



# DEPARTMENT OF CAREER PLANNING & DEVELOPMENT

Discover. Learn. Empower.

# PI ENCYCLOPEDIA

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## **HR Interview Questions**

### **1. Tell me about yourself.**

A. Good Evening sir/madam. I have completed by schooling from St. Caramel Public School back in my hometown i.e. Ludhiana. I am pursuing my dream career of becoming a Computer Science Engineer here at Chandigarh University. My aim in life has always been straight and clear as I have been raised in a disciplined and valued environment since my father is in Army. I have been participating in numerous events related to both my core stream and my extra- curricular such as Robo Champs, Code Decode, Youth Festivals, etc. It has been a privilege that I have hosted a number of events for the University by being the Anchor. My interest in travelling leads me to various new places that helps me to rejuvenate and learn about new cultures and places. I aim to be an all-rounder who excels in all the fields.

B. Good Evening sir/madam. I am Ramesh, pursuing my Mechanical Engineering. It was my passion with the machines that led me to this career. I was and still am very intrigued about how machines work an ho can better machines of the future be developed. With the same vision I participated in Tech Invent Event at our University and won accolades for making a futuristic bicycle that also generates enough energy for charging small appliances such as a cell phone. I am a very outgoing persona nd I like to observe my surroundings to gain the maximum out of it such as new learning from people behaviour and communication, cultures and values, etc.

C. My interest in electrical equipment from childhood has led me to my career of being an Engineer in the same field. I wish to innovate and reinvent the way we use electricity. I come from a family who has been serving the nation for many years by contributing in the education of the children. My parents are teachers and have always been the guiding light. I was always been very close to nature. So, whenever I get some free time, I like to spend time gardening and taking care of plants around my house.

### **2. Why should I hire you?**

1. Sir, my passion in programming is unmatched. As you can see, I have been participating and winning many events on programming and coding. I would say that I have a hunger to perform exceptionally well while considering my team. I am always hungry to learn new things with passion and I can perfectly adapt to new situations.
2. I really want to practically explore and experience my potential by delivering the best services to the company. It will be my honor to work with you and this organization.
3. I am loyal and hardworking since my childhood – in my school and college, I was one among the dedicated set of students who had been completing the task or assignment on time. For these excellent qualities, I got appreciated many a times. I am fully dedicated to my subject and I put in extra efforts to learn new things. As you can see I have been involved in many seminars and training sto upgrade my knowledge. I will be exhibiting my sound technical as skills
4. I am the best fit for this job profile, due to my outstanding programming (C, C++, C#, HTML, and .Net), networking, analytical and problem solving skills. Also, I have practical experience in many Operating Systems. I have successfully managed my team during our project when I was the team leader and I believe that I can contribute positively to the company's growth.

### **3. What are your strengths and weaknesses?**

1. Sir,I believe that my strength is my belief in simple living and high thinking. I am punctual and do my work at a time. But many a times it happens that I trust the other person very easily and sometimes this puts me in problems
2. If I talk about my strengths, I am Self-motivated, confident and positive. I have successfully exhibited my leadership skills and communication skills through various events and activities but it is hard for me to relax until my work is complete and this leaves my exerted at times.

3. My strengths lies in the stoical attitude of mine, the fortitude to surpass all barriers and emerge victorious in my task. Hard work pays rich dividends and this describes me. I am an optimist by view, learning lessons from past, implementing in the present and progressing to the future.

**4. Why do you want to work at our company?**

1. I want to work with your company because of its management skills, reputation, philosophy, awards and the goal of innovation. I consider myself as an innovator, and also my skills match with the job specification provided. By getting a job in your company, I would not only use my skills but also acquire new skills to develop the company and reach its goal.
2. I am driven to be the best at what I do and I want to work somewhere where I'll have opportunities to develop my skills, take on interesting projects, and work with people I can really learn from. Some of the most innovative thinkers in the industry work here and that's a big reason why I would love to build a career here.
3. It is a privilege to anyone to work in a reputed company. I read about your company profile so I found my skills are matching your requirement. Where I can showcase my skills to contribute to the company growth. IT will be proud feeling for me to work in a reputed company like yours.
4. Sir, with all due respect I want to say this it will be indeed an honour to me to serve in your company since it is a company of great repute and doing excellent from the time its inception. Sir, if a get a chance to work in this company, I would like to encash it with my open arms because I consider this as a lifetime opportunity and it would be an extremely learning exposure which I would be getting if given a chance.
5. Sir, your company is at the top in its sector and who doesn't want to associate with a company who is doing such a tremendous job. Apart from that, the complexities and challenges offered to an entrant in this company help a lot in enhancing his professional skills while the environment here gives a perfect take off to the dreams of a fresher.

**5. What is the difference between confidence and over confidence?**

1. The difference is just that "over". When there is no ego for achieving and thinking I will and I can do that then it is confidence otherwise over confidence.
2. Confidence is when you have a goal. You work hard for that and believe that you can do it. But when you do nothing for your goal and still believe that you can do it, then, this is called over confidence.
3. Sir, I believe that preparing for something and having a feeling that you will perform well at it is confidence and not preparing for something but still thinking that you will perform excellently at it is over confidence.

**6. How do you feel about working at nights and on weekends?**

1. Sir, I will definitely work at night and weekends if the company need me to do as I do realize that every establishes organization runs on a different operational style and if required due to some projects or prior work commitments, I will be happy to extend my work hours.
2. I will try to complete my tasks within weekdays effectively and efficiently to avoid weekend and night work. I believe that our mental and physical health is very much important. If you are feeling fresh, you can contribute more effectively, and ultimately will be a cause to increase the productivity.

**7. Can you work under pressure?**

1. Yes, of course. Sir I think of pressure as a motivation, not as an obstacle. If I focused on my work, I can do it well. I keep calm myself and focus on multi tasking while being patient.
2. Yes, I can work under pressure. I always prepare for that, I think sometimes pressures make you strong. Your strength & skills get polish during this.

**8. Are you willing to relocate or travel?**

1. Yes, I have no issues with the relocation. I have been staying away from home from the last four years, therefore I am not home sick. And I like to come across different cultures and well-experienced people, and it will help me to groom my skills and knowledge.
2. Yes Sir. I will be more than happy to relocate whenever the need arises because I am flexible and adapt to any new situations & environment easily. Moreover, I have a passion for food and culture. This pushes me to try out different cuisines wherever I go. So, adaptability to new environments is never an issue.
3. Sure sir, I am an adaptable person and can handle all circumstances because I am always ready to face new challenges and new environments. Every new challenge teaches something new. And new achievements have success paths. Therefore, I am happy to relocate without any issues.

**9. What are your goals?**

1. My short-term goal is I want such a platform where I can grow my career along with the organization growth like yours. My long-term goal is to be in respectable position in that organization.
2. My short term goal is to work in a reputed organization like yours where I can enhance my technical skills and knowledge. My long term goal is to see your company at top most position where I am one of the person responsible for it.
3. My immediate career goals include consistently adding value to myself through learning and upgrading skills. In the long term, I would like to grow as a leader and make myself capable of taking up management position while contributing significantly to the growth of my organization.

**10. What motivates you to do good job?**

1. I am a self-motivated individual. I am dedicated to streamline all my efforts into the right direction to achieve success. You could say, that success is my biggest motivator. I believe that every hurdle or obstacle is a learning step and contributes hugely to experience and success.
2. The main factor that motivates me to do the job is my zeal, and my passion towards the job. I am always eager to enrol for learning new technologies and softwares and gain from people who have experience in that field.
3. I feel that personal challenges are what keep me going and keep that fire burning inside me. I like to devote every second of my time for my betterment and skill enrichment. Once complete, I like to raise the bar and move further.

**11. What makes you angry?**

1. Sir, as I like to be a perfectionist, compromising with the output makes me angry. For example, it was during the project submission time, when my team mates had added to the timelag and we were nearing the submission deadline, they were working half-heartedly on it. This irritated me a lot, though I kept my cool and tried to guide them in the best possible manner.
2. Generally, I am a cool headed person. But if someone is trying to abuse me or any of my colleagues, I get angry. But even in that scenario, I handle the situation in a respectful manner.
3. Sir, I am not a short tempered person but I experience a bit of annoyance when some one disturbs me in between my work without any genuine reason.

**12. Give me an example of your creativity.**

1. Creativity is nothing but doing something in a more innovative way which should be appreciated by others. In my school science exhibition, I made a live model of soap formation and which was not only appreciated but awarded to that was my creativity. I made that different from all others.
2. Creativity means to come up with new idea from existing one. Whenever I solve any questions, I always try to make it some easier way so that it could take some lesser time to solve the problems. And I love teaching, so I always try to find out the easiest method to convey the solutions to others.

3. Creativity means making difficult things in an easy way to understand. For example, when a small child asks me about Newton's 3rd law I will take a ball and throw it to that child and tell it to catch and then tell the child to throw it back to me which explains every action has an equal and opposite reaction.

**13. How long would you expect to work for us if hired?**

1. It is an initial stage of my career, and moreover, I am expecting good opportunities which could help to build my career as strong as possible. I will work with the organization as long as it needs my services and give chances and challenges to me to grow.
2. I would like to pursue my career here for as long as I have the opportunity to. I would like to remain employed here as long as my services are needed. I like new challenges and a chance to grow. As long I keep getting these, I don't think I'll need to switch over.

**14. Are not you overqualified for this position?**

1. For me, I don't think I am over qualified as I have only theoretical Knowledge and practical knowledge. And when it comes to knowledge learning never ends.
2. When it comes to learning & growing, over qualified is not a term that fits. And there is always room for learning from every single work we do. So, no, from my point of view, I am not over qualified for the position.
3. I am a fresher. I could never be over qualified. If you grant me a chance I may become perfectly qualified. But I think, learning never ends. I will get an ample chance to learn new things and have effective knowledge, which in turn would be beneficial to your company as well.

**15. Describe your ideal company, location and job.**

1. My ideal company is one which provides me a healthy environment, a group of intellectuals and where leadership sets an example to encourage me. My ideal job is which provide opportunities to do more better in life and add myself to company profit and also to my nation growth. And where these two aspects are found that is my perfect location.
2. For me, an ideal company is that which helps me to enhance my skills and helps me in developing myself as a professional. My ideal job is one which gives me satisfaction and also in which I can use my whole potential. My ideal location is that where I can get new things to learn and where the people around me are hardworking, honest and for whom the work is the first priority.

**16. Explain how would you be an asset to this organization?**

1. Sir, I chose nothing but excellence. I do my best to provide for the best ever expected. I know and understand the need for sacrifice, extra time, punctuality, and thoughtful interventions for the best services and productivity so as to provoke an exponential growth in the industry. I am also courageous enough to try out new strategies. I believe that I can have any job done not only on time but doing it excellently.
2. I am always motivated to outperform my present level and set higher benchmarks for my self. My principles motivate me to be more dedicated and willing to work as a team in a more creative manner that focuses objectively on results. I am surely going to be an asset to the growth of the organization.
3. I can be an asset to this organization because I think that I have the capabilities, skills and qualifications to work and I am willing to improve the skills that I have in congruence with what the organization or company upholds. My dedication and my motivation are a great factor in achieving goals towards my work.

**17. If required, would you lie for the company?**

1. I cannot lie for anyone but can give a convenient answer to handle the situation. A lie can break the trust and can give a bad impression of the company.
2. B. It depends on the situations and the conditions. If there is a situation where I have to lie at any cost and no other option is left then I might lie for the sake of the good of my company.

**18. Who has inspired you in your life and why?**

1. I am greatly inspired by Mr. Nick Vujicic- a victim of a rare disease Tetra-amelia syndrome, which is characterized by the absence of all four limbs, After graduating in Accounting and Financial Planning, he started his journey as a motivational speaker of subjects revolving around meaning of life, hope and disability. He also runs his NGO-Life without Limbs. He inspires me whenever I feel distracted or demotivated. His journey of life is amazing and he is true role model.
2. I would say, my parents, because they have always taught me the good values in life, always shown how determination, ambition and hard work are important in life. They are motivators and have given me the lesson that everyone deserves a second chance in life. So, one should never quit.
3. My inspiration is Swami Vivekananda. Whenever I need direction in life, I read his quotes. It gives me a lot of energy and improves my self-confidence. I believe that if you fail a thousand times, you should try one more time and never ever give up.
4. If there is one person who inspires me every time I need, it is Steve Jobs. He is one of the very few who can lead by a true example. He is master of dreaming big in life and inspires others to do it. He propagates having holistic knowledge and seeking different experiences in life.

5.

**19. Have you considered starting your own business?**

1. I haven't considered opening a business because I think my skills are best suited to a career in Software Designing. I know that a position with an established employer will let me focus on developing those skills and eventually reaching my goal of becoming one of the top Software Developers in India.
2. Opening a business wouldn't be a good fit for me because I do my best work in stable jobs with well-defined responsibilities. I also enjoy working in positions that let me learn from my co-workers and managers.

**20. How do you define success and how would you measure your success?**

1. As someone great said, When your signature becomes your autograph- that's the success. I greatly believe in this and I want to progress in a manner that one day I am able to achieve the same and convert my signature into my autograph. I do understand that it is a very long and demanding journey but I am focused on my aim and will surely achieve it.
2. Success, is when you are able to achieve your goal. When you are able to aim at your target. It comes through a number of factors such as setting the right goals, making a strategy to achieve the goal and then working meticulously to turn it into a reality.
3. For me, success is a never ending journey. For me, the parameter increases as I accomplish one goal. And this helps me to keep on learning and never let success get into my head.

**21. If you become a millionaire, would you still work?**

1. Yes, I would like to work because \$10 million lottery is one-time happiness but earning money with hard work will give me more satisfaction.
2. When world's top Richest people are working wholeheartedly in spite of their huge wealth and always looking for a brighter side to expand their business or work so why I would not?  
Certainly, I will keep working even if I win \$10m or more lottery because lottery is matter of luck on which we can't rely however on Hard work and consistency of positive efforts is something which will always keep us in race.

**22. Tell me something about our company.**

1. It is one best fastest growing company in India. The work environment of the company is very good. People feel proud to be part of the company. It has many branches across the world so I have good opportunity to show my talent.
2. As I researched employment opportunities, your company stood out to me. The job posting mentioned that you value a fun workplace just as much as company success, and the company website

reemphasized this. This mindset really resonated with me because I firmly believe that the most successful companies are built on both dedication and laughter.

**23. How much salary do you expect?**

1. Sir, Salary is not first priority for me. This is a big platform to start my career and I also want to improve my knowledge and skill and gain experience. So I expect a considerable of salary according to my ability and your company's norms which will fulfil my economical needs.
2. I am sure being one of the fastest growing company in India, your company will provide a good competitive salary according to industry norms. But right now I am just looking for an opportunity to prove my worth for your company.

**24. Where do you see yourself five years from now?**

1. 5 years from now, I see myself at a managerial level as I like to work with full dedication and commitment while enhancing my professional skills, interacting with different people and integrating new work methods.
2. I'm really passionate about the work I do and would love if there were opportunities for me down the line to be able to mentor other employees or new recruits to be successful within this position, perhaps as a manager or supervisor.
3. From the moment I read the job description for this position, I was really excited about your company's role in the industry, and for this reason, am thrilled at the possibility of working with you for a long time. I'm very passionate about programming and I'm looking forward to the opportunity to be heavily involved in this area.
4. After 5 years, I want to see myself with a good knowledge and better skills at a senior position while taking more responsibility and contributing towards the growth of the company.

**25. On a scale of one to ten, rate me as an interviewer.**

1. Well, I don't think anyone can be a good judge of anything in such a short time span. I believe it would be naive of me to think that I can rate you out of ten at your own job by only spending 30 minutes with you. However, I can rate this interview session a perfect 10 on 10 as it met all my expectations and I had a great experience interacting with you gentlemen/the panel.
2. First of all sir, I would like to give you thanks for giving me this opportunity. But I must sorry to say as a learner I do not suppose to give the ratings to my lenders. But I must say one thing that I am quite happy with this conversation and it really nice to talk to you, sir. Thank you once again.

**26. Do you have any questions for me?**

1. A. I would like to ask you if you could describe the culture of the company for me. It will be helpful for me to understand the company in a better way. Before joining a company, one should know about its culture. So, I will be thankful if you help me out here.
2. B. The question which I prefer to ask is about the most important qualities for someone to excel this role. I just want to know what qualities you look for this role in your employee. The answer to this question will be helpful for me by looking from your point of view.
3. C. I want to know about day to day responsibilities of an employee in this job. I want to know what this job all about is and I want to prepare myself in a manner that I would never face any problem in this job.
4. D. Could you please tell me about the background of this company? I want to know all about this company from its starting to the present. Also, tell me how much development has this company observed from past few years.



## **Behavioural Questions**

### **1. Sell this pen to me**

**Word of caution:** This is a question where an interviewer is going to know about strategies and techniques a candidate will use for sales and marketing. The interviewer wants the applicant to demonstrate his approach in selling a product. So, it is imperative that the candidate is prepared to pitch a product or service. Even if the profile is not for sales or marketing, this question might just test a candidate's ability to communicate convincingly and effectively.

#### **Answer A**

**Interviewer:** Sell this pen to me.

**Candidate:** What do you write with in the office?

**Interviewer:** A pen.

**Candidate:** How often do you write?

**Interviewer:** Every day.

**Candidate:** Is it fair to say everyone else writes every day?

**Interviewer:** Yes

**Candidate:** Does everyone get a pen to use in the office?

**Interviewer:** Yes

**Candidate:** Is a pen one of the things that all your staff have?

**Interviewer:** Yes

**Candidate:** Is building a successful team important to you?

**Interviewer:** Yes

**Candidate:** So if everyone in your company uses a pen. And everyone uses a pen everyday - you could say a pen symbolizes unity in your company?

**Interviewer:** Yes

**Candidate:** Well what do you say? Should we give your people a pen they can be proud of?

(Show him the new pen)

**Interviewer:** Yes.

## **Answer B**

Sir, I'm sure you'll agree with me that a pen is vital in your day-to-day work and it's therefore important to make sure you've got just the right one? This pen is solidly constructed so as to be durable for everyday use – even if it rolls off your desk. Secondly, it has abundant ink reserve so there's less chance of the pen running dry at a critical moment. It fits comfortably into the hand and even has a clip so you can safely attach it to your jacket pocket when you're on the move. I can offer you this pen at the very reasonable price of Rs.10. However, if you were to take three – I'm sure your colleagues would also be interested – then I could offer you a 20% discount making a total of just Rs.24. How many would you like?

## **Answer C**

Candidate: Sir, when was the last time you used a pen?

**Interviewer: This morning.**

Candidate: Do you remember what kind of pen that was?

**Interviewer: No.**

Candidate: Do you remember why you were using it to write?

**Interviewer: Yes, for signing a few new customer contracts.**

Candidate: Well I'd say that's the best use for a pen.

Wouldn't you say signing those new customer contracts is an important event for the business? (*Nods head*) Then shouldn't it be treated like one. What I mean by that is, here you are signing new customer contracts, an important and memorable event. All while using a very unmemorable pen.

We grew up, our entire lives, using cheap BIC pens because they get the job done for grocery lists and directions. But we never gave it much thought to learn what's best for more important events.

This is the pen for more important events. This is the tool you use to get deals done. Think of it as a symbol for taking your company to the next level. Because when you begin using the right tool, you are in a more productive state of mind, and you begin to sign more new customer contracts.

Unfortunately, this is my last pen today (*reach across to hand pen back to Interviewer*). So, I suggest you get this one. Try it out. If you're not happy with it, I will personally come back next week to pick it up. And it won't cost you a dime.

What do you say?

**Interviewer: Yes.**

## **2. Speak for a minute about yourself.**

**Word of caution:** When you introduce yourself, you must give a tiny talk, full of facts about yourself and your work without forgetting that the entire moment is a not about you alone. With a little forethought, you can become more confident at delivering the "1-minute talk."

When you meet someone new in a professional context, your goal should be to communicate four things: who you are, what you do, why you're meeting them, and most of all, why should they care that they are meeting you. A little reflection will help you develop your opening lines and find natural answers to these four questions. The personal introduction is a tiny speech, but it's more than that; it's an exercise in fulfilling expectations.

The best way to do it is to provide a **Success Story** that highlights the Quality that you are trying to demonstrate.

A Success Story is an example from your past work experience that clearly demonstrates you succeeding in some way. For example, a time that you solved a problem, excelled in a difficult situation or used a certain skill to get the job done.

However, if you are a new graduate and do not have much experience, you can reference your **academic achievements**, strengths, **athletic endeavors**, **charity** and **volunteer work** with examples.

### **Answer A**

It is my pleasure to introduce myself to you. My name is ..... I was born and raised in ....., the city of ..... I completed my basic education from there itself. Thereafter, I joined Chandigarh University for doing Bachelors in Engineering. I have a wonderful family of five members. My father is a retired Govt. Employee. My mother is a homemaker and I have two elder sisters. Both of them work in different MNCs.

As far as my achievements are concerned, I was selected as the class representative several times during my study in the University. I self-taught myself Photoshop and participated in many online digital art competitions. I was selected in State Talent Scholarship Examination conducted by World Health & Education services in the University. I have also participated in many blood donation camps organized by the Red Cross Organization.

My greatest strength is that I'm a hard working person and a fast learner and. I always take task at hand on priority and deliver it on time. My success in my projects justifies my statement, I feel.

### **Answer B**

My name is ..... And I am from..... I am pursuing my B-Tech in Computer Science from ..... I have completed HSC from ..... and my SSC from..... with aggregate .....%. We are five members in my family. My father is a private employee and my mother is a homemaker. I have two siblings.

About my initiatives, I have been a part of NSS team in the University and presently I am leading the NSS team at the University. This has helped me to strengthen my leadership skills. Apart from this, I have been an active part of the organising team of the University for different events like CU Fest.

Professionally, I want to become a successful web designer. With my exposure so far, I have learned the values of teamwork and commitment. I like to focus and concentrate on goals persistently by balancing my time and priorities. With these attributes, I am keenly interested to join this organization so that I can grow with the growing institution.

### **Answer C**

Good Morning Sir. My name is ..... and I am pursuing electronics and communication engineering from .....I've done my schooling from ..... where I scored.....per cent marks in Xth and .....in XIIth standard. I am good with analytical skills as I scored 95% marks in Mathematics in class XIIth. I also represented my school and college in various quiz and debate competitions and won awards at the state level.

On the personal front, I have a positive attitude towards life. I believe in achieving success in life through consistent hard work and learning. Having done internship at ....., I have had exposure to the corporate world and find it fascinating. I learned quite a lot from my internships.

### **3. If you were to be an animal, which one would you be and why?**

#### **Answer A**

I would be a lion because the king of the jungle always stands tall and ready to fight. Being strong and mighty, it never leaves the hand of its mates. Instead, it makes sure to take the entire group with him and makes sure of the safety of others. This makes him a skillful leader and good team worker.

#### **Answer B**

If I were an animal I'd probably be a dolphin because they are very intelligent yet they don't appear to take themselves too seriously. They enjoy being part of a group, look out for each other and also enjoy having fun. Here I would like to make a mention that while exploring about the work culture of the organization, I found similar values on the website of the company. People are not only doing amazing work here but also volunteering for community projects together. Working hard, working smart, and having fun seem to be important values and that really resonates for me. I would look forward to building my career at \_\_\_ company if I was selected as this is a first choice company for me.

#### **Answer C**

I can associate myself most nearly with Horse. Horse stands strong in trying situations. It has an ability to function alone well and even as a part of the team.

### **4. If you were to remove one state of India which one would you remove and why?**

#### **Answer A**

Well if one has to sever his body part, it has to be for a valid medical reason. I don't see any reason for removing any state from the country.

#### **Answer B**

If India is a mother and the 29 states her dear children, the one state that could be temporarily punished by being expelled for a little while should be Uttar Pradesh.

UP is notorious for being a crime hub. Hooliganism is rampant and rarely can one find an individual who has words of praise for the Hindi heartland. Corruption, regressive thinking and environmental pollution are only some of the problems that are there in the huge cask of issues that reside there.

Maybe it should be given some time outside so that it can contemplate on its misdeeds and realize the value of being part of a peaceful and loving home considering the hostile neighbours all around.

#### **Answer C**

The only state that I can think of removing from India is the state of poverty and illiteracy. That is one state that we definitely need to get rid of. I feel other than that removing any state means killing the very soul of India. It's like removing one thing from one's face, making it look incomplete and unpleasant at the very first glance itself.

#### **5. What's the difference between good and exceptional?**

##### **Answer A**

I think that a good worker meets deadlines, accomplishes all of his work well, works well with others and overall be above reproach. However, an exceptional employee shows high levels of dedication, resourcefulness, team building and becomes commendable. A good worker is nothing to complain about, but an exceptional worker is something to be proud of. An exceptional worker always strives to better himself. There are always higher mountains to climb. I think that's a really important part of being exceptional; realizing that one is not ever done. There's always more one can do to make oneself better.

