

**GOVERNMENT OF JAMMU AND KASHMIR
J&K SERVICES SELECTION BOARD**

Hema Complex, Sector -3, Channi Himmat, Jammu

www.jkssb.nic.in

Syllabi for the posts of various Department advertised vide Advertisement Notification Nos 04, 05, 06, 07 of 2020 and 01 and 02 of 2021

S.No	Advt No	Item No.	Department	Name of the post	Cadre of the post	Total posts	Syllabi Annexed as Annexure
1	05 of 2020	130	Public Works(R&B) Department	Junior Engineer(Civil)	UT	144	U
2	01 of 2021	1	Jal Shakti	Junior Engineer (Civil)	UT	65	
3	05 of 2020	131	Public Works(R&B) Department	Junior Engineer(Mechanical)	UT	30	V
4	05 of 2020	142	Public Works(R&B) Department	Foreman Grade I (Mechanical)	Div.Jammu	2	
5	07 of 2020	306	Agriculture Production & Farmer's Welfare	Foreman/Senior Mechanic	Div.Kashmir	1	
6	07 of 2020	307	Agriculture Production & Farmer's Welfare	Foreman/Technician	Div.Kashmir	1	
7	01 of 2021	17	Jal Shakti	Driller	Kathua	1	
8	01 of 2021	18	Jal Shakti	Driller	Udhampur	1	
9	01 of 2021	2	Jal Shakti	Draftsman (Civil)	Div.Kashmir	72	W
10	01 of 2021	3	Jal Shakti	Draftsman(Civil)	Div. Jammu	50	
11	05 of 2020	132	Public Works(R&B) Department	Draftsman(Civil)	UT	34	
12	04 of 2020	048	Culture	Junior Librarian	Div.Kashmir	24	X

13	04 of 2020	049	Culture	Junior Librarian	Div.Jammu	24	Y
14	04 of 2020	046	Culture	Librarian	Div.Kashmir	4	
15	07 of 2020	333	Skill Development	Librarian	Div. Jammu	2	
16	04 of 2020	054	Culture	Cataloguer	UT	1	
17	04 of 2020	047	Culture	Librarian	Div.Jammu	1	
18	01 of 2021	65	Horticulture	Librarian	Div. Kashmir	1	
19	01 of 2021	117	Information	Photo Librarian	Div. Jammu	1	
20	05 of 2020	151	Law, Justice and Parliamentary Affairs	Librarian	UT	1	
21	07 of 2020	317	Skill Development	Assistant Librarian	Div Kashmir	1	
22	07 of 2020	310	Skill Development	Librarian	Div Kashmir	1	
23	06 of 2020	203	Higher Education	Library Assistant	Div.Kashmir	27	
24	06 of 2020	189	Higher Education	Library Assistant	Div.Jammu	15	
25	04 of 2020	062	Culture	Library Assistant	Div.Kashmir	1	
26	04 of 2020	110	Finance	Library Assistant	UT	1	
27	07 of 2020	316	Skill Development	Library Assistant	Div Kashmir	1	
28	07 of 2020	326	Skill Development	Library Assistant	Div Jammu	1	
147	02 of 2021	408	Health & Medical Education	Library Asstt	Div.Jammu	1	

29	02 of 2021	178	Health & Medical Education	Library Assistant	Div.Jammu	3	
30	02 of 2021	223	Health & Medical Education	Library Assistant	Div.Kashmir	2	
31	04 of 2020	113	Finance	Junior Statistical Assistant	Div.Jammu	51	AD
32	04 of 2020	107	Finance	Junior Statistical Assistant	Div.Kashmir	40	
33	04 of 2020	099	Election	Election Assistant (Junior Scale)	UT	110	AE
34	02 of 2021	475	Revenue	Patwari	Baramulla	47	
35	02 of 2021	464	Revenue	Patwari	Kupwara	36	
36	02 of 2021	468	Revenue	Patwari	Shopian	17	
37	02 of 2021	471	Revenue	Patwari	Bandipora	16	
38	02 of 2021	458	Revenue	Patwari	Anantnag	15	
39	02 of 2021	455	Revenue	Patwari	Pulwama	11	
40	04 of 2020	106	Finance	Accounts Assistant	UT	972	
41	06 of 2020	231	Home	Laboratory Assistant	UT	19	AT
			Grand Total			1848	

