



Estd. Under Jharkhand State Private University Act

## **COMMON ENTRANCE TEST** **(AJU-CET)**

### **Examination Pattern & Syllabus**

<b>S.No</b>	<b>Particulars</b>	<b>Details</b>
1	Date of Examination	22 <sup>nd</sup> July 2018
2	Mode of Examination	Offline (Pen and Paper Based)
3	Duration of Exam	1 and a half hour for each section
		Physics - 1 hour 30 minutes
		Chemistry - 1 hour 30 minutes
		Mathematics - 1 hour 30 minutes
		Total time - 4 hour 30 minutes
4	Type of Questions	Objective (Multiple Choice Question)
5	Sections	Physics - 100 Questions (100 Marks)
		Chemistry - 100 Questions (100 Marks)
		Mathematics - 100 Questions (100 Marks)
6	Total Number of Questions	300 Questions (300 Marks)
7	Marking Scheme	1 marks will be given for each correct answer
8	Negative Marking	1/3 mark will be deducted for each incorrect answer

## **Guideline for AJU-CET 2018 Examination**

- The candidates must not forget to carry their AJU-CET- 2018 admit card along with one proof of identity
- Since the examination was held in offline mode, the candidates had to carry blue and black pens for use
- The OMR sheets had to be filled out neatly by the candidates
- The candidates were advised to reach the examination venue well before time
- All of the examination venue rules must be followed by the candidates

## **AJU-CET 2018 Syllabus**

<b>S.No</b>	<b>Subject</b>	<b>Topics</b>
1	Physics	Work, Energy and Power, Kinematics, Laws of Motion, Motion of System of Particles and Rigid body, Properties of Bulk Matter, Gravitation, Heat and Thermodynamics, Oscillations and Waves, Behaviour of Perfect Gas and Kinetic Theory, Electrostatics, Current Electricity, Electromagnetic Induction and Alternating, Electromagnetic Induction and Alternating currents, Electromagnetic Waves, Optics, Electronic Devices, Dual Nature of Matter and Radiation, Communication Systems, Atoms and Nuclei
2	Chemistry	States of Matter: gases and liquids, Structure of Atom, Chemical Bonding and Molecular Structure, Classification of Elements and Periodicity in Properties, Equilibrium, Thermodynamics, Redox Reactions, Hydrogen, s-Block Elements (Alkali and Alkaline earth metals), Group 1 and Group 2 elements, Preparation and properties of some important compounds, Some p-Block Elements, General Introduction p-Block Elements - Group 3 elements, Group 4 elements, Organic Chemistry- Some Basic Principles and Techniques, Hydrocarbons, Classification of hydrocarbons: Alkanes, Alkenes, Alkynes, Aromatic hydrocarbons, Mechanism of electrophile substitution, Environmental Chemistry: Environmental pollution, Solid State, Solutions, Electrochemistry, Chemical Kinetics, Surface Chemistry, General Principles and Processes of Isolation of Elements, p-Block Elements: Group - 5 elements, Group - 6 elements, Group - 7 elements, Group - 8 elements, d- and f- Block Elements: Lanthanoids, Actinoids, Coordination Compounds, Haloalkanes and Haloarenes, Alcohols, Phenols and Ethers, Aldehydes, Ketones and Carboxylic acids, Organic compounds containing Nitrogen: Amines, Cyanides and Isocyanides, Diazonium salts, Biomolecules: Carbohydrates, Proteins, Vitamins, Nucleic Acids, Polymers: Classification, Chemistry in Everyday life

3	Mathematics	Sets and Functions, Relation & Functions, Trigonometric Functions, Algebra (I), Principle of Mathematical Induction, Complex Numbers and Quadratic Equations, Linear Inequalities, Permutation & Combination, Binomial Theorem, Sequence & Series, Co-ordinate Geometry (I), Straight Lines, Conic Section, Introduction to Three Dimensional Geometry, Calculus (I), Mathematical Reasoning, Statistics , Probability (I), Inverse Trigonometric Functions , Algebra (II), Matrices, Determinants, Calculus (II), Continuity and Differentiability, Applications of Derivatives, Integrals, Applications of the Integrals, Differential Equations, Vectors and Three - dimensional Geometry, Linear Programming, Probability (II)
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All aspiring candidates and stakeholders should take note this preparation of AJU-CET-2018 for admission to B.Tech.