

**Government of Jammu and Kashmir**  
**J&K Services Selection Board**  
**CPO Chowk Panjthirithi, Jammu/ZamZamComplex, Rambagh, Srinagar**  
([www.jkssb.nic.in](http://www.jkssb.nic.in))

**Sub : Advance Notice for conduct of Examinations to various Posts.**

It is hereby notified for the information of candidates that the Jammu and Kashmir Services Selection Board(JKSSB) is scheduled to conduct examinations for the posts of Junior Assistant/Junior Assistant cum Computer Operator, Junior Engineer(Mechanical) and Draftsman(Civil) tentatively as per the details contained in Annexure A.

The syllabus for these posts, as already notified by the Board, is enclosed as Annexure P, Q and R.

This is an Advance Notice for the information of concerned candidates. The final dates of examination, along-with the schedule of downloading of Admit Cards shall be notified separately in due course of time.

Sd/=

**Reyaz Ahmed Malik (JKAS)**  
**Controller Of Examinations**  
**J&K, Services Selection Board**

No: JKSSB-COE0EXAM/10/2022-04-SSB

Dated: 14.08.2023

Copy to:

1. Commissioner/Secretary to the Government, General Administration Department, Civil Secretariat Srinagar.
2. Divisional Commissioner Jammu/Kashmir for information.
3. Director Information J&K, with the request to get the notice published in at least 02 leading dailies for 03 consecutive days.
4. Members (ALL).
5. Secretary J&K Services Selection Board.
6. Administrative Officer Jammu/Kashmir for information.
7. Pvt. Secretary to Chairman J&K SSB for information of the Chairman.
8. Office File.

**ANNEXURE A****Tentative calendar**

<b>Sl. No.</b>	<b>Advt. No.</b>	<b>Item No.</b>	<b>Name of Post</b>	<b>Tentative Date of Examination</b>	<b>Syllabus</b>
1	01 of 2022	001 to 017	Junior Assistant/Junior Assistant cum Computer Operator	21.09.2023	Annexure P
2	01 of 2023	005 and 006	Draftsman(Civil)	24.09.2023	Annexure Q
3	06 of 2022	202	Junior Engineer (Mechanical)	01.10.2023	Annexure R

# ANNEXURE P

## Syllabus for Written test (Objective Type)

Marks: 80

Time: 80 Minutes

### Unit I General English

**20 Marks**

- (i) Comprehension
- (ii) Editing / Proof Reading.
- (iii) Rearranging of jumbled sentences
- (iv) Narration
- (v) Modals
- (vi) Articles
- (vii) Paragraph writing with blanks to be filled in with the following
  - i. Phrases
  - ii. Pronouns
  - iii. Homonyms/Homophones etc.
- (viii) Clauses
- (ix) Punctuation
- (x) Synonyms and antonyms
- (xi) Idioms and phrases.
- (xii) Uses of Prepositions
- (xiii) Active & Passive Voice

### Unit II General Awareness with special reference to JK UT 20 Marks

- (i) Current Events of National and International importance
- (ii) Political & Physical divisions of India
- (iii) Indian Culture, Heritage and Freedom Struggle/Movement.
- (iv) Demography- Census, its feature and functions.
- (v) Important Rivers & Lakes in India.
- (vi) Weather, Climate, Crops, Means of Transport of India.
- (vii) J&K UT
  - a) History
  - b) Economy
  - c) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
  - d) Heritage & Culture
  - e) Important Tourist Destinations

### Unit III Numerical and Reasoning Ability

**20 Marks**

#### **Basic Arithmetic:**

- (i) Number System

- (ii) Percentage
- (iii) Average
- (iv) Profit & Loss
- (v) Ratio & Proportion
- (vi) Time & Work

**Reasoning:**

- (i) Number series
- (ii) Letter series
- (iii) Coding decoding
- (iv) Direction sense
- (v) Blood relations
- (vi) Mathematical reasoning
- (vii) Speed, Distance and Time
- (viii) Statements and conclusions.

**Unit IV      Basic Concepts of Computers      20 Marks**

- (ix) Fundamentals of computer sciences
- (x) Hardware & Software
- (xi) Input and output devices
- (xii) Operating system
- (xiii) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (xiv) E\_mail & Internet

## ANNEXURE Q

### Syllabus for Written test

**Marks =120**

**120 Minutes**

#### **UNIT 1**

**25 marks**

- i. Drawing is a language of technicians. Drawing office organization. Drawing instruments, equipment's materials their use, care & maintenance, safety precautions. Introduction to BIS code of practice and Architectural drawings.
- ii. Importance of lettering, printing of letters and figures sizes, proportion etc. as per BIS code.
- iii. Forms and proportions for single stroke lettering, Lettering stencils.
- iv. Geometrical drawing. Definitions, construction of plain geometrical figures. Orthographic projection, dihedral angles and recommended methods of projection according to B.I.S codes.
- v. Principles, representation and construction of different types of scales, graphic scales, recommended scales for drawing with reference to BIS codes.
- vi. Dimensioning technique, order of finishing, technical, Sketching, technique of sketching model drawing, orthographic sketching etc.
- vii. Conventional signs and symbols as per B.I. S. Bricks characteristics of good bricks, hollow bricks and manufacture of bricks.
- viii. Tiles, terracotta, stone ware and earthen ware, sand types, characteristics, cement, lime.