##### **Answer B**

I believe a good employee is someone who simply does a satisfactory job for the work assigned to him or her. However, an exceptional employee is someone who goes an extra mile to ensure that the job is thorough and complete.

##### **Answer C**

Good is just hard work and lots of effort to complete the task. Exceptional is good, plus some unique, creative talent that is not easy to be duplicated.

#### **6. What are the 5 things you enjoy and why?**

##### **Answer A**

One of them is definitely programming. Sitting down and actually creating something. For example, writing some code. It sharpens my skill set. I also like to spend quality time with my family in the evenings. In addition to this, I like to listen to Classical Rock music. Talking to my best friend who is currently 1163 miles away from me definitely makes me feel that we still share a strong bond. Last but not the least, eating.

##### **Answer B**

There is a big list of things which I enjoy doing but the top most are –

The petrichor –fragrance of the soil when it is raining or just before it rains and looking at the grey clouds before it rains. Both the things connect me with the nature.

Apart from this, when I offer my seat in a public transport to an elderly person, it brings pleasure to me. Having my favourite home food provides satisfaction. And when my finger is held by a baby with his pretty little cute hand, I enjoy that moment the most because that makes me feel more responsible.

#### **Answer C**

I enjoy the time which is spent on my personal growth and goals. The things which I love doing in my spare time are meditation and swimming. These activities are helpful for physical and mental well-being of a person. In addition, I like to have deep conversations with my friend about life, goals and family etc. because I think that good relations/ friends help a person to improve. In my free time, I also enjoy long walks. This activity brings relaxation and provides me some quality time with myself. Other than that, I like to go to a library to read and keep myself updated. Occasionally, I like to write my thoughts on a piece of paper. I think that helps me become creative.

### **7. What are the 3 things you are proud of and Why?**

#### **Answer A**

To begin with, I am proud to be a student of Chandigarh University. After joining this institution, I got an opportunity to learn many little things like – being confident of speaking in front of 300 people in a lecture, cultivating relationships with the amazing faculty and learning to cook and manage time. I am also proud of my academic performance which has improved greatly as I learnt to focus on managing the task at hand. Overall, I have been able to grow as a committed and hard-working person over the years. I think, this development is going to help me in building a bright future.

#### **Answer B**

I am often appreciated for my patience. Living in community with others requires generous doses of patience. And I'm glad that my personality comes with a natural sense of patience. I am also a very good listener. I like that others find me to be a good listener, and I'm often amazed at what complete strangers tell me within just a few minutes of meeting them. Further, my hard working approach is my asset. With this approach, I have been successful till now and this attitude of mine will bring success for me in future too, I believe.

#### **Answer C**

I'm proud of myself because I always try to see the positive in things. That is a rare quality which requires tremendous confidence. Further, despite being from a very conservative background with very narrow-minded beliefs, I turned out to be broad-minded and open to explore things. I like accepting challenges on the work front, so that I can get an opportunity to meet them successfully.

### **8. Who are the 2 people you admire the most and why? What are the qualities they have?**

#### **Answer A**

The two people I admire the most are my parents. I have developed a lot of qualities from them. Since my childhood, I have seen them sharing responsibilities with a lot of patience in trying situations. The perseverance and the consistency of hard work which my parents have demonstrated in dealing with difficult circumstances, is commendable.

### **Answer B**

First is Mr Bill Gates ,who is an undisputed leader of the IT World. The creator of one of the most pervasive brands, he has given up a major part of his earnings to run a charity. What more qualities can we expect from a person?

The second one is undoubtedly Mr Dhirubhai Ambani. The late Ambani still fascinates the young Indian's imagination with his riches to super riches story and a thriving legacy carried on by sons, their wives and grandkids. As they say, it ain't over till...

### **Answer C**

First and foremost is Mr Narendra Modi, who is the most followed Asian leader on Twitter. In 2014, he was ranked the 15th most powerful person in the world. His approach to work and his work as a Chief Minister of Gujarat and then as a Prime Minister of India is worth appreciating.

Other than that, an Oscar winner and music director who has been in the business long enough to make at least three generations dance to his tunes. Sure there were tunesmiths who crafted a memorable song or hundred before him, but Rahman is arguably the first to make composing cool.

### **9. Which were the 3 situations where you were highly motivated (with reasons)?**

#### **Answer A**

My scores in Xth and XIIth standards werevery motivating as I could develop a clear vision of my career. Further, when I joined Chandigarh University, I was immensely motivated because I had heard about the excellent learning environment and good placement record of the University. The University has definitely proved its mettle and now I feel motivated as I have acquired new skillsand grown as an individual to meet further challenges of life.

#### **Answer B**

I feel motivated by meeting set targets within deadlines, as it gives me a sense of accomplishment and it's something that I can look back on and say "I achieved that". So, the projects which I undertook were an immense source of inspiration. I'm also motivated by visible results – for example, when I wrote an article for the student journal in the University, I got a sense of accomplishment from knowing that up to 16,000 students would read it. And finally, when I was appreciated for the work done well, it came out to be real natural motivation.

#### **Answer C**

In school, particularly in my English course, an assignment required us to write an article on a particular topic. I went above and beyond, conducting multiple interviews and going to the local archives to research the topic. I ultimately got this article published in the school magazine. This incident motivated me a lot. Further, joining Chandigarh University was my second biggest source of motivation as no one from my family had attended college or a university. So, convincing the family and joining the University was a challenge for me and I really experienced a sense of accomplishment when I moved to my next level of education. After having completed my course successfully, I now feel motivated to join an organization where I can utilize my skills and realize my dream of being a successful professional.

**10. Tell us of the 3 situations where you were appreciated (What did people tell you?)**

**Answer A**

There are many occasions where I received appreciation from people around me. At the first place, my parents appreciate me for being a responsible person in general. I am often appreciated for being a helping hand to people in the need of the hour. And I have been appreciated by my teachers several times for achieving my targets/ projects within deadlines keeping my team members focussed.

**Answer B**

Appreciation comes naturally when a person leads an organised life which benefits other individuals in some way or brings inspiration for others. The deeds of mine which are often appreciated are –

1. Exercising regularly and eating healthy foods.
2. Honoring life in general, by making healthcare a priority.
3. Working towards my goals which make me feel passionate and purposeful. (Quote an example of consistent approach to work)

**Answer C**

The first one is when I lent an ear to my friend for understanding his problem and helping him solve it. I think good listening skills help a person to grow as an individual and become a problem-solver.

The second one is by my teacher when I carried out my responsibilities effectively as a class representative and the third one is my commitment towards my project where I was appreciated for keeping my team focussed and achieve success.

**11. What does your family and friends tell you what they like about you and what needs to change?**

**Answer A**

I think my family and friends would say my ability to prioritize things in my life is my asset. I believe, one should always be able to decide what and who is more important in a situation. I understand the value of time and hence I think I like to prioritize according to the circumstances. This is one skill, my family and friends recognize about me and if a chance comes where I have to pick someone/something else up over them, they know I am doing it for the right reasons. If you ask them what needs to be changed, I think they will suggest me to be more careful with people. I sometimes tend to trust people very easily, which doesn't work in my favour always. This is one thing my family and friends would want me to change about myself.

**Answer B**

I guess they will pick the fact that I am a very happy/optimistic person. I usually don't let a bad day affect me or my surroundings. My family and friends love humorous nature and enjoy my company. So I think if you ask them they will definitely pick my happy attitude towards life. I am not sure what they would like to change in me but I think my negligence towards eating healthy food. My daily food consumption includes a lot of junk food and hence I think they would want me to change that.



### **Answer C**

My parents and friends often appreciate me for the responsible behaviour and commitment towards work. I mostly take task at hand seriously and work on it with a commitment till the end. Due to this approach, I am often given the tasks at home which demand a considerable amount of dedication as everyone trusts that I am capable to fulfil the requirements with utmost efficiency. However, they often complain about the possessiveness in my personality. I am very possessive about nearest and dearest ones and sometimes this hampers their freedom. I am working on improving myself in this area.

### **12. What personal qualities you think will help you in your job?**

#### **Answer A**

My strongest attribute is my determination. I take on every challenge head-on and do what I need to accomplish my goals, even when the challenge is difficult. Every time I was given a new challenge as a student, whether it was leading my first team project or meeting a quick deadline, I always enjoyed stepping up and demonstrating my skill at that new task. It has been stated in the job listing that a candidate who enjoys a challenge is being sought for and I know that I fulfil this criteria.

#### **Answer B**

One of the biggest attributes that I'd bring to this position is flexibility. At my previous internship, my title was "programmer" but I was able to help the product team during focus group testing and work with the editing department to tailor their communications and messaging. Ultimately, I am willing to work with a flexible approach in the company to make sure projects are a success.

#### **Answer C**

I am a meticulous and a responsible person. I do not rest until the work is completed. Due to this reason, I had been entrusted with the responsibility of Class Representation during my University education. I acted as a leader of the project team twice as the deadlines were narrow and the team had a faith that under my leadership, the deadlines would be met easily. I think this is my asset which can prove to be beneficial for me as well as the organization.

### **13. Tell us about some of the major decisions you made in your life.**

#### **Answer A**

One of the major decisions I took was to pick the stream after my 10th grade. Being young I felt I could do many different things but life brings a choice and one has to make it. With the help of my teachers and family I decided to pursue Non-medical. It was one of the most important decisions of my life as it defined my career and my dreams ahead. Another major decision till now would be choosing the appropriate university. There were many options to choose from but when it came to my education and future opportunities, CU seemed to be the best option at that point of time. Well I must say CU has proved its mettle and provided me amazing opportunities.

#### **Answer B**

The biggest decision I took in my life was to drop a year after my 12th grade. After my board exams, I didn't get enough time to prepare for my IIT/AIEEE exams so I decided to take a break of one year for my preparation. My family was against it and asked me to pursue my bachelors regardless. Well, it wasn't the best decision I took in my life as I couldn't clear my IIT/AIEEE again. Even though it wasn't the best decision but this part of my life did infuse some wisdom in me. One of the lessons was to listen to the elders and not to go where the world is going. Sometimes what everyone is following may not be the best

for the one. Presently, I am in CU and the opportunities and exposure I have received is beyond my imagination.

#### **Answer C**

The major decision which I took was choosing Computer Science Engineering as my career. After completing 12<sup>th</sup>, I had a number of choices for my career but I specifically chose Computer Science Engineering because my performance in this subject had been good throughout the course of schooling and university education also. Another decision which I consider important was choosing the institution/university for my tertiary education. I opted for Chandigarh University after a lot of analysis and discussion with peers. Today, when I retrospect, I feel that both my decisions have contributed immensely in shaping my future to become a successful professional.

#### **14. Tell us about some of the risks that you took in your life (why and the result)**

##### **Answer A**

One of the biggest risks I took in my life was choosing which university I'll start my bachelors with. I was offered admission in various universities but after my research I chose Chandigarh University. Even though my parents disapproved, I still went by my gut and selected CU. I think it has been a great decision so far about which my family also agrees today because of the growth I have seen in my personality and the opportunities which I would not have got elsewhere.

##### **Answer B**

If I think about it now the biggest risk I took in my life was to pick the most compatible internship in my third year of university. Well I was offered the opportunity to intern in two companies, namely ..... and ..... One of my best mates chose to join ..... so thinking I'll have him with me, I decided for the same. But when I think about it now, I feel it wasn't a great decision made by me as that internship didn't turn out to be as fruitful as the other one would have.

##### **Answer C**

Being a computer science B. Tech. student, I was asked to take up project like everyone. Everyone chose either web designing or android app development but I wanted to do something different. So, I took my project in "Embedded Systems". I was new in that field and the time when I took that project I knew nothing about it. I decided upon making a "Space Probe". I was mocked up by my classmates but I ignored their comments. It was the biggest risk for me as I didn't know what to use and where the components would be available. On the top of it, my electronics background was nil. But I had huge interest in space science. So, I started reading research papers. I surfed net and went to Delhi to buy components. Some components which were not available here were sent by my brother from US. After a lot of hard work and research, I somehow managed to assemble them and program them. My project got ready on the last day of submission. Everyone was astonished to see the new concept and my project was awarded as an "Extraordinary project" by the University. So, this risk taken which initially seemed to be difficult proved to be a success for me due to my perseverance, determination and hard work.

#### **15. Tell us about a conflict situation you were in and how it got resolved ( How and the impact)**

##### **Answer A**

I try to avoid conflicts with people, being attentive to the needs and feelings of my colleagues. But sometimes, it is circumstantial and unavoidable. Recently, I had a conflict with my team manager during my last project. He believed I was doing my job ineffectively, but did not realize that I had to wait for the

work of other people, without which I couldn't complete my own job. Firstly I asked him to calm down and then I tried to explain by giving specific reasons as to why I could not take care of my duties in time. He also understood my point of view and everything went smoothly afterwards.

#### **Answer B**

I was the team leader of my last year's project and we were on a very tight deadline because we had to have the project in time for a big upcoming trade show. I was in charge of delivering on time and I had to manage team members from Marketing, programming and Graphic Designing. The designer that was assigned to the project was very dedicated, but unfortunately he missed a deadline that I had assigned. When I approached him about it, he blew up at me. I was taken aback by his response, but I remained calm. I acknowledged that the deadlines were tight and explained again the reasoning and the importance of having the project ready for the trade show. He relaxed a little when he saw that I wasn't attacking him. He told me about all of his other assignments and that he had been much occupied for a couple of days earlier. He then apologized for his blow-up and thanked me for my patience and understanding. Thereafter, we developed amicable relationship and successfully completed the project in time.

#### **Answer C**

As a part of course, I was required to choose a project like everyone. I wanted to do something different so I took an initiative to choose a project in "Embedded systems" whereas other team members insisted to opt for web designing based project. Initially, I explained to them that this was a different concept and we must give it a try. Everyone agreed to my proposal in the beginning. However, the later part of the project was very challenging as we did not know what components to use and where to buy them from. The deadline was also narrow. So, everyone apparently blamed me for the wrong choice made in the beginning. I understood their viewpoint but at the same time, I highlighted that problems are apart of every new initiative and that if we stand strong, we would be able to make it. They agreed once again half-heartedly. I knew I had a lot of opposition. So, I decided to do maximum research myself. I gathered information through internet and a number of books, arranged for components from Delhi and helped everyone make the project a success. At last, we completed it before deadline and it was appreciated immensely by our HOD for its uniqueness. So, I was able to win the hearts of everyone including my team members in the end.

#### **16. Tell us of a conflict situation that did not get resolved (Why and what could have been done)**

##### **Answer A**

I am an optimistic person. So, I don't generally leave any conflict unresolved. I strongly believe that if one tries to keep the work environment healthy and congenial, there are number of ways for accomplishing this goal. Hence, conflict situations can always be handled with patience and with an amicable approach. Personally, I have not experienced any unresolved conflict so far.

##### **Answer B**

I deal with conflict with another person by using effective communication. During my internship at \_\_\_\_\_, I worked alongside a teammate who was not interested in putting efforts in his share of work. This was creating conflict for the project. After I saw them consistently not doing their part, I decided to pull them aside and talk to them, not in front of the team because I did not want them to feel at defence. I politely let them know that they were not completing their tasks and that it was creating a problem for the team. I even offered if he needed any help from my end. He appreciated my perspective and thanked me for taking the initiative to letting him vent about his situation. He promised to fulfil his assigned duty but after observing for couple of days he still did not show any improvement. At the end I had to talk to my project manager regarding the issue which brought some friction in our relationship.

Although he could have performed better after being given a second chance but he left no other option for me than to escalate the problem at the higher level.

### **Answer C**

I was the team leader of my last year's project and we were on a very tight deadline because we had to have the project in time for an upcoming event in the institution. I was in charge of delivering on time and I had to manage team members from various other fields. The graphic designer that was assigned to the project had a very casual approach towards work so he happened to miss a deadline that I assigned. When I approached him about it, he blew up at me. I was taken aback by his response, but I remained calm. I acknowledged that the deadlines were tight and explained again the reasoning and the importance of having the project ready for the event. In spite of my co-operation and leniency, he continued with the same approach so I had to take the initiative of taking the charge of his work in my hands so that we could meet the deadlines. Finally, we completed the task successfully but this episode strained my personal relations with him.

### **17. Tell us about two situations wherein your leadership qualities emerged?**

#### **Answer A**

Firstly, I was assigned the role of CR in my section during my bachelors. Initially I was very hesitant in regard to how will I handle such a responsibility but with time and patience, I was able to handle the pressure and work. In this whole time, my classmates were pleasantly happy with my conduct and I was able to maintain a balance with the university officials as well as my peers' needs. This was the first time when I realized my leadership skills.

Secondly, in my internship last year, a group of 4 members including me were assigned a project. Each and every one of us was assigned a role for the project. In this internship, I was not appointed as a formal leader. Initially, everything was working well but later the team started showing some negligence. There weren't much communication among the members. Rules of the project were not followed correctly, tasks were getting mixed up. At that point of time, I felt I should step up and have a group meeting and clear our doubts. It was then I took up the role of a group leader and my team was fully satisfied with end result. They even appreciated my efforts in front of our project manager. This was one of the examples where I think my inner leader showed potential.

#### **Answer B**

I believe that a natural leader is always there in a person who has a positive outlook towards life. And such qualities always show up when the need for them arises. One such instance is when I went on a holiday to Shimla with my family. It was during the rainy season that we happened to plan for a visit. On the way, we came across a place where a landslide had occurred a few hours before. The people were injured and there was no medical help available on the spot. As my mother has a habit of carrying a First Aid Kit during journeys, I got an idea to provide them first aid at least till the time any help reached. There was a small helipad there of a private airline. It just struck to my mind if I could talk about the mishap with the Captain, he might be of some help. Without wasting a moment, I went there and explained the situation. They quickly agreed for the help and finally, we were able to save many lives by providing them medical help on time.

Another instance was during my project at the University the deadline of which was just three days. We were given the task of showing the functioning of a Thermal plant. A model for the same was required to be produced. Everyone in the team gave up as two upcoming days were holidays and nobody wanted to stretch the time. I called every team member and motivated them by saying that it was an opportunity to learn as well as show our skillset. Hence, we all must work as a team. The time was very less. So, I went

to fetch the required material the same day and within two days, we were able to complete our project. We were applauded immensely for our efforts put in the project. This made me become stronger as a leader.

#### **Answer C**

I strongly believe that leadership at its best can be exercised by setting an example. I would like to share an experience here when everyone in the team felt that the target was unachievable but I remained enthusiastic throughout the project and finally it was a success. Our professor had given us an idea to make a project on “mobile robotics”. Although I was excited about the project, everyone else felt that it was a difficult assignment and that we should have opted for something easier than that. So, initially, it was difficult to convince my team members to work on a new project. I convened a meeting with them where I motivated them to work as a group. Though I was not designated as the team leader, yet I assigned tasks to everyone and helped them during the course of the project to execute their duties well by sometimes arranging for the equipment, researching about the topic on different websites and constantly motivating them, in spite of knowing that they were not convinced about the success of the project. Finally, when it was successfully completed, everyone appreciated and congratulated me not only for the success of the project but also for keeping the team in high spirits at all times.

**18.What has not been so great in your life? (marks/exposure/peer group/ financial situation) and also explain How are you dealing with it?**

#### **Answer A**

Well in life, there is always something lacking, nothing comes perfect. In my journey till now, I would say financial situation. The reason I picked this is because there have been situations where lack of financial support has led to missing on some great opportunities. For example, I wanted to take ‘XYZ’ course back in my second year which would have been a great kick start for my internships/projects. Its fees were way too high that I knew it won’t be feasible for my family. Hence, I was not able to take it. And there are many instances where due to lack of funds, I was not able to take up anything new or extra other than my curriculum. Hence, this is one thing which has not been great in my life and my main goal is to work on this majorly so that when I start my career, the reason of ‘lack of funds’ never comes again.

#### **Answer B**

Sir, I would say exposure. I belong to a very small town from Himachal Pradesh. I studied in a Hindi medium school. Because of my background I haven’t had much exposure in terms of sports or education. After I got myself admitted at CU, I was able to learn and experience many things which could not have been imagined if I were in my town. The exposure I am getting here is amazing but I still feel some lack of knowledge as compared to my peers. I have to work really hard in order to reach up to their level. So yes, exposure to the world is what’s not that great about my life and if I had got a chance, I would like to change that.

#### **Answer C**

Overall, I am pretty contented with my life. I am thankful to Almighty for bestowing me with good family background, support of parents, good financial background to support my studies and a wonderful learning environment where I could upgrade my skills. Today, I am in a position to meet the challenges of life pleasantly as I have a brilliant mind and good amount of education which can take me places on a personal as well as professional front.

**19. Your last project/internship and the outcome of your experience exposure learning etc.?(Technical question. Answers will be student –specific)**

**20. Tell us about your biggest failure till now .How have you dealt with it and what have you learnt?**

**Answer A**

My biggest failure till now was not being able to clear my IIT and AIEEE exams. I remember studying rigorously for those competitive exams. I did try my best but at the end I couldn't clear. At that point I was devastated, I thought my career had ended and couldn't think anything beyond. However, eventually I got out of it with the help of the support of my parents and friends. I realised that sometimes in life one has to accept the results and try to move on. As they say whatever happens, happens for the good.

**Answer B**

Since childhood I have been a bright student, always stood first. Even in my 10th board examination, I was among the top scoring students in my district. But during my 12th board examination I got extremely ill due to which I was not able to perform well and hence my scores were really low. I was demoralized to see my result. Though, I did make up for those scores in my college CGPA, it still pinches sometimes, thinking I could go back in time and somehow score a little better.

**Answer C**

Though I have successfully completed my Engineering degree, yet when I look back I feel that the time could have been used more judiciously for my overall personal progress as a person. I had been interested in playing basketball but time-management was always a constraint. For devoting fair amount of time to study, I had to sacrifice my personal ambition of playing the game. This has made me more cautious to utilize my time nicely. Recently, I developed interest in working out. So, now I am managing my time in a better way to fulfil my personal aspirations along with my academic growth.

**21. Tell us about your most difficult assignment. How did you deal with it?**

**Answer A**

About a year ago, I worked with one of my colleagues on a project whose personality was totally different from my own and he was my partner in that assignment. I was very competitive and aggressive than he was, and at times, I was impatient with his more relaxed style of working. I quickly realized that he was delivering excellent results on time. I noticed that we need both types of personalities in a team to gain different perspectives on how to work. Now I am more open-minded to work with people who do not think like I do.

**Answer B**

The most difficult assignment I had to fulfil was one that challenged me intellectually. I was given the task of working with a new set of clients, which under most circumstances would not have been challenging. Except that as an intern, I was just learning the skills to approach this particular problem in the industry. However, I was able to handle it well as I was always on edge, studying and trying to stay one step ahead. This trait of mine helped me to explore ways to tackle with the situation and come up with the way out.

**Answer C**

My most complex challenge was the first time I was given a leadership position. My team was tasked with re-working a project in which the juniors had made a mistake and we were required to correct it. As we had no one to guide, my working group was faced with a challenge to understand previous group's

process and approach- but we had no one to go to with questions. I learned how to reverse engineer a lot of research and decision-making by having to step through that one. After succeeding, I felt that the key to standing out was having a unique challenge and a positive attitude towards the solutions without which it would not have been possible for us.

## **22. What do you know about our organization?**

### **Answer A**

I see that your company has been in business for over thirty years, with an excellent reputation for reliable employee records management software, specializing in systems which can handle both unionized and non-union employees effectively.

### **Answer B**

I read a recent article in an important Website about the results of your research into effectively reporting accurate data via mobile app. This research is very interesting to me because I know the importance of collecting and accurately reporting such data which is immensely helpful to the management for taking vital decisions.

### **Answer C**

I've done some research about the organization so as to ensure that I fully understand what kind of organization I would be working for. I read on the website that the sales levels have grown at an average of 25% in one year for the past five years and that now the focus of the organization is on expansion in the United States. I've also read a lot of customer reviews on various third party websites which reveal that the quality of service of the organization is very impressive.

## **23. What have you done to improve your knowledge in the last year?**

### **Answer A**

I have taken part in different projects and therefore I have gained a lot of knowledge about the practical approach of handling different issues while working on projects. In addition to that, I learned from books, gathered information from where ever I got and practiced constantly. This has brought a definite improvement in my theoretical knowledge.

### **Answer B**

I enrolled myself into a course useful for the next version of my project so that I become fully-equipped before taking up a new challenge. Besides this, I attended seminars on personal development and managerial skills improvement to make myself industry-ready.

### **Answer C**

I strongly believe that one can excel in one's goals through constant personal development. So, I enjoy reading and implementing new found knowledge into my daily activities in order to maintain progress.

## **24:- Why do you want to work for this organization?**

### **Answer A**

I'm a fresher. I have some skills, knowledge and educational qualifications for this job. My educational qualifications match with the organizational requirements and I need a platform to establish my career

where I can grow my skills, knowledge and learn new things and utilize my knowledge which will be helpful for me in my future. So, I think this organization will help me realize my dream.

**Answer B**

This company is the top most company of India and my dream is to get the best position or higher position in this organization. It will be a great achievement for me if I get an opportunity to work with you as the experience which I gain through this association will be fruitful in my overall career-development.

**Answer C**

Based on the research I've done, this company is an industry leader. When I visited the company Web site, I found some impressive information about future projects that the organization has planned. I was also impressed with the founders' backgrounds and the current financial statements. I've been looking forward for working with such an organization where my background, experience and skills can be put to use and make things happen.

**25:- Are you a team player?**

**Answer A**

I believe that I have a lot to contribute to a team environment, and am comfortable in both leadership and player roles. I'm outgoing, friendly, and have strong communication skills. I admire teamwork as it can help the team to develop communication, negotiation and problem solving skills and enables it to share ideas.

**Answer B**

Working in a team is nice and beneficial because one gets a chance to share one's knowledge with others and also learn from others both professionally and personally. Nevertheless, I do not mind working independently also.

**Answer C**

As I am pursuing my MBA, so there are a lot of presentations and the case studies which one has to do in a team or a group. So, definitely I am a team player. Being in a team, one shares a lot of ideas through collective brainstorming which is tremendously beneficial for the execution of work.

**Answer D**

While working in my last project, I felt that I am good a team player. For any team to be effective, each member of the team should contribute to the common goal to leverage the synergies of the team. I strive to contribute my best as an individual team member so that we succeed as a team. I enjoy being part of a team as it brings more perspectives other than my own.

**26:- How long would you expect to work for us if hired?**

**Answer A**

I'm really looking for a long term commitment with a company where I can fully utilize my skills and grow professionally.

**Answer B**



Where ever there is a scope of growth in career and my skills, I don't prefer to move to another organization. If my goals and aspirations are fulfilled here, I would definitely want to commit myself for the long term to develop myself along with the organization.

**Answer C**

I will work with this organization as long as my presence benefits both the company and me equally so that company gains good results and I can be in a position to improve my skills.

**27:- Explain how you would be an asset for this organization?**

**Answer A**

As I'm a fresher, I'll be passionate about my work and if given a chance I'll be ready to expose myself into different sectors of work into the industry and would be faithful to the organization always. I have showcased these attributes in my projects and assignments and these have been duly endorsed by the University and the organization where I completed my industrial training.

**Answer B**

I can be an asset to the organisation through my knowledge and skills in terms of programming.

**Answer C**

The asset of any organization is its employee's hard work, dedication, punctuality and creativity and I have all such qualities. So, I will be an asset to your company. Though I am fresher I do not have much experience but I have positive attitude and enthusiasm to work for your company!

**28:- Tell me about your dream job?**

**Answer A**

Dream job to me is that job where my skills are utilized for the organization's growth and I am given an opportunity to learn and grow with the experience.

**Answer B**

Dream job in my view is the one, which opens opportunities to improve the skills with good learning environment, good sub-ordinates coordination and well-defined growth opportunities.

**Answer C**

My dream job is to have an extensive amount of teamwork, such as regular staff meetings and group projects. I love that this job emphasizes communication among colleagues and between management and staff. It keeps an employee on his toes and provides an opportunity to showcase his talent. At the same time, it provides a scope of individual growth along with the growth of the organization.

**29. What is more important to you– the work or the money?**

**Answer A**

Money and work both are like siblings. But I believe that when one works hard; money flows by itself.

**Answer B**

The work is more important to me because I know that when I prove myself as a significant contributor to the company, the money will follow automatically. An employee and the employer can only be successful if the results are delivered and they are well-recognized.

**Answer C**

I believe that money is important but it is only one part of the package. It is equally important for a person to enjoy what he is doing and feel that he is contributing genuinely.

**30. Tell me about your ability to work under pressure?**

**Answer A**

Yes, I can work under pressure. I belong to engineering sector where we always have to do a lot of work under pressure. So it's not so hard to work under pressure for me.

**Answer B**

Yes, of course. I think of pressure as a motivation, not as an obstacle. If I focus on my work, I can do it well. From time to time, the organizations require help with large or complex projects. If the responsibility is taken willingly by showing abilities to be flexible and demonstrate willingness to step out of comfort zone, it not only enhances knowledge but the ability to handle added pressure also.

**Answer C**

Yes, I actually enjoy working under pressure, though I believe that proper planning and good time management greatly reduce the burden of alarming deadlines. One just has to keep calm and focus on multi-tasking while being patient.

**Answer D**

Definitely I can. While working for a project in the university, I faced stressful situations that required me to work under pressure on a daily basis and with that experience I have learned to manage stress. Now it's just a part of the job that I do well.

**31. How has your experience prepared you for your career?**

**Answer A**

I was somewhat shy during high school, but college really helped me to come out of my shell. I joined the debate team in the first year of the college and developed confidence in presenting my views. Since then I have excelled at class projects where we did team presentations. It has really helped a lot in developing my professional skills.

**Answer B**

I have attended several self-improvements, time management, and personality development seminars during my studies. I have also participated in training workshops related to the industry. So, I think, this has helped me to become industry-ready.

**Answer C**

My work experience with the best organization is my asset. When I completed my degree, I went right to the best firm in the city and was hired as an intern. I was able to use the internship time towards my

further studies as well. Working with the best of the best has made me an asset to any company that will hire me.

**32. Do your skills match this job or another job more closely?**

**Answer A**

I am a team player and during my learning phase, I have updated my skills which can help me become successful in my area of specialization. As the requirement of the organization matches exactly with my profile, I feel, this is the best opportunity for me to grow further in my career.

**Answer B**

For this particular job, I have the perfect combination of skills and experience that is required. I also bring the experience of strong analytical and problem-solving skills that I have gained while working on my projects. My dedication to excellent work standards will add value to the team and the company.

**Answer C**

The subjects I chose while working for my degree have prepared me for this particular position. Also, my experience while working with my projects has given me a platform to master the skills that I need to deliver for this position.

**33. What contributions could you make to this organization that would help you to stand out from other applicants?**

**Answer A**

During internship, my industriousness and ability to teach myself have been valuable assets to the company. My self-teaching abilities have helped to minimize overhead costs, and my industriousness at targeting needs without prompting set me apart from others. Additionally, one thing that has always set me apart from my scientific/engineering peers is my broad interests and strong writing abilities. I am not a typical "left-brained" engineer, and with my broad talents, I am likely to provide diverse viewpoints.

**Answer B**

I can contribute my ability to streamline office processes. For example, I developed a new method for scheduling client appointments which led to an 85% decrease in scheduling errors. I would love to bring not only this method but my general organizational skills to this job at your company.

**Answer C**

While pursuing MBA, my projects included innovation in many areas, including strategies for more effective teamwork. In one of my projects, I devised strategies for improving teamwork and communication among members of the team. I can bring not only my ideas from my previous projects but my general passion for innovation, to your organization.

**34. Describe an Ideal Job.**

**Answer A**

My dream job would allow me to develop web content for a variety of companies. I love getting to know different clients and developing content to suit their unique needs. For example, in my projects, I made web content for different industries ranging from healthcare to education and received praise for my work also. I love the job that would allow me to work with a range of clients.

**Answer B**

I would describe the ideal job as a job that makes the most of my qualifications and abilities and gives me a chance to constantly challenge myself. I look for a stable job with quality supervision, a positive work culture at a successful company that will encourage me to work at my best.

**Answer C**

I would love to work in a job in which I can work both by myself and with others to achieve the end result. I am self-motivated person so I am interested in working in an atmosphere where I can continuously learn new things and improve my skills.

**35. What motivates you to do your best on the job?****Answer A**

I love preparing and giving presentations. Being in front of an audience, and seeing them respond to my ideas is a real thrill, and making that connection is inspiring and exciting.

**Answer B**

Learning new things has always been a great motivator for me. In every project I participated, I've always been able to learn something new, or a new way to look at a problem so that the solutions come handy.

**Answer C**

I'm very deadline-driven and enjoy having the opportunity to figure out a new organizational system that will help keep me on track to meet the deadline. It keeps me on my toes.

**36. Are you willing to relocate if required?****Answer A**

As I am a Fresher, my aim right now is to get a platform where I can learn, explore and grow. Hence, I think relocation will certainly help me to learn and grow as a professional.

**Answer B**

I very much enjoy this area and would love to continue my career here, but this position is a great opportunity for my career and if relocating is a part of that, I would definitely consider it.

**Answer C**

Yes, I have no issues with the relocation. I have been staying away from home for the last four years; therefore I am not home sick. And I like to come across different cultures and well-experienced people, and it will help me to groom my skills and knowledge.

**Answer D**

As I did my schooling and college in my nearby area, I didn't get a chance to go any other places, so for my work, I will definitely relocate. I'm so eager to visit many places and to observe what is happening there. It's all a kind of knowledge only.

**37. Do you have any question for me?**

**Answer A**

Can you share more about the day-to-day responsibilities of this position? What's a typical day like?

**Answer B**

If I were hired for this role, what would you want me to achieve in my first months in the position?

**Answer C**

Can you update slightly about the company culture?

**38. Do you have any blind spots?**

**Answer A**

Everyone has a blind spot. What our mind says is not always what we see. That's the reason I believe in teamwork. When we work as a team, each one sees the blind spot of the other. In a team, the weakness of one can always be compensated by the other or if it is highlighted as a feedback, one can always get a chance to make up for it.

**Answer B**

I may not always be aware of my blind spots, but I always work to be a better employee, and if a potential blind spot is pointed out to me, I make every effort to deal with it.

**Answer C**

Well, no one is perfect in this world. I also may have some flaws which may not be in my notice, but I always try to take criticism positively and learn new things.

**39. How do you propose to compensate for your lack of experience?**

**Answer A**

Experience is gained as a result of being exposed to a particular field. If I am given a chance to get involved in this particular field, with my ability to quickly learn and pick up new things, I can assure that I would be a success in this field.

**Answer B**

As a fresher, I can compensate it through keen learning, consistent self-motivation and by performing the tasks assigned to me within timelines.

**Answer C**

Experience is only valuable if it helps a person do a better job than someone without it. I am confident that I can handle the position's tasks competently along with gaining required experience side by side.

**Answer D**

I am a quick learner. Every time there is something new to me, I take time to study it at the soonest time. New things excite me and motivate me to learn more. Hence, I believe learning and its implementation makes a person gain experience in the right manner.

**40. Have your university or major met your expectations?**

**Answer A**

Yes, my university and my degree have met my expectations. I believe that because of my college and my degree, I have sound knowledge of my field. The exposure provided in the University has made me update my knowledge with which I am able to compete with most learned people of this field.

**Answer B**

My education has focused not only on learning of fundamentals but also on the practical application of the information learned within those classes. For example, I played a lead role in class projects in my university where I got an opportunity to gather and analyse best practice data from this industry.

**Answer C**

I was somewhat shy during high school, but college really helped me to come out of my shell. I joined the debate team and developed confidence in presenting my views. Since then, I have excelled at class projects where we have done team presentations and developed our communication skills.

**Answer D**

My experience in college not only prepared me for my career, but it also prepared me for life outside of my career. I gained skills that cannot be taught. Through interactions with fellow students, professors, internship supervisors, and co-workers, as well as other college staff, I earned a "degree" in people and social skills that I did not even sign up for.

**41. What made you choose this University?**

**Answer A**

Sir, it was always in my mind, pre-decided and well planned from my end to choose Chandigarh University because of various factors like its reputation, infrastructure, facilities and academics. Also, it is

known for its discipline and excellent learning environment. Not only this, it gives ample opportunities to its students to learn and develop.

**Answer B**

Sir, I always wanted to join a university which could offer me a platform to do practical training and projects. At Chandigarh University, I could easily take up practical projects and tasks get the practical orientation and learn the actual work related skills related to my field of study.

**Answer C**

Sir, it was after a lot of research about this place and guidance from my family that I decided to take admission here. My family wanted to ensure that I should join a college/university which could give me opportunities to sit in the placements. The reason for this is not this that I always look for guidance before taking a decision or always don't take risk but it is because of the reason that I saw it as an investment and wanted to get the returns in term of learning and finally getting placed.

**42. List two or three of your greatest achievements since you have been in college and why?**

**Answer A**

Sir, before joining this university I've never stayed away from my family and was skeptical about managing things alone. But I think I underestimated myself as I have been managing things here quite well and also I'm one of the top scorers of the my class. In my opinion these two are my great achievements as by excelling I'm fulfilling the purpose of student life and being independent has made me grow as person.

**Answer B**

Sir, my biggest achievement is overcoming my glossophobia. I've been good in sharing my thoughts and ideas via writing but public speaking has always been a concern for me and I decided to fight this. I volunteered to give a presentation at an event and practiced a lot to deliver my best and was able to do so. It really boosted my confidence. Moreover, I'm also an active member of an NGO and organized a blood donation camp in the campus which was a great success as many students and staff participated in it. I also consider this one of my achievements as it gave me a reason to be proud of myself as I could give something back to the society.

**Answer C**

Sir, I'm a part of the university's football team and last year our team was the winner of inter college championship and I scored the maximum number of goals in the tournaments. I definitely consider it an achievement. Also this year I travelled alone. This was something I had been planning for very long but was not able to gather courage but this time I challenged myself to do so and went travelling alone despite nerves.

**43. Given the chance, how would you alter your education?**

**Answer A**

If I were to alter my education I'll definitely make it skill based. I think schools/ colleges should be allowed to provide skill based training. It can be done best by recognizing the areas of interest of any student. If someone is interested in repairing mobiles, there should be provision for mobile engineering course. If someone loves trying hands in handicrafts, the training should be provided for the same. This gives a chance to the student to hone his inherited skills and excel in the desired field.

**Answer B**

Sir, I've been a sports person since childhood and like any sports person was torn between my studies and playing. Especially during exams giving up practicing is made mandatory and this has always made me wonder what if we got marks for sports as well. If I get to alter my education, I'll certainly add sports as a subject. I truly believe we should try to make sports compulsory in our education system. This will not only help students to embrace a bright career, but will also help our country in the long run! Moreover, this option will also generate employment for so many talented sports persons who, due to some reason, could not further pursue their career in sports.

**Answer C**

Sir, I'm quite satisfied with the education I received and won't like to change it much. Education at the University has especially prepared me to face professional challenges head on and being equipped with the best industry-knowledge, I think, I can succeed in my professional life easily.

**44. What sort of serious problems have you experienced, and how have you handled them?****Answer A**

Once I was sinking into depression due to some personal reasons and was at a stage where I could see no escape from it. But one day, one of my friends who was observing changes in my behavior for some time counseled me and made me realize that life is full of challenges and our role is to face them and not to get depressed by them. His words really motivated me. It took me time to get out of it but I somehow succeeded.

**AnswerB**

To be honest, I have not faced any serious problem in my life. I think God has been kind to me. Moreover, I'm an optimist and a fighter and I'm sure if there would be any serious problem in future I'll face it with strength.

**AnswerC**

Sir, I don't take problems as problems but as challenges which life throws at us. I did face such challenge when I suffered a severe health issue..... But in illness also, I kept my spirits high and came out of it with my will.

**45. If you had your whole life to live over, what would you do differently and why?****Answer A**

Mother Teresa has perfectly said, "Yesterday is gone. Tomorrow has not yet come. We have only today. Let us begin". So I also want to follow the same in both my personal and professional life and just keep going and growing. Whatever mistakes I have made, failures I have faced, showed me the right path and I just want to follow that. So, I'd not like to change anything in past.

**AnswerB**

I was always good in mathematics. So, I wish that I should have focused on it more. I feel that Mathematics can lead one anywhere, and is the basis of most disciplines. I would definitely have liked to learn it more passionately.



**Answer C**

Surely, for better work I must look back at the good things in my life, which were responsible for my happiness. I committed many mistakes too in my life but those all are not in vain as they have taught me important lessons of life and I wouldn't like to change anything from past. Now at present, my past decisions are helpful to me for bringing perfection in my life.

**46. What have you found to be the biggest source of motivation in your life?****Answer A**

My biggest source of motivation in life is my parents as I have seen them struggle to provide me with all the facilities. I always have their hardships in my mind and strive to give them a better living. Giving a luxurious life to my parents is my ultimate goal.

**Answer B**

For me, the driving force is to get the sense of achievement which can only be attained once I become successful in both my personal and professional life.

**Answer C**

With time I have realized that nothing can motivate you if you don't have the spark to do something within you. That's why I feel the biggest source of motivation for anyone is oneself. If one has a burning desire inside to achieve something, nothing in the world can stop him.

**47. What sort of things make you feel stressed, and how do you deal with them?****Answer A**

Sir, I'm a happy go lucky person who doesn't get stressed easily. The only thing that can cause stress to me is anything that affects my family. If there is some crisis in the family I always act very strong being the eldest son/daughter and do my best to solve it.

**Answer B**

I react to situations, rather than to stress. That way, the situation is handled and doesn't become stressful. Life is full of challenges and stressing never helps rather facing the situation and doing what it demands is the key to survive.

**Answer C**

Pressure is very important to me. Good pressure, such as having a lot of assignments to work on, or an upcoming deadline, helps me to stay motivated and productive. Of course, there are times when too much pressure can lead to stress; however, I am very skilled at balancing multiple projects and meeting deadlines, which prevents me from feeling stressed often.

**48. What is your definition of success?****Answer A**

For me, success is when one builds one's own goals or aim of life and after working hard you move upwards day by day and finally you complete the goal of your journey. Then you can say that you got success.

**Answer B**

For me, success is making an improvement in all the fields as compared to the past. It could be my parents' happiness, my skills, knowledge or my satisfaction in life. I feel that for me, success is a journey and not a destination.

**Answer C**

Success is giving it everything you have and doing your best, and having satisfaction at the end of the day that you have done that. How you respond to failure is also a measure of success. Being willing to take a risk, learn from the result, and being wise enough to correct your path shows character. As to how I measure up to that, I face each day with a positive attitude and I do my best to do it better today than I did it yesterday. Continuous learning and improvement are my daily objectives.

**49. How would you develop team spirit among the people that you supervise?****Answer A**

My experience in student groups has taught me that people work best when their friends/teammates are counting on them to do well; therefore, I believe that bonding motivates people, for this I'll try to create a bonding among the team members. I would also foster team pride by promoting our team's assets.

**Answer B**

Team spirit can only be attained by getting everyone involved. Collaborative decision-making is a key element in team building. Instead of remaining spectators in major decisions, employees become participants, which significantly raise team spirit.

**Answer C**

Sir, I'll always keep communication lines open – Encourage frank and open communication among team members. Solicit ideas and suggestions from team members on ways to better achieve the team's goals. Moreover, resolve team conflicts immediately – work to correct performance, attitude or ethics problems of individual team members when it is possible.

**50. In what ways you have learnt from your mistakes?****Answer A**

One thing I have learned from past mistakes is when to ask for help. I have learned that it is far better to ask for clarification and solve an issue right away, than be unsure. This has improved my interpersonal and communication skills.

### **Answer B**

I think one of the most important things I've learned is persistence. Not to give up too soon, because the solution is probably right in front of me. I used to think that there was one best solution to a problem, but I've learned that kind of thinking limits the possibility of great success.

### **Answer C**

I have learnt to be patient, to have a clear mind, not to jump to conclusions and of course not to do it again. There is a much known ancient Greek saying "He, who repeats his mistakes, is not clever" and I completely believe it!

### **51. What would you do if there were 30 hours on a day?**

**Sample answer A:** It's a lot of time, what would I do are, I will spend those time Reading my favorite Books, Creating Poetries and Having a lot more time with my families. I will watch TEDx talk videos, will watch self-improvement videos, and look for those new skills which I don't have, I will try to explore the things which will make me more happy and satisfied.

**Sample answer B:** I spend the time to focus on meditation. It will help to know a subtle mind and give strength to focus on activity and mentally calm and stay stable. In our social condition, we couldn't focus on stimulated the seven chakras is one of the most difficult task .And using the extra time to make our-self better is better not to developing knowledge only .we want to focus on mentally and physically problems. We learn how to secure and how to join with nature.

**Sample answer C:** I would start working out twice a day. I do weight training in morning and yoga in the evening. I would spend more time reading and painting. Also, I would love watch some crazy thriller Netflix shows that I don't have time for now so I would love to complete a few shows of mine. I would also like to take up more painting classes and practice the art of it every single day.

### **52. What would you do if you were given 3 wishes?**

**Sample answer A:** Alright, so my first wish would be to end terrorism in the world. Of course, who doesn't want it. I want this to happen because I feel somewhat disheveled by listening to the news reports that terrorists attacked a certain place and killed numerous people. My second wish would be to end poverty in India. Though India is developing, it is still a back forth nation in the view of the citizens of developed nations. Also, foreigners like India for its rich culture but, India's culture also includes some illogical beliefs which are dissuading India from development. My third and final wish is just simple but hard to attain, I want to see a peaceful world. I want to see peace all over the world. Can you ever spend your day without hearing the news of a invasion and the emergence of world war 3? Well, I can't. It's something common in the news. But if all nations live in peace, there will be no need of any militarized army or so in any nation.

**Sample answer B:** My first wish is that I want to buy me and my family a nice house with my own earned money. Second wish is that I want my parents to be proud of me and my siblings and third is to get serenity in life,to become satisfied with whatever I have and to be happy all the time with everyone.

**Sample answer C:** My 3 wishes would be to measure of well-being and personal productivity that is A GOOD HEALTH. A measure of happiness that is a happy family life and a vibrant social life where you can learn, share your ideas and sharpen your brain to move ahead.

### **53. What would you do if you won a million dollars?**

**Sample answer A:** If I will win a million dollars then I would Start a charitable organization, perhaps structured as a foundation, perhaps not that would fund non-profits with great ideas, committed volunteers, and limited start-up resources; these non-profits could be involved in any endeavor but I would look favorably on those who would a) give Internet access and appropriate resources to senior community centers and retirement homes so that senior adults could go digital and once they get the hang of it, they'll be blogging away, making new friends globally, sending digital images of bingo night to their grandchildren and their friends away from them and off course increase green spaces and opportunities for outdoor activities, mainly for children but for all ages as well.

**Sample answer B:** If I win a million dollars from the lottery, I would donate some amount of money to the temples, churches, masjid and gurudwara for good cause after this I would buy a house for my parents, I would use the money to put up my own business to let my money grow more. I would look for things that I could invest in and sign up for insurance plans for my family. And doing all these I would like to travel abroad with my loved ones.

**Sample answer C:** If I win a million dollars then My main goal would be helping poor and needy people those who are homeless, food-less and shelter-less, perhaps by opening up some kind of business or start-up and generate employment to these needy once in order to get them their daily bread and butter and in every possible way .Apart from this I would love to help homeless animals. Build shelters for them so they can have a place where they can be safe and being taken care of and have food to eat. We need more of these shelters in the world to make a change and give a better life to all those strays animals that we see every day.

#### **54. What would you do if you found a million dollars in a suitcase on the street?**

**Sample answer A:** If I will find a million dollars in suitcase on the street then first of all I will carry out an inquiry, If it is an office or Public place, I will talk to some authority like a manager, security personnel, staff member and when someone claims it, you have the right as well as the duty to ask the source of it for eg. a bank entry or a statement like an invoice, and to take a written declaration which shall be a preferable step. And if not this then I will get print advertisement in the newspaper, wait for a reasonable time, like 30days to get any response from the owner of it.

**Sample answer B:** I would straight away turn the money over to local authorities “Regardless of whether the money is identifiable or not, the most advisable route is to take the money to your local police department for safekeeping while attempts are made to find the owner.

**Sample answer C:** If I will find a million dollars in a suitcase then without giving a second thought I will donate it to the NGOs who works for the betterment and welfare of the society and people around.I will also donate good chunk of money to religious places as well as these places are well known to offer food to deprived people.There should not be any option for investment of any other self-purpose as this entire does not belongs to me,so I can not claim my ownership over this.

#### **55. What would you do if you didn't have to work or study?**

**Sample answer A:** If I don't have work or study then I would be involving myself in deep learning through reading various books to acquire great knowledge related to anything and everything and secondly I would love to interact with new people around me in order to make my life socially vibrant and Expand my cultural horizons by participating in strategic networking events.

**Sample answer B:** If there is no work or study then I would Travel around the world and/or volunteering to build international connections meanwhile I will learn foreign languages as much as I can and learn about their culture, tradition, food and I will make them learn about me as well.

**Sample answer C:** I would do storytelling, writing, cooking and I would involve in planting as well. I would try to work upon my skills most probably life skills or social skills. I would for sure spend time with family and treasured friends. And last but not the least I will make a habit of Exercise regularly, like more nature walks.

**56. What would you do if you were the opposite sex for a day?**

**Sample answer A:** I get jealous sometimes that women have way more choice in clothing than men do. They get all these beautiful dresses, skirts, heels etc and the irony is that most of the women I see around don't take advantage of it at all! They just wear jeans or pants and shirts and jackets... guys clothing. I don't get it. If I was a girl, I would dress up every day in outfits like this. Apart from this, I will try to cook different food items and will serve my friends and family. I will make some feminist statement that would empower women and their place in the society.

**Sample answer B:** I think I personally would try to understand the opposite sex as much as possible. There is much difference in our thinking around romantic interests and personal issues which I would wish to explore. For example, how would I feel when I am in the company of other male friends? How would I feel if they act in a certain way? What would I feel towards my female friends? Which issues in life will be more important to me than others? How does my body respond to various environmental stimuli? It would be a learning experience and hopefully will help understand us how it is actually to be on the other side.

**Sample answer C:** If I would be male body for a day, I would be a free bird and will do whatever I want to as I would not be restricted and stopped doing anything, will explore things which will give me pleasure and sense of satisfaction. I would do and experience everything that a female cannot do or has seen assumed that she cannot do.

**57. What would you do if you had to choose between success and money?**

**Sample answer A:** I would choose Money because Money is supreme. Without money nothing will move. To be successful we need to study or perform. To study or perform and be successful we need money. Fame is a luck through success. I will choose to have money first to be successful with fame. I am not greedy of money , But I am needy of money. Money is the most important thing to survive in the world today-This is the sad truth. I have seen people living like cats and dogs without money. Due to rising costs, people are forced to seek more money for survival. Society would have to follow a different structure like distributing essential commodities free of cost to make people loses grip on the want of money so badly. That is the only way out.

**Sample answer B:** I will choose Success as it will give a lot of satisfaction to me instead of money and fame which will turn out to be our enemy later on. The moment you have money to satisfy your greed, which is above your need, you tend to develop a life style which is very demeaning as well as you lose your peace and gain lots and lots of enemies. When you are successful, money and fame, whatever quantity is required will follow eventually.

**Sample answer C:** I'll definitely choose success. With it the other two will come automatically. Fame and fortune is only an accompanying aspect of success. Success to me is much broader than the other two. This poll, in my opinion would have been more appropriate if 'happiness' is added in place of 'success'. The reason, so many people sacrifices happiness in order to acquire wealth. Wealth, we find is accumulated at the cost of our happiness as well as others' too.

**58. What would you do if you could choose another life to live?**

**Sample answer A:** If I will choose another life to live then I would like to change my study field, so instead of studying English literature and linguistics I would prefer to join Economics or Technologies classes. I would be an independent handsome guy, who has a part time job and owns a nice car. I would be fluent in English, so that I am not bothering myself learning it.

**Sample answer B:** I want love and affection from family and friend, most importantly I want to have hope and opportunities. I want to be the happiest person in the world. I will try my best to make it as wonderful as possible. I would love to make new mistakes and learn from it, travel as much as I can and would like to meet new people. Will read all the books; enjoy taste of food from each and every corner of the world. I want to live my life with all the excitement and to the fullest, without fear.

**Sample answer C:** If there is a next life then I want to be a big mango tree.. I just want to know how the tree feels when we take all the use from it and cut it for our needs. And I want to make lots of friends, birds, squirrels, insects, monkeys and frogs. I want to have that pleasure of being selfless. I just want to live green evergreen.

**59. What would you do if you woke up one morning in another country surrounded by people who spoke no English?**

**SAMPLE ANSWER A:** I would move around the city a bit until I arrive at a bar and have a pint, enjoy it. All the while I would attempt to pick up on the language; perhaps I would use my foreign quirkiness to attempt to befriend the bartender and get a job at the bar, and finally integrate myself into the society.

**SAMPLE ANSWER B:** This would be a perfect opportunity for me to get on a prolific adventure. I will enjoy the struggle of being an alien in a new place where I know nobody. I will overcome the odds by meeting new people, talking in sign language and even enroll for language lessons.

**SAMPLE ANSWER C:** I believe that I am very resourceful; I wouldn't worry too much about it. I would learn their language and probably try to get a job in a very basic place like being a dishwasher in a restaurant. Then once I saved up enough money to get a ticket home I would go to an Indian Embassy and try to explain my story. If that didn't work out, I would just figure out a life in my new country and within a few years I would be fluent in the language and everything would be fine.

**60. What would you do if you had the chance to change something in the history?**

**SAMPLE ANSWER A:** There is actually one significant part of history that should have never occurred and I wish that could be erased. If I had the power to change an event in history, I would certainly stop the partition of India and Pakistan in 1947. If this event hadn't occurred, just probably most of the terrorist attacks and deaths that have occurred around the world wouldn't have happened too!

**SAMPLE ANSWER B:** I would change the decision of nuclear bombing on the cities of Hiroshima and Nagasaki. This led to death of over 2 Lakh people and the ripple effects of this nuclear bombing can still be seen in the newborns of these cities. This nuclear bombing caused a huge loss of life and property and is seen as a huge black spot on humanity.

**SAMPLE ANSWER C:** If we ever invented time travel, it would be extremely unwise to change anything because you don't know how altering even a single historical event can affect the rest of the equation. All things are interconnected and one never knows what would happen to the world if even one of the historical events would not have taken place.

**61. What would you do if you could say a sentence which the whole world could hear?**

**SAMPLE ANSWER A:** I would like to give the whole world a piece of advice that would be as follows: *“While on that deathbed, be happy and sad for those decisions you made and not those others made for you.”*

I would give this advice because a lot of people in order to please others end up doing things that hurt themselves. I would advise them to live a regret and guilt free life so that on their deathbed they summarize their whole life quite contently.

**SAMPLE ANSWER B:** If I ever get such a great opportunity I would say *“In this world full of humans, be humane.”*

Nowadays, humans are full of all the imaginable vices, without any desire for striving towards a better goal. They've set boundaries of thoughts, lands, water, faith and even attitudes. Humans were created as beings susceptible of committing mistakes, but at the same time they sought to be a better version of themselves. Therefore, in this world, we need humane humans. Human beings full of humanity, generosity and good will.

**SAMPLE ANSWER C:** I would send out the message, “What goes around comes around”. It is a law of the universe that whatever you do on earth in this physical dimension is sent out as a vibration or energy in another dimension and will return back to you in equal proportion for the good or for the bad. If one does good things, one can expect good things to happen; if one does bad things one can expect bad things to happen

**62. What would you do if you woke up suddenly and found that your house is on fire and you could only choose 3 things?**

**SAMPLE ANSWER A:** The three things that I would carry out with me will be my mobile phone, laptop and my wallet. My mobile phone because it has all my contact numbers and my financial details in it. My laptop has all my professional data along with my personal family memories. My wallet has all my important ID documents. This is the reason why I would rush out with these 3 things.

**SAMPLE ANSWER B:** First of all, I will definitely bring my family members out of the fire. They are more valuable and precious to me than all the other things in my house. Yes they are not things, but it is my responsibility to ensure they are safe outside. Second thing I will save is my ID proofs/cash/laptops/valuables like jewelry or expensive watches. Monetary worthy things are extremely important for any of us. Third thing, I will take few of my & my family members' clothes. We may have to live somewhere else and we definitely need clothes.

**SAMPLE ANSWER C:** I would rush out with my family and pets and along with them I would carry my car keys, laptop and my wallet. These are the three things which are extremely important for me. Other things can be replaced but family and can't be. So saving my family would be my priority. Then after ensuring their safety I would take out rest of the things.

**63. What would you do if you were given three wishes, what would you wish for?**

**SAMPLE ANSWER A:** The first thing I would wish for will be a lifetime access pre-paid credit card with no spending limits. Then I would wish for the ability to optimally communicate about any idea with all forms of life. So that I would be able to talk to my dog or other life forms. This would help me get ideas from almost every type of creature and I can even use those ideas to write bestselling books. Finally I would wish for world peace. The chaos created in the world due to various unfortunate events needs to be calmed down. This is why I would pray for world peace and universal brotherhood.

**SAMPLE ANSWER B:** Firstly I would wish to become all knowing. For example I would be able to internally ask something like “What is 32543/2332543/23” and instantly know the answer. My second wish would be the ability to learn anything instantly. This could give me a huge advantage in life, allowing me to master any skill. My third and last wish would be to have a photographic memory, this means I can easily remember whatever I see and be able to recall every bit of information from everything that passed in front of my eyes.

**SAMPLE ANSWER C:** The first thing that I would wish for is good health for all my family and friends. Then I would wish for the ability to go invisible so that I can move around the world and even access the places which are restricted for a common to visit. The third wish of mine would be the ability to teleport so that I can easily travel from one place to the other within a blink of an eye.

**64. What would you do if you were given a chance to go to the moon, would you go? Why or Why not?**

**SAMPLE ANSWER A:** I would definitely say yes to the opportunity. I would be able to see the moon for real. It would be a great chance for me to see it, touch it and feel it. It would be a great opportunity to experience weightlessness. Also I would be able to brag about it to my friends. I would click a lot of photographs on the surface of moon and also bring home some moon dust and a rock as a souvenir.

**SAMPLE ANSWER B:** If the trip is a two way trip and I get an opportunity to a sustainable colony I would definitely accept the offer. My only prerequisites for the trip would be appropriate meals and a breathable environment.

**SAMPLE ANSWER C:** Going to the moon may seem an excessive waste of time for many people. On the other hand, for others, it’s a dream waiting to be made a reality. For me, the moon is probably the most interesting thing in the universe. If I could get my hands on an opportunity to travel to the moon, I would probably accept the offer faster than the speed of light. I’ve always been an adventurous character, I like exploring and learning about things which previously was completely unknown to me. The most fascinating thing, in my eyes, is the way how space works and exists.

**65. What would you do if you could eat only one food for the rest of your life what food would you choose and why?**

**SAMPLE ANSWER A:** If I am restricted to only one food for my life, I would definitely go for cottage cheese with Indian bread (Paneer Butter Masala with Naan). I have loved *paneer* since I learnt to eat! On the top of that the delicious spicy gravy with butter and soft cottage cheese submerged into it makes my tongue dance with joy as it goes inside my mouth along with *butter naan*. The flavours burst inside like explosion and all the taste buds wakes up and there is thrill, a joy, a pleasure and even the hunger satiates.

**SAMPLE ANSWER B:** I would go for a pizza and can make different styles of pizzas. I can opt for mac and cheese pizza, veggie pizza, fruit pizza or even a fry pizza. The reason for choosing pizza is that I can change the toppings as per my wish and satiate my hunger and also satiate my taste buds.

**SAMPLE ANSWER C:** I would opt for rice as it can be cooked into various delicious dishes. I can have rice with vegetables, meat, curd or pickle or simply with ghee and papad. Also rice can be used to make dosa, vada and idli. This is the reason why I will choose rice over any other food item as it can be converted in to various forms and can be consumed for breakfast, lunch and dinner.

**66. What would you do if what if you could have a party and invite anyone (dead or alive), which people would you invite?**



**SAMPLE ANSWER A:** I would invite Srinivasa Ramajunan, Nikola Tesla and Leonardo Da Vinci. These three were the smartest people who have contributed immensely to different fields of science, art, mathematics etc. But they died holding some of very important secrets. Srinivasa Ramanujan died at a very young age leaving behind no proofs for some of the observations he had noted down in his notebook. Nikola Tesla died holding the secret of the feasibility of wireless electricity and some of his other inventions. Leonardo Da Vinci holds the secret of Mona Lisa's smile. He was also an amazing inventor who had a lot to contribute to humanity. Over the dinner party I would try to get all their knowledge and later try to use it for the betterment of the world.

**SAMPLE ANSWER B:** I would invite Barack Obama, Mahatma Gandhi and Adolf Hitler to the party. I would love the opportunity to mingle with these great individuals who revolutionized the world in their own unique way. A small chat with them will be helpful for me to gain an insight into world politics and gain from the knowledge and experience of great world leaders. Later on I can use this knowledge, contest elections and run my nation smoothly as a prime minister.

**SAMPLE ANSWER C:** I am a huge fan of cricket, basketball and Bollywood. I would take this opportunity to get on with Sachin Tendulkar, Shah Rukh Khan and Kobe Bryant. I would enjoy their company, have a sumptuous meal with them and discuss about their struggles, hard work and their inspiration. All of this will help me in getting motivated for my future and work efficiently.

## **TOUGH INTERVIEW QUESTIONS**

### **1. Do you feel everything involves sacrifice?**

Answer A. Yes, I do believe that everything involves sacrifice. As there is a famous saying; Sacrificing your happiness for the happiness of the one you love is by far the truest type of love." One has to sacrifice many things in life in order to gain the love of others.

Answer B. To sacrifice is to give up something precious in order to gain or maintain something, such as a valuable relationship or some other worthy cause. Thus, we say that some men and women sacrifice their careers and dreams for their family.

Answer C. Every relationship involves both sacrifices and compromises. The sacrifices are easier to live with and lovers attempt to accommodate to their compromises and no longer view them as such. So although sacrifices and compromises are prevalent in romantic relationships, in genuine love they are not experienced as such.

### **2. What capabilities one must have to handle the rough patches and ride out inevitable rotten days?**

Answer A. Everything involves sacrifice. Everything includes some sort of cost. Nothing is pleasurable or uplifting all of the time. So the question becomes: what struggle or sacrifice are you willing to tolerate? Ultimately, what determines our ability to stick with something we care about is our ability to handle the rough patches and ride out the inevitable rotten days."

Answer B. Vision is what gives us intentionality to live our rough and rotten days. We all need something compelling for the image of ourselves. We have a unique capability for self-direction but that ability comes with responsibility, because when we aren't directing ourselves, that's when we feel the most lost."

Answer C. We don't get lessons from only school and college, we learn a lot most of the time from friends, relatives and sometimes from random strangers also. Life can't be good always believe in yourself that amazing things are waiting for you, in rough patch one understands how much emotional stability they have.

### **3. What kind of unpleasant experiences you have handled so far?**

Answer A. An unpleasant situation may arise because of unpleasant feelings, unpleasant people, unpleasant circumstances or unpleasant relationships or unpleasant job. The experiences I handled include situations that are bad, negative, or adverse and that have seem to threaten my peace of mind.

Answer B. The situations that arise in our life are mostly caused by our thinking and actions or by our explicit or implicit involvement. It may apply to even situations where we seemed to have played no role. An unpleasant situation is a bad karma, arising from our thoughts, actions or our past. We need to resolve it by understanding its root cause and finding suitable solutions.

Answer C. Spiritually speaking, problem situations arise in our lives because of our imperfections, weaknesses, and mistakes. If we are wise enough we can learn from them and improve ourselves, our actions, decisions, thinking and behavior. In other words, we do not have to look at them as problem but as learning opportunities.

#### **4. How can you better embrace yourself?**

Answer A. I have struggled with my differentness since I was young. I grew up trying to change the things that made me different in order to fit in. I finally discovered some things that empowered me to embrace my differences. I was amazed at the life changing effect it had on me. I stopped living in fear. I started to form deeper, more connected relationships and started to treat myself more kindly.

Answer B. In the past, I've had my fair share of not-so-good relationships. People would connect to the fake me, so they were never genuine relationships. I was able to shift through my relationships by loving my differences and being myself. This allowed the right people to come into my life who loved the real me. My relationships are now all fulfilling and genuine. If you want people to accept you for who you are, you first have to show them who that is.

Answer C. When hiding my true self, I could never know my strengths. I'm a compassionate person, which makes me good at helping people. I found that this is what I love to do and it's my passion. After learning this about myself, I was able to offer my friends and family advice when they needed help. I branched out and started my own blog, which is my main creative outlet where I can combine my passion for writing and helping people. Once you allow yourself to be who you are, you're free to find what you're good at and what you love to do.

#### **5. What is more important according to you; to be good at something or doing something good?**

Answer A. The joy of doing something I've wanted to do is more important to me. It is so because when I truly want to do something I put out all of my effort to do that, whereas when I do anything from a focus that I want to succeed in it, even when I don't want to do it, automatically the level of my efforts drops down. The joy of doing something brings peace and contentment to me.

Answer B. Greatness takes more than just hard work. How do we make sure we're not just doing good work, but doing work that has the potential to be truly great? Edison said that genius is 99% perspiration and 1% inspiration. Newton said that if others would work as hard as he did, they would get similar results.

Answer C. Doing something good is always better than being good at something. Ever felt a sort of "rush" after performing a good deed? That sensation is known as 'helper's high' and is produced when our brain releases endorphins, the feel-good chemicals of the brain. Not to mention, doing good has always been known to generate feelings of satisfaction and gratitude in me.

#### **6. Does newspaper ruin our breakfast?**

Answer A. No, I don't believe that newspaper ruin our breakfast as this isn't about having a quadruple espresso to start the day smiling, unless it's served with the morning news. Many people have habits of reading daily newspapers that their days seem incomplete without taking hold of early morning newspapers. One can only picture the ideal morning by sitting down for breakfast with enough time to peruse the news and feel the pulse of the world.

Answer B. Yes, I feel reading newspaper does spoils one's breakfast as nobody has three hours each morning to read through one or two daily newspapers. Unless the person is retired, an executive with free rein, or have a long train commute to work, it's going to be hard to justify reading to any of the

newspaper in the morning while having breakfast. No person has enough time to waste on newspaper when they are having their most important meal of the day.

Answer C. Newspapers provide information and general knowledge. Reading it daily while having breakfast will widen the scope of our knowledge which is an integral part of education and very useful especially for student. Newspapers can provide interesting things and ideas which can assist students in their learning process at school. Not only are the news itself that are beneficial for students, but it also develop their language skills and increases their word vocabulary.

**7. If it was mandatory for you to leave your house every morning, where would you go and what would you do?**

Answer A. If it was mandatory to leave my house every morning I would definitely go for some exercise routine. I would prefer going to gym or running. As by following this routine every morning will only benefit me in long run. By doing this my body will remain fit and in good position thereby doing my other day chores will full energy and enthusiasm.

Answer B. As I am very spiritual person and believe in meditation. I would go to temple every morning to pay obeisance to God and to my religious gurus. This gives me faith that my day would start perfectly and I will get positive outcomes at every work that I will pursue. I believe this would be best start of the day.

Answer C. I would love to play sports every morning as I am very fond of cricket and basket ball games. There is a huge playground at the front of my house and I usually see many teenagers playing sports. I would love to join them which will give a best start in the morning for my other day to day chores. This will keep my mind fresh and I will feel rejuvenated afterward.

**8. Is it good to be “old school”?**

ANSWER A: Being old-fashioned is nothing to be ashamed of, especially when you add a bit of modern flare. I'm not one to respect or appreciate tradition, but some traditions – or beliefs on reality – are worth maintaining. Being an old school or an old-fashioned helps to keep valuable past values and traditions alive in this modern era, so, yeah I assume being the old school is not a bad idea.

ANSWER B: In these days, life has become so fast due to technology. People remain always in hurry and want to win the race of life and they are forgetting past times and values which need to preserve even in this modern time. Everything is so fast that we do not get time for ourselves or for our loved ones. Being "old school" is good as people with such personality are rare in these days.

ANSWER C: As per my perception, being an old school is not acceptable in this modern where people are really open-minded and advance. I think people should change their mindset according to time. Living in past and not appreciating change is not the way to lead a happy life. Change is inevitable and people should accept it.

**9. How would you want to be remembered?**

Answer A. Sir, I want to be remembered as someone who was inspiring and uplifting to others. Someone has who always believed in people's abilities. I want to be remembered as a kind, compassionate and as empathetic. Someone who possessed all the good qualities people thrive off when they were around me. Deeply sensitive, intuitive, wise yet the one who made everyone laugh.

ANSWER B: if I'm remembered the way I choose I will be triumphant, overcoming. I want to be someone who didn't let life pass them by and really lived to the fullest. Also, I would like to be remembered as a person with sound ethical values and principles who does not compromise them no matter what the circumstances may be. Fairness will also be characteristic I would like to be remembered for.

ANSWER C: Sir, personally, I have always strived to be fair with others and to recognize my mistakes while learning from them. In addition to this, I would like to be remembered to be a hardworking professional who always strives and ensures that she maximizes his potential in order to bring best outcomes in her work.

**10. What type of people do you look up to during crisis?**

ANSWER A: Sir, during any difficult situation, I always look for a person who can guide me in a better way. Who can understand my problems and can suggest me a better possible way to solve the issue and will not judge me.

ANSWER B: First of all, I always try to resolve any issue by my own. I do not like to bother others by discussing my problems. But at times when I really feel helpless and I need support, I always look for a person who is very close to me and my confidential, so that I don't need to worry about being judged or being misguided.

ANSWER C: As the human being is a social animal and we may need the support of anyone at any time in our life. So at the time of crisis, I look for people who know me very well and understand me properly, because I think they can guide me in a better way as they are familiar with my life situations I have gone through and stayed with me during my thick and thin days.

**11. If you get a chance to erase a part of your memory, which incident you would like to erase?**

ANSWER A: The store of memories that I have got is like a library for me. I can't read all the books of that library every day or I might not like each of them. There is a regular set of books which I will interact with regularly. But that doesn't mean the others should be thrown away. At times if am reminded of a certain book, I would take it out from the shelf, dust it off, spend some time with it and then keep it back in its place.

ANSWER B: Memories of failures sure teach us what does not work and are valuable like successful which tell us what works. But I would be happy if memories which make me abandon further attempts in a string of failures can be deleted. Also there are a lot of things that are best forgotten, for example, help is given to anybody, animosity etc. that keeps you grounded.

ANSWER C: I won't delete any memory. They are the stepping stones of life. Good memories are worth memorable and enjoyable anytime in future. And bad memories confronted you to the bitter taste of life and ugly reality of the world. They are the teachers. I will pin those memories and use it as a weapon rather than breaking down. I myself have gone through the worst phase of my life where I would have done the worst to me. But I have survived and now that when I look back those memories constantly poke me to head to my aim of life.

**12. If you are not required to work, what would you do?**

ANSWER A: Well I don't think that will be the end of my career or life. If will not be required to work at some place, I will focus on what to do next and will try to find another job. I will try to polish my skills and to improve myself to make my resume more impressive.

ANSWER B: Firstly I will figure out what my weaknesses are and will start thinking about the strengths that will help me flourish in the near future. I will also go and see a careers coach, who can provide guidance and personality tests that will help me to discover where my talents lie.

ANSWER C: My step after realizing that I am no more required for work, will understanding what went wrong in the last one. What I should be doing is taking stock, quantitatively and unemotionally, of what the company's goals were and where you came up short in trying to achieve them. Most importantly people need to "own the failure" by understanding what they personally did wrong and not blaming others for what happened.

### **13. Do you believe that there is life on other planets?**

ANSWER A: I believe we'll soon find life right here in our own solar system. Mars once had a warm, Earth-like climate, with a protective atmosphere and liquid water on the surface. Microbes from these early days might still survive on Mars in today's harsh conditions by inhabiting hot springs or in warm aquifers and rocks below the surface, where there is energy, water, and probably organic material—the conditions for life as we know it.

ANSWER B: Although there may be other planets that have some of Earth's hospitable features, so far scientists have not found any with all of the features they believe necessary to sustain life. Earth remains one of a kind! The closest planets to Earth are located millions of miles away, so it's very difficult to go off and find evidence directly.

ANSWER C: The first thing we've noticed is that wherever we see liquid water on Earth, we find life. Humans, along with a vast array of other life forms, need water to survive. We can start looking for life on other planets by finding liquid water. Recent observations have shown that Mars likely had a lot of water on its surface in the past, although it doesn't seem to right now.

### **14. What kind of superpower would you like to have?**

ANSWER A: If I could have only one superpower, I would want the ability to heal anything, for anyone, any injury or illness, being it physical, mental or emotional. Exercising such a power would have to be done cautiously, with great subtlety. Deciding if, when and how would be on a case by case basis, knowing full well I couldn't save everyone. Yet just think of the people whose lives could be changed, such as children in hopeless conditions. People whose lives were full of promise that would otherwise be cut short and parents who could continue to be there for their children.

ANSWER B: The superpower to speak any language with native fluency. The strongest and the best way to connect with a person is to interact with him/her in his/her mother tongue. Also, there are thousands of languages with mind-blowing literature and poetry. Sure, there are superpowers like flying, invisibility, time-travel etc. These are exciting for a while but then become mundane. They could also induce a lot of complexity in your life.