ANNEXURE "U"

Syllabus for Written test

Marks =120

120 Minutes

1. Surveying: **10 Marks**

Importance of surveying, principles and classifications, measurements of distance and directions, chain surveying, compass surveying, leveling, tachometry, theodolite, traversing, contouring, plane table surveying, curves.

2. Mechanics and Structural analysis: **15 Marks**

Introduction, Concept of rigid body scalar and vector quantities, Laws of force, moment, friction, Centre of gravity, simple machines, torsion, Properties of material, Bending moment and shear force in statically determinate beams. Simple stress and strain relationship. Stress and strain in two dimensions, principal stresses, stress transformation. Simple bending theory, flexural and shear stresses, unsymmetrical bending, shear Centre. Thin-walled pressure vessels, uniform torsion, buckling of column, combined and direct bending stresses. slope and deflection, Analysis of trusses

3. RCC Structures: **15 Marks**

Concrete technology, Ingredients of concrete, water cement ratio, workability properties of concrete, admixtures, special concretes, Nondestructive tests, basics of mix design. Concrete design-basic working stress and limit state design concepts, analysis of ultimate load capacity and design of members subjected to flexure, shear, compression and torsion by limit state methods. Basic elements of pre-stressed concrete, analysis of beam sections at transfer and service loads, one-way slab, two-way slab.

4. Soil Mechanics: **10 Marks**

Origin of soils, properties, soil classification, three phase system, fundamental definitions, relationship and interrelationship, flow of water through soils, permeability & seepage, effective stress principle, deformation of soils, consolidation, compaction, shear strength characteristics, plate load test, SPT, Density control, Measurement of field density by core cutter and sand replacement method, soil exploration, bearing capacity and its methods

5. Fluid Mechanics and Hydraulics: **15 Marks**

Properties of fluids, hydrostatic pressure, measurement of pressure, flow measurements, flow through pipes, flow through open channels, hydraulic pumps, principle of conservation of mass, momentum, energy and corresponding equations, potential flow, applications of momentum and Bernoulli's equation, laminar and turbulent flow, flow in pipes, pipe networks. Concept of boundary layer and its growth. Uniform flow, critical flow and gradually varied flow in channels, specific energy concept, hydraulic jump Forces on immersed bodies, flow measurements in channels, tanks and pipes. Dimensional analysis and hydraulic modeling Kinematics of flow.

6. Irrigation Engineering: 10 Marks

Introduction, water requirement of crops, hydrological cycle, Dams, Canals, dams, canal head works and regulatory works, cross drainage works, hydraulic structures, river training works, water-logging, drainage, ground water recharge, well hydraulics.

7. Water supply and waste water Engineering: 10 Marks

Introduction, quantity of water, quality of water, water treatment, conveyance of water, laying out of pipes, building water supply, water supply fixtures and installation, plumbing, sewerage system, laying and construction of sewers, sewage characteristics, Methods of disposal, sewage treatment, building drainage, air and noise pollution

8. Highway Engineering: 10 Marks

History of development of highway and planning, Definitions of various terms used in highway engineering., Methods of road construction, IRC classification, Highway surveys and plans Geometric design, Different types of road materials in use, Binders, Types of pavement, CBR method, sub grade preparation, WBM, WMM, Bituminous Macadam, dense bituminous macadam, special problems in hill road.

9. Railway Engineering: 10 Marks

History of Indian railways, Gauges used, permanent way its components, Types of rails, creep, welding, Rail fixtures and fastenings, Signaling, Points and Crossings, Bridge terminology, classification, components, foundations.

