**Structure of JMET 2011**

 The JMET 2011 will be of 3 hours duration.  The test will consist of 120 questions (objective / multiple choice type) in the following sections:  
  
[**Verbal Communication**](http://web.iitd.ac.in/~gate/jmet/question_paper/question_paper_verbal.html)   
This section aims to test the candidate's comprehension of and interpretative abilities in English as a language of business. Given the potential manager's decision-making roles, this section seeks to examine the candidate's felicity with common forms of English expression, grammar and usage in business that would enable him/her to extract essential information from a variety of data, and arrive at an informed decision. Regular analysis of business articles and non-fiction prose, besides a firm grasp of communicative English grammar would be helpful in preparing for this section.   
  
[**Logical Reasoning**](http://web.iitd.ac.in/~gate/jmet/question_paper/question_paper_logical.html)   
This section consists of analytical reasoning, argument analysis, and analysis of explanation questions.   
  
[**Quantitative Ability**](http://web.iitd.ac.in/~gate/jmet/question_paper/question_paper_quant.html)   
This section aims to test the candidate's understanding of Basic Mathematics (Numbers; Operations; HCF and LCM; Fractions, Decimals and Percentages; Ratio and Proportion; Roots and Power; Logarithms; Progressions; Elementary Geometry and Mensuration; Elementary Trigonometry; Introductory Set Theory), Linear Algebra (Equations and Inequalities; Matrices; Determinants; Simultaneous equations and solutions; Elementary Linear Programming; Elementary differential calculus involving functions of one variable; Elementary integral calculus), and Probability and Statistics (Types of Data; Frequency Distributions; Measures of Central Tendency and Dispersion; Probability Concepts: Basic Outcomes, Events, Sample Spaces; Probability Calculations: Counting Rules using Permutations and Combinations, Unions and Intersections, Complementary Events, Mutually Exclusive Events, Conditional Probability and Independent Events; Binomial, Poisson and Normal Random Variables; Correlation and Simple Linear Regression) for their use in business applications such as Partnership and Shareholding; Present Worth and Discounts; Depreciation; Demand and Supply; Cost and Revenue, and common applications such as Banking Transactions; Inventories; Mixtures; Time and Work; Time and Distance; Pipes and Tanks; Estimation of time, distance, area, volume, effort, etc.   
  
[**Data Interpretation**](http://web.iitd.ac.in/~gate/jmet/question_paper/question_paper_data.html)   
This section aims to assess the ability of the examinee to make valid interpretations from a given data set. The section also assesses the ability of the examinee to understand data in different representative forms such as simple tables, histograms, pie charts, graphs, scatter diagrams, etc. Although involved calculations are not expected, simple data manipulations would be required.   
  
***There is negative marking for incorrect answers. For a wrong answer to a question, 25% of the marks allotted to that question will be deducted. Moreover, for a candidate to be qualified in JMET 2011, he/she should  not only secure certain minimum marks in the test paper but also should necessarily obtain certain minimum marks in each of the four sections stated above***.

**Section-I : Verbal Communication**

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| ***Directions:*** | **In Question 1 carefully read the sentence given below and identify the grammatically INCORRECT option to fill in the blank.** |

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| Q. 1: | This strategy has proved very successful for Nike, but to keep ahead of competition they must keep \_\_\_\_\_\_\_\_\_\_\_ new factory sites and sourcing cheap workers. | | | |
|  | (A) searching | (B) exploring | (C) surveying | (D) scrutinising |

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| ***Directions:*** | **In Question 2, select the pair of words that best expresses a relationship SIMILAR to the pair in CAPITAL letters.** |

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| Q. 2: | PROVINCIALISM : PAROCHIALISM | |
|  | (A) Dilettante : Inexpert | (B) Miscegenation : Mitigation |
|  | (C) Meretricious : Sober | (D) Decadent : Resplendent |

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| ***Directions:*** | **Question 3 consists of four groups of jumbled phrases, only ONE of which is grammatically correct. Identify the CORRECT option.** |

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| Q. 3: | (A) matured, venture capital has undergone still another redefinition, returning / at least in part to its early roots in funding mature / now as the technology business has / businesses, in technology and in other segments as well |
|  | (B) energy and financial services / areas and has been a leading in information technology, media / the firm has invested across many industry / and communications, telecommunications, healthcare, |
|  | (C) in the area of new ventures that, I might one day return to help put / I left the Gaeltacht convinced that the way to / in place the very infrastructures needed to create a sustenable and thriving economy / save this island of Irish tradition is to work |
|  | (D) the consequence of that - in part - is / companies with good people that are just farther along / that have gone public in the past that are still good, / that their are a lot of orphans out there among companies |

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| ***Directions:*** | **Questions 4 - 7 relate to the passage given below:** |

Visualisation is the three-dimensional, multicoloured, singing-and-dancing version of affirmations that enables the subconscious to prefigure future achievement or success. It is a basic and fundamental human attribute, and one that can literally be the difference between surviving and not surviving.

When Victor Frankl, the Freudian psychologist, was examining the discriminating factors that enabled him, and many like him, to survive in the hell of the Nazi concentration camps, the key factor was the ability to visualise. All survivors had a vision of something beyond their current suffering, something more worthwhile, and something worth hanging on for.

This underlines the importance of each individual having a vision of something, outside and larger than herself, that gives her life some meaning. The very existence of a mission lifts the eyes to something more meaningful and enduring - and in so doing provides something to live for - at times when quiet surrender could be an attractive option. Such a vision gives a further raison d'etre for integrity, by providing a purpose that binds together the core values that make up self-worth.

One of the most powerful - and difficult to achieve - applications of visualisation is to focus your mind daily on the person you intend to become. Create a clear mental picture of that person - and see it in full colour, and add sounds and smells, if they are appropriate. The emotional values you add to the visualisation are vital in making the full connection to your subconscious, which acts only on thoughts that are mixed with emotions. These techniques are, of course, widely validated in fields like sport and business, where the peak performers are nearly all visualisers. They all see, feel, and fully experience their success before they achieve it.

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| Q. 4: | Which of the following statements, in the light of the above passage, is NOT correct? |
|  | (A) Visualisation is the affirmation of the subconscious |
|  | (B) Visualisation is three dimensional, multicoloured and auditory |
|  | (C) Visualisation is a basic and fundamental quality of human mind |
|  | (D) Visualisation can make a significant difference in terms of our very existence |

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| Q. 5: | The above passage DOES NOT deal with | |
|  | (A) uses of visualization | (B) quality of visualization |
|  | (C) techniques of visualisation | (D) illustrations of visualisation |

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| Q. 6: | Which of the following observations CANNOT be directly inferred from the above passage? |
|  | (A) Concentration camp survivors visualized beyond their current suffering |
|  | (B) Emotional values help one's subconscious to connect to visualisation |
|  | (C) Visualisation involves the ability to focus on the person you want to become |
|  | (D) The existence of a goal beyond one's current situation gives one a sense of purpose |

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| Q. 7: | "*Raison d'etre*" as it is used in the above passage means | |
|  | (A) the most important need | (B) the most important inference |
|  | (C) the most important consequence | (D) the most important reason |

**Section-II: Logical Reasoning**

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| Q. 8: | AArun is taller than Vivek. Harish is taller than Vivek, but shorter than Arun. Divya is taller than Harish, while Ramya is shorter than Arun. Which of the following statements is necessarily true? | |
|  | (A) Ramya is shorter than Harish | (B) Divya is taller than Vivek |
|  | (C) Divya is taller than Arun | (D) Ramya is shorter than Harish, but taller than Vivek |

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| Q. 9: | On the basis of the following two statements, determine which of the stated conclusions can be logically inferred:  (1) All artists are eccentric  (2) Most skaters are artists.  *Conclusion:* | |
|  | (A) Some skaters are not eccentric | (B) Most skaters are eccentric |
|  | (C) All skaters are eccentric | (D) Most artists are skaters |

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| ***Directions:*** | **The sentences given in Questions 10 when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Select the most logical order of the sentences in each case.** |

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| Q. 10: | (i) If profit margins are eroded, an Internet store may go out of business, (ii) Internet stores must deliver their products to their customers' homes (iii) Home delivery implies that logistics costs erode the available profit margins for an Internet store. (iv) High logistical costs could account for the failure of many online grocers. | | | |
|  | (A) (iv)-(ii)-(iii)-(i) | (B) (i)-(ii)-(iii)-(ii) | (C) (ii)-(iii)-(i)-(iv) | (D) (ii)-(iv)-(iii)-(i) |

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| ***Directions:*** | **Answer Questions 11 and 12 based upon the following passage.** |

Eight entrepreneurs (J, K, L, M, N, O, P, Q) are selected for excellence awards for their outstanding contributions to business. Besides nurturing their own industries, two of these entrepreneurs, viz., J and L, also patronize the telecom industry while two others, viz., M and P, also patronize the computer industry. In arranging the seats, it was decided that the entrepreneurs who patronize other industries in addition to their own should not be seated together.

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| Q. 11: | Which one of the following combinations is possible in the seating arrangements? | | | |
|  | (A) KMLNJ | (B) JPQOL | (C) JKLNM | (D) JOLPQ |

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| Q. 12: | In order to ensure a proper seating arrangement, M should sit between | | | |
|  | (A) N and O | (B) K and J | (C) L and N | (D) O and P |

* **Section-III: Quantitative Ability**

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| ***Directions:*** | **Answer Questions 13 and 14 based upon the following passage.** |

* The Indian cricket team's selection board has to select 16 players in its team for an away tour to Australia and New Zealand. There are a total of 34 probables at the selection camp. The table below indicates the number of players available in different specialist categories and the corresponding number to be selected in the team. Each player belongs to one and only one category, and the categories are mutually exclusive and collectively exhaustive. Assume that within each specialist category the players have an equal chance of being selected.

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| **Specialist Category** | **Available** | **To be selected 'K'** |
| Opening Batsman Middle-order (No.3 to 6) All-rounder Wicketkeeper Pace Bowler Spin Bowler | 6 10 4 4 5 5 | 2 &le K &le 3 5 &le K &le 7 1 &le K &le 2 1 &le K &le 2 3 &le K &le 4 2 &le K &le 3 |

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| Q. 13: | In how many ways can a team be chosen if all three Opening Batsman and both Wicketkeeper probables are chosen? | | | |
|  | (A) 10C5 4C1 5C3 5C2 | (B) 24C11 | (C) 10C5 + 4C1 + 5C3 + 5C2 | (D) None |

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| Q. 14: | In addition, what is the probability that all four Pace Bowler probables will be selected given that both All-rounders are selected? | | | |
|  | (A) 0 | (B) 1/4 | (C) 4/34 | (D) None |

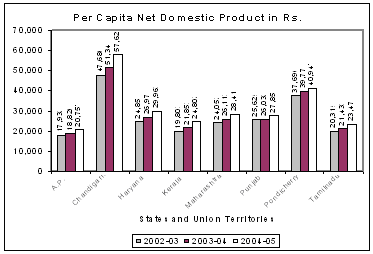
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| Q. 15: | A hotel charges different prices for the same meal in two different locations. The demand function in each location is given by:         P1 = 50 - 4Q1    in Location 1         P2 = 80 - 3Q2    in Location 2 The hotel's cost function is TC = 120 + 8Q, where Q = Q1 + Q2. Note that in general, the profit is maximized at Q\* when (dTC/dQ) = (dP/dQ). The price and quantity at Locations 1 and 2 respectively for which the hotel's profit is maximized are: | | | |
|  | (A) P1 = 29.2  P2 = 44  Q1 = 5.2  Q2 = 12 | (B) P1 = 44  P2 = 29.2  Q1 = 5.2  Q2 = 12 |  |  |
|  | (C) P1 = 44  P2 = 29.2  Q1 = 12  Q5.2 = 12 | (D) None |  |  |

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| Q. 16: | The present rate at which furnace oil (in '000 litres) is consumed monthly by a large engineering company is estimated as:       Consumption rate = dQ/dt = 1560e0.012t     where, 't' is in months.  The ratio of consumption during the first ten months to the next ten months is: | | | |
|  | (A) 0.89 | (B) 1.12 | (C) 1/2 | (D) None |

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| Q. 17: | A carpenter employed on casual basis in a firm agrees to accept Rs.2000/= for the first week of his work. He negotiates for his pay to be raised by 1% every subsequent week. After serving for 10 weeks, he renegotiates his pay at Rs.2500/= for the next immediate week and a 2% raise every subsequent week. The total amount he would earn at the end of 30 weeks, and the average pay per week for the entire period of his work are: | | | |
|  | (A) 33934.5 and 2262.3 | (B) 33528.6 and 2235.2 | (C) 33224.3 and 2163.5 | (D) None |

**Section-IV: Data Interpretation**

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| ***Directions:*** | **Questions 18 - 23 are based on the following bar chart showing trends of the per capita net domestic product in some States and Union Territories (UTs) of India** |

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| Q. 18: | The average of values of per capita net domestic product for the States / UTs in 2002-03 lies between Rs. | | | |
|  | (A) 20,000-25,000 | (B) 25,000-30,000 | (C) 30,000-35,000 | (D) 35,000-40,000 |

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| Q. 19: | For which State /UT was the per capita net domestic product farthest from the average of values of per capita net domestic product of the States / UTs in 2002-03? | | | |
|  | (A) Chandigarh | (B) A.P. | (C) Kerala | (D) Pondicherry |

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| Q. 20: | Which of the following States /UTs had the highest growth rate in per capita net domestic product between 2002-03 and 2004-05? | | | |
|  | (A) Kerala | (B) Haryana | (C) Chandigarh | (D) A.P. |

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| Q. 21: | The number of States / UTs with more than Rs. 2000 rise in per capita net domestic product in any year over the previous year was | | | |
|  | (A) 5 | (B) 6 | (C) 7 | (D) 8 |

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| Q. 22: | Which of the States / UTs had less than half the per capita net domestic product of Chandigarh in each of the three years? | | | |
|  | (A) A.P., Kerala and Punjab | (B) A.P., Kerala and Tamilnadu |  |  |
|  | (C) A.P., Kerala and Haryana | (D) A.P., Haryana and Tamilnadu |  |  |

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| Q. 23: | The ratio of per capita net domestic product of a large developed (G7 member) Asian country with per capita net product of US $ 40000, to per capita net domestic product of the richest State / UT among the given eight States / UTs in 2004-05 (assuming US$ 1= Rs.40) is in the range of | | | |
|  | (A) 15-20 | (B) 20-25 | (C) 25-30 | (D) 30-35 |

**Important Dates**

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| **Commencement** of ONLINE application form submission | Monday | 6 Sept. 2010 |
| **Last date** for:Online application form submission (website  closure) | Friday | 8 Oct. 2010 (6.00pm) |
| **Last  date** for mailing the admit cards | Friday | 12 Nov. 2010 |
| **Examination Date** (10:00 hrs to13:00 hrs) | Sunday | 12 Dec. 2010 |
| **Announcement** of Results | Monday | 3 Jan. 2011 |