#### **UNIT 2**

**30 marks**

- i. Sequence of construction of a building. Names of different parts of building. Bricks masonry- principles of construction of bonds. Tools and equipment used. Scaffolding.
- ii. Stone masonry, terms used, principles of construction, classification, composite masonry and strength of walls. Timber: Structure- Indian timber uses.
- iii. Foundation: Purpose, causes of failure of foundation, bearing capacity of soils, dead and live loads, examination of ground. Types of foundation. Drawing of footing foundation, setting out of building on ground excavation, shorting & simple machine foundations.
- iv. Dampness in building and damp proof course. Method of prevention of dampness in building. Mortar-types, proportion & mixing. Plastering & pointing. White washing & distempering.
- v. Types of ground floor and methods of constructing granolithic, mosaic, brick tiles etc. floors.
- vi. Arches-technical terms forms –brick and stone centering lintel. Market forms and sizes.
- vii. Carpentry joints-terms, Classification of joints.
- viii. Door- parts of door, location, sizes, and types.



- ix. Windows and ventilators including steel window and ventilators fixtures and fastenings used in doors. Window and ventilators.
- x. Roof-Pitched roof types, roof covering, component parts of roof. Theory of trussing king and queen post trusses.
- xi. Classification and construction of upper floors including waterproofing, general Principles of construction of masonry & R. C.C
- xii. Stairs: Terms, forms, materials planning and designing of Stairs. Details of construction.
- xiii. Residential building. Principles of planning. Orientation-local building by law as including BIS code, type of residential building rooms, services, utilities which constitute as dwelling house. Estimating.
- xiv. Method and find out quantities for a single storied residential building.
- xv. Perspective view types. Method of construction, technique of colouring and shading.
- xvi. Inking & tracing, operating of Leroy set & care of its accessories. Method of preparing Blue prints or Ammonia Prints, Folding of prints.
- xvii. Safety precaution& elementary first aid, forge and fuel. Lighting fire Common had tools-their description and use. Description of plumbing operations.
- xviii. Safety precautions & elementary first aid- carpenter's hand tools, their names, description and use. Common joints. Use of nails, screws hinges, dowels etc. preparation of glue & putty, Grinding & sharpening of tools. Their care & maintenance. Use of different types of joints. Properties and uses of different timbers used in construction work.
- xix. Safety precautions and elementary first aid. Artificial respiration and treatment of electrical Shock. Elementary electricity. General idea of supply system. Wireman's tool kits. Wiring materials. Electric fittings. System of wiring. Wiring installation for domestic lighting.

### **UNIT 3**

**25 marks**

- i. Tools their description, uses and their care.
- ii. Details of different bonding wall and section according to BIS
- iii. Introduction:- Chain surveying principles, Instruments employed, use, care & maintenance. Field problems. Field book plotting. Introduction to plane table survey, Instruments employed, use, care & maintenance. Prismatic compass. Planimeter and pentagraph.
- iv. Instruments and accessories- their uses and description level book. Differential leveling. Application of chain and leveling to building construction. Plotting, preparation of contour computing earth work by spot level and contours. Setting out work.
- v. Road:-Introduction to roads, general principles of alignment . classification and construction of different types of roads.
- vi. Indian railways-their gauges, construction of permanent ways . Different ail sections. Use of stone blasts in railways track. Use and types of slippers, types of

signals, fixtures & fastening in Railway Tracks including base plates and fishplates.

- vii. Bridges: - Introduction to bridges, component parts of a bridge. Classification of culverts (I.R.C.)
- viii. Bridges– types, location of bridge. Tunnels rules used for the sizes of different members.

