



## IAS PRELIM MOCK TESTS PROGRAMME ( IPMTP)

- THE TEAM **VISION IAS**

### Features:

- Special design Mock Tests with consideration of negative Marking pattern and actual requirement of UPSC
- Explanatory notes for Mock Tests Questions with proper source and reference
- Effective Online Support (Email & Chat) for removing all types of doubts and answering for specific questions
- Talking to our Experts for continuous guidance, feedback and support

### WHY Mock Tests? – These special design Test Series serve the following ends:

- Understanding your current state preparedness and required action plans
- Judging yourself vis-a-vis the competition and corrective measure
- Development of a proper understanding of nature of questions against negative marking pattern
- Exposure to near actual competitive examination & Examination skills development
- Framing your mind towards actual pattern, toughness, Negative marking pattern and timing of the actual entrance examination.

**Fees:** Rs 3500

## MATHEMATICS PRELIM : 2009

### CONTENT

Test NO.	Date of Test / Test Code	Sections Covered	Topics covered
1.	Dec 14 , 2008 ( Sunday )  IPMTP/MAT/T-1	<b>A: Algebra</b>	<p>Elements of Set Theory; Algebra of Real and Complex numbers including Demovire's theorem; Polynomials and Polynomial equations, relation between Coefficients and Roots, symmetric functions of roots; Elements of Group Theory; Sub-Group, Cyclic groups, Permutation, Groups and their elementary properties.</p> <p>Rings, Integral Domains and Fields and their elementary properties</p>
2.	Dec 28 , 2008 ( Sunday )  IPMTP/MAT/T-2	<b>B: Vector Spaces and Matrices</b>	<p>Vector Space, Linear Dependence and Independence. Sub-spaces. Basis and Dimensions, Finite Dimensional Vector Spaces. Linear Transformation of a Finite Dimensional Vector Space</p> <p>Matrix Representation. Singular and Nonsingular Transformations. Rank and Nullity.</p>
3.	[11. 1. 2009 ]  IPMTP/MAT/T-3	<b>C: Geometry and Vectors</b>	<p>Analytic Geometry of straight lines and conics in Cartesian and Polar coordinates; Three Dimensional geometry for planes, straight lines, sphere, cone and cylinder. Addition, Subtraction and Products of Vectors and Simple applications to Geometry.</p>

4.	[25. 1. 2009 ]  IPMTP/MAT/T-4	<b>D :Calculus &amp; Application of Derivatives</b>	Functions, Sequences, Series, Limits, Continuity, Derivatives.  Rates of change, Tangents, Normals, Maxima, Minima, Rolle's Theorem, Mean Value Theorems of Lagrange and Cauchy, Asymptotes, Curvature. Methods of finding indefinite integrals, Definite Integrals, Fundamental Theorem of integrals Calculus. Application of definite integrals to area, Length of a plane curve, Volume and Surfaces of revolution.
5.	[ 8. 2. 2009 ]  IPMTP/MAT/T-5	<b>E: Ordinary Differential Equations</b>	Order and Degree of a Differential Equation, First order differential Equations, Singular solution, Geometrical interpretation, Second order equations with constant coefficients.
6	[ 22. 2. 2009 ]  IPMTP/MAT/T-6	<b>F : Mechanics</b>	Concepts of particles-Lamina; Rigid Body; Displacements; force; Mass; weight; Motion; Velocity; Speed; Acceleration; Parallelogram of forces; Parallelogram of velocity, acceleration; resultant; equilibrium of coplanar forces; Moments; Couples; Friction; Centre of mass, Gravity; Laws of motion; Motion of a particle in a straight line; simple Harmonic Motion; Motion under conservative forces; Motion under gravity; Projectile; Escape velocity; Motion of artificial satellites.
7.	[ 8. 3. 2009 ]  IPMTP/MAT/T- 7	<b>G : Elements of Computer Programming</b>	Binary system, Octal and Hexadecimal systems. Conversion to and from Decimal systems. Codes, Bits, Bytes and Words. Memory of a computer, Arithmetic and Logical operations on numbers. Precisions. AND, OR, XOR, NOT and Shift/Rotate operators, Algorithms and Flow Charts.
8.	[22. 3. 2009 ]  IPMTP/MAT/T- 8	<b>FULL LENGTH TEST- I</b>	<b>ALL SECTIONS</b> Algebra + Vector Spaces and Matrices + Geometry and Vectors + Calculus & Application of Derivatives + Ordinary Differential Equations + Mechanics + Elements of Computer Programming

9	[ 5. 4. 2009 ] IPMTP/MAT/T- 9	<b>FULL LENGTH TEST- II</b>	ALL SECTIONS
10	[19. 4. 2009 ] IPMTP/MAT/T-10	<b>FULL LENGTH TEST- III</b>	ALL SECTIONS

VISION IAS

**STARTING ON: DECEMBER 2008**

**NOTE:**

1. For any change of the schedule & information, Please visit Vision IAS website: [www.visionias.cfsites.org](http://www.visionias.cfsites.org)
2. For in-depth Micro and Macro analysis of any topics & Sections , Question pattern & Trend Analysis on the basis statistics as well as expert Guidance & experience, Please contact at : [ajay\\_uor@yahoo.com](mailto:ajay_uor@yahoo.com)
3. **Dispatch Mode:** PDF Format Mock Test (Soft copy through email) as well as Printed Format Mock Test (Hard Copy through Air mail)

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**REGISTRATION OPEN**

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[www.visionias.cfsites.org](http://www.visionias.cfsites.org)

**-THE TEAM VISION IAS**

[www.visionias.wordpress.com](http://www.visionias.wordpress.com)

Ajay Kr. Singh Niranjana, B.Tech. IIT Roorkee

Co-Founder & Consultant ~ 09968029039

Google Talk : ajay.niranjana

Email : [ajay\\_uor@yahoo.com](mailto:ajay_uor@yahoo.com)

Yahoo talk : ajay\_uor