

JMET 2005 to 2007 Comparative Analysis

Overall Paper Pattern: In the last three years the exam has remained consistent in its pattern in terms of duration, number of questions (overall as well as sectional) marking scheme. The only difference has been in the level of difficulty and selection of sub-skill area.

Particulars	Remarks
Duration	120 Minutes (2 hours)
Total number of questions	150 Q
Verbal Ability + Reading Comprehension	40
Quantitative Ability	40
Logical Reasoning	40
Data Interpretation	30
Marks per question	1 mark
Negative marking	0.25 mark
Number of choice per question	4

True to its essence, the quantitative section in JMET has been consistent for its high level of difficulty (once could call it **J**ust **M**ath and **E**ntirely-math **T**est). It has continued to be a nightmare for the best of the engineers taking the test. Other sections have also remained more or less consistent in the difficulty level – usually ranging in the moderate with quite a few choices of sitters in each skill set.

Comparative analysis of difficulty level of each sub-skill

Quantitative Ability:

Being a test for Engineers, this section has lived up to its expectation for its very high level of difficulty. The test has been known to test on higher math concepts which is a departure from CAT. One should be prepared to face questions from integral calculus, derivatives, complex numbers, vector algebra, conics, trigonometry, and matrices, although in JMET 2007, the focus in this section was questions of practical application of Mathematical principles, including Differential Calculus. What is recommended is to at least surf through the following topics:

- Standard formulae of Integration and solving using substitution method,
- Limits, standard result of Limits and solving them with L-Hospital's rule,
- Maxima / Minima using derivatives,
- Identities of Matrices and Determinants.

A brief analysis of 3 years (from 2005 to 2007) for QA section and its sub-skill break up

An overall division of total number of questions shows that Algebra and Arithmetic have been preferred by the paper setter. Trigonometry, Geometry, and Mensuration make the other preferred area for testing.

2007	2006	2005
1. Quant could well have stumped the students with its difficulty, though there were quite a few questions that	1. Quant section was of very high difficulty level. 2. Higher Math was not the major destructor.	1. Quant was the toughest. 2. Questions from Correlation, vectors, functions, limits, integration, and differentiation

<p>were easily doable.</p> <p>2. Questions from probability, permutation & combination, mathematical reasoning were the tough ones.</p> <p>3. 40%, i.e., 16 questions would have been possible with 12 right attempts</p>	<p>3. Algebra and Geometry gave a tough time.</p> <p>4. A good attempt had been 40% (15 – 16) questions with a yield of 11-12 right attempts.</p>	<p>were the tough set.</p> <p>3. An attempt of 25% of the section, i.e., 10 questions with 6 - 7 questions correct would have been reasonable.</p>
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Since, this section has always remained the toughest – the approach should be to look for the right kind of questions and concentrate on accurate attempts limiting the number of questions and allotting extra time per question sufficient enough to clear the sectional cut-off.

Break up of Questions

Type of Questions	2007	2006	2005
Algebra	8	9	3
Arithmetic	12	13	6
Complex numbers	-	-	3
Functions and Calculus	9	5	13
Geometry, Mensuration, Coordinate and Conics	4	10	10
Matrices & Determinants	2	1	2
Probability & P / C	5	-	2
Trigonometry (including heights & distances)	-	2	-
Vectors	-	-	1

Verbal Communication (Grammar, Vocabulary, and Reading Comprehension)

This section has been comparatively easy in JMET and so far it has been mainly focusing on grammar and vocabulary. With the change in pattern, the difficulty of this section however should move up a notch. Yet, with the type of question selection so far offered (provided in the table below), one can expect to capitalize on this section, if one had done one's preparation for CAT well. **Yet, it is imperative to brush up basics of grammar and vocabulary.**

Reading comprehension section so far consisted of small passages ranging from 3 – 6 in number, with 200 – 350 words per passage, with 2 – 6 Q per passage. The topics were diverse and offered an easy reading. Yet in the recent years, the questions have been inferential and some were word based and comparatively difficult because of the high level of ambiguity among the given answer choices.

