is first normalisation?
- \* Design a layout for storing the names of people and different modes of communicating with them
- \* What are the benefits of Objected Oriented Technologies?
- \* What is polymorphism?
- \* Of the following two implementations of a stack using a vector which is a cleaner version and why?
  - a) The stack inheriting the vector
  - b) The stack including a vector member in it

- 1) What is Harvard architecture
- 2) What is Histogram Equalization
- 3) write C program for Histogram

- 1) what is a bridge ? (related to computer networks)
- 2) what is meant by VHDL
- 3) and some project related questions like they asked me abt DSP processor used in my project i.e TMS32010

1. Describe the Embedded project that you did ?
2. What are the different socket calls ?
3. Does distributed databases mean different servers running on different systems or what ??
4. s1 English  
s2 French

s3 Japanese  
s1 French

Retrieve people who know both English and French ?

5. What exactly is the significance of the 3 normal forms ? How does the first normal form help in achieving this goal of the normal forms ?

6. What is Multiprocessing, Multitasking and Multiuser OS's ?? Specific differences ?

7. Is Windows NT a multiprocessing system ?

8. What abt Unix and Win-95 ?

9. What abt DOS ?

10. Explain pointers in simple terminology as if I dont know C ??

11. What are the uses of pointers ?

12. Different parameter passing methods and their explanations ??

13. Parameter passing in C ??

14. Is C a block structured language ?

15. What do U mean by block structure ??

16. How many levels of nesting are possible in C ?

17. Difference between the pointers in C & Pascal ??

18. Difference between local and global variable ?? Differences in how they are stored ?

19. Can a function call another ? Until what level ? How do the calls occur ?

20. What kind of language is Algol ?

21. What is reentrant code ??

1. How are hub, bridge, switch and router different.
2. When to use the above devices specifically
3. What are different network topologies
4. what is the difference between paging and segmentation
5. what is virtual memory
6. What does fork do
7. What are the differences between a command and a system call in Unix
8. What are mapped files
9. What are the debugging tools that you use?
10. How do you use 'gdb'?
11. What is the definition of a Turing Machine?

1. What is an identity element
2. What is an invariant

1. What is a field and what is a group?

1. What is XML?
2. What is the difference between XML and HTML?
3. What are the XML tools that you have used?
4. How does XML look in a browser?

5. Which browser and version support XML?
6. How does the browser display an XML document when there are no formatting tags?
7. If XML documents can have any tags and different authors may name the same things differently how can XML be a standard?
8. Why should we not store the XML document as a relation directly without storing the tree structure?
9. If I have a student database should I store it in a relational DBMS or an XML DBMS
10. What is XML based on?
11. If SGML is the superset of XML why not use SGML?

1. What are the advantages of Object oriented programming languages?
2. What are the drawbacks of object oriented programming languages, say C++?
3. What are the other object oriented programming languages (other than C++)
4. Write the implementation of a stack?
5. What is IPC?
6. What happens when you switch the computer on?
7. What did you learn in Computer Organization, Digital Circuits?
8. What is a Karnaugh map for?
9. What is the difference between combinatorial and sequential circuits?
10. A boolean expression is given. Give the minimum number of gates required to implement the expression.

The expression was something like this ( $\sim$  - not, + - or)  $a\sim b + b\sim ac + a\sim bc + \sim ac$

11. What did you learn in AI?
12. What are agents?
13. What are the general errors that you get in C++?
14. When and why do you get 'Segmentation Fault'?
15. What is PL-SQL
16. Write down the IT subjects that you have done in your BTech? Project related :-

What is HTML?

How does the web work?

What is XML, How does it differ from HTML?

What is special about asp.

What does ISCII have which UNICODE doesn't have?

What is demand paging?

Except for naturality, why is recursion better than iteration?

Write down a factorial program? Will it compute 2000!

What is virtual memory?

What is JVM? Is it platform independent? What is the environment that it requires/defines?