#### **UNIT 4**

**20 marks**

- i. Definition of terms used in irrigation.
- ii. Hydrology like duty delta, intensity of irrigation, Hydrograph, peak flow, runs off, catchments area CCA, corps like, Rabi, Kharif etc.
- iii. Storage/ diversion head works definitions:
- iv. Types of Dam –Masonry, concrete & composite Dams
- v. Gravity Dam, Arch and Buttress Dams, Earth and Rock fill dams.
- vi. Reservoir- types of Reservoirs viz. single purpose and multi-purpose, area/ capacity curves of Reservoir.
- vii. Canals- Canals, classification of canals and distribution system, canal structures viz. Head Regulators, Cross Regulators, Canal outlet, Escape etc, drawing of canal alignment including longitudinal and cross sections of canals with the given data.
- viii. Type of cross drainage Works viz. Aqueducts. Super passage, level crossing, Irrigation , culvert- Inlets and Outlets, General Description , Element of water power development and various civil engineering structure of Hydro Electric Schemes, i. e., fore bay. Penstock, Turbines, Power House etc.
- ix. Introduction–terms used in public health engineering system of sanitation-house plumbing, sanitary fitting etc. Types of supply system and purification of water.
- x. Introduction to RCC uses, materials proportions and form work, including bending of bars and construction reference to BIS code Reinforced brickwork.
- xi. Materials used for RCC, construction selection of materials coarse aggregate, fine aggregate cement – water, reinforcement, characteristics. Method of Mixing concrete- hand and machine, slump test.
- xii. Forms of rivets, proportions. Types of riveted joints.
- xiii. Design of Riveted connection, failure of riveted joints.

#### **UNIT 5**

**20 marks**

- i. Types of estimate, standard method of taking out quantity, Labour & material detailed & abstract estimate. Analysis of rates for simple items of work. Schedule of rates, specifications.
- ii.
- iii. Residential building, planning of building, local by –laws including BIS code Types of residential building rooms, service utilities which constitute a dwelling house. Building by –laws of State urban Development authorities, Improvement trust etc.

- iv. What is a Computer- General terms used in computer.
- v. Elementary DOS commands.
- vi. Window command and their uses
- vii. Auto CAD commands and use of different Icons of Auto CAD
- viii. Knowledge about different co-ordinate systems
- ix. Knowledge about 3d Drafting
- x. Knowledge about Architectural Desk top and creating modeling.

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# ANNEXURE R

## Syllabus for Written test

Marks =120

120 Minutes

### **Theory of Machines and Machine Design: 15 Marks**

Four bar linkage and link motion, Flywheels and fluctuation of energy, Power transmission by belts-V-belts and Flat belts. Gears-Type of gears, gear profile and gear ratio calculation. Cams. Governors-Principles and classification. Design of keys, shafts, Riveted joint, couplings.

### **Engineering Mechanics and Strength of Materials: 15 Marks**

Laws of forces, Equilibrium of Forces, Moment of Inertia, Laws of motion. Friction. Concept of simple machines, M A, V R, %age. Concepts of stress and strain, Elastic limit and elastic constants. Bending moments and shear force diagram. Stress in composite bars. Torsion in circular shafts. Columns: Euler's and Rankine's theories. Thin-walled pressure vessels.

### **Thermal Engineering and Refrigeration & Air-conditioning: 20 Marks**

Thermodynamics: Heat, work and temperature, First and second laws of thermodynamics. Carnot, Rankine, Otto and Diesel Cycles. P-v & P-T diagrams H<sub>2</sub>O. Saturated, wet & superheated steam. Definition of dryness fraction of steam, degree of superheat of steam. Rankine cycle of steam: Simple Rankine cycle, plot on P-V, T-S, h-s planes, Rankine cycle efficiency with & without pump work. Concept of COP, Carnot Cycle, Vapour compression cycle. Refrigerants. Psychometry, DBT, WBT, DPT.

### **Fluid Mechanics & Machinery: 15 Marks**

Properties & Classification of Fluids, Newton's law of viscosity, Fluid Statics, Measurement of Fluid Pressure by Manometers, U-tube, Inclined tube. Fluid Kinematics: Stream line, laminar & turbulent flow, external & internal flow, continuity equation. Dynamics of ideal fluids: Bernoulli's equation, Total head; Velocity head; Pressure head. Measurement of Flow rate, Basic Principles & working of Venturi meter, Pitot tube, Orifice meter. Hydraulic Turbines & Centrifugal Pumps

### **Material Science & Production Engineering: 20 Marks**

Structure of metals, Space lattice, Unit cell, BCC, FCC etc. Iron carbon diagram, Classification of Steels: mild steel & alloy steel. Heat treatment of steel. Welding – Arc Welding, Gas Welding, Resistance Welding, Special Welding Techniques i.e. TIG, MIG. Brazing & Soldering, Welding Defects & Testing. Foundry & Casting methods, defects, different casting processes. Forging, Extrusion etc. Metal

cutting principles, cutting tools. Basic Principles of machining with Lathe, Milling, Drilling, Shaping, Grinding. Machine tools & manufacturing processes.

**Metrology and Automobile Engineering:**

**15 Marks**

Tools used in Linear Measurements, Angular Measurement, Surface finish. Limits, fits & Tolerance, Error, Classification of Automobiles. Transmission, Steering, Braking, Suspension system. IC Engine Performance, IC Engine Combustion process, Cooling and Lubrication system in I.C Engine

**Industrial Management and CAD/CAM:**

**20 Marks**

Planning, Organizing, Leading, Controlling. Inventory Control, Inspection & Quality Control. Basic concepts of CAD/CAM. NC, DNC, CNC machines.

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