ANSWER C: Flying would be very helpful. I wouldn't have to pay for transportation to go home or even to go overseas! Flying around the city, going places I wouldn't normally go would be a great way to see the world from a different angle. And of course, I could visit my friends and relatives more often. I could also help people in need, and save cats from trees, like a fireman. With this fantastic superpower, I could be the next superhero

### **15. What do your parents boast about you in front of others?**

It's the other way round sir. They definitely admire my qualities but don't flaunt them much probably because they feel that if they praise me in front of others, then I may lose my qualities and I completely agree with their point of view. So neither I demand, nor they do.

Sir, they praise me more than I deserve I personally feel. I mean at times, I have also faced embarrassing moments when my father portrayed my profile as if I was a star in the making. It was a birthday party when he introduced me to one of his friends and told him that I am a professional anchor. I do believe that I have interest in Anchoring but I haven't done it professionally. I have done it at my college level only. So that was funny I would say.

Sir, they simply tell the truth and put me as an open book in front of people if they ask about me. Whether it's about my strengths or my weaknesses, they stick to the basics. At times I think they should add a little bit of topping on the pizza but they never do so. But yes, they same thing have made me realise that it's better to be crystal clear in life and always say the truth.

### **16. Describe simplicity.**

Sir, according to me, Simplicity means "Being real". I mean being what we actually are and not doing anything artificial. It's about our viewpoints and opinions. What we think, we should stand for it keeping ethical, moral and legal considerations in mind.

Sir it's about being humble and grounded. It's also about not letting success overpower our personality and change us as a person. In many cases, it happens. Many famous people opt to stay simple while others forget that they also started from the scratch.

Simplicity is being classy. There is a word called Swag which means being glittery, flashy and showing off or trying to show something which we are actually not. It means that you are not simple whereas being classing means that even after realising our self worth; we have opted to remain simple, live simple and wear simple.

### **17. If you have to take away 3 functions from the smart phones; which would you take away and why?**

Sir, the key which gives access to social networking websites. I think it's a time wastage to connect through people socially only on virtual platform and not in reality. If we look around, we can easily see, feel and realise that the world has changed. Children spend their time on these sites and not in parks. And, moreover, we have few real friends but many online friends.

Sir, The games' key because of their addition. Sir, being a student of IT, it comes naturally to me to explore each and every aspect of a thing which is related to the technology so I bump into any new game which hits the mobile market which wastes my time. So sir, if I am able to completely erase that, I would definitely do something more productive and save some time.

Not exactly take away sir but I would rather like to add a feature to it which is nothing but an extended battery function. A common problem which almost all the people come across these days is "Battery Charging" so as an IT expert, if I am able to solve that problem, I would rather consider myself more useful.

### **18. Are you a dumb personality? Justify**

Yes Sir, I am but at times it good to be dumb because we find a lot of scope to improve. If we are not dumb, then there will be nothing left for us to learn and we will not be able to improve so it's fine to be like that but with constant learning.

No sir, absolutely not. If I start considering myself dumb, then I might lose my self confidence and self esteem. Also, people might start taking me too lightly and for granted so it's very important for me to stand for myself in this competitive world where life is very fast and people have too less time.

No sir, I am not but it also doesn't mean that I am clever. I am a very straight forward person who believes in logics and reasons. Also, I don't apply unnecessary brain in something which is not productive. I try to find out the answers to all the questions and situations which I handle and rationally I tackle the same.

### **19. How many calories are there in a grocery store?**

Sir, it depends upon the store. If the store is big enough to store large stock, there will be more calories and if it is not, then there will be less. So it's the sum total of all the products which are kept inside and also the subtraction of products which burn calories like the stock of Green Tea. So it's total maths and calculation.

Sir as much as we can take home. I means it's not about how much the store has but it's about how much are we talking and carrying home because that will be the real figure which will affect us negatively or positively. Don't have to see and think of all but the selected and the useful ones.

Sir more than what we can actually see through our eyes. I mean realising the importance of things and people who add value. In a grocery store, we only look at the shelves and ignore the people who are the helpers and who handle the counter and many more like the customers and the visitors. They also add to the total calorie count. We should understand that it's always the teamwork and holistic approach which matters and not just a single player standing on the ground but the crowd and the audience too.

### **20. What cartoon character would you like to be and why?**

I would like to be Mickey Mouse because of his cuteness and innocence. Mickey is a very positive character which is still admired by people around the world. So I draw a lot of inspiration from that character and want to make people smile. I want to be like him because he has an everlasting impact and impression.

Sir I would like to be a comic charter named Saabu in Chacha Choudhary Series. He is a tough and strong character that is never hesitant to take up any challenge and also acts as a protector. So I would like to be the like him which means wherever and whenever there will be a difficulty, I will always be there to solve it.

Sir I would like to be like Doremon because of his quality to affect a very large number of people and children. He not only affects them but also makes them copy him. There is some appeal in that character i.e. his wit, charm and problem solving attitude which make people so fond of him so I would like to be like him.



## **21. Do you think people are lazy and need to be pushed to perform?**

Yes Sir, people are lazy and need to be pushed to perform. There is a theory in Human Resource and I strongly and firmly believe in that. It's Theory X which states that people are lazy and shirk work. So unless they are made to realise the existence of punishment for not doing the work in time, they won't. I might sound ruthless but I believe that if it's about the work which has been assigned to us and we have to complete it, then there should be no excuse.

No Sir, people are not lazy and there is no need to push them to perform. I believe in Theory Y of Human Resource which states that people like to work if they are given a positive environment. I also believe in delegating the work and power. As a task manager, I would be more interested in getting the final outcome and result rather than focusing much on who did it and how they did it.

Sir it depends upon various factors like the situation, the work itself, the environment and the people around. If the situation is tough then they would probably give up on doing the work and vice versa. Similarly if people have interest in certain kind of work which they are doing, they might end up completing it before the dead-line also. Would you rather fight a single horse-sized duck, or 100 duck-sized horses?

Answer1 "Definitely one horse-sized duck," I'd distract it with some cracked corn and, as it gobbled it up; I'd jump on its back and take it for a flight. I'm too poor to afford a private plane, so a personal horse-sized duck would be a nice alternative."

Answer2 The first thing to take into consideration is that ducks are nature's wusses. "Ducks are not really a real feisty sort of animal. If their nest is threatened, "they will bite. They will rush at a small predator. But a duck that weighs 1,000 pounds – the size of an average horse – would cause much damage with its bite

Answer3 Yeah, I'm going for the 100 duck-sized horses. Yeah, but one shotgun blast through the horse-sized ducks head, and it's over.

## **23. Room, desk or cars – which of these do you clean often and why?**

Answer1: My reply to the interviewer would be: It depends on where I am spending the most of my time and which would have the greatest visibility to visitors or customers. If we are talking about work desk, then that gets cleaned first. If it is simply a home office desk versus the living room, the living room gets it first. If I use the car to often transport customers, then that gets my attention first. I want to try to make sure first impressions are good ones.

Answer2: Actually, I would clean out a closet first, so I would have room to store all the stuff I want to save out of my room, desk, and car.

Answer3: This depends on your level of priority. If you let me know which is more important to the company then I could answer that question.

## **25. List five uses of a stapler without staples?**

Answer1: Staplers don't use staple pins. A stapler without STAPLES would be a problem. Even with staples (or "staple pins") I think the stapler barely has two uses.

1. Nose hair puller
2. Toe nail remover

Answer2: Killing someone can be an extremely easy task or an extremely difficult one. If you try using an ineffective weapon (ie like a stapler) you might have your work cut out for you. If you use something more effective (like gun or a knife) it might be easier.

Answer3: I have handled some heavy industrial staplers and staple-guns. I could effectively bludgeon someone with one of those.

## **26. How would you cure world hunger?**

Answer1) Order, unity, safety and freedom, are the prerequisites of ensuring prosperous food production and distribution. I believe that one of the biggest reasons why there is so much starvation, especially in Africa, is because there is no sense of national unity and safety. By mean of these weapons I can take efforts to cure world hunger.

Answer2: Small amounts of direct cash to all global citizens or any worldly acknowledged NGO's(on the order of \$100–200 per year I can play my part to cure world hunger.

Answer3: Ceasing to treat governments that have no real popular support base and fail to act in the interest of their citizens as legitimate and doing things like ceasing all arms shipments to them.

## **27. How many different ways can you carry water from a lake at the foot of a mountain, to the top of the mountain?**

Answer1: The easiest way would be to just pump it, but the variable costs of that can add up quickly over the long-term. The cheapest way I can think of is to create some sort of a siphon that runs from the lake, over the top of the mountain, and back down to a different spot that's lower than the lake. If you set it up right, you could drain a small amount of water at the mountain top and the siphon would still work.

Answer2: The three basic ways are as follows

1. Pull it up with suction, if the mountain isn't too high
2. Pump it up from the bottom
3. Carry it up

## **28) If you were a Microsoft office program, which one would you be?**

Answer1: I would prefer to be The Programming Languages Beacon, "MS Office was developed using assembler, then development moved to C, later, when C++ arose, everything new was done using C++. I want to dwell more into it.

Answer2: I would prefer to work on Microsoft Word format. Actually I like drafting so it is my flair to work on it.

Answer3: I would prefer to work on Microsoft Excel.

## **SITUATIONAL INTERVIEW QUESTIONS**

- 1. Suppose you are working in a shop, and you have two products Bournvita and Horlicks. But you have observed that the stock of Bournvita has finished however the customer is asking for Bournvita. How will you convince the customer to buy Horlicks?**

**Sample A:** I'm terribly sorry we don't seem to have Bournvita in stock right now, but actually Horlicks is the original health drink & I myself grew up on it in fact, so how about you take the refill pack which has an offer right now & give it a try for a change?

**Sample B:** I do so apologise for not having Bournvita in stock right now, but actually, not only would I like to suggest you could try the chocolate Horlicks if that's why u prefer Bournvita, but I personally find the chocolate flavour of Horlicks richer, & the wheat in Horlicks makes it thicker too. So maybe you could try out the new chocolate Horlicks pouch that's just been introduced, just to give yourself a chance at a better choice and see if it clicks with you...?

**Sample C:** Well I hate to confess that we're having a slight glitch with Bournvita's delayed deliveries right now, but since I can see from your cart you're filling a stocking list, I'd hate your list to be incomplete, so may I suggest the new chocolate Horlicks 1kg re-fill pack with a discount that we got just yesterday, & that would give you a chance to know why I've always preferred Horlicks for its creamier quality...

- 2. If you are dealing with a client whose project needs to be delivered tomorrow, but everyone from your technical team is absent today. The client reminds you to get the task done by tomorrow. The work is still in progress. How will you convince the client to deliver the project a day later?**

**SAMPLE ANSWER-A** As customer experience is of great importance to maintain healthy and prolonged business relations with any client, it will be wrong to provide the client with an incomplete project so I will convince the client by saying that the team members are yet to confirm final submission. I will say that we value the equation we share with the client and his request for early submission will be fulfilled as the team will work overtime requesting him to excuse us for a day.

**SAMPLE ANSWER-B** As we cannot overlook the demand and requirement of our client, I will reach out to my technical team and request them to work from home so that the task can be completed well in time. Also, I will request the client that we will require some time to run a final review of the project report and the same will be shared with him after final approval of the team as we do not want to compromise on quality.

**SAMPLE ANSWER-C** I will politely and confidently communicate to the client that the team will require another day to make sure the product meets the client's standards, we are awaiting materials to complete the job accurately. I will talk to him and assure him that we care for his reputation and will do our best to deliver a reliable report as soon as possible.

- 3. If I hire you at 11 p.m. and assign you a project at 11:30 p.m. and at midnight the server goes down, you need to give a report/PPT in front of the management at 1 a.m. sharp. How will you achieve that?**

**SAMPLE ANSWER-A** Well, if that is the case, it means there is an emergency due to which I am being subjected to this task. Taking into consideration the fact that I am assigned a project right after joining, I

will do my best to gather the required information in 2 hours and put up a good show. I am sure that the required information and guidance will be provided by the organization.

**SAMPLE ANSWER-B** Honestly, it would be an adventure trip for me. What better way to start with the organization than delivering a presentation within two hours of being hired! Here in this situation, the major constraint would be limited time. So, without wasting any I would reach out to my mentor and gather the required information to understand the expectations of the management.

**SAMPLE ANSWER-C** Given the situation, it is evident that the organization has no other choice maybe because it's almost midnight and the concerned team has left. I will start by preparing a quick list of things that I need to mention in my presentation. I will do justice with the organization's faith in me.

**4. In your team, some people are very arrogant but good in technology and some are not good at technology. You have to deliver the project in time (3 months). How will you handle the situation?**

**SAMPLE ANSWER-A** Certainly, we all are different from each other. A team has different kinds of people. No matter how they behave and react, if they are on board for a technical role, they must be having some knowledge and skills. Despite all, the task at hand has to be finished. Therefore, I will divide the project into different areas and assign different portions to different teams taking into consideration their expertise and knowledge.

**SAMPLE ANSWER-B** As far as arrogance is concerned, it is a behavioural aspect. It is difficult to work with arrogant people, no doubt. But the project has to be finished within a stipulated time, at any cost we cannot afford conflicts and delays. I will train my team specifically for this project and make sub-teams to ensure both efficiency and effectiveness.

**SAMPLE ANSWER-C** I will call for a one on one meeting with my teammates to understand their concerns. I will share the details thoroughly so that they can understand things better. I will set clear instructions and communicate the expectations. To avoid deviations and confusion, I will stay in touch with them to motivate them time and again.

**5. You and your four friends have joined and all of them have been allotted different projects. Your work depends upon how well the other three will do their work. What will you do to ensure that they do well so that your efforts are recognized?**

**SAMPLE ANSWER-A** If a team member is not pulling his weight, especially when he or she is a friend, I will cajole them into doing their work highlighting the fact that because one loose link the other three will also lose. I will go for straight talk.

**SAMPLE ANSWER-B** Friendship, as per my understanding must empower a person. If all four of us have been allotted different projects which are somehow interrelated in the way that they will impact the other friend's performance, undoubtedly, we all are going, to be honest with our work. As a friend, I will be in constant touch with the other three of them to ensure everything is in synchronization.

**SAMPLE ANSWER-C** Friendship is personal and the work is complete to fulfil our professional duties and growth. I will be honest with my friends and communicate my concern to them. I am sure they will understand and not make suffer at their hands.

**6. If your boss is providing incorrect information to the client and you are there at that point of time, and you have the accurate information. Then what will you do?**

**SAMPLE ANSWER-A** Ask the boss for permission to talk to him separately or I will write on paper and show it to my boss so that the client doesn't get to know but the boss can change the information accordingly. This will also give me clarity on whether the boss did so deliberately or by mistake.

**SAMPLE ANSWER-B** I will try to understand if the boss is doing it on purpose or it was an honest mistake. If it is on purpose I will talk to him in person and understand the reason behind it. If the false information somehow cheat or harm someone, I will politely seek an exit from the project keeping my ethics intact. Also, I will try to convince my boss that we must stick to facts and not sugar coat.

**SAMPLE ANSWER-C** I will wait for the client to leave. Write a mail to the boss stating the problem. Let the boss take it forward as to whether he wants to change the said detail or call for a meeting to undo.

**7. Describe a situation where others you were working with on a project disagreed with your ideas. What did you do?**

**SAMPLE ANSWER-A** Once in a group project we had to come up with innovative ways to solve a case study. One of the members constantly had issues with any ideas that I gave. I tried to talk to him directly to understand what was wrong but he simply shoved me away. Then I approached one of his friends to understand why he was behaving like that to which I discovered that he wanted to Ace the class and felt he had to give the best ideas to do so. Then I ensured that in all meetings I communicate to him subtly that I share his goal and also want to get an A. This improved his behaviour.

**SAMPLE ANSWER-B** Once for our annual youth fest I was given the charge for decoration of stage for the cultural performances. The decoration had to be representative of Punjab. Where my team was adamant on using pastels and sober lifestyle, I wanted a vibrant village as the backdrop. My idea was not received well as they argued that Punjab is more than just a village land. I, later on, realized their perspective. Though I never said that Punjab was just about villages and fields, we all eventually worked together and created a beautiful backdrop for Punjabi fest wherein we depicted villages, fields, industry etc.

**SAMPLE ANSWER-C** I was the coordinator of one of the student clubs and my deputy coordinator misbehaved and refused to cooperate with me. I believe she mostly did so because she considered herself superior to me. The first key is to understand the other person's perspective and make them feel heard and understood. The next step is to make them understand your perspective and communicate any misunderstandings. Then I started making her the POC for many tasks so that she felt important and responsible.

**8. People under you will be males with qualification as 10th, 10 +2 passed. What will you do if they refuse to follow your instructions?**

**Sample A:** Look, as someone who started just like you fresh from the school world, I realise, like me, the real job world of rules & responsibilities is difficult to digest, but let's face, accept & appreciate some ground realities of the real world, one of the first of which is when you are at the bottom of the ladder & want to climb to a higher level, doing only what is comfortable, or makes you happy & not living up to your job requirements isn't really the best way to learn & grow into a higher level. So let's take this situation as a test or challenge of your maturity & understanding of this, & put our energies into doing a

good job of whatever needs to be done, rather than trying to take the easy option out. Think about it for a few minutes & have a show of hands on this...ok?

**Sample B:** Look, the career you've chosen is one of the fastest growing industries today, & you will have tremendous scope for growth in it. The beginning in any chosen activity is always the toughest, but once you learn to work as a team you will realise what a powerful platform you have to bring out your best potential that will help you stand in my position tomorrow. So let's face the challenge of transforming from "students" to professionals & come out not as losers but winners...right?

**Sample C:** Look, this may seem tough to you right now because you've just stepped out of the world of classrooms & cheating in tests & exams to pass, but the realities of a highly competitive work culture has no place for school children, because no one is paying good salaries to "students" to get passing marks, ok? A full month's salary means a full month's work done & done well, or you will soon find yourself sending applications for jobs again. So let's all grow up & see who takes over from me when I'm ready to move to the next level shall we?

**9. If you choose this field as your career, your knowledge of Engineering will go in vain and afterwards you will be away from your core field in which you studied for 4 years, would it affect you?**

**Sample A:** I already knew that when I sent in my application, but the truth is that engineering was not my choice. It was my father's, & I did it to make him happy. But now that I've got my degree, I've proved to him & myself that I could do it, and earned the right to now fulfil my own choice, which is this field.

**Sample B:** If you check my marks up to the XII boards, you will see that though I've scored consistently highest in physics & maths, my marks in the humanities like the languages & social sciences are only marginally lower. So I'm afraid I'm not quite the typical science nerd, but actually read very widely & am as interested in political science as in psychology or world history, which I guess make me an all rounder of sorts. So you may rest assured that I know I'll be happy & able to excel in this field without my 4 years of engineering being either a regret or handicap in my efforts or results.

**Sample C:** Yes, thank you for making that clear, but I was aware of that when I sent my application. And while I may earn back the money that went into those 4 years of doing engineering, what I'll never get back are those very 4 years of my life. However, not only do I know I won't have any regrets about them, but I also know I will be able to excel in this field because first, those 4 years taught me the value of discipline, determination & drive which have given me a maturity & sense of work, responsibility & commitment I would never have got any other way, secondly I'm content I've fulfilled my father's wish to see me as a B. Tech graduate which is why I'm now free to opt for a field of work I'm emotionally more suited for, because at heart I'm a people's person.

**10. If you, your two friends and your boss were in a boat, and there is a hole in the boat, then whom would you throw out of the boat if the boat cannot bear the weight of all the persons and why?**

**Sample A:** This is too easy. I'll jump out myself because I'm a really good swimmer & also really enjoy a good swim. The reason I made this decision and chose myself is because it will not cause any discomfort to either my friends or my boss. Of course it will be an easy decision provided I know how to swim, however, even if I did not I should be able to hold onto the sides of the boat or an oar to stay afloat.

**Sample B:** Since I can't ask my boss to jump into the water so my friends & I will either toss or pick sticks for the honour of playing hero. In this scenario I am assuming that my boss is older in age to me and my friends. Therefore it would be the ethical and morally sound decision to take this step.

**Sample C:** I would ignore the options provided by you. I would instead select a third option where I would take off my socks and use it to plug the hole. Furthermore, if the socks are not sufficient and effective in plugging the hole I would also take the shirt off my back and use it as well.

**11. Suppose you have put in all your savings for Europe trip and everything is finalised, but at final stages, we inform you that some targets are still pending from your side to complete. So what are you going to choose your trip or targets?**

**Sample A:** I'd definitely opt for completing my pending work, even if i can't get any refunds from my trip bookings. It is an elementary decision since the cause and contributor to making the vacation possible is the very job. Therefore it gets priority over my planned vacation which will additionally have a more positive influence in my future career aspects and advancement.

**Sample B:** Although it would mean a huge hole in my savings for nothing, I'd definitely cancel the trip because commitment & career are any day more important than a good time. Furthermore I'm sure my family and friends would also support my decision. Moreover, I'll well ask check to see if my physical presence is required for the completion of the job thereby considering the advantage of the modern civilisation by attempting to remotely complete the work while still being able to go on vacation with my family and friends.

**Sample C:** Notwithstanding the financial loss & emotional disappointment, I'm too dedicated to my work & career to be able to enjoy the trip knowing what it cost me in both, so there's no question I'd drop the trip to complete my work. Additionally, I will also cross check with the superiors if the task can be remotely completed and submitted. This will allow me to eat the cake and enjoy it as well.

**12. You have a tiger, a goat and a heap of grass to be taken to another side of the river. How will you strategize so that none of the three things is consumed by any of them?**

**Sample A:** This riddle is something that I had come across as a child in my life and I believe I still have the answer. I will work on a strategy that allows me to complete the task by using my analytical and critical problem solving skills. In the end, if I do not succeed in coming up with a sound strategy I will seek the advice or help of a wiser individual.

**Sample B:** To solve the provided riddle I will first use a pen and paper to analyse the problem and identify the challenges it poses. Then I will consult my results with a trusted advisor or mentor. Finally once I am satisfied with the answer then I will execute the strategy to succeed at the task placed in front of me.

**Sample C:** Well to begin I will muzzle the lion and tie it to one end of the boat and then place the bundle of grass next to it while the goat will be placed in the end of the boat with me sitting in the centre to keep an eye on all of them. Alternately, I will also ask if there are any missing elements to the question since it seems incomplete.

## **IT INTERVIEW QUESTIONS AND ANSWERS**

### **1. Explain Concept of OOPS.**

Ans: Object Oriented programming is a programming style that is associated with the concept of Class, Objects and various other concepts revolving around these two, like Inheritance, Polymorphism, Abstraction, Encapsulation etc.

Concepts of OOPS are as under:

- 1) Encapsulation: Wrapping up of data and methods in to a single unit is called as encapsulation.
- 2) Abstraction: It supports Abstraction
- 2) Inheritance: The process of acquiring properties from one object to another without changes is called Inheritance.
- 3) Polymorphism: The process of acquiring properties from one object to another with change is called Polymorphism.  
poly=many  
morphism=forms
- 5) Message Passing:  
message passing is possible from one object to another.
- 6) Robust and Secure:  
every object is strong one.  
every object is secure one with their access specifiers.

### **2. Explain polymorphism.**

Ans: In a programming language that exhibits polymorphism, objects of classes belonging to the same hierarchical tree (inherited from a common base class) may possess functions bearing the same name, but having different behaviours.

As an example, let us assume that there is a base class named Animals from which the subclasses Horse, Fish and Bird are derived. Also, assume that the Animals class has a function named Move, which is inherited by all subclasses mentioned. With polymorphism, each subclass may have its own way of implementing the function. So, for example, when the Move function is called on an object of the Horse class, the function might respond by displaying trotting on the screen. On the other hand, when the same function is called on an object of the Fish class, swimming might be displayed on the screen. In the case of a Bird object, it may be flying.

In effect, polymorphism cuts down the work of the developer because he can now create a sort of general class with all the attributes and behaviours that he envisions for it. When the time comes for the developer to create more specific subclasses with certain unique attributes and behaviours, the developer can simply alter code in the specific portions where the behaviours differ. All other portions of the code can be left as is.



### 3. What is Join and Types of joins

Ans: A SQL join clause combines columns from one or more tables in a relational database. A JOIN is a means for combining columns from one (self-table) or more tables by using values common to each. ANSI-standard SQL specifies five types of JOIN : INNER , LEFT OUTER , RIGHT OUTER , FULL OUTER and CROSS .

### 4. Explain and WAQ on Equi joins.

Ans: SQL EQUI JOIN performs a JOIN against equality or matching column(s) values of the associated tables. An equal sign (=) is used as a comparison operator in the where clause to refer to equality.

We may also perform EQUI JOIN by using JOIN keyword followed by ON keyword and then specifying names of the columns along with their associated tables to check equality.