Break up

Question type	No. of questions	Difficulty level	No. of questions	Difficulty level	No. of questions	Difficulty level
	2007		2006		2005	
Analogies	4	Moderate/ Difficult	6	Moderate/ Difficult	4	Easy
Antonyms / Synonyms	6	Difficult	4	Easy /	10	Easy /

				Difficult		Moderate
Sentence Completion	2	Easy	4	Easy	--	--
Total Vocabulary	12	Moderate	14	Easy / Moderate	14	Easy
Grammar	11 2	Easy Difficult	6	Easy / Difficult	14	Easy / Moderate
Total VA	25	Easy	20	Moderate	28	Easy
Reading Comprehension	15	Moderate/ Difficult	20	Moderate/ Difficult	12	Easy
Total	40	Moderate/ Difficult	40	Easy / Moderate	40	Easy

Logical Reasoning

The logical reasoning section in JMET is a combination of English and Numerical Reasoning. The section has been of moderate difficulty. One must be judicious in the selection of questions, as the section is a mix of easy and difficult questions, to maximize the attempts in this section.

Break up of questions

Question type	No. of questions	Difficulty level	No. of questions	Difficulty level	No. of questions	Difficulty level
	2007		2006		2005	
Para jumbles	6	Moderate	2	Moderate	5	Difficult
Verbal logic and reasoning, Deductive logic / Syllogisms	8	Easy	5	Easy	6	Very Difficult
Inferential Reasoning					7	Easy to Moderate
Critical Reasoning	14	Easy to Moderate	3	Easy to Moderate		
Arrangement based Reasoning	6	Moderate	21	Easy to Difficult	5*2 = 10	Easy to Difficult
Coding/Decoding & Mathematical reasoning	2	Easy				
Data Sufficiency			2	Moderate	7	Easy
Individual questions on Reasoning			7	Easy to Difficult	5	Easy
Set Theory	4	Moderate				

This section usually consists of good mix of verbal and logical reasoning as well as a selection of individual and set questions (4-6 questions per set). **One should try and attempt as many individual easy questions as possible and be judicious (going for the kill) with the sets to maximize the scores.**

While 2007 paper had more verbal, the 2006 had more LR and the 2005 paper was a combination of both. The verbal of 2007 was more attemptable in the individual questions, while in 2006 LR was easy and in 2005 DS and LR was the easy. Thus, this has been a mixed bag and one must expect the unexpected in this section.

Data Interpretation

This section has remained the easiest of all the 4 and requires mere speed involving mathematical calculations and good observation of details. So far this was definitely a section to maximize the overall score depending on one's skills.

Break up

Question type	No. of questions	Difficulty level	No. of questions	Difficulty level	No. of questions	Difficulty level
	2007		2006		2005	
Single Graphs (2007 – Tables; 2006 – Line, Bar graph, & Radar Chart; 2005 – Pie chart, Line & Bar graph)	12 (2 sets)	Easy	16 (3 sets)	Easy / Moderate	25 (4 sets)	Easy
Combination graphs 2007 and 2006: Set 1 – Cumulative Bar graph and Table; Set 2 – Table and Line graph	12 (2 sets)	Moderate/ Difficult	14 (2 sets)	Easy/ Moderate	5	Easy

It is very important to pick questions in each set that requires mere observation than calculation, which means the student should maintain high mobility between sets if required to maximize the score in this section.

Cut-off Ranks for different IITs in the year 2007:

IIT Mumbai	:	350
IIT Delhi	:	450
IIT Chennai	:	1200
IIT Kharagpur	:	1300
IIT Kanpur	:	1500
IIT Roorkee	:	1600

A look at the Ranks of the year 2007:

Rank	Marks
Top 25 students:	69+
Top 75 students:	66+
Top 300 students:	60+
Top 500 students:	55.5+
Top 1000 students:	53 -54
Top 1600 students:	50

Overall conclusion:

Going by the last three year papers, one can assume that top students have been able to attempt more than 45% of the paper with a good accuracy. This is possible by following ways:

Maximize 1 section with maximum attempts with good accuracy. Show above average performance in two more sections and attempt the weakest section with reasonably good accuracy to clear the cut-off. An example score card of some of the toppers last year will clear the above point.

Rank 12: Score: 70: VA – 15.25; LR – 25.5; DI – 11.5; QA – 17.75

Rank 23: Score 69: VA – 14.25; LR – 31.25; DI – 14.5; QA – 9

Rank 309: Score: 59.75; VA – 11.75; LR – 29.25; DI – 11.25; QA – 7

Regular advice remains: Do not neglect a section; Allot time according to strengths but avoid unduly emphasis at the cost of other sections.

All the best

Team MBAGuru