

# Bihar Combined Entrance Competitive Examination Board (BCECEB)



## Bihar DCECE Exam Pattern

PE & PPE Exam Pattern (Polytechnic Engineering & Part-Time Polytechnic Engineering)

<b>Subject</b>	<b>No. of Questions</b>	<b>Total Marks</b>
Physics	30	150
Chemistry	30	150
Mathematics	30	150
<b>Total</b>	<b>90</b>	<b>450</b>

PM Exam Pattern (Para Medical)

<b>Subject</b>	<b>No. of Questions</b>	<b>Total Marks</b>
General Science	25	125
Numerical Ability	15	75
Hindi	15	75
English	15	75
General Knowledge	20	100

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<b>Total</b>	<b>90</b>	<b>450</b>
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## PMD Exam Pattern (Para Medical Dental)

<b>Subject</b>	<b>No. of Questions</b>	<b>Total Marks</b>
Physics	20	100
Chemistry	20	100
Mathematics	10	50
Biology	10	50
Hindi	10	50
English	10	50
General Knowledge	10	50
<b>Total</b>	<b>90</b>	<b>450</b>

## Bihar Polytechnic Entrance Exam Syllabus PDF (PE/ PPE/ PMD/ PM)

### Physics

- Physics World and Measurement
- Kinematics

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- Laws of Motion
- Work, Energy, and Power
- Properties of Bulk Matter
- Heat and Thermodynamics
- The behavior of Perfect Gas and Kinetic theory
- The Motion of System of Particles and Rigid Body
- <https://exams.freshersnow.com/category/entrance-exam-syllabus/>
- Gravitation
- Oscillations and Waves
- Electrostatics
- Current Electricity
- Optics
- Dual Nature of Matter and Radiation
- Electronic Devices
- Magnetic Effects of Current & Magnetism
- Communication Systems

## **Mathematics**

- Sets and Functions
- Inverse Trigonometric Functions
- Calculus
- Algebra
- Matrices
- Coordinate Geometry
- Mathematical Reasoning
- Statistics and Probability
- Differential Equations
- Vector Algebra
- Three Dimensional Geometry
- Continuity and Differentiability
- Application of Derivatives
- Integrals
- Linear Programming

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## Chemistry

- Basic Concepts of Chemistry
- Solid State
- Chemical Thermodynamics and Energetic
- Structure of Atom
- Classification of Elements and Periodicity in Properties
- Chemical Bonding and Molecular Structure
- Solutions and Colligative Properties
- States of Matter: Gases and Liquids
- Thermodynamics
- Electrochemistry
- General Principles and Processes of Isolation of Elements
- Chemical Kinetics
- Equilibrium
- Redox Reaction
- Hydrogen
- S- Block Elements
- P- Block Elements
- Coordination Compounds
- Aldehydes, Ketones, and Carboxylic Acids Aldehydes and Ketones
- Organic Compounds Containing Nitrogen
- Halogen Derivatives of Alkanes (and Arenas)
- Organic Chemistry
- f- Block Elements
- d-Block Elements
- Alcohols, Phenols, and Ethers Alcohols
- Hydrocarbons
- Environmental Chemistry

## English

- Antonyms & Synonyms
- Meaning of Phrases & Idioms
- Word Meanings

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- Fill in the blanks – Complete/ Improvement of the sentences with the correct use of
- Pronouns, Verbs, Adverbs & Adjectives
- Reading comprehension's followed by questions.

## **Botany**

- Genetics
- Seeds in angiospermic plants
- Fruits
- Plant Cell
- Protoplasm
- Ecology
- Ecosystem
- Cell differentiation Plant Tissue
- Anatomy of Root, stem, and leaf
- Important phylums
- Soil
- Photosynthesis

## **Biology**

### **Zoology**

- Origin of Life
- Organic Evolution
- Mechanism of Organic Evolution
- Human Genetics and Eugenics
- Applied Biology
- Mammalian Anatomy (Eg. Rabbit)
- Animal Physiology
- Detailed studies of Protozoa, Porifera, Coelenterate, Aschelminthes, Annelida, and Arthropod.