Most important topics for JEE Main 2013 based on previous year AIEEE papers (JEE Main pattern will be almost same as AIEEE).

Here is a detailed topic-wise analysis of previous years question papers i.e, AIEEE 2008 to AIEEE 2011, if you are appearing for JEE Main this year be sure you go through this data to get a sense of distribution of questions over different topics.

## Physics Topic Wise analysis:

Though there is no set pattern that AIEEE used follow, but you can see that topics like Modern Physics, Optics, Heat and Thermodynamics, Electrostatics, Magnetism \& Magnetic Effects of Current , EMI \& AC Circuits and EM Waves have been scoring topics in decreasing order.

| Topics | 2008 | 2009 | 2010 | 2011 | Standard deviation | Average no. questions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Units, Dimensions and Measurement | 5 | 1 | 1 | 1 | 2 | 2 |
| Kinematics | 1 | 2 | 3 | 2 | 0.8165 | 2 |
| Newton's Laws of Motion | 0 | 0 | 1 | 0 | 0.5 | 0.25 |
| Work, Power and Energy | 1 | 1 | 1 | 0 | 0.5 | 0.75 |
| System of Particles | 3 | 1 | 2 | 0 | 1.291 | 1.5 |
| Gravitation and Rotational Mechanics | 2 | 1 | 1 | 4 | 1.4142 | 2 |
| Properties of Matter | 3 | 1 | 1 | 2 | 0.9574 | 1.75 |
| SHM, Oscillations | 0 | 1 | 0 | 2 | 0.9574 | 0.75 |
| Mechanical Waves and Sound | 3 | 2 | 1 | 1 | 0.9574 | 1.75 |
| Ray Optics and Wave Optics | 5 | 3 | 3 | 4 | 0.9574 | 3.75 |
| Heat and Thermodynamics | 1 | 5 | 1 | 4 | 2.0616 | 2.75 |
| Electrostatics | 2 | 3 | 4 | 2 | 0.9574 | 2.75 |
| Current Electricity | 2 | 1 | 1 | 3 | 0.9574 | 1.75 |


| Magnetism, Magnetic <br> Effects of Current | 2 | 2 | 1 | 1 | 0.5774 | 1.5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| EMI, AC Circuits and <br> EM Waves | 1 | 1 | 3 | 1 | 1 | 1.5 |
| Modern Physics | 4 | 5 | 6 | 3 | 1.291 | 4.5 |
|  |  |  |  |  |  |  |



## Chemistry Topic-wise analysis :

In average General organic chemistry + Functional Group I has most questions (avg=5.5) but AIEEE 2011 had only 2 questions from this topic, apart from this Coordination Compunds,Atomic structure, Chemical Thermodynamics, Organic Chemistry Functional Group III, Chemical and IOnic Equilibrium,States of matter,Biomolecules, Chemical Bonding, Functional Group III are topics in decreasing importance according to the data.

| Topics | 2008 | 2009 | 2010 | 2011 | Standard deviation | Average no. questions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Atomic Structure and Classification | 1 | 3 | 3 | 3 | 1 | 2.5 |
| Chemical Bonding | 2 | 1 | 0 | 3 | 1.291 | 1.5 |
| Stoichiometry | 1 | 0 | 0 | 1 | 0.5774 | 0.5 |
| States of Matter | 1 | 1 | 3 | 2 | 0.9574 | 1.75 |
| Chemical \& Ionic Equilibrium | 4 | 1 | 4 | 1 | 1.7321 | 2.5 |
| Chemical Kinetics \& Nuclear Chemistry | 1 | 1 | 2 | 2 | 0.5774 | 1.5 |
| Chemical Thermodynamics | 2 | 2 | 2 | 1 | 0.5 | 1.75 |
| Solutions | 2 | 2 | 2 | 2 | 0 | 2 |
| Electrochemistry | 1 | 1 | 2 | 1 | 0.5 | 1.25 |
| General Organic Chemistry + Functional Group I | 9 | 5 | 6 | 2 | 2.8868 | 5.5 |
| Organic Chemistry Functional Group II | 1 | 2 | 1 | 2 | 0.5774 | 1.5 |
| Organic Chemistry Functional Group III | 0 | 1 | 1 | 2 | 0.8165 | 1 |
| Chemistry of Representative Elements | 5 | 3 | 0 | 2 | 2.0817 | 2.5 |
| Transition Elements | 1 | 2 | 0 | 1 | 0.8165 | 1 |
| Coordination Compounds \& Organometallics | 2 | 2 | 2 | 4 | 1 | 2.5 |
| Surface Chemistry | 1 | 1 | 0 | 0 | 0.5774 | 0.5 |
| Biomolecules | 1 | 2 | 2 | 1 | 0.5774 | 1.5 |



## Mathematics Topic-wise analysis :

In Mathematics Application of Derivatives, Indefinite Integrals, Definite Integrals \& Area under the curve, Matrices and Determinants, Probability, Quadratic Equations, Inequalities, Progression are important topics in decreasing importance.

| Topics |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sets, Relations and <br> Functions | 2008 | 2009 | 2010 | 2011 | Standard <br> deviation | Average <br> no. <br> questions |
|  <br> Differentiability | 1 | 2 | 2 | 2 | 0 | 2 |
| Application of <br> Derivatives | 2 | 3 | 2 | 3 | 0.9574 | 1.75 |
| Indefinite Integrals, | 3 | 2 | 3 | 2 | 0.5774 | 2.5 |
|  <br> Area under the curve | 3 | 2 | 2 | 0.5 | 2.25 |  |


| Cartesian coordinates \& Straight Line | 1 | 1 | 1 | 1 | 0 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Circles | 1 | 1 | 1 | 1 | 0 | 1 |
| Conics | 2 | 3 | 1 | 1 | 0.9574 | 1.75 |
| Quadratic Equations, Inequalities, Progression | 3 | 3 | 1 | 1 | 1.1547 | 2 |
| Complex Numbers | 1 | 1 | 2 | 2 | 0.5774 | 1.5 |
| Binomial Theorem, Exponential \& Logarithmic Series | 1 | 1 | 1 | 1 | 0 | 1 |
| Permutation \& Combination | 2 | 1 | 2 | 1 | 0.5774 | 1.5 |
| Probability | 2 | 2 | 2 | 2 | 0 | 2 |
| Vectors | 2 | 1 | 2 | 2 | 0.5 | 1.75 |
| Differential Equations \& Properties of Triangles | 2 | 1 | 1 | 2 | 0.5774 | 1.5 |
| Trigonometric Rations, Equations, \& Inverse Circular Function | 1 | 1 | 2 | 1 | 0.5 | 1.25 |
| Heights and Distances | 1 | 0 | 0 | 0 | 0.5 | 0.25 |
| Matrices \& Determinants | 3 | 2 | 2 | 2 | 0.5 | 2.25 |
| Mathematical Logic | 2 | 1 | 0 | 1 | 0.8165 | 1 |
| Statics \& Dynamics | 0 | 0 | 0 | 0 | 0 | 0 |
| Statistics | 1 | 1 | 1 | 1 | 0 | 1 |

I hope you will find this useful.
Anyways now a doubt session portal has been opened on the Facebook ednexa Page where you all can post your doubts and queries and we would solve it.

Hoping to hear soon from you all.
Thanks,