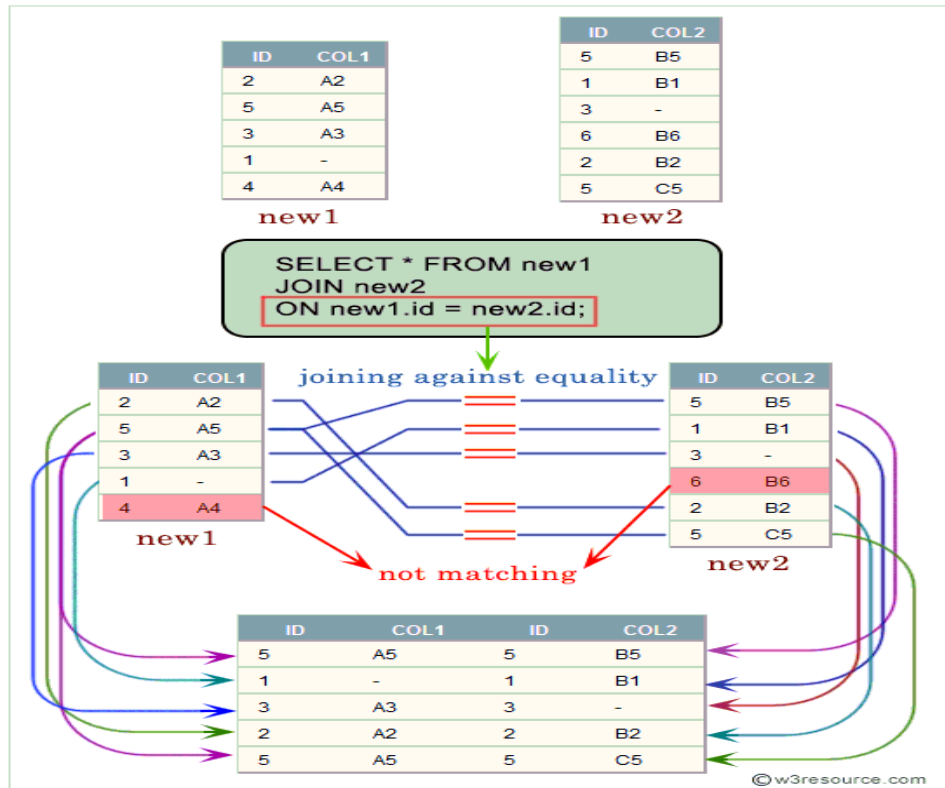
#### **Syntax**

---

```
SELECT column_list  
FROM table1, table2....  
WHERE table1.column_name =  
table2.column_name;  
or
```

```
SELECT *  
FROM table1  
JOIN table2  
[ON (join_condition)]
```

#### **Pictorial representation :**



## 5. Explain and WAQ on Outer joins

Ans: The SQL OUTER JOIN returns all rows from both the participating tables which satisfy the join condition along with rows which do not satisfy the join condition. The SQL OUTER JOIN operator (+) is used only on one side of the join condition only.

The subtypes of SQL OUTER JOIN

- LEFT OUTER JOIN or LEFT JOIN
- RIGHT OUTER JOIN or RIGHT JOIN
- FULL OUTER JOIN

## 6. Explain Inheritance in Java.

Ans: Inheritance is one of the features of Object-Oriented Programming (OOPs). Inheritance allows a class to use the properties and methods of another class. In other words, the derived class inherits the states and behaviours from the base class. The derived class is also called subclass and the base class is also known as super-class. The derived class can add its own additional variables and methods. These additional variables and methods differentiate the derived class from the base class.

Inheritance is a compile-time mechanism. A super-class can have any number of subclasses. But a subclass can have only one superclass. This is because Java does not support multiple inheritance.

The superclass and subclass have “is-a” relationship between them.

## 7. Explain & WAP of Quick Sort

Ans: Quick sort is a highly efficient sorting algorithm and is based on partitioning of array of data into smaller arrays. A large array is partitioned into two arrays, one of which holds values smaller than the specified value, say pivot, based on which the partition is made and another array holds values greater than the pivot value.

Program:

```
#include <stdio.h>
#include <stdbool.h>
#define MAX 7
int intArray[MAX] = {4,6,3,2,1,9,7};
void printline(int count) {
    int i;
    for(i = 0; i < count-1; i++) {
        printf("=");
    }
    printf("\n");
}
void display() {
    int i;
    printf("[");
    // navigate through all items
    for(i = 0; i < MAX; i++) {
        printf("%d ", intArray[i]);
    }
    printf("]\n");
}
void swap(int num1, int num2) {
    int temp = intArray[num1];
    intArray[num1] = intArray[num2];
    intArray[num2] = temp;
}
int partition(int left, int right, int pivot) {
    int leftPointer = left - 1;
    int rightPointer = right;
    while(true) {
        while(intArray[++leftPointer] < pivot) {
            //do nothing
        }

        while(rightPointer > 0 && intArray[--rightPointer] > pivot) {
            //do nothing
        }
    }
}
```

```

    if(leftPointer >= rightPointer) {
        break;
    } else {
        printf(" item swapped :%d,%d\n", intArray[leftPointer],intArray[rightPointer]);
        swap(leftPointer,rightPointer);
    }
}

    printf(" pivot swapped :%d,%d\n", intArray[leftPointer],intArray[right]);
    swap(leftPointer,right);
    printf("Updated Array: ");
    display();
    return leftPointer;
}

void quickSort(int left, int right) {
    if(right-left <= 0) {
        return;
    } else {
        int pivot = intArray[right];
        int partitionPoint = partition(left, right, pivot);
        quickSort(left,partitionPoint-1);
        quickSort(partitionPoint+1,right);
    }
}

main() {
    printf("Input Array: ");
    display();
    printline(50);
    quickSort(0,MAX-1);
    printf("Output Array: ");
    display();
    printline(50);
}

```

If we compile and run the above program, it will produce the following result –

### Output

```

Input Array: [4 6 3 2 1 9 7 ]
=====
pivot swapped :9,7
Updated Array: [4 6 3 2 1 7 9 ]
pivot swapped :4,1
Updated Array: [1 6 3 2 4 7 9 ]
item swapped :6,2
pivot swapped :6,4
Updated Array: [1 2 3 4 6 7 9 ]
pivot swapped :3,3

```

Updated Array: [1 2 3 4 6 7 9 ]

Output Array: [1 2 3 4 6 7 9 ]

=====

## 8. Explain & WAP of Selection sort

Ans: Selection sort is a simple sorting algorithm. This sorting algorithm is an in-place comparison-based algorithm in which the list is divided into two parts, the sorted part at the left end and the unsorted part at the right end. Initially, the sorted part is empty and the unsorted part is the entire list.

The smallest element is selected from the unsorted array and swapped with the leftmost element, and that element becomes a part of the sorted array. This process continues moving unsorted array boundary by one element to the right.

This algorithm is not suitable for large data sets as its average and worst case complexities are of  $O(n^2)$ , where  $n$  is the number of items.

### How Selection Sort Works?

Consider the following depicted array as an example.



For the first position in the sorted list, the whole list is scanned sequentially. The first position where 14 is stored presently, we search the whole list and find that 10 is the lowest value.



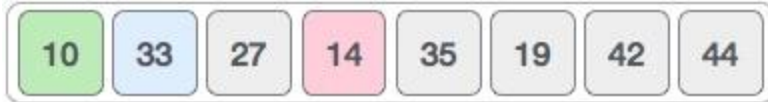
So we replace 14 with 10. After one iteration 10, which happens to be the minimum value in the list, appears in the first position of the sorted list.



For the second position, where 33 is residing, we start scanning the rest of the list in a linear manner.



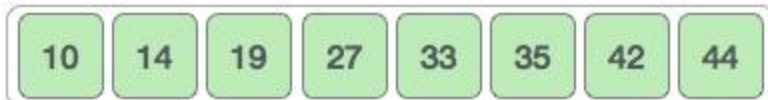
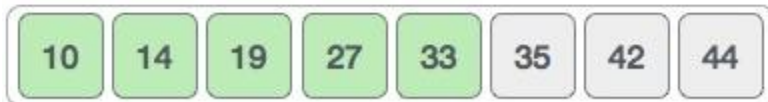
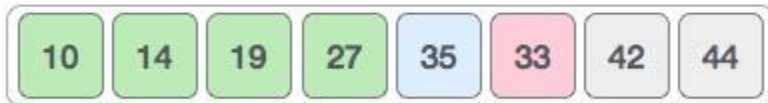
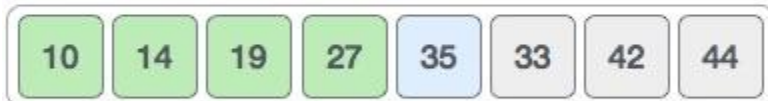
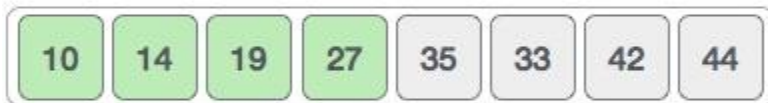
We find that 14 is the second lowest value in the list and it should appear at the second place. We swap these values.



After two iterations, two least values are positioned at the beginning in a sorted manner.



The same process is applied to the rest of the items in the array. Following is a pictorial depiction of the entire sorting process –



Now, let us learn some programming aspects of selection sort.

Algorithm

**Step 1** – Set MIN to location 0  
**Step 2** – Search the minimum element in the list  
**Step 3** – Swap with value at location MIN  
**Step 4** – Increment MIN to point to next element  
**Step 5** – Repeat until list is sorted

## 9. Difference between C and C++.

**Ans:**

Difference between C and C++	
C	C++
C was developed by Dennis Ritchie between 1969 and 1973 at AT&T Bell Labs.	C++ was developed by Bjarne Stroustrup in 1979 with C++'s predecessor "C with Classes".
When compared to C++, C is a subset of C++.	C++ is a superset of C. C++ can run most of C code while C cannot run C++ code.
C supports procedural programming paradigm for code development.	C++ supports both procedural and object oriented programming paradigms; therefore C++ is also called a hybrid language.
C does not support object oriented programming; therefore it has no support for polymorphism, encapsulation, and inheritance.	Being an object oriented programming language C++ supports polymorphism, encapsulation, and inheritance.
In C (because it is a procedural programming language), data and functions are separate and free entities.	In C++ (when it is used as object oriented programming language), data and functions are encapsulated together in form of an object. For creating objects, class provides a blueprint of structure of the object.
In C, data are free entities and can be manipulated by outside code. This is because C does not support information hiding.	In C++, Encapsulation hides the data to ensure that data structures and operators are used as intended.
C, being a procedural programming, it is a function driven language.	While, C++, being an object oriented programming, it is an object driven language.

C does not support function and operator overloading.	C++ supports both function and operator overloading.
C does not allow functions to be defined inside structures.	In C++, functions can be used inside a structure.
C does not have namespace feature.	<p>C++ uses NAMESPACE which avoid name collisions.</p> <p>A namespace is a declarative region that provides a scope to the identifiers (the names of types, functions, variables, etc) inside it. Namespaces are used to organize code into logical groups and to prevent name collisions that can occur especially when your code base includes multiple libraries. All identifiers at namespace scope are visible to one another without qualification. Identifiers outside the namespace can access the members by using the fully qualified name for each identifier.</p>
C uses functions for input/output. For example scanf and printf.	C++ uses objects for input output. For example cin and cout.
C does not support reference variables.	C++ supports reference variables.
C has no support for virtual and friend functions.	C++ supports virtual and friend functions.
C provides malloc() and calloc() functions for dynamic memory allocation, and free() for memory de-allocation.	C++ provides new operator for memory allocation and delete operator for memory de-allocation.
C does not provide direct support for error handling (also called exception handling)	C++ provides support for exception handling. Exceptions are used for "hard" errors that make the code incorrect.

#### 10. Explain & WAP of Insert Sort

Ans: This is an in-place comparison-based sorting algorithm. Here, a sub-list is maintained which is always sorted. For example, the lower part of an array is maintained to be sorted. An element which is to be 'insert'ed in this sorted sub-list, has to find its appropriate place and then it has to be inserted there. Hence the name, **insertion sort**.



The array is searched sequentially and unsorted items are moved and inserted into the sorted sub-list (in the same array). This algorithm is not suitable for large data sets as its average and worst case complexity are of  $O(n^2)$ , where  $n$  is the number of items.

### How Insertion Sort Works?

We take an unsorted array for our example.



Insertion sort compares the first two elements.



It finds that both 14 and 33 are already in ascending order. For now, 14 is in sorted sub-list.



Insertion sort moves ahead and compares 33 with 27.



And finds that 33 is not in the correct position.



It swaps 33 with 27. It also checks with all the elements of sorted sub-list. Here we see that the sorted sub-list has only one element 14, and 27 is greater than 14. Hence, the sorted sub-list remains sorted after swapping.



By now we have 14 and 27 in the sorted sub-list. Next, it compares 33 with 10.



These values are not in a sorted order.



So we swap them.



However, swapping makes 27 and 10 unsorted.



Hence, we swap them too.



Again we find 14 and 10 in an unsorted order.



We swap them again. By the end of third iteration, we have a sorted sub-list of 4 items.



This process goes on until all the unsorted values are covered in a sorted sub-list. Now we shall see some programming aspects of insertion sort.

#### Algorithm

Now we have a bigger picture of how this sorting technique works, so we can derive simple steps by which we can achieve insertion sort.

- Step 1** – If it is the first element, it is already sorted. return 1;
- Step 2** – Pick next element
- Step 3** – Compare with all elements in the sorted sub-list
- Step 4** – Shift all the elements in the sorted sub-list that is greater than the value to be sorted
- Step 5** – Insert the value
- Step 6** – Repeat until list is sorted

#### Pseudocode

```
procedure insertionSort( A : array of items )  
  int holePosition  
  int valueToInsert  
  
  for i = 1 to length(A) inclusive do:  
    /* select value to be inserted */
```

```

valueToInsert = A[i]
holePosition = i

/*locate hole position for the element to be inserted */
    while holePosition > 0 and A[holePosition-1] > valueToInsert do:
        A[holePosition] = A[holePosition-1]
        holePosition = holePosition - 1
    end while

/* insert the number at hole position */
    A[holePosition] = valueToInsert

end for

end procedure

```

### 11. Explain & WAP of Heap Sort

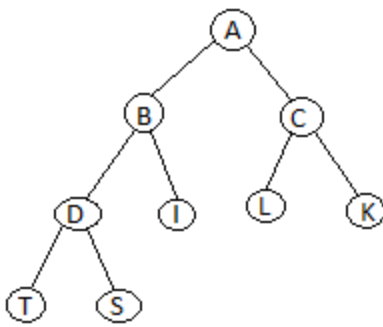
Ans: Heap Sort is one of the best sorting methods being in-place and with no quadratic worst-case scenarios. Heap sort algorithm is divided into two basic parts :

- Creating a Heap of the unsorted list.
- Then a sorted array is created by repeatedly removing the largest/smallest element from the heap, and inserting it into the array. The heap is reconstructed after each removal.

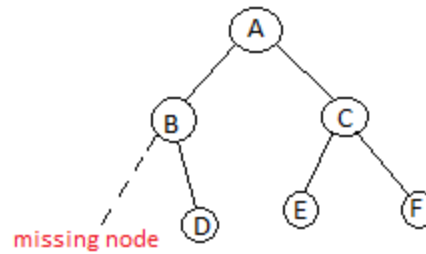
What is a Heap ?

Heap is a special tree-based data structure, that satisfies the following special heap properties

1. **Shape Property** : Heap data structure is always a Complete Binary Tree, which means all levels of the tree are fully filled.

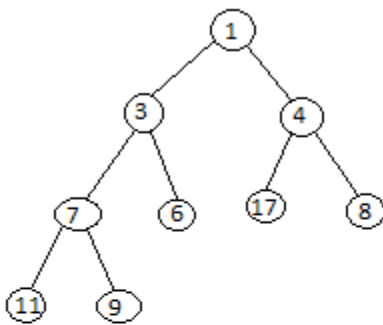


Complete Binary Tree



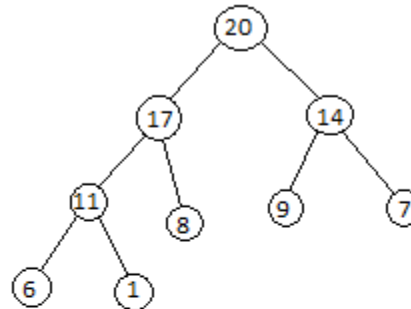
In-Complete Binary Tree

2. **Heap Property** : All nodes are either *[greater than or equal to]* or *[less than or equal to]* each of its children. If the parent nodes are greater than their children, heap is called a **Max-Heap**, and if the parent nodes are smaller than their child nodes, heap is called **Min-Heap**.



Min-Heap

In min-heap, first element is the smallest. So when we want to sort a list in ascending order, we create a Min-heap from that list, and pick the first element, as it is the smallest, then we repeat the process with remaining elements.



Max-Heap

In max-heap, the first element is the largest, hence it is used when we need to sort a list in descending order.

### ***How Heap Sort Works***

Initially on receiving an unsorted list, the first step in heap sort is to create a Heap data structure(Max-Heap or Min-Heap). Once heap is built, the first element of the Heap is either the largest or smallest(depending upon Max-Heap or Min-Heap), so we put the first element of the heap in our array. Then we again make heap using the remaining elements, to again pick the first element of the heap

and put it into the array. We keep on doing the same repeatedly until we have the complete sorted list in our array.

In the below algorithm, initially **heapsort()** function is called, which calls **buildheap()** to build heap, which in turn uses **satisfy heap()** to build the heap.

### *Sorting using Heap Sort Algorithm*

*/\* Below program is written in C++ language \*/*

```
void heapsort(int[], int);
void buildheap(int [], int);
void satisfyheap(int [], int, int);

void main()
{
    int a[10], i, size;
    cout << "Enter size of list"; // less than 10, because max size of array is 10
    cin >> size;
    cout << "Enter" << size << "elements";
    for( i=0; i < size; i++)
    {
        cin >> a[i];
    }
    heapsort(a, size);
    getch();
}

void heapsort(int a[], int length)
{
    buildheap(a, length);
    int heapsize, i, temp;
    heapsize = length - 1;
    for( i=heapsize; i >= 0; i--)
    {
        temp = a[0];
        a[0] = a[heapsize];
        a[heapsize] = temp;
        heapsize--;
        satisfyheap(a, 0, heapsize);
    }
}
```

```

    for( i=0; i < length; i++)
    {
        cout << "\t" << a[i];
    }
}

void buildheap(int a[], int length)
{
    int i, heapsize;
    heapsize = length - 1;
    for( i=(length/2); i >= 0; i--)
    {
        satisfyheap(a, i, heapsize);
    }
}

void satisfyheap(int a[], int i, int heapsize)
{
    int l, r, largest, temp;
    l = 2*i;
    r = 2*i + 1;
    if(l <= heapsize && a[l] > a[i])
    {
        largest = l;
    }
    else
    {
        largest = i;
    }
    if( r <= heapsize && a[r] > a[largest])
    {
        largest = r;
    }
    if(largest != i)
    {
        temp = a[i];
        a[i] = a[largest];
        a[largest] = temp;
        satisfyheap(a, largest, heapsize);
    }
}

```

}

## 12. Explain WAP of merge sort.

Ans: Merge sort is a sorting technique based on divide and conquer technique. With worst-case time complexity being  $O(n \log n)$ , it is one of the most respected algorithms.

Merge sort first divides the array into equal halves and then combines them in a sorted manner.

To understand merge sort, we take an unsorted array as the following –



We know that merge sort first divides the whole array iteratively into equal halves unless the atomic values are achieved. We see here that an array of 8 items is divided into two arrays of size 4.



This does not change the sequence of appearance of items in the original. Now we divide these two arrays into halves.



We further divide these arrays and we achieve atomic value which can no more be divided.



Now, we combine them in exactly the same manner as they were broken down. Please note the color codes given to these lists.

We first compare the element for each list and then combine them into another list in a sorted manner. We see that 14 and 33 are in sorted positions. We compare 27 and 10 and in the target list of 2 values we put 10 first, followed by 27. We change the order of 19 and 35 whereas 42 and 44 are placed sequentially.



In the next iteration of the combining phase, we compare lists of two data values, and merge them into a list of found data values placing all in a sorted order.



After the final merging, the list should look like this –



Now we should learn some programming aspects of merge sorting.

#### Algorithm

Merge sort keeps on dividing the list into equal halves until it can no more be divided. By definition, if it is only one element in the list, it is sorted. Then, merge sort combines the smaller sorted lists keeping the new list sorted too.

**Step 1** – if it is only one element in the list it is already sorted, return.

**Step 2** – divide the list recursively into two halves until it can no more be divided.

**Step 3** – merge the smaller lists into new list in sorted order.

#### Pseudocode

We shall now see the pseudocodes for merge sort functions. As our algorithms point out two main functions – divide & merge.

Merge sort works with recursion and we shall see our implementation in the same way.

```
procedure mergesort( var a as array )
    if ( n == 1 ) return a

    var l1 as array = a[0] ... a[n/2]
    var l2 as array = a[n/2+1] ... a[n]

    l1 = mergesort( l1 )
    l2 = mergesort( l2 )

    return merge( l1, l2 )
end procedure

procedure merge( var a as array, var b as array )

    var c as array

    while ( a and b have elements )
        if ( a[0] > b[0] )
            add b[0] to the end of c
            remove b[0] from b
        else
            add a[0] to the end of c
            remove a[0] from a
        end if
    end while

    return c
```



```

    else
        add a[0] to the end of c
        remove a[0] from a
    end if
end while

while ( a has elements )
    add a[0] to the end of c
    remove a[0] from a
end while

while ( b has elements )
    add b[0] to the end of c
    remove b[0] from b
end while

return c

end procedure

```

### 13. Explain WAP of Fibonacci series.

Ans: #include <stdio.h>

#include <conio.h>

```

int fibonacci(int term);
int main(){
    int terms, counter;
    printf("Enter number of terms in Fibonacci series: ");
    scanf("%d", &terms);
    /*
    * Nth term = (N-1)th term + (N-2)th term;
    */
    printf("Fibonacci series till %d terms\n", terms);
    for(counter = 0; counter < terms; counter++){
        printf("%d ", fibonacci(counter));
    }
    getch();
    return 0;
}
/*
* Function to calculate Nth Fibonacci number
* fibonacci(N) = fibonacci(N - 1) + fibonacci(N - 2);
*/
int fibonacci(int term){
    /* Exit condition of recursion*/

```

```
if(term < 2)
    return term;
return fibonacci(term - 1) + fibonacci(term - 2);
}
```

#### 14. Explain Encapsulation in Java.

Ans: Encapsulation is one of the four fundamental OOP concepts. The other three are inheritance, polymorphism, and abstraction. Encapsulation in Java is a mechanism of wrapping the data (variables) and code acting on the data (methods) together as a single unit.

#### 15. Explain and WAQ on Left outer

Ans: The Left Join or Left Outer Join operation takes two relations, A and B, and returns the inner join of A and B along with the unmatched rows of A. A is the first relation defined in the FROM clause and is hence the left relation. The left join includes the unmatched rows of the left relation along with the matched columns in the result.

The SQLite LEFT JOIN joins two tables and fetches rows based on a condition, which is matching in both the tables and the unmatched rows will also be available from the table written before the JOIN clause.

So, in case of LEFT JOIN or LEFT OUTER JOIN, SQLite -

1. takes all selected values from the left table
2. combines them with the column names ( specified in the condition ) from the right table
3. retrieves the matching rows from both the associated tables.
4. sets the value of every column from the right table to NULL which is unmatched with the left table.

#### Syntax

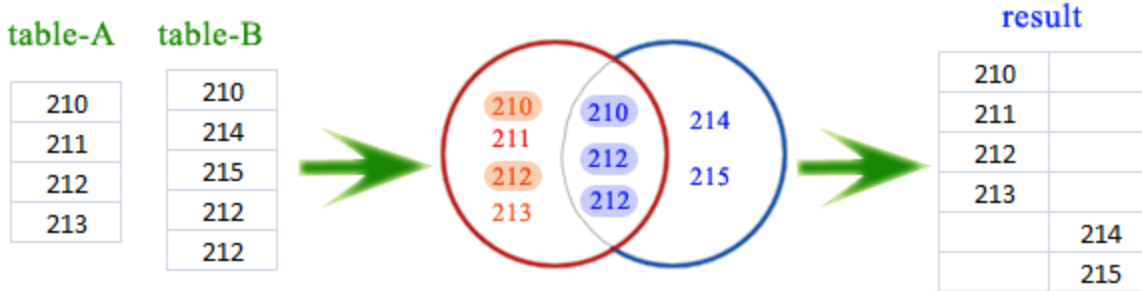
Here is the basic syntax.

```
SELECT result
FROM table1
LEFT [OUTER] JOIN table2
ON table1.keyfield1 = table2.keyfield2
[WHERE expr]
```

#### Pictorial Presentation

Assume that, we have two tables table-A and table-B. The unique columns for two tables are ID. The value in ID column for table-A are 210,211,212 and 213 and the values for table-B are 210,214,215,212 and 212. Here is the pictorial presentation.

