**Questions and Answers**

1. What is your current program of study/profession?

I am the graduate student of Industrial Engineering at University of Tehran. I mainly work at the field of data and statistical analysis and also decision making. My thesis is on mathematical optimization models.

2. How much experience do you have in this field of study/work?

I have been studying Industrial Engineering for 5 years (4 years bachelor and 1 year master) and I have worked in Solico. for 1 year and 7 months.

3. Do you enjoy your studies/work? If yes, which part interests you the most? If no, what do you not like about it?

Yes I do. The data analysis and data driven decision making is really interesting to me. Besides, I like the managing and business aspect of my major. In work, what fascinated me about my expertise was predicting the demand of the customers of Solico and evaluation performance of the employees based on their retrospective data.

4. What tasks or jobs would you say you mostly do in your field of study/work?

In the work, I usually use dashboards and visualizing the data for the reports but sometimes, I used to use probabilities function and related coefficients for fitting the data on the functions and make a better conclusion from them.

In the university, I usually compute some functions related to the matrices and their operations (multiplications and inner products) in my courses. Besides, I used statistical and probabilities computations a lot in my lectures and exams during my Bachelor.

5. Can you tell me some of your likes and dislikes and what you enjoy doing?

I like doing sports like riding bikes. I usually do it in my free times. I also like to participate in surveys and help other people by my opinions.

6. What are your values when it comes to your field of study?

It is a real value for me that if I face a problem, however it might be simple, it should be solved really carefully and with all details. The precision is a big value for me.

7. What occupation are you aiming towards, if you are not already employed?

I would like to occupy in the projects that will improve a system or an organization systematically. I am somehow into System Engineering.

8. What skills have you been developing which you feel will be the most important for this future career?

As a technical skill, I would like to learn the tools and skills that will help to understand a process and system carefully such as process modeling or simulations or statistical tools. I also would like to develop critical thinking as a personal skills.

9. What are your current goals for yourself? If you have none, do you think you will have some in the future?

In short term, I would like to learn some tools and skills and implement them in real world problems. In long term, hopefully managing a segment or a whole corporation of my own.

10. Do you prefer to use the hand-held calculator or computer calculator?

I prefer to use computer calculator.

11. Do you have experience using the command line of your computer? And using a calculator on your computer?

Yes I do. I also have the experience of using calculator on my own computer.

12. Are you comfortable enough to use a calculator without a Graphical Interface and just with the command line?

Yes, I even think it is much easier to use command line for the calculations instead of a calculator with GI.

13. Currently, my team and I are designing a scientific calculator and we are hoping to get your input to improve our design. How much experience do you have with a Scientific Calculator, and how often do you use one?

I often use it for my study and sometimes for my work. I have the experience of using a Scientific Calculator for 5 years.

14. Are there any functions you feel should be included in a Scientific Calculator but aren’t?

I believe that for my work, a Scientific calculator should compute Variance Analysis and its related functions. In addition, it is really important for me that the calculator, calculates the Matrices operation such as multiplications and inversing. Last but not least, it is really vital for me that the calculator computes the Normal and T-student distribution function and the percentage for each bound. I use this a lot in my work.

15. Does your operating system provide any calculator? if yes, Do you think its functions are enough for you?

Yes it does but it’s not sufficient for me.

16. What function/ functions do you usually need from a Scientific Calculator most?

Parallel to question number 14. Especially the last part.

17. Do you think you will use a scientific calculator in your field of study and in your future career. If yes, what will some of your uses for it, if no, do you think you would use for personal use?

Yes, I will use it in my reports in the work and in my final thesis. The usage, as I said before, is in statistical analysis mostly. I usually use excel to do my calculations.

18. Do you use Scientific Calculator during your work or your exams or your course projects or anything else?

I use it in all cases.

19. Our calculator will include the functions for exponential functions, arccos, log, Gamma, Mean Absolute Deviation, Standard Deviation, sinh and a special exponential function which allows variables and expressions for the base instead of natural numbers. Can you tell us which function you would find most usable for yourself? Why?

I use exponential, MAD and Standard Deviation. As I said before, I analyse the data so what I use most is the related functions to Statistical Analysis. I also use log sometimes for getting a better visualization of my data.

20. If no, is it because you don’t see yourself using any of the functions mentioned, or some other reason?

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21. How familiar are you with these functions and how they work?

I know all of them instead of Gamma.

22. Do you think it is necessary that a Scientific Calculator should take a function as input?

Yes, it’s necessary for me. For iterative computation in some of my lessons I have to give the function as an input of the calculator. Like mpv in economy or some functions in numerical computations.

23. Are there any features you would like to see included in this calculator that you think would make the design better?

I prefer that the feature for entering data into a calculator will be easy and user friendly. Such as Excel.

24. What should the precision for a Scientific Calculator be?

4 or 5 digit will be enough for me.

25. When using a calculator do you prefer to receive a step by step solution or simply a final answer?

It’s not necessary for me to give a step by step solution. I prefer just the final answers.

26. Do you think a history is essential for a calculator? If yes, how big should the history be?

I prefer my computations to be saved but it depends on the scale of the project.

27. Do you have any positive experiences with a Scientific Calculator, if yes please elaborate?

Some positive experience is that my calculator calculated some good statistical functions which I did not see in other Calculators.

28. Do you have any negative experiences with a Scientific Calculator, if yes please elaborate?

I think in some Scientific Calculators which I worked with, there was not a good classification in terms of the functionality. Forexample, I expect that all statistical functions gathered in one place and all programming functions gathered in another place so I can access them easily and avoid confusing to find the proper function.

29. In your opinion, what would improve your experience when using a Scientific Calculator on a computer? What features would improve its usage for you?

It is in parallel of the last question.

Summary of Interview

This interview questions designed by using funnel model which start with general questions towards more specific questions during the course of interview. The questions are planned ahead and agreed by all the members of the team. We can get the personal information from interviewee through the general questions to build the persona. The specific questions are more about the experience and frustration interviewee get when using the calculator.

Analysis of Interview

* Interviewee prefer a statistical calculator which can provide his needs during the hard calculations for the statistical analysis. He usually gets his job done by excel and he prefers to have a spreadsheet like it in order to give him more freedom.
* Some functions in the calculator was useless for him. E.g Hyperbolic functions.
* Interviewee care about the precision of the result.
* Interviewee wants to work with the calculator in command prompt or any interface like that. He does not prefer to use any graphical interface.