

## DGVCL Vidyut Sahayak Exam Pattern

### For DGVCL Vidyut Sahayak (Junior Engineer - IT)

Section - I	General Knowledge	10%
Section - II	English Language	10%
Section - III	I.T./Computer Engineering*	60%
Section - IV	Computer Knowledge	10%
Section - V	Gujarati Language & Grammar	10%

### For DGVCL Vidyut Sahayak (Junior Engineer-Civil)

Sections	Name of the Subject	Weightage
Section – I	General Knowledge	10%
Section – II	English Language	10%
Section – III	Civil Engineering	60%
Section – IV	Computer Knowledge	10%
Section – V	Gujarati Language & Grammar	10%

### For DGVCL Vidyut Sahayak (Junior Assistant)

Sections	Name of the Subject	Weightage
Section – I	General Knowledge	10%
Section – II	English Language	20%
Section – III	Maths & General Science	15%
Section – IV	Analytic & Logical Reasoning	15%
Section – V	Computer Knowledge	10%
Section – VI	Gujarati Language	20%

## DGVCL Vidyut Sahayak Syllabus 2020 - Topics Wise

### General Knowledge

- Famous Books & Authors
- Botany
- Indian Parliament
- Sports
- Indian Politics
- Geography
- Indian History
- Physics
- Famous Days & Dates
- Indian Economy
- Zoology
- Chemistry
- Famous Books & Authors
- Inventions in the World

### English language

- Sentence Arrangement
- Fill in the blanks
- Antonyms
- Synonyms
- Spotting Errors
- Idioms and Phrases
- Para Completion
- Joining Sentences
- Error Correction (Underlined Part)
- Substitution
- Spelling Test
- Prepositions
- Error Correction (Phrase in Bold)
- Sentence Completion
- Transformation
- Active and Passive Voice
- Passage Completion
- Sentence Improvement

### Computer Knowledge

- Internet.
- The hardware of the Computer.
- Computer Basics.
- MS Word.

- Windows.
- MS Excel.
- MS PowerPoint.
- MS-DOS.
- MS Office.
- Operating Systems.

### **General Maths**

- Average
- Discount
- Simple Interest
- Partnership
- Time & Work
- Time & Distance
- Percentages
- Ration and Proportion
- Profit and Loss
- Mensuration And Other Related Topics.
- Fundamental Arithmetical operations

### **General Science**

#### **Biology**

- Human Digestive system
- The five kingdoms of life
- Excretory system in Humans
- Human Reproductive system
- Mode of Nutrition in Animal
- Food and Nutrition
- Human Diseases
- Nuclear fission and nuclear fusion
- Classification of Animal Kingdom
- Nutrition in Animal
- Sexual Reproduction in Animal
- Respiration in Animals
- Plant tissue
- Photosynthesis
- Classification of Organisms.
- Cytology
- Plant Morphology
- Genetics
- Structure of Plant and Animal Cell
- Classification of Plant Kingdom
- The transport system in Plant

- Functions of Blood
- Asexual Reproduction in Plants
- Plant Hormones
- Respiration and Excretion in plants
- The Cell: The foundation of all living things
- Cell: Structure and Functions
- Mode of Nutrition in Plant
- Control and Coordination in Plant
- Human Circulatory system.
- The Heart
- Composition of Blood
- Sexual Reproduction in Flowering Plant

### Physics

- Electromagnetism
- Simple Harmonic Motion
- Wave
- Magnetic effect of electric current
- Sound Wave
- Heat & Thermodynamics
- Light
- Atomic and Nuclear Physics
- Scientific Instruments.
- Inventions
- Floatation
- Units & Dimensions
- Current Electricity
- Magnetism
- Elasticity
- Gravitation
- Pressure
- Motion
- The kinetic theory of matter
- Work, Energy, and Power
- Surface Tension
- Viscosity

### Chemistry

- Fertilizers
- Concepts of PH scale
- Fuels
- Atomic Structure
- Acids, Base, and Salts
- Catalyst

- Metallurgy
- Carbon and it's Compound
- Hydrocarbons
- Chemical Bonding
- Behavior of Gases
- Chemical Reactions
- Radioactivity
- Metals and Non-metals

### **Gujarat Language & Grammar**

- Grammar.
- Antonyms.
- Synonyms.
- Tenses.
- Idioms & Phrases.
- Vocabulary.
- Usage of Words.
- Comprehension.
- Fill in the Blanks.

### **Analytics And Logical Reasoning**

- Number Series.
- Blood Relations.
- Clocks & Calendars.
- Statements & Arguments.
- Analogy.
- Directions.
- Alphabet Series.
- Data Interpretation.
- Mirror Images.
- Non-Verbal Series.
- Decision Making.
- Cubes and Dice.
- Arithmetical Reasoning.
- Statements & Conclusions.
- Syllogism.
- Coding-Decoding.
- Embedded Figures.

## **DGVCL Vidyut Sahayak Syllabus For Vidyut Sahayak Junior Engineer**

### **Civil Engineering**

- Quantity Estimation
- Building Code, etc.
- Valuation
- Soil Mechanics
- Professional practice
- G.I.S.
- Structural Analysis
- Transportation Engineer 1 & 2 (Road)
- Building Planning
- Hydraulic Structure
- Town Planning

### **Electrical Engineering**

- Functions of capacitors & reactors.
- Non-conventional Energy sources like Wind, Solar, Biomass, etc.
- Distribution HT/LT Line parameters.
- Performance of line fault analysis.
- Present Power Sector scenario in India and other Electrical Engineering topics etc.
- Switchgear & protection (MC/LV) & LT Switchgear design and testing etc.
- Measurement of Electrical Power.
- Distribution Network Installation & load studies.
- Power Engineering.
- Analysis of Dist. Transformers, Meters & Testing
- Low Voltage constraint & resolving thereof.

### **IT/ Computer Engineering**

- Manageable switch/router & wireless LAN with the network security, firewall & anti-virus.
- Operating Systems – Window OS client & server & Linux OS- client & server.
- Web Services, Window Services, JSON, JQuery
- Networking with LAN/WAN
- UML and Object-Oriented designing
- Knowledge of C++, ASP.NET, ADO.NET, Java & JavaScript, PHP, MS SQL Server