Write down the definition of a structure for a point? What is its size? Add a 'byte' to it? Now what is its size?

Declare a 10X5 integer matrix using pointers?

What is mkfs in Linux?

How is the filesystem organization in Linux?

What is an inode?

What is your GRE score?

Would you like to go for GRE later?

What are your areas of interest?:

1. What is an Embedded System ?

2. Is an Embedded system ALWAYS used to assist an Electronic gadget ?
3. Give Pin configuration of a 9-pin RS-232 port.
4. Block diagram of your project in Embedded Systems.
5. What is UART ?
6. The interface between a program which is capable of changing the serial port settings and the port itself.
7. What is a circular queue ?
8. Its advantages over a normal queue.
9. What is a Switch ?
10. What is a Router ?
11. What is a Bridge ?
12. Which is more expensive - router or a switch ? and why ?
13. Can a Bridge be used to interconnect more than 2 LANs ?

1. Why did you join IIIT ?
2. What was your EAMCET rank ?
3. What is your CGPA ?
4. What is your GRE score ? split ??
5. How important is this job for you ?
6. Did you attend for the I-labs interview ?
7. Any questions ??

1. What is a binary tree? (data structures)
2. Inorder, preorder and postorder traversals of a binary tree.
3. Write a program to insert a new node(value) in a binary search tree.
4. Can assembly programming be done in C?
5. Define OS? (operating systems)
6. What is thrashing?
7. What is a deadlock?
8. How does an OS detect a deadlock?

9. What are constraints? (Databases)

10. Write a program to compute the histogram (frequencies of grey levels) of a black & white image. (Digital Image Processing)

1. What is your rank in the class?
2. What are your future plans?

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- 1) Explain the project with the help of block diagrams
- 2) What exactly happens when a signal is sampled at the receiving end. How does the sampling circuit look like.
- 3) How is the convolution of two different signals done.

What does the result suggests.

4) Explain the TMS DSP processor's architecture.

5) Why are we using DSP processor other than normal processor. Advantages??

1) What is India's position in the current Hockey world cup being held in Malaysia.(As on the day of interview)

2) In Linux, list some commands What is shell and what are the advantages of various shell variables. Have you ever used them while programming.

3) What are the various types of files generated when a c file is compiled in linux. What in general happens when a file is compiled.

4) What are shared libraries in unix. How do they differ from the normal ones.

5) What is virtual memory.

6) What is line algorithm.

1) What's the use of sizeof( ) function... since one can always directly write number of bytes instead of calling the function.

2) Depict the values:

```
int p = -200;
```

```
char c;
```

```
c = p;
```

```
printf("%d\t%d", c++, ++c);
```

1. Why do you want to pursue a job at I-labs.

2. If someone asks you very low level questions how would you feel.

3. If you had a choice between higher education and Job, what would you prefer and why.

4. How important are your past achievements for you.

5. What is the difference between LIFO and FIFO

6. What are the main aspectal differences between Java and C++.

7. What is Morphing

8. What is the meaning of Normalization

9. What is inheritance

10. If you had to choose between inheriting and creating an instance in the new context of a new class what would you prefer and why

11. If there is a database of book with the title and authors and number of copies, what additional details do you need to decided upon the model of your database architecture.

12. How do you rate yourself in comparision of your classmates.

13. Why would you work for two years and pursue the next degree and not immediately. (Incase i do a job)

Technical

- What is First Normalization

- What is Second Normalization

- What is polymorphism in OOAD

- What do you mean by extending a class in JAVA

- What is encapsulation
- Why did you choose IIIT for your graduate studies
- What did you learn as a TA
- What are your strengths
- Why are you not interested in doing MS or higher studies
- Given a choice, would you work in a huge company or a startup small company when the pay scales are equal

- 1 . Tell me something about your family ??
2. What is your EAMCET rank ??
3. Why did you join IIIT ??
4. Did you think your decision is correct ??
5. What do you think you can contribute to i-Labs ??
6. With 2220 GRE score why do you want to join us ??