10. Construction planning management: 15 Marks

Network diagrams, PERT-CPM, cost optimization contracts, tenders, depreciation, valuation, organization, measurement books, cash book, functions of management, construction planning, quality control, inventory control, Estimation and costing definitions, methods of estimation and type of estimates.

ANNEXURE "V"

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 H₂O. 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.

ANNEXURE "W"
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.

Annexure "X"

Syllabus for Written

Total Marks=120

Time=02 Hours

UNIT I

20 Marks

- (i) Types of Libraries and their Features
- (ii) Role of Libraries in contemporary Society
- (iii) Five Laws of Library Sciences
- (iv) Library legislations in India
- (v) Digital Library
- (vi) Intellectual Property Rights (IPR)
- (vii) National and International Library Associations: ILA, IASLIC, IATLIS, IFLA, FID ALA, ASLIB etc
- (viii) National and intercalation Agencies: UNESCO, OCLC, PRRLF, UGC, INFLIBNET, DELNET etc
- (ix) Information Centres, DRTC, ISI, INSDOC (NISCAIR), NASSDOC, DESIDOC, SENDOC, etc

Unit-II

Marks 20

- (i) Basic Terminology: call Number, Class Number, Book Number, Isolates
- (ii) Classification; concept & purpose.
- (iii) Types and characteristics of classification scheme.
- (iv) ISBD, ISBN, ISSN; classification schemes.
- (v) Features of DDC, UDC, and CC
- (vi) Five Fundamental Categories
- (vii) Notation: Definition and Purpose
- (viii) Library Catalogue; Definition and purpose
- (ix) Cannons of Classification and Cataloguing

Unit-III

Marks 20

- (i) Principles of Book Selection
- (ii) Selection Tool; Print and Non-Print Materials
- (iii) Processing of Documents; Accessioning, Classification, Cataloguing, labelling and shelving
- (iv) Difference between catalogue, Accession Register, bibliography and Shelf list.
- (v) Serials/ Journals; Selection and procurement
- (vi) Book Transaction System: Traditional and Modern
- (vii) Stock verification of Books; Methods and Tools
- (viii) Weeding Process

Unit-IV

Marks 20

- (i) Information sources: Definition, types and importance;
- (ii) Information sources- Primary, Secondary and Tertiary.
- (iii) Information Services: Definition and need of reference, documentation and information services.
- (iv) Types of Dictionaries, Encyclopaedias
- (v) Geographical and Biographical Sources
- (vi) Indexing and Abstracting Sources
- (vii) Types of Bibliographies
- (viii) Bibliographies Sources

Unit-V

Marks 20

- (i) Types of Reference service, Ready reference service, Long Rang Reference Service
- (ii) Reference Librarian: Role Skills and Competences
- (iii) User Education/ Information Literacy Skills
- (iv) CAS/SDI
- (v) International Information System; INIS, AGRIS, MEDLARS/MEDLINE, INSPEC
- (vi) Information Seeking Pattern

Unit-VI

Marks 20

- (i) Study of Computer including concept of Hardware.
- (ii) Library Automation Need and Purpose.
- (iii) Need for computer applications, Areas of computer applications. Automation in library Management. Software Packages for Library Management-Essential features
- (iv) Computer and its Units, Computer and its classification.
- (v) Study of Various operating systems.
- (vi) General-purpose application software: Word Processing such as MS-office, lotus.
- (vii) Special Purpose application software: CDS/ISIS.
- (viii) Library Networking: Needs & Purpose.
- (ix) OPAC AND Web-OPAC.

Annexure "Y"

Syllabus for Written Test

Total Marks=120

Time=02 Hours

UNIT I

20 Marks

- (i) Tenses
- (ii) Rearranging of jumbled sentences.
- (iii) Narration
- (iv) Models
- (v) Articles
- (vi) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Idioms and phrases.
- (xi) Uses of Prepositions.
- (xii) Active & Passive Voice

UNIT II

20 Marks

- (x) Types of Libraries and their Features
- (xi) Role of Libraries in contemporary Society
- (xