



Quant Preparation for Placements

For Screening Tests and Interviews

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About Me

- Batch of 2019 Electrical Engineering Graduate from IIT Kanpur
- Interned at DE Shaw & Co
- Former Placement Coordinator at Placement Office of IIT Kanpur
- Currently a Senior Quantitative Researcher at WorldQuant, Delhi
- Developing and deploying systematic investment strategies across a variety of asset classes and global markets
- Seeking to continuously produce high-quality trading signals (alphas) through our proprietary research platform to employ trading strategies focused on market inefficiencies



Companies

- Tower Research Capital
- WorldQuant
- Graviton Research Capital
- JP Morgan
- AlphaGrep Securities
- APT Portfolio
- Silverleaf Capitals

And many more



Screening Test

- Different format for different companies
- Format need not be same every year
- But since they need to test only specific particular skills in a potential hire, we can practice particular topics which are more probable to be seen in tests
- So following topics(not exhaustive) are tested by quant firms:
 - Prob & Stats
 - Puzzles
 - Coding
 - General mathematics
 - Aptitude
 - Data Structures and Algorithms



Interviews

- Multiple Rounds consisting HR and Technical Questions
- HR Questions consists of generic questions like introduce yourself, why quant, why *company*, long and short term goals, GRE/GMAT scores, introductory finance questions, description of your resume and any random out of the box question
- Technical Questions consists of internship experience, courses and projects done, Prob & Stats, Puzzles with their in-depth generalizations
- HR and Technical Questions need not necessarily be in separate interviews. Any question may be slipped in any round



Preparation Material for Screening Test

https://www.dropbox.com/sh/zfocurmn7kegvz/AABXvvX3xGYdJqvTU_sHofl3a?dl=0

May follow the following order for preparing the technical part

For Prob & Stats

1. Probability and Statistics slides(only Normal Distribution in Statistics)
2. 50 Challenging Problems in Probability
3. Randomized Algorithms(if time permits)



Preparation Material

For Puzzles

1. Brainstellar
2. Interviewbit Puzzles
3. [Prepleaf YouTube channel](#)
4. Remaining ones in Websites.docx(if time permits)

Coding

Similar to what you have been doing for SoftDev Roles



Preparation Material

General Mathematics

Institute level compulsory courses in mathematics which includes topics on calculus, linear algebra, matrix, differential equations, etc

Aptitude

Many websites(including prepleaf.com) are there to prepare

Data Structures and Algorithms

Geeksforgeeks



General Advice

1. Preferably prepare in groups rather than individual
2. Don't just look at the answer or solution but find ways to solve the problem in a generalized manner
3. Spend enough time on questions where new concepts are involved. Make different and new problems from them
4. Couple of days before test of a certain company, do google questions asked to last year students
5. PRACTICE PRACTICE PRACTICE



For Interviews

Get prepared with HR questions(Slide 5)

Generic Answers:

Why Quant? Want to research about stock market and try out ideas

Why *company*? Learning and growth opportunities, contacts, etc

Short term goals? Get acquainted with knowledge of quant research

Long term goals? Manage and invest a significant portfolio of company

GRE/GMAT score? Never attempted



For Interviews

Introductory Finance Terminologies:

- Assets
- Liabilities
- Equity/Stocks
- Expenses
- Account Receivable
- Cash Flow
- Profit/Loss
- Net Profit
- Income Statement
- Balance Sheet
- Cash Flow Statement
- Correlation
- Returns
- Financial Ratios



General Advice

1. Technical Round will also have similar preparation but less of probability, more of puzzles
2. Prepare resume the best possible way especially internship
3. A round could consist of just one question whose in-depth analysis will be made to do, so deeply research each question
4. Better to prepare HR questions in group but don't spend much time
5. Be ready for multiple interviews as selection criteria is stringent
6. Interviewers here are more like math teachers taking an oral exam



Prepleaf Quant Course

- **Finance basics**

Introductory finance terminologies and interview concepts

- **Probability and puzzles for interviews**

- **Company wise format of interviews**

- **Mock interview**

- **Live classes**

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