Exam Pattern For Punjab DWSS Jr. Engineer:

S.No	Exam Type	Topics	Total Questions	Marks	Duration	Negative Marking
1	Objective Type	Language Proficiency (English/ Punjabi)	10	10	120 Minutes	1/4th
2		General Knowledge / Awareness	15	15		
3		Mental Ability / Aptitude/ Numerical Ability	15	15		
4		Computer Proficiency	10	10		
5		Professional (As per prescribed qualifications for job-related)	50	50		
Total			**100**	**100**		

Punjab DWSS Jr. Engineer Syllabus 2018:

General Knowledge / Awareness:

- Current Events
- History
- Geography
- Political Awareness/Polity
- Persons in News
- General information about the state of Punjab
- Economy
- Science and Technology
- Places in News
- Important Awards & Honors
- Sports

Aptitude/ Numerical Ability:

- Numbers
- Simplification
- HCF & LCM
- Percentage
- Average
- Ratio & Proportion
- Profit & Loss
- Partnership
- Time and Work
- Time and Distance
- Area and Volumes
- Trigonometry
- Probability
- Permutations & Combinations
- Reasoning Ability

- Analogy /Analogous Problems
- Classification
- Word formation
- Ranking / Arrangement
- Series
- Coding & Decoding
- Distance and Direction
- Symbol & Notation
- Scheduled Day or Date
- problem-based on Ages and Calendar
- Data Interpretation

Computer:

- MS Excel
- Computer Network
- Computer Devices
- Windows
- Microsoft Office
- Introduction to Computer and History
- MS Word
- Operating Systems
- PC and System Software
- Internet Programming Language (HTML/DHTML)
- Security Aspects of PC
- MS PowerPoint
- Various uses of Computers

English:

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

Punjab Language:

- Tenses

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

Junior Engineer Syllabus – Civil

Irrigation Engineering:

- Method of Irrigation
- Tubewell Irrigation
- Sprinkler Irrigation
- Drip Irrigation
- Waterlogging
- Design of Irrigation Canals and Irrigation Outlets
- Introduction to irrigation
- Soils and Crops
- Water requirement of Crops

Structural Analysis and Design:

- Simple stresses and strains
- Elasticity
- Hooke's Law
- Moment area theorem
- Bending and shear stresses in circular
- T and L sections
- Moduli of Elasticity and Rigidity
- The concept of bending moment and shear force

Surveying:

- Compass surveying
- Prismatic compass
- Surveyor's compass
- Meridians & bearings
- Linear measurements with a tape
- chain surveying
- perpendicular offset
- Oblique offset
- Magnetic declination leveling
- Rise & Fall method
- A height of Instrument method
- various corrections in leveling

Fluid Mechanics, and Water Supply Engineering:

- Specific weight
- Specific gravity
- Viscosity
- Vapour pressure
- Cohesion
- Adhesion
- Total pressure
- Atmospheric
- Uniform and non-uniform flow
- Discharge and continuity equation
- Bernoulli's theorem
- Surface tension
- Capillarity and compressibility
- Pressure
- The intensity of pressure
- Pascal's Law and its applications

Junior Engineer Syllabus – Mechanical

- Thermal Engineering
- Fluid Mechanics & Machinery
- Production Engineering
- Theory of Machines and Machine Design
- Engineering Mechanics and Strength of Materials