

Quantitative & Verbal Aptitude - II (Common for all Branches)	
Code:	Credits: 2
Instruction: 4 Periods/Week (2QA + 2VA)	Sessional Marks -100

Web Resources:

1. <http://vlabs.iitkgp.ernet.in/se/>

Course Objectives:

Quantitative aptitude-II:

1. To categorize, apply and use thought process to distinguish between concepts of reasoning
2. To prepare and explain the fundamentals related to various possibilities and probabilities related to quantitative aptitude.
3. To critically evaluate numerous possibilities related to puzzles.

Verbal aptitude-II:

4. To prepare the students on the various aspects of writing, organizing data, and applying their writing skills in their professional career.
5. To demonstrate and recommend the techniques required when interacting in different situations.
6. To apply the professional qualities/skills necessary for a productive career and to instill confidence through attitude building.
7. To plan activities in order to expose students to the different abilities required for working in a team, encourage them to glean information on current affairs and promote factual reading.
8. To illustrate and explain the intricacies/nuances involved in framing responses to the questions asked, reading between lines and reading beyond lines.

Course Outcomes:

Quantitative Aptitude-II

The student will be able to	
1	Use their logical thinking and analytical abilities to solve reasoning questions from company specific and other competitive tests.
2	Solve questions related to permutation & combinations and probabilities from company specific and other competitive tests.
3	Understand and solve puzzle related questions from specific and other competitive tests.

Verbal aptitude-II:

The student will be able to	
1	Write paragraphs on a particular topic, essays (issues and arguments), e mails, summaries of group discussions, make notes, statement of purpose (for admission into foreign universities), letters of recommendation (for professional and educational purposes)
2	Converse with ease during interactive sessions/seminars in their classrooms, compete in literary activities like elocution, debates etc., raise doubts in class, participate in JAM sessions/versant tests with confidence and convey oral information in a professional manner using reason
3	Prepare his/her resume, apply the business English concepts learnt in the course, and refine one's overall demeanor which would be very essential to face the corporate world
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5	Respond to their interviewer/employer with a positive mind, customize answers to the questions asked during their technical/personal interviews, exhibit skills required for the different kinds of interviews (stress, technical, HR) that they would face during the course of their recruitment process

Mapping of Course Outcomes with Program Outcomes:

[illegible]

SYLLABUS

Section –A (Quantitative Aptitude –II)

UNIT I

8 Periods

Numerical Reasoning:

Problems related to Number series, Analogy of numbers, Classification of numbers, Letter series, Seating arrangements, Directions, blood relations and puzzle test.

UNIT II

4 Periods

Combinatorics:

Counting techniques, Permutations, Combinations and Probability

UNIT III

4 Periods

Data sufficiency

Syllogisms

UNIT IV

4 Periods

Application of Base system:

Clocks (Base 24), Calendars (Base7), Cutting of Cubes and cuboids

UNIT V

4 Periods

Puzzle Solving & Time Management using various problems solving tools and techniques:

Selective puzzles from previous year placement papers

Selective puzzles from book Puzzles to puzzle you by shakunataladevi

Selective puzzles from book more puzzles by shakunataladevi

Selective puzzles from book puzzles by George summers

Books for practice

1. Quantitative aptitude by RS Agarwal, S Chand Publications
2. Verbal and non verbal Reasoning by RS Agarwal from S Chand publications
3. Puzzles to puzzle you by shakunataladevi orient paper back publication
4. More puzzles by shakunataladevi orient paper back publication
5. Puzzles by George summers orient paper back publication.

References:

1. Barron's by Sharon Welner Green and Ira K Wolf (Galgotia Publications pvt. Ltd.)
2. Material from 'IMS, Career Launcher and Time' institutes for competitive exams.
3. Reasoning by BS Sijwali Arihant publications
4. Reasoning Arun Sharma McGrawhill publications

Websites:

6. www.m4maths.com
7. www.Indiabix.com
8. 800score
9. Official GRE site
10. Official GMAT site

Section –B (Verbal Aptitude –II)

UNIT I

4 Periods

General Essay writing, writing Issues and Arguments(with emphasis on creativity and analysis of a topic), paragraph writing, story writing, guidance in framing a 'Statement of purpose', 'Letters of Recommendation', business letter writing, email writing, email and business letter writing etiquette, letters of complaints/responses to complaints. Information transfer is taught with the help of tables, bar diagrams, and pie charts while framing /sending lengthy data where testing is done through Reading comprehension and Critical reasoning. Contextual meanings with regard to inflections of a word, frequently confused words, words often mis-used, words often mis-spelt, multiple meanings of the same word (differentiating between meanings with the help of the given context), foreign phrases. Enhanced difficulty level in spotting errors will be taken up with reference to competitive test based exercises.

UNIT II

4 Periods

Just a minute sessions, reading news clippings in the class, extempore speech, telephone etiquette, making requests/suggestions/complaints, elocutions, debates, describing incidents and developing positive non verbal communication. Analogies, YES-NO statements (sticking to a particular line of reasoning)

UNIT III

4 Periods

Corporate readiness, business idioms and expressions, reading newspapers/magazines, brushing up on general awareness, latest trends in their respective branches, resume preparation, understanding business /corporate language, managing emotions, problem solving, importance of team work, goal orientation, professional grooming, positive attitude, assertiveness and inter personal skills. Data sufficiency (answering questions within the ambit of the given text), Fact-Inference-Judgment (to identify statements as FIJ), Syllogisms (with emphasis on fallacies in reasoning), strong and weak arguments.

UNIT IV

6 Periods

Voice, direct & indirect speech, question tags, one word substitutes, and foreign phrases. An overview on group discussions, preparation for a group discussion, intricacies of a group discussion, topics for GDs (with special focus on controversial topics), structure of participation in a group discussion, roles played by the participants in a group discussion, constructive criticism, standard procedures followed whilst participating in a group discussion, frameworks that can be used for discussion, analysis of the discussion and exposure to case-based group discussions.

UNIT V

6 Periods

Different types of interviews (with emphasis on personal interview), preparation for an interview, areas of questioning, answering questions on general traits like strengths/weaknesses/hobbies/extracurricular activities, choosing role models, importance of non verbal communication while participating in interviews, tips to reduce nervousness during personal interviews, handling stress, suggestions for responding to tough/unknown questions, preparation on self and personality development.

Note: The concepts learnt in Semester I will be tested in the Mid-term and Semester end exams during the II Semester as well.

Reading/ Listening material:

1. Newspapers like 'The Hindu', 'Times of India', 'Economic Times'.
2. Magazines like Frontline, Outlook and Business India.
3. News channels NDTV, National News, CNN

References:

1. Books written by Stephen Covey and Dale Carnegie-Seven Habits of Highly Effective People etc-Simon & Schuster, Running Press book publishers
2. Books written by Bertrand Russell-Oxford University Press

Suggested General Reading

1. **Who Moved My Cheese?** By Spencer Johnson-GP Putnam's Sons
2. **The art of War**-Sun Tzu by Nabla, Barnes & Noble
3. **The Monk Who Sold Ferrari**-Robin Sharma by Harper Collins, Jaico Publishers
4. **The Hobbit** and other books by JRR Tolkein-Harper Collins

Suggested Authors

1. William Dalrymple
2. V.S.Naipaul
3. Kushwanth Singh
4. Ernest Hemingway
5. Charles Dickens
6. Leo Tolstoy
7. R.K. Narayan
8. Amitav Ghosh
9. Vikram Seth
10. Oscar Wilde
11. Sudha Murthy
12. Anshu Singh
13. Arundhati Roy