

NON - TECH WEBINAR

- CASE STUDIES
- GUESSTIMATES
- APTITUDE PREP
- INTERVIEW PREP
- CV BUILDING



IICHE DTU
PRESENTS



NON-TECH SENIORS' TALK

A Webinar Series

DATE: SUNDAY, 10 MAY 2020

TIME: 5:00PM IST



AYAN
BHATTACHARYA

Deloitte.



SAMARTH
GANDHI

Impendi
ANALYTICS



ZARA
KHAN

RedSeer
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AKSHAT
SHARMA

BAIN & COMPANY

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OUR INTRODUCTION

Akshat Sharma

Placed at **Bain and Company (BCN Gurgaon)** as **Analyst**, discussing case interview preparation and how to navigate the TnP stress!

Ayan Bhattacharya

Placed as a **Business Technology Analyst** at **Deloitte India** , former **Research Intern** at **Engineers India Limited** . I'll be discussing how to prepare for aptitude tests ,how to ace Group Discussions and my personal experience during the placement season

Samarth Gandhi

Placed as an **Analyst** at **Impendi Analytics**, Former **Sales and Marketing Intern** at **Reliance Industries Limited**. I'll be discussing about guesstimates and my personal experience during the placement session.

Zara Khan

Placed as a **Business Analyst** at **RedSeer Consulting**, former **Research Intern** at **Coca - Cola India** and **Jubilant Foodworks**. Currently, the **Student Head** of **DTU Times**. I'll be discussing Interview Tips and CV Building apart from my own Internships and Placement Season experience.

Flow of the presentation

1. CV building
2. Aptitude Test
3. Group Discussions
4. Interviews
5. Guesstimates
6. Case Studies

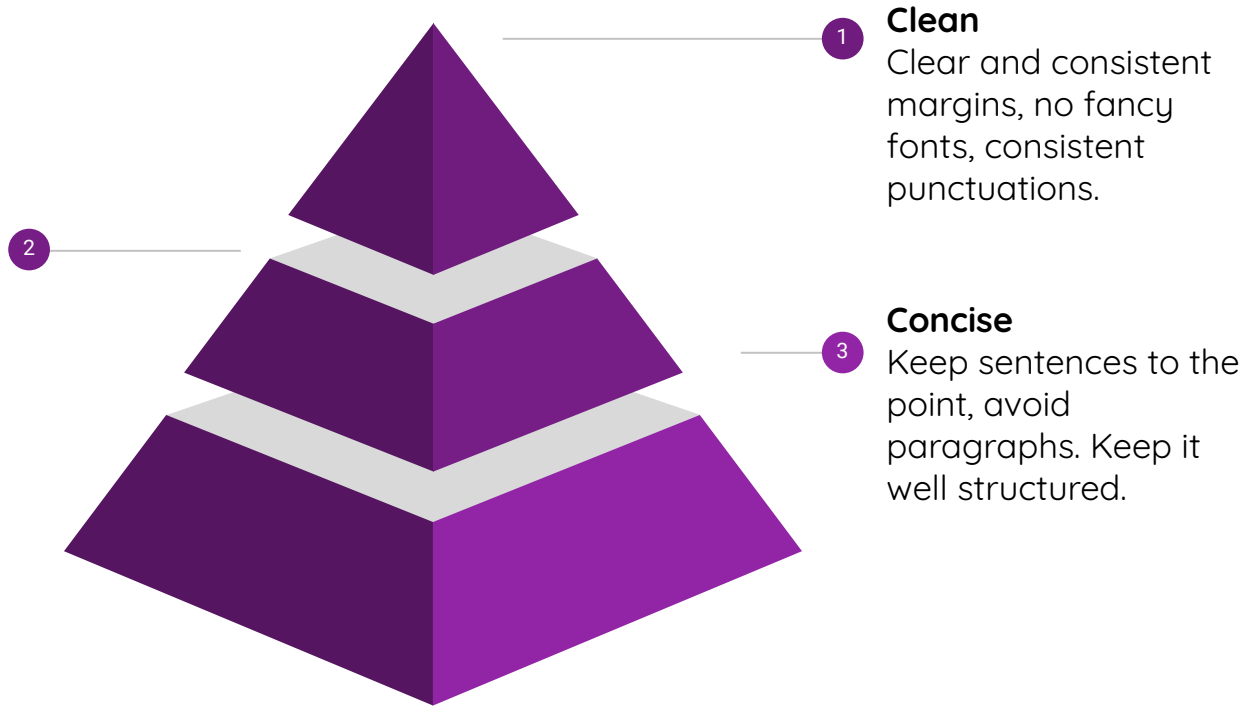
CV BUILDING TIPS & TRICKS

- Must include: Academics, Work Experience, Projects, Extracurriculars (PoRs'), Skillset.
- A good CV should provide **clear quantified performance**.
- Use **Power Words/keywords** to attract attention.
- Stick to the **single page** format.
- Include relevant PoRs' but don't overdo.
- Make sure you can explain each and every word you mention on your CV.
- **CPC: Clean, Professional, Concise**

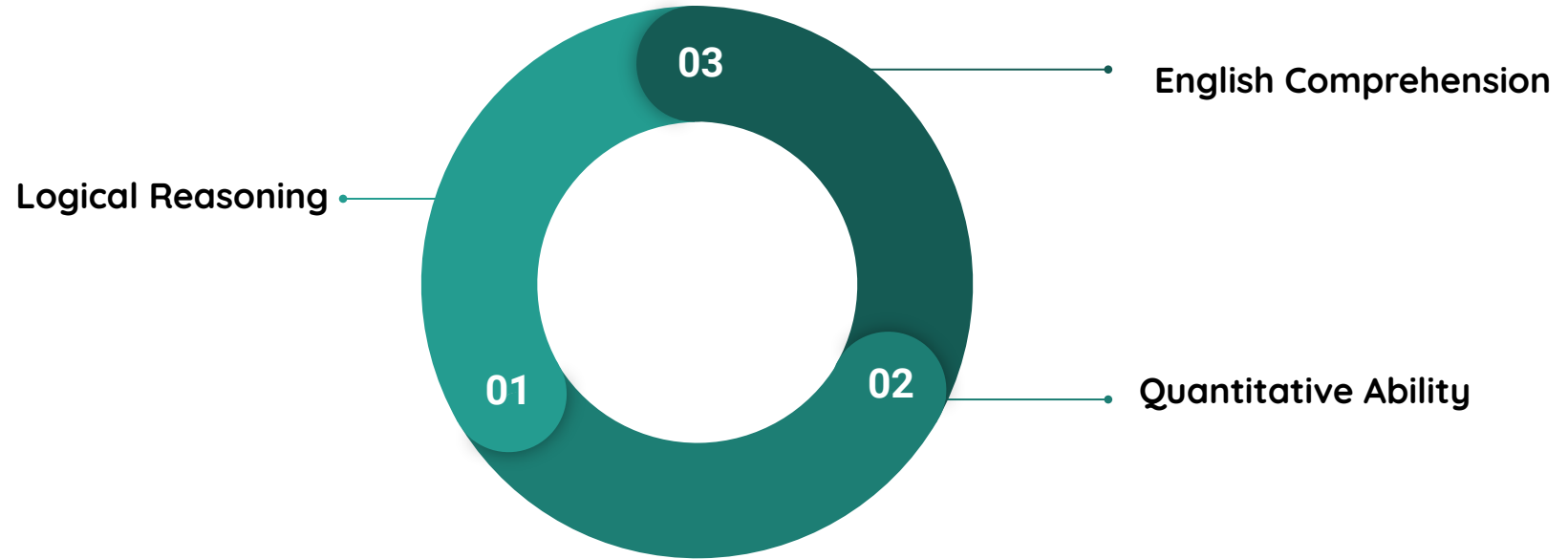
CV BUILDING TIPS & TRICKS: CPC

Professional

Stick to third person format, ensure correct grammar and spellings.



