

# West Bengal State Council of Technical Education



## JEXPO Exam Pattern

Name of Subjects	Marks
Mathematics	40
Physics	20
Chemistry	20
English	10
Aptitude	10
<b>Total</b>	<b>100</b>

## JEXPO Syllabus

### Mathematics

- Relations and Functions
- Trigonometry
- Cartesian System of Rectangular Coordinates
- Logarithms
- Complex Numbers
- Quadratic Equations
- Sequences and Series
- Straight Lines
- Circles
- Statistics
- Differentiation
- Introduction to Three Dimensional Geometry
- Conic Sections
- Permutations and Combinations
- Vectors
- Exponential and Logarithmic Series

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- Applications of Derivatives
- Sets and Set Theory
- Probability Function
- Limits and Continuity
- Indefinite Integrals Binomial Theorem
- <https://exams.freshersnow.com/>
- Matrices
- Determinants
- Definite Integrals

## Physics

- Molecular Physics
- Condensed Matter Physics
- Thermodynamics
- Mathematical Methods
- Classical Mechanics
- Relativity
- Atomic
- Statistical Mechanics
- Nuclear and Particle Physics
- Quantum Theory and its Applications
- Electromagnetic Theory
- Electronics
- Experimental Physics

## Chemistry

- General Chemistry
- Periodicity
- Solid State
- Structure of Atom
- Solutions
- Classification of Elements
- Electrochemistry
- Molecular Structure
- Chemical Bonding

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- Surface Chemistry
- Redox Reactions
- Chemical Kinetics
- States of Matter
- Equilibrium
- Thermodynamics
- Processes of Isolation of Elements
- Coordination Compounds
- Alkali and Alkaline earth metals (S Block)
- P, D, F Block Elements
- Hydrogen
- D Block Elements
- Haloarenes
- Alcohols
- Haloalkanes
- Aldehydes
- Phenols
- Ketones
- Ethers
- Environmental Chemistry
- Amines
- Chemistry in Everyday Life
- General Organic Chemistry
- Carboxylic Acids
- Biomolecules
- Hydrocarbons

## English

- Idioms and Phrases
- Sentence Improvement
- Synonyms
- Sentence Arrangement
- Substitution
- Prepositions
- Antonyms
- Fill in the blanks
- Passage Completion

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- Spotting Errors
- Substitution
- Sentence
- Active and Passive Voice
- Completion
- Spelling Test
- Error Correction (Underlined Part)
- Transformation
- Para Completion
- Joining Sentences
- Error Correction (Phrase in Bold)

## Aptitude

- Races and Games
- Numbers and Ages
- Averages
- Mensuration
- Probability
- Time and Distance
- Quadratic Equations
- Odd Man Out
- Profit and Loss
- Problems on Numbers
- Pipes and Cisterns
- Indices and Surds
- Areas
- Volumes
- Percentages
- Simple Equations
- Permutations and Combinations
- Compound Interest
- Boats and Streams
- Problems on LCM and HCF
- Time and Work Partnership
- Problems on Trains
- Ratio and Proportion
- Simplification and Approximation

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- Mixtures and Allegations
- Simple Interest