## Left Join or Left outer Join



**\*\*** all rows from left table table-A and matching rows from right table table-B and unmatched rows from right table table-B.

## 16. Explain and WAQ on Right outer

**Ans: SQL RIGHT JOIN Keyword**

The RIGHT JOIN keyword returns all records from the right table (table2), and the matched records from the left table (table1). The result is NULL from the left side, when there is no match.

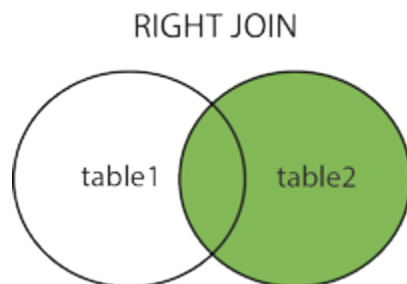
RIGHT JOIN Syntax

SELECT *column\_name(s)*

FROM *table1*

RIGHT JOIN *table2* ON *table1.column\_name = table2.column\_name;*

**Note:** In some databases RIGHT JOIN is called RIGHT OUTER JOIN.



## 17. Explain & WAP of Bubble Sort

**Ans:** Bubble sort is a simple sorting algorithm. This sorting algorithm is comparison-based algorithm in which each pair of adjacent elements is compared and the elements are swapped if they are not in order. This algorithm is not suitable for large data sets as its average and worst case complexity are of  $O(n^2)$  where **n** is the number of items.

### How Bubble Sort Works?

We take an unsorted array for our example. Bubble sort takes  $O(n^2)$  time so we're keeping it short and precise.



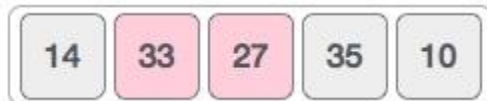
Bubble sort starts with very first two elements, comparing them to check which one is greater.



In this case, value 33 is greater than 14, so it is already in sorted locations. Next, we compare 33 with 27.



We find that 27 is smaller than 33 and these two values must be swapped.



The new array should look like this –



Next we compare 33 and 35. We find that both are in already sorted positions.



Then we move to the next two values, 35 and 10.



We know then that 10 is smaller 35. Hence they are not sorted.



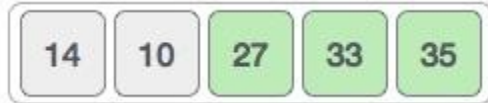
We swap these values. We find that we have reached the end of the array. After one iteration, the array should look like this –



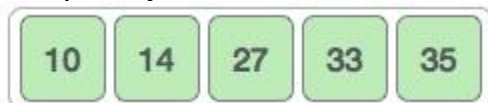
To be precise, we are now showing how an array should look like after each iteration. After the second iteration, it should look like this –



Notice that after each iteration, at least one value moves at the end.



And when there's no swap required, bubble sort learns that an array is completely sorted.



Now we should look into some practical aspects of bubble sort.

#### Algorithm

We assume **list** is an array of **n** elements. We further assume that **swap** function swaps the values of the given array elements.

```
begin BubbleSort(list)
  for all elements of list
    if list[i] > list[i+1]
      swap(list[i], list[i+1])
    end if
  end for

  return list
end BubbleSort
```

#### 18. Explain & WAP of Shell sort

Ans: Shell sort is a highly efficient sorting algorithm and is based on insertion sort algorithm. This algorithm avoids large shifts as in case of insertion sort, if the smaller value is to the far right and has to be moved to the far left.

This algorithm uses insertion sort on a widely spread elements, first to sort them and then sorts the less widely spaced elements. This spacing is termed as **interval**. This interval is calculated based on Knuth's formula as –

Knuth's Formula

$$h = h * 3 + 1$$

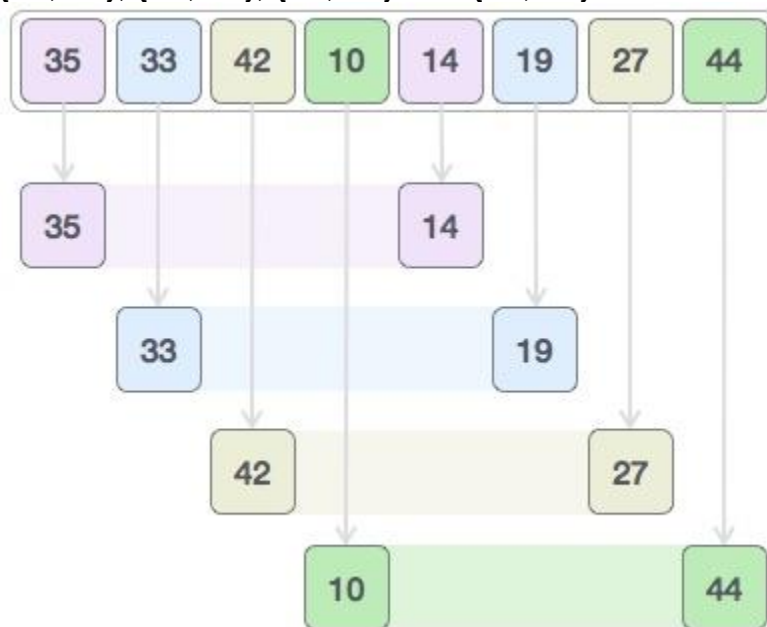
where –

$h$  is interval with initial value 1

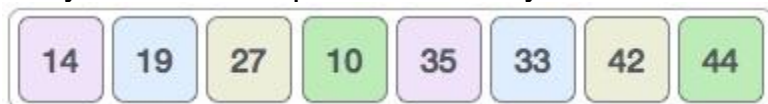
This algorithm is quite efficient for medium-sized data sets as its average and worst case complexity are of  $O(n^2)$ , where  $n$  is the number of items.

### How Shell Sort Works?

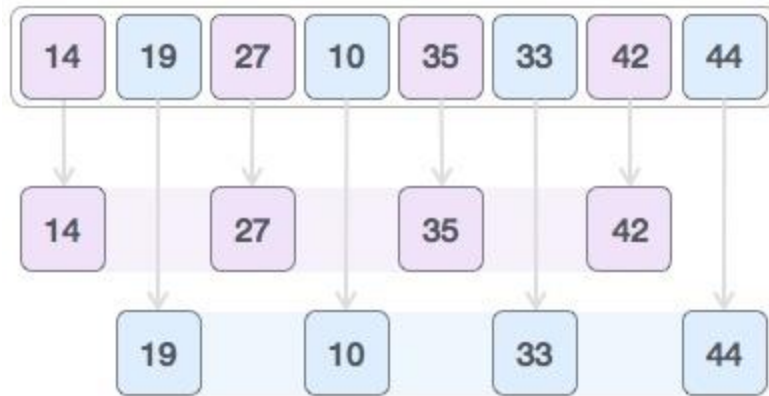
Let us consider the following example to have an idea of how shell sort works. We take the same array we have used in our previous examples. For our example and ease of understanding, we take the interval of 4. Make a virtual sub-list of all values located at the interval of 4 positions. Here these values are {35, 14}, {33, 19}, {42, 27} and {10, 44}



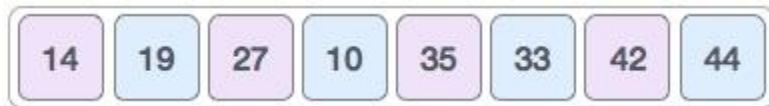
We compare values in each sub-list and swap them (if necessary) in the original array. After this step, the new array should look like this –



Then, we take interval of 2 and this gap generates two sub-lists - {14, 27, 35, 42}, {19, 10, 33, 44}

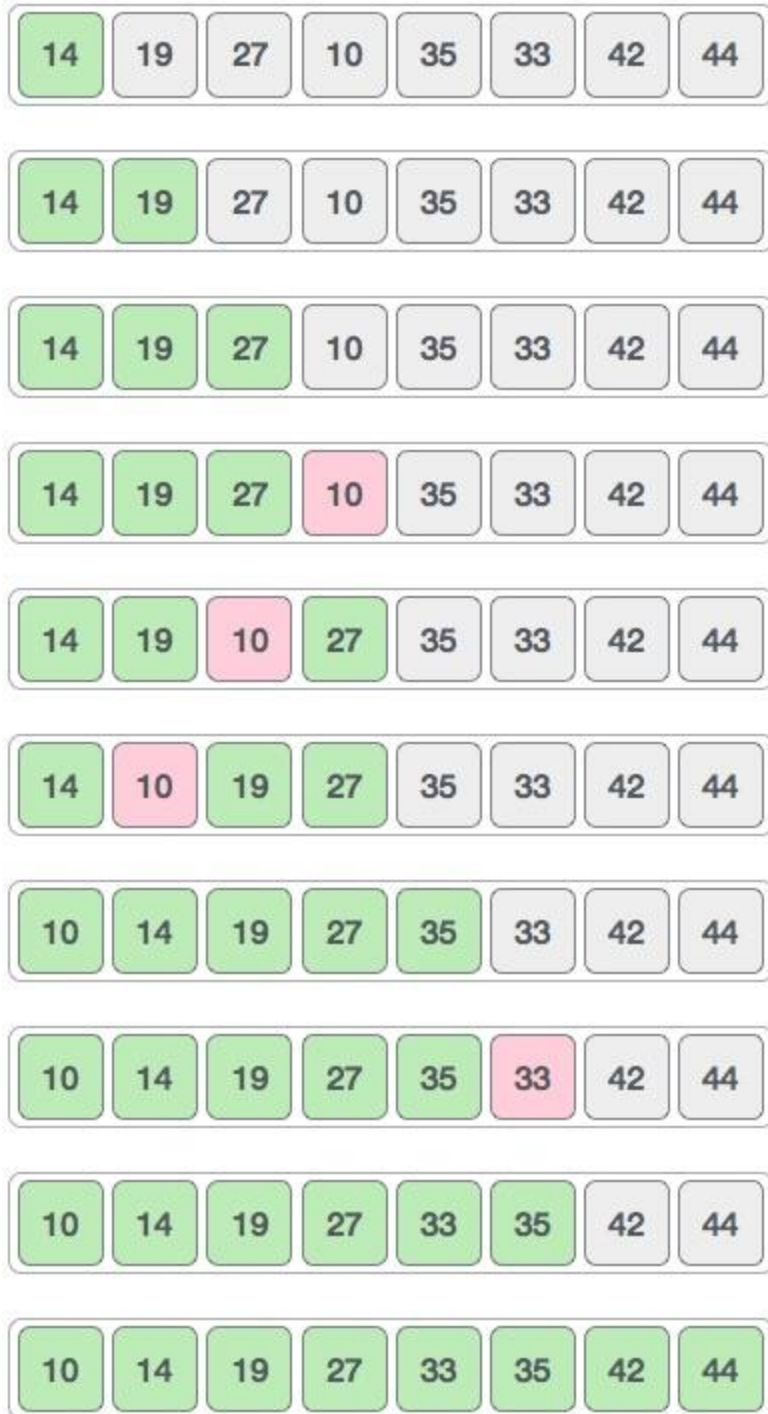


We compare and swap the values, if required, in the original array. After this step, the array should look like this –



Finally, we sort the rest of the array using interval of value 1. Shell sort uses insertion sort to sort the array.

Following is the step-by-step depiction –



We see that it required only four swaps to sort the rest of the array.

Algorithm

Following is the algorithm for shell sort.

**Step 1** – Initialize the value of  $h$

**Step 2** – Divide the list into smaller sub-list of equal interval  $h$

**Step 3** – Sort these sub-lists using **insertion sort**



**Step 3** – Repeat until complete list is sorted

### 19. Explain and WAQ on Self joins

Ans: The SQL **SELF JOIN** is used to join a table to itself as if the table were two tables, temporarily renaming at least one table in the SQL statement.

#### Syntax:

The basic syntax of **SELF JOIN** is as follows:

```
SELECT a.column_name, b.column_name...
FROM table1 a, table1 b
WHERE a.common_field = b.common_field;
```

Here, WHERE clause could be any given expression based on your requirement.

#### Example:

Consider the following two tables, (a) CUSTOMERS table is as follows:

```
+---+-----+-----+-----+-----+
| ID | NAME   | AGE | ADDRESS | SALARY |
+---+-----+-----+-----+-----+
| 1 | Ramesh | 32 | Ahmedabad | 2000.00 |
| 2 | Khilan | 25 | Delhi    | 1500.00 |
| 3 | kaushik | 23 | Kota     | 2000.00 |
| 4 | Chaitali | 25 | Mumbai   | 6500.00 |
| 5 | Hardik | 27 | Bhopal   | 8500.00 |
| 6 | Komal | 22 | MP       | 4500.00 |
| 7 | Muffy | 24 | Indore   | 10000.00 |
+---+-----+-----+-----+-----+
```

Now, let us join this table using SELF JOIN as follows:

```
SQL> SELECT a.ID, b.NAME, a.SALARY
      FROM CUSTOMERS a, CUSTOMERS b
      WHERE a.SALARY < b.SALARY;
```

This would produce the following result:

```
+---+-----+-----+
| ID | NAME   | SALARY |
+---+-----+-----+
| 2 | Ramesh | 1500.00 |
| 2 | kaushik | 1500.00 |
| 1 | Chaitali | 2000.00 |
| 2 | Chaitali | 1500.00 |
| 3 | Chaitali | 2000.00 |
```

6   Chaitali   4500.00
1   Hardik   2000.00
2   Hardik   1500.00
3   Hardik   2000.00
4   Hardik   6500.00
6   Hardik   4500.00
1   Komal   2000.00
2   Komal   1500.00
3   Komal   2000.00
1   Muffy   2000.00
2   Muffy   1500.00
3   Muffy   2000.00
4   Muffy   6500.00
5   Muffy   8500.00
6   Muffy   4500.00
+-----+-----+

## 20. What are Indexes in SQL?

Ans: Indexes are special lookup tables that the database search engine can use to speed up data retrieval. Simply put, an index is a pointer to data in a table. An index in a database is very similar to an index in the back of a book.

For example, if you want to reference all pages in a book that discuss a certain topic, you first refer to the index, which lists all topics alphabetically and are then referred to one or more specific page numbers.

An index helps speed up SELECT queries and WHERE clauses, but it slows down data input, with UPDATE and INSERT statements. Indexes can be created or dropped with no effect on the data.

Creating an index involves the CREATE INDEX statement, which allows you to name the index, to specify the table and which column or columns to index, and to indicate whether the index is in ascending or descending order.

Indexes can also be unique, similar to the UNIQUE constraint, in that the index prevents duplicate entries in the column or combination of columns on which there's an index.

### The CREATE INDEX Command:

The basic syntax of **CREATE INDEX** is as follows:

```
CREATE INDEX index_name ON table_name;
```

### Single-Column Indexes:

A single-column index is one that is created based on only one table column. The basic syntax is as follows:

```
CREATE INDEX index_name
```

```
ON table_name (column_name);
```

**Unique Indexes:**

Unique indexes are used not only for performance, but also for data integrity. A unique index does not allow any duplicate values to be inserted into the table. The basic syntax is as follows:

```
CREATE UNIQUE INDEX index_name  
on table_name (column_name);
```

**Composite Indexes:**

A composite index is an index on two or more columns of a table. The basic syntax is as follows:

```
CREATE INDEX index_name  
on table_name (column1, column2);
```

Whether to create a single-column index or a composite index, take into consideration the column(s) that you may use very frequently in a query's WHERE clause as filter conditions. Should there be only one column used, a single-column index should be the choice. Should there be two or more columns that are frequently used in the WHERE clause as filters, the composite index would be the best choice.

**Implicit Indexes:**

Implicit indexes are indexes that are automatically created by the database server when an object is created. Indexes are automatically created for primary key constraints and unique constraints.

**21. Explain software testing and its types.**

**Ans: Software Testing is evaluation of the software against requirements gathered from users and system specifications. Testing is conducted at the phase level in software development life cycle or at module level in program code. Software testing comprises of Validation and Verification.**

**Software Validation**

**Validation is process of examining whether or not the software satisfies the user requirements. It is carried out at the end of the SDLC. If the software matches requirements for which it was made, it is validated.**

**Validation ensures the product under development is as per the user requirements.**

**Validation answers the question – "Are we developing the product which attempts all that the user needs from this software ?".**

**Validation emphasizes on user requirements.**

**Software Verification**

**Verification is the process of confirming if the software is meeting the business requirements, and is developed adhering to the proper specifications and methodologies.**

**Verification ensures the product being developed is according to design specifications.**

**Verification answers the question– "Are we developing this product by firmly following all design specifications ?"**

**Verifications concentrates on the design and system specifications.**

**Target of the test are -**

**Errors - These are actual coding mistakes made by developers. In addition, there is a difference in output of software and desired output, is considered as an error.**

**Fault - When an error exists, fault occurs. A fault, also known as a bug, is a result of an error which can causes the system to fail.**

**Failure - failure is said to be the inability of the system to perform the desired task. Failure occurs when the fault exists in the system.**

### **Manual Vs Automated Testing**

**Testing can either be done manually or using an automated testing tool:**

**Manual - This testing is performed without taking help of automated testing tools. The software tester prepares test cases for different sections and levels of the code, executes the tests and reports the result to the manager.**

**Manual testing is time and resource consuming. The tester needs to confirm whether or not right test cases are used. A major portion of testing involves manual testing.**

**Automated- This testing is a testing procedure done with the aid of automated testing tools. The limitations with manual testing can be overcome using automated test tools.**

**A test needs to check if a webpage can be opened in Internet Explorer. This can be easily done with manual testing. But to check if the web-server can take the load of 1 million users, it is quite impossible to test manually.**

**There are software and hardware tools which help the tester in conducting load testing, stress testing, regression testing.**

**Tests can be conducted based on two approaches –**

- **Functionality testing**
- **Implementation testing**

**When functionality is being tested without taking the actual implementation in concern it is known as black-box testing. The other side is known as white-box testing where not only functionality is tested but the way it is implemented, is also analyzed.**

**Exhaustive tests are the best-desired method for a perfect testing. Every single possible value in the range of the input and output values is tested. It is not possible to test each and every value in real world scenario if the range of values is large.**

**Black box testing** – Internal system design is not considered in this type of testing. Tests are based on requirements and functionality.

Black-box testing techniques:

- Equivalence class - The input is divided into similar classes. If one element of a class passes the test, it is assumed that all the class is passed.
- Boundary values - The input is divided into higher and lower end values. If these values pass the test, it is assumed that all values in between may pass too.
- Cause-effect graphing - In both previous methods, only one input value at a time is tested. Cause (input) – Effect (output) is a testing technique where combinations of input values are tested in a systematic way.
- Pair-wise Testing - The behaviour of software depends on multiple parameters. In pairwise testing, the multiple parameters are tested pair-wise for their different values.
- State-based testing - The system changes state on provision of input. These systems are tested based on their states and input.

Mentioned below are some White-box testing techniques:

- Control-flow testing - The purpose of the control-flow testing to set up test cases which covers all statements and branch conditions. The branch conditions are tested for both being true and false, so that all statements can be covered.
- Data-flow testing - This testing technique emphasis to cover all the data variables included in the program. It tests where the variables were declared and defined and where they were used or changed.

**White box testing** – This testing is based on knowledge of the internal logic of an application's code. Also known as Glass box Testing. Internal software and code working should be known for this type of testing. Tests are based on coverage of code statements, branches, paths, conditions.

**Unit testing** – It is the testing of individual software components or modules. It is typically done by the programmer and not by testers, as it requires detailed knowledge of the internal program design and code. It may require developing test driver modules or test harnesses.

**Incremental integration testing** – Bottom up approach for testing i.e continuous testing of an application as new functionality is added; Application functionality and modules should be independent enough to test separately. It is done by programmers or by testers.

**Integration testing** – Testing of integrated modules to verify combined functionality after integration. Modules are typically code modules, individual applications, client and server applications on a network, etc. This type of testing is especially relevant to client/server and distributed systems.

**Functional testing** – This type of testing ignores the internal parts and focus on the output is as per requirement or not. Black-box type testing is geared to functional requirements of an application.

**Smoke Testing:** Smoke testing is the practice of going over a new build at a very high level. Smoke testing is used to make sure you can get at each major component of a project. Once a project is smoke tested, deeper testing can be started. It has its benefits in large, distributed test teams, especially when the project is very large and takes a long time to install. For instance, building an application like Microsoft Office or Windows Vista requires smoke tests before a testing organization commits itself to cleaning a bunch of machines and installing a new build.

**System testing** – Under this, an entire system is tested as per the requirements. Black-box type testing that is based on overall requirements specifications, covers all combined parts of a system.

**End-to-end testing** – It is similar to system testing and involves testing of a complete application environment in a situation that mimics real-world use, such as interacting with a database, using network communications, or interacting with other hardware, applications, or systems if appropriate.

**Sanity testing** – This testing is done to determine if a new software version is performing well enough to accept it for a major testing effort. If the application is crashing for initial use, then system is not stable enough for further testing and build or application is assigned to fix.

**Regression testing** – It involves testing the application as a whole for the modification in any module or functionality. It is difficult to cover all the system in regression testing, so typically automation tools are used for these testing types.

**Acceptance testing** -Normally this type of testing is done to verify if the system meets the customer specified requirements. User or customer performs this testing to determine whether to accept application or not.

**Load testing** – Its a performance testing to check system behavior under load. It involves testing an application under heavy loads, such as testing of a web site under a range of loads to determine at what point the system's response time degrades or fails.

**Data Driven Testing:** Data-driven testing is great for testing APIs and Web services. One can input a series of rows of data and analyze the results. It's what makes testing managers and IT directors feel warm and fuzzy, because data-driven tests can be written in no time and executed even faster. Tools like FITness are great for DDT.

**Monkey Testing:** Monkey testing is the art of generating random tests via automation. There are smart monkeys and dumb monkeys. Dumb monkeys randomly exercise functionality in an application. For instance, randomly clicking UI elements or randomly inserting data, rarely with validating output. They're often used to expose issues like memory leaks. Smart monkeys, on the other hand are, well, smarter! They randomly interact with the software being tested, but have state or model information which allows them to validate the results of interaction. Some smart monkeys are so smart that they actually queue up new tests based on the results of previous tests.

## 22. Difference between java and C/C++?

Ans: Following are the major differences between Java and C++:

Java	C++
Java does not support pointers, templates, unions, operator overloading, structures etc. The Java language promoters initially said "No pointers!", but when many programmers questioned how you can work without pointers, the promoters began saying "Restricted pointers." Java supports what it calls "references". References act a lot like pointers in C++ languages but you cannot perform arithmetic on pointers in Java. References have types,	C++ supports structures, unions, templates, operator overloading, pointers and pointer arithmetic.

and they're type-safe. These references cannot be interpreted as raw address and unsafe conversion is not allowed.	
Java support automatic garbage collection. It does not support destructors as C++ does.	C++ support destructors, which is automatically invoked when the object is destroyed.
Java does not support conditional compilation and inclusion.	Conditional inclusion (#ifdef #ifndef type) is one of the main features of C++.
Java has built in support for threads. In Java, there is a Thread class that you inherit to create a new thread and override the run() method.	C++ has no built in support for threads. C++ relies on non-standard third-party libraries for thread support.
Java does not support default arguments. There is no scope resolution operator (::) in Java. The method definitions must always occur within a class, so there is no need for scope resolution there either.	C++ supports default arguments. C++ has scope resolution operator (::) which is used to to define a method outside a class and to access a global variable within from the scope where a local variable also exists with the same name.
There is no goto statement in Java. The keywords const and goto are reserved, even though they are not used.	C++ has goto statement. However, it is not considered good practice to use of goto statement.
Java doesn't provide multiple inheritance, at least not in the same sense that C++ does.	C++ does support multiple inheritance. The keyword virtual is used to resolve ambiguities during multiple inheritance if there is any.
Exception handling in Java is different because there are no destructors. Also, in Java, try/catch must be defined if the function declares that it may throw an exception.	While in C++, you may not include the try/catch even if the function throws an exception.
Java has method overloading, but no operator overloading. The String class does use the + and += operators to concatenate strings and Stringexpressions use automatic type conversion, but that's a special built-in case.	C++ supports both method overloading and operator overloading.
Java has built-in support for documentation comments (/** ... */); therefore, Java source files can contain their own documentation, which is read by a separate tool usually javadoc and reformatted into HTML. This helps keeping documentation maintained in easy way.	C++ does not support documentation comments.

Java is interpreted for the most part and hence platform independent.

C++ generates object code and the same code may not run on different platforms.

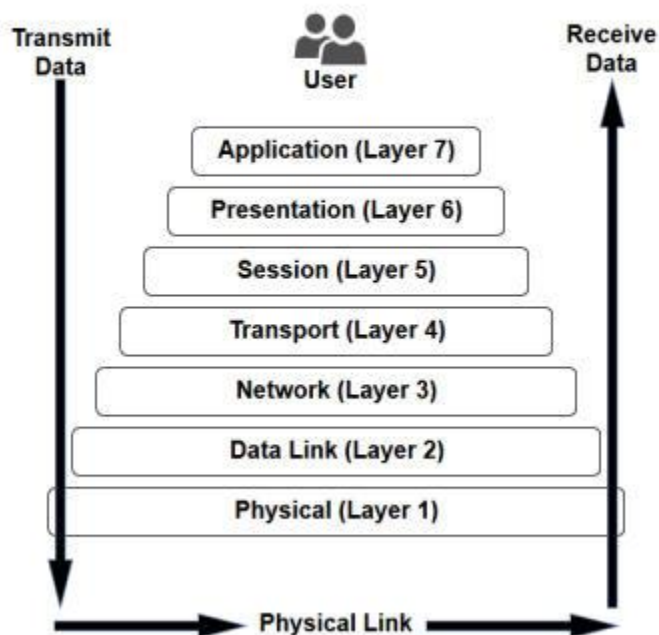
### 23. Explain OSI Layers?

Ans: The 7 Layers of the OSI

In the OSI model, control is passed from one layer to the next, starting at the application layer in one station, and proceeding to the bottom layer, over the channel to the next station and back up the hierarchy. The OSI model takes the task of inter-networking and divides that up into what is referred to as a vertical stack that consists of the following 7 layers.:

- Physical (Layer 1)
- Data Link (Layer 2)
- Network (Layer 3)
- Transport (Layer 4)
- Session (Layer 5)
- Presentation (Layer 6)
- Application (Layer 7)

### The 7 Layers of OSI



*Most of the functionality in the OSI model exists in all communications systems, although two or three OSI layers may be incorporated into one. OSI is also referred to as the OSI Reference Model or just the OSI Model.*



### **Physical (Layer 1)**

OSI Model, Layer 1 conveys the bit stream - electrical impulse, light or radio signal — through the network at the electrical and mechanical level. It provides the hardware means of sending and receiving data on a carrier, including defining cables, cards and physical aspects. Fast Ethernet, RS232, and ATM are protocols with physical layer components.

*Layer 1 Physical examples include Ethernet, FDDI, B8ZS, V.35, V.24, RJ45.*

### **Data Link (Layer 2)**

At OSI Model, Layer 2, data packets are encoded and decoded into bits. It furnishes transmission protocol knowledge and management and handles errors in the physical layer, flow control and frame synchronization. The data link layer is divided into two sub layers: The Media Access Control (MAC) layer and the Logical Link Control (LLC) layer. The MAC sub layer controls how a computer on the network gains access to the data and permission to transmit it. The LLC layer controls frame synchronization, flow control and error checking.

*Layer 2 Data Link examples include PPP, FDDI, ATM, IEEE 802.5/ 802.2, IEEE 802.3/802.2, HDLC, Frame Relay.*

### **Network (Layer 3)**

Layer 3 provides switching and routing technologies, creating logical paths, known as virtual circuits, for transmitting data from node to node. Routing and forwarding are functions of this layer, as well as addressing, internetworking, error handling, congestion control and packet sequencing.

*Layer 3 Network examples include AppleTalk DDP, IP, IPX.*

### **Transport (Layer 4)**

OSI Model, Layer 4, provides transparent transfer of data between end systems, or hosts, and is responsible for end-to-end error recovery and flow control. It ensures complete data transfer.

*Layer 4 Transport examples include SPX, TCP, UDP.*

### **Session (Layer 5)**

This layer establishes, manages and terminates connections between applications. The session layer sets up, coordinates, and terminates conversations, exchanges, and dialogues between the applications at each end. It deals with session and connection coordination.

*Layer 5 Session examples include NFS, NetBios names, RPC, SQL.*

### **Presentation (Layer 6)**

This layer provides independence from differences in data representation (e.g., encryption) by translating from application to network format, and vice versa. The presentation layer works to transform data into the form that the application layer can accept. This layer formats and encrypts data to be sent across a network, providing freedom from compatibility problems. It is sometimes called the syntax layer.

*Layer 6 Presentation examples include encryption, ASCII, EBCDIC, TIFF, GIF, PICT, JPEG, MPEG, MIDI.*

***Application (Layer 7)***

OSI Model, Layer 7, supports application and end-user processes. Communication partners are identified, quality of service is identified, user authentication and privacy are considered, and any constraints on data syntax are identified. Everything at this layer is application-specific. This layer provides application services for file transfers, e-mail, and other network software services. Telnet and FTP are applications that exist entirely in the application level. Tiered application architectures are part of this layer.

*Layer 7 Application examples include WWW browsers, NFS, SNMP, Telnet, HTTP, FTP*

**24. What is the difference between unique and primary key.**

Ans: Both a PRIMARY Key and UNIQUE Key constraints are similar and provide unique enforce uniqueness of the column on which they are defined. However, they differ on the following points-

**Primary Key**

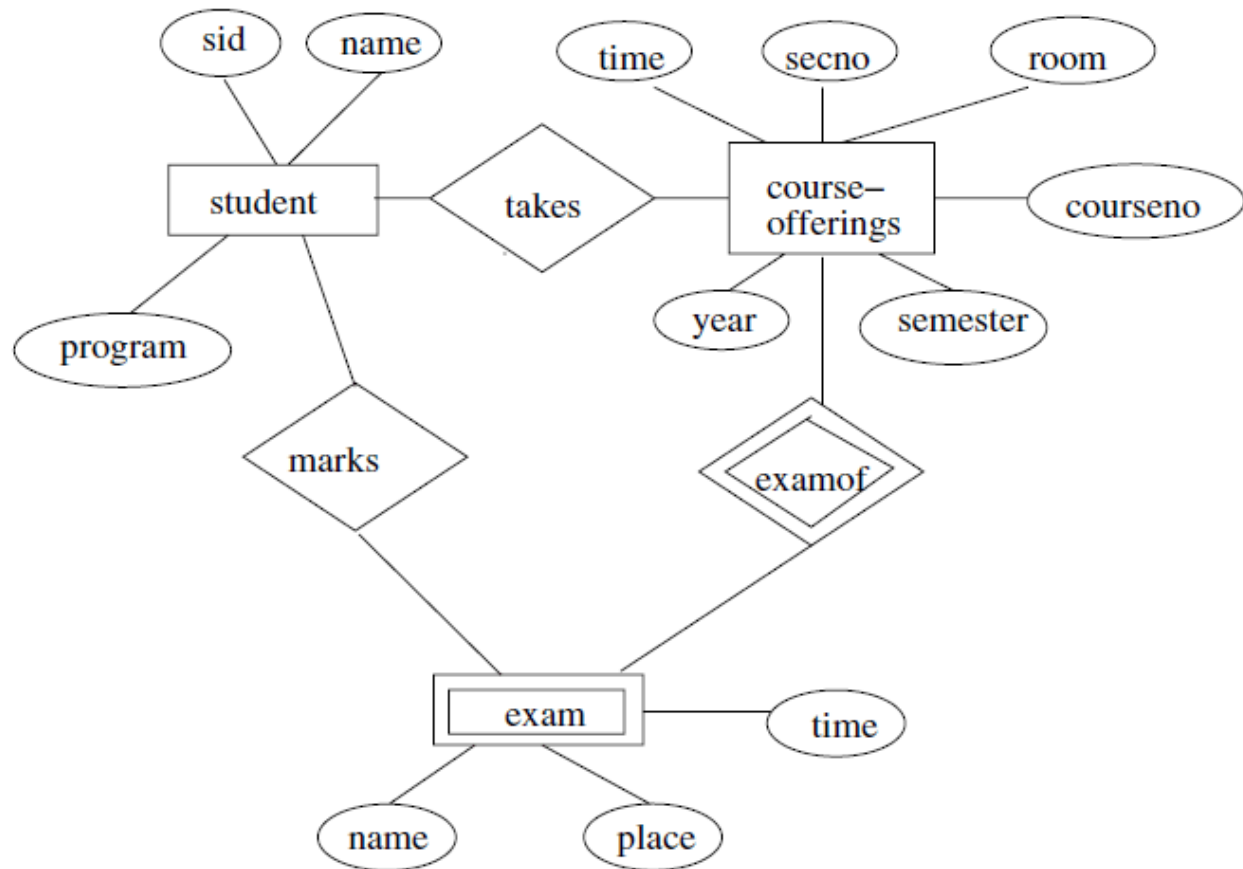
- Primary key cannot have a NULL value.
- Each table can have only one primary key.
- By default, Primary key is clustered index and data in the database table is physically organized in the sequence of clustered index.
- Primary key can be related with another table's as a Foreign Key.
- We can generate ID automatically with the help of Auto Increment field. Primary key supports Auto Increment value.

**Unique Key**

- Unique Constraint may have a NULL value.
- Each table can have more than one Unique Constraint.
- By default, Unique key is a unique non-clustered index.
- Unique Constraint can not be related with another table's as a Foreign Key.
- Unique Constraint doesn't support Auto Increment value.

**25. Create ER diagram of your project.**

Ans: sample



Another E-R diagram for marks database.

**26. What is unit testing?**

Ans: **Unit testing** – Testing of individual software components or modules. Typically done by the programmer and not by testers, as it requires detailed knowledge of the internal program design and code. may require developing test driver modules or test harnesses.

**27. Explain concept of Pointers in 'C';**

Ans: A **pointer** is a variable which contains the address in memory of another variable. We can have a **pointer** to any variable type. The unary or monadic operator & gives the “address of a variable”. The indirection or dereference operator \* gives the “contents of an object pointed to by a **pointer**”.

**28. Explain Pointer in C/C++?**

Ans: The variables that holds memory address are called **pointer** variables. A **pointer** variable is therefore nothing but a variable that contains an address, which is a location of another variable. Value of **pointer** variable will be stored in another memory location.

## 29. Wap to print

```
1
12
123
12345
1234
123
12
1
```

Ans: #include <stdio.h>

```
int main()
{
    int i, j, N;

    printf("Enter N: ");
    scanf("%d", &N);

    // Prints upper part of the pattern
    for(i=1; i<=N; i++)
    {
        for(j=1; j<=i; j++)
        {
            printf("%d", j);
        }

        printf("\n");
    }

    // Print lower part of the pattern
    for(i=N-1; i>=1; i--)
    {
        for(j=1; j<=i; j++)
        {
            printf("%d", j);
        }

        printf("\n");
    }

    return 0;
}
```

### 30. Explain concept of stack and queue.

Ans: An array is a *random access* data structure, where each element can be accessed directly and in constant time. A typical illustration of random access is a book - each page of the book can be open independently of others. Random access is critical to many algorithms, for example binary search.

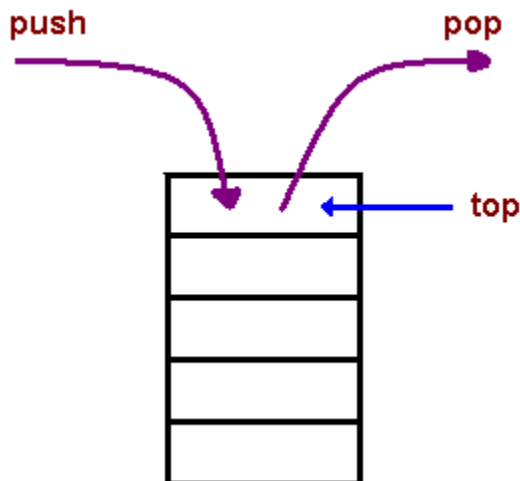
A linked list is a *sequential access* data structure, where each element can be accessed only in particular order. A typical illustration of sequential access is a roll of paper or tape - all prior material must be unrolled in order to get to data you want.

In this note we consider a subcase of sequential data structures, so-called *limited access* data structures.

#### Stacks

A stack is a container of objects that are inserted and removed according to the last-in first-out (LIFO) principle. In the pushdown stacks only two operations are allowed: **push** the item into the stack, and **pop** the item out of the stack. A stack is a limited access data structure - elements can be added and removed from the stack only at the top. **push** adds an item to the top of the stack, **pop** removes the item from the top. A helpful analogy is to think of a stack of books; you can remove only the top book, also you can add a new book on the top.

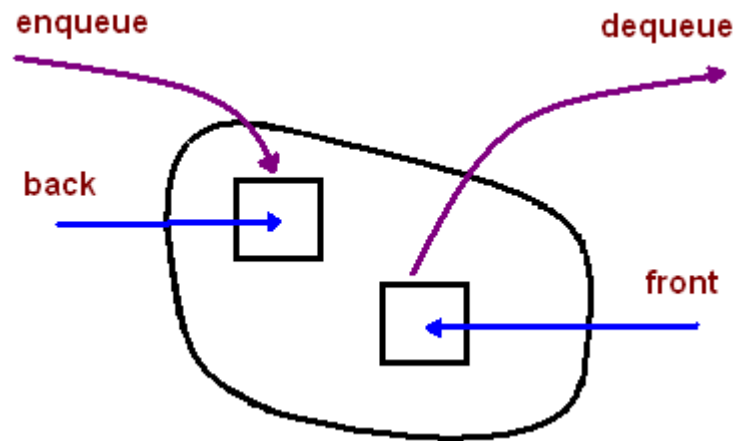
A stack is a **recursive** data structure. Here is a structural definition of a Stack:  
a stack is either empty or it consist of a top and the rest which is a stack;



#### Queues

A queue is a container of objects (a linear collection) that are inserted and removed according to the first-in first-out (FIFO) principle. An excellent example of a queue is a line of students in the food court of the UC. New additions to a line made to the back of the queue, while removal (or serving) happens in the front. In the queue only two operations are allowed **enqueue** and **dequeue**. Enqueue means to insert an item into the back of the queue, dequeue means removing the front item. The picture demonstrates the FIFO access.

The difference between stacks and queues is in removing. In a stack we remove the item the most recently added; in a queue, we remove the item the least recently added.



**31. WAP to swap two numbers without using third variable.**

Ans: #include<stdio.h>

```
int main()
{
    int num1,num2;

    printf("Enter any two numbers\n");
    scanf("%d%d",&num1,&num2);

    num1 = num1 + num2;
    num2 = num1 - num2;
    num1 = num1 - num2;

    printf("After swapping,the numbers are %d,%d\n",num1,num2);

    return 0;
}
```

**32. Explain SDLC.**

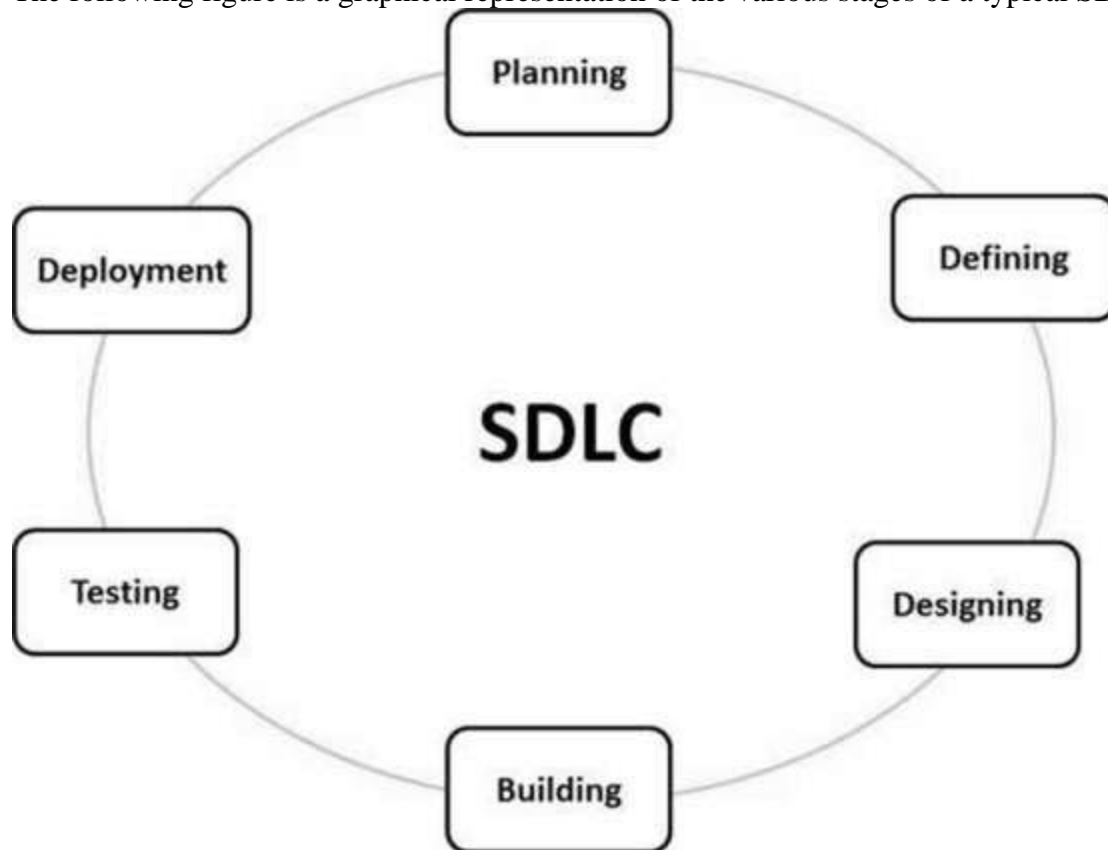
Ans: Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high quality softwares. The SDLC aims to produce a high-quality software that meets or exceeds customer expectations, reaches completion within times and cost estimates.

- It is also called as Software Development Process.

- SDLC is a framework defining tasks performed at each step in the software development process.
- ISO/IEC 12207 is an international standard for software life-cycle processes. It aims to be the standard that defines all the tasks required for developing and maintaining software.

SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.

The following figure is a graphical representation of the various stages of a typical SDLC.



A typical Software Development Life Cycle consists of the following stages –

Stage 1: Planning and Requirement Analysis

Requirement analysis is the most important and fundamental stage in SDLC. It is performed by the senior members of the team with inputs from the customer, the sales department, market surveys and domain experts in the industry. This information is then used to plan the basic project approach and to conduct product feasibility study in the economical, operational and technical areas.

Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage. The outcome of the technical feasibility study is to

define the various technical approaches that can be followed to implement the project successfully with minimum risks.

#### Stage 2: Defining Requirements

Once the requirement analysis is done the next step is to clearly define and document the product requirements and get them approved by the customer or the market analysts. This is done through an **SRS (Software Requirement Specification)** document, which consists of all the product requirements to be designed and developed during the project life cycle.

#### Stage 3: Designing the Product Architecture

SRS is the reference for product architects to come out with the best architecture for the product to be developed. Based on the requirements specified in SRS, usually more than one design approach for the product architecture is proposed and documented in a DDS - Design Document Specification.

This DDS is reviewed by all the important stakeholders and based on various parameters as risk assessment, product robustness, design modularity, budget and time constraints, the best design approach is selected for the product.

A design approach clearly defines all the architectural modules of the product along with its communication and data flow representation with the external and third party modules (if any). The internal design of all the modules of the proposed architecture should be clearly defined with the minutest of the details in DDS.

#### Stage 4: Building or Developing the Product

In this stage of SDLC the actual development starts and the product is built. The programming code is generated as per DDS during this stage. If the design is performed in a detailed and organized manner, code generation can be accomplished without much hassle.

Developers must follow the coding guidelines defined by their organization and programming tools like compilers, interpreters, debuggers, etc. are used to generate the code. Different high level programming languages such as C, C++, Pascal, Java and PHP are used for coding. The programming language is chosen with respect to the type of software being developed.

#### Stage 5: Testing the Product

This stage is usually a subset of all the stages as in the modern SDLC models, the testing activities are mostly involved in all the stages of SDLC. However, this stage refers to the testing only stage of the product, where product defects are reported, tracked, fixed and retested, until the product reaches the quality standards defined in the SRS.



### Stage 6: Deployment in the Market and Maintenance

Once the product is tested and ready to be deployed it is released formally in the appropriate market. Sometimes product deployment happens in stages as per the business strategy of that organization. The product may first be released in a limited segment and tested in the real business environment (UAT- User acceptance testing).

Then, based on the feedback, the product may be released as it is or with suggested enhancements in the targeting market segment. After the product is released in the market, its maintenance is done for the existing customer base.

### 33. WAP on Palindrome?

```
Ans: #include <iostream>
using namespace std;

int main()
{
    int n, num, digit, rev = 0;

    cout << "Enter a positive number: ";
    cin >> num;
    n = num;
    do
    {
        digit = num % 10;
        rev = (rev * 10) + digit;
        num = num / 10;
    } while (num != 0);

    cout << " The reverse of the number is: " << rev << endl;

    if (n == rev)
        cout << " The number is a palindrome";
    else
        cout << " The number is not a palindrome";

    return 0;
}
```

### 34. What is Cloud Computing?

Ans: Cloud computing is a type of computing that relies on *sharing computing resources* rather than having local servers or personal devices to handle applications.

In cloud computing, the word cloud (also phrased as "the cloud") is used as a metaphor for "*the Internet*," so the phrase *cloud computing* means "a type of Internet-based computing," where different services — such as servers, storage and applications — are delivered to an organization's computers and devices through the Internet.

### 35. What is method overriding and method overloading?

Ans: Method overloading deals with the notion of having two or more methods in the same class with the same name but different arguments. Method overriding is when a child class redefines the same method as a parent class, with the same parameters.

**Method overriding** is when a child class redefines the same method as a parent class, with the same parameters.

*For example*, the standard Java Class `java.util.LinkedHashSet` extends `java.util.HashSet`. The method `add()` is overridden in `LinkedHashSet`. If you have a variable that is of type `HashSet`, and you call its `add()` method, it will call the appropriate implementation of `add()`, based on whether it is a `HashSet` or a `LinkedHashSet`. This is called polymorphism.

**Method overloading** is defining several methods in the same class, that accept different numbers and types of parameters. In this case, the actual method called is decided at compile-time, based on the number and types of arguments.

*For instance*, the method `System.out.println()` is overloaded, so that you can pass ints as well as Strings, and it will call a different version of the method.

### 36. Explain the concept of Reentrancy?

Ans: It is a useful, memory-saving technique for multiprogram timesharing systems. A Reentrant Procedure is one in which multiple users can share a single copy of a program during the same period. Reentrancy has 2 key aspects: The program code cannot modify itself, and the local data for each user process must be stored separately. Thus, the permanent part is the code, and the temporary part is the pointer back to the calling program and local variables used by that program. Each execution instance is called activation. It executes the code in the permanent part, but has its own copy of local variables/parameters. The temporary part associated with each activation is the activation record. Generally, the activation record is kept on the stack. A reentrant procedure can be interrupted and called by an interrupting program, and still execute correctly on returning to the procedure.

### 37. Explain Belady's Anomaly?

Ans: It is also called FIFO anomaly. Usually, on increasing the number of frames allocated to a process virtual memory, the process execution is faster, because fewer page faults occur. Sometimes, the reverse happens, i.e., the execution time increases even when more frames are allocated to the process. This is Belady's Anomaly. This is true for certain page reference patterns.

**38. What is a binary semaphore? What is its use?**

Ans: A binary semaphore is one, which takes only 0 and 1 as values. They are used to implement mutual exclusion and synchronize concurrent processes.

**39. What is thrashing?**

Ans: It is a phenomenon in virtual memory schemes when the processor spends most of its time swapping pages, rather than executing instructions. This is due to an inordinate number of page faults.

**40. List the Coffman's conditions that lead to a deadlock.**

1. **Mutual Exclusion:** Only one process may use a critical resource at a time.
2. **Hold & Wait:** A process may be allocated some resources while waiting for others.
3. **No Pre-emption:** No resource can be forcibly removed from a process holding it.
4. **Circular Wait:** A closed chain of processes exists such that each process holds at least one resource needed by another process in the chain.

**41. What is short, long and medium-term scheduling?**

Ans: **Long term scheduler** determines which programs are admitted to the system for processing. It controls the degree of multiprogramming. Once admitted, a job becomes a process.

**Medium term scheduling** is part of the swapping function. This relates to processes that are in a blocked or suspended state. They are swapped out of real-memory until they are ready to execute. The swapping-in decision is based on memory-management criteria.

**Short term scheduler**, also known as a dispatcher executes most frequently, and makes the finest-grained decision of which process should execute next. This scheduler is invoked whenever an event occurs. It may lead to interruption of one process by preemption.

**42. In the context of memory management, what are placement and replacement algorithms?**

Ans: Placement algorithms determine where in available real-memory to load a program. Common methods are first-fit, next-fit, best-fit. Replacement algorithms are used when memory is full, and one process (or part of a process) needs to be swapped out to accommodate a new program. The replacement algorithm determines which are the partitions to be swapped out.