APTITUDE TEST PREPARATION



English comprehension

1. There are broadly 2 categories of questions asked in this section:-
 - a) Verbal Ability
 - b) Reading Comprehension
2. Verbal Ability questions can be parasummaries, parajumbles, odd one outs, vocabulary based questions like complete the sentences or synonyms and antonyms.
3. Reading Comprehension questions are set based. A single set will have a text followed by questions related to the given text.

TIPS:-

1. Improve your grammar. (Write an article and get it proofread)
2. Improve your vocabulary (Use magoosh's GRE app)
3. Start reading newspapers and online creative articles on sites like Aeon, Propeller and Nautilus.

Quantitative Ability and Logical Reasoning

1. Practice as much as you can.
2. Give precedence to speed as most of the placement aptitude tests have 50 -60 questions to be done in an hour or so.
3. Prep material on [indiabix.com](https://www.indiabix.com) and [pariksha.com](https://www.pariksha.com) is absolutely tailor made for placements.
4. Focus more on arithmetic topics (Simple equations , ratio proportion variations, Average mixture alligations, Simple and compound interest, time-speed distance and Time and work) and probability.
5. For logical reasoning the most common topics are arrangements , venn diagrams, blood relations.
6. Many organisations like ZS associates include data interpretation questions too which require you to interpret pie charts , tables and line graphs and answer questions based on that .
7. Improve your ability to process simple calculations mentally.

Group Discussions

Group Discussions are broadly of 2 different types :-

- a) general topics
- b) case discussion

General tips :-

1. Try to take the initiative to start as well as conclude the group discussion if the moderator hasn't set an order to participation turns
2. If someone is trying to interject in between your argument , let the person take the chance to speak but take a firm stance and give no leeway if this happens more than 2 times .
3. It is always better to take the moral high ground (if there is any) in a topic during a placement GD . Unpopular opinions aren't very welcome during group discussions.
4. It is very common that people might digress during the discussion and take it along a whole different tangent . Try and steer the discussion back to what was actually intended by the topic .
5. In case you don't really know much about the topic , don't worry , logical rebuttal at the end of someone's argument is rewarded equally. (but read as broad as you can to prevent getting into this kind of predicament)

INTERVIEW TIPS

- Types of questions in a Non-Tech profile interview: Broadly Case Studies, Guesstimates, Puzzles, CV based and HR questions.
- Be confident, there's nothing more important.
- Be sure of each word on your CV and tailor it according to each profile.
- Don't be aggressive or rude.
- Practice by giving mock interviews with friends.
- Make a CV pointers document with answers to some of the most common questions.
- Keep a few questions which you can ask them (related to their projects).

INTERVIEW TIPS: MOST COMMON QUESTIONS

- Tell me about yourself/ Describe yourself
- What is your greatest achievement?
- What are your strengths and weaknesses?
- What are your short term and long term goals?
- Why do you want to join our company/ Why should we hire you?
- Why are you interested in this role/profile?
- What is your definition of success?
- How well do you handle stress/pressure?
- How do you deal with criticism?
- Are you willing to relocate?

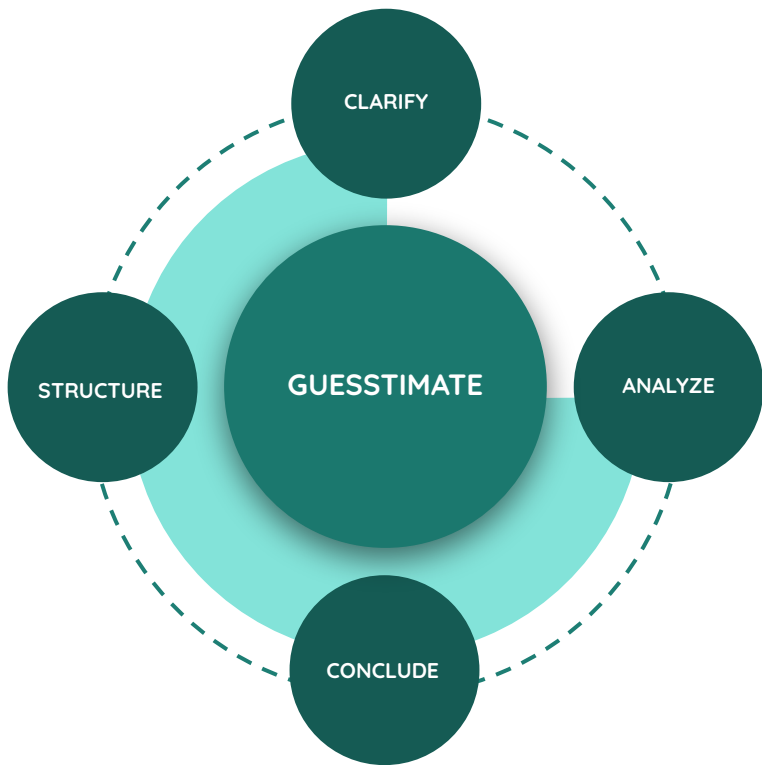
INTERVIEW TIPS: BIZARRE QUESTIONS

- A split second decision you have taken in life
- Tell us one thing that is not on your CV
- What came first? The chicken or the egg?
- **PUZZLES:** Recruiters love them and many of us hate them. They have set pattern/logic and it's all about quick thinking.

Example: The famous 'Penny Black', the world's first postage stamp, was introduced in England in 1840. The idea of postage stamps was a great success and was taken up worldwide. Yet the 'Penny Black' was in use for only one year before it was replaced by the 'Penny Red'.

Why?

GUESSTIMATES



Basic Definition : It is an estimate based on a mixture of guesswork and calculation.

Here are a few key points to keep in mind when answering guesstimates :

- There is rarely, if ever, a verifiably correct answer or one way to tackle a Guesstimate question.
- The goal is to make reasonable, logical assumptions and if you are wrong on your assumptions, that is totally fine.
- One has to be very structured in their approach by mentioning numbers and assumptions in a clear manner.
- Communicate your process and answer succinctly and articulately.
- Virtually all guesstimates can be grouped into **Top-Down** or **Bottom-Up** questions.

GUESSTIMATES

TOP - DOWN QUESTIONS

Questions that involve starting with an entire population (*in other words, the “top” level*) and then breaking it down until you arrive at an answer.

- For example, consider the question about the **Number of school teachers in New Delhi**.
 - A simple way to approach it would be to start with the **population of New Delhi**, then estimating **percentage of the population of student age**, and then estimating the **number of students per class**.
 - Using this, you would arrive at an estimate of the **number of school teachers**, because at any given time there is (generally) exactly one teacher per class (assumption).
 - To show your ability to be creative and think **outside the box**, you could also attempt to account for **retired teachers** and **substitute teachers**.

GUESSTIMATES

BOTTOM - UP QUESTIONS

For these questions, rather than starting from the “top” with a high-level figure such as population, the best approach is to start from the “bottom”—some low-level statistic, such as Revenue per customer, and build your way up to the answer.

- For example, consider the question pertaining to the monthly revenue of a hair salon.
 - In this case, I’d recommend you work out the **revenue for a week** and then **multiply that by four** (or if you are quick at multiplication, 4.3).
 - You could start with an assumption regarding the **average price per client visit**, and then estimate weekly volume by assuming the **number of chairs in the salon**, the **number of hours it is open per week**, and the **average number of clients chair per hour**.
 - To show your ability to be creative and think **outside the box**, you could also add **revenue for hair salon products sold**.

GUESSTIMATES

The following numbers can be memorized for your country (here India)

(Only ballpark figures are mentioned)

- GDP = 1.8 trillion USD
- Population = 1.2 billion ~ 1 billion
- Land Area = 3 million sq. km
- GDP growth rate = 5%
- Average size of a family ~ 4
- Number of households = 330 million ~ 300 million
- Population growth rate = 1.5 % (World = 1%)
- Sex ratio = 1:1
- Rural: Urban population = 70:30

Population Distribution by Age:

India has a young population. It has more than 50% of its population below the age of 25.

- 0-15: 30 %
- 15-25 : 20 %
- 25-50 : 30 %
- 50+ : 20%

Population Distribution by Income:

- Upper Middle Class (>32,000 pm): 10%
- Middle Class (16,000-32,000 pm): 30%
- Lower Middle Class (8000-16,000 pm): 40%
- Below poverty line (<8000pm): 20%

Case Interview Preparation

The purpose is :

- To assess your analytical /mathematical skills (be able to perform basic arithmetic)
- To test how you make sense of the data (be able to chaff relevant from the peripheral)
- To see if you can manage stress (be able to maintain calm, take it on the chin)
- To know if you are coachable (be able to be corrected, but not too much)
- To discover your personality (be able to 'fit in' in the culture)

The purpose is NOT :

- ❖ To humiliate/embararrass you!

Solving the case: general tips

1. Listen to the question
2. Ask questions
3. Think of a model
4. Work out the numbers
5. Present your solution confidently

What to expect in your case study

- Lots of data! (in tables or otherwise, sometimes well placed but sometimes jumbled)
- A few formulas (may be/may not be, basic formulas are expected of you)
- A few charts (bar graphs, pie charts, line charts, etc.)
- Few written lines (far less than you might be comfortable with)
- Lots of blank space! (intimidating and amusing?)

The Basic Case templates

The problems:

1. Market entry (should be enter this market?)
2. Industry analysis (how is the industry likely to perform?)
3. Mergers and acquisitions (is it time to acquire the small fish for merge myself with a larger fish?)
4. Product diversification/development (what kind of product is likely to sell?)
5. Pricing strategies (what should be the price of my product?)
6. Growth strategies (how can i increase sales, reduce cost and thus increase profit?)

The solution:

data-driven COST-BENEFIT ANALYSIS/ BREAK EVEN ANALYSIS!

A simple example: Market Entry

You're having lunch with an old friend from university, and she's looking for some business advice. She is thinking of opening a coffee shop in Cambridge, England, a large university city an hour and a half away from London. She sees potential in this business but wants your help in determining whether opening a coffee shop is a good idea. What do you think?

Costs (in pounds):

Price per coffee (based on competitor pricing) = £4

Cost to open shop (advertisements, license, other formalities) = £200,000

Cost to run shop each year (staff, electricity, rent, = £150,000

Cost per cup of coffee= £1

TIPS:

- ☐ Think of a framework!
Estimate the market size (in terms of the PRODUCT and TIME)!
- ☐ Ask about the costs if not given already (both fixed and variable).
- ☐ Do break-even analysis.
- ☐ Make your recommendation.

A more complicated example: product pricing

Your client has developed a new drug, Prevent (Prevent Thrombosis), that helps reduce the rate at which a particular complication of hip-replacement surgery, deep-vein thrombosis (DVT), occurs. DVT can lead to very serious medical conditions, including higher risk of pulmonary embolism (PE) or major bleeding.

Prevent will directly compete against Clearvenax, an established product that is also used to reduce rates of DVT and related complications. Clearvenax is sold at \$4 per dose and has a variable production cost of \$1 per dose. The client has asked you to help set a suitable price for Prevent.

Ask yourself:

Should you focus on the market (competitive pricing) or just to ensure a net profit per dose?

Is there a monopoly?

Who are the target consumers? (B2B vs B2C)

How does the new product compare with the existing one? (Is it qualitatively better, what is the dosage reqd?)

Data for the problem

Information	Prevent	Clearvenax
Price per dose	?	\$4.0
Production cost per dose	\$2.0	\$1.0
dosage	30	25
DVT complication	10%	20%
PE complication	3%	1%
Major bleeding	5%	1%

Complication	Cost per customer
DVT	\$1600.0
PE	\$2500.0
Bleeding	\$1250.0

The Approach

1. Compute the cost saving per customer by reducing the complications.
2. Compute the additional (marginal) benefit by consuming each dose.
3. Suggest the price! This price is competitive, but is it actually profitable?
4. Find profit per dose.
5. Do the cost benefit analysis.
6. Make your final recommendation!

THANK YOU

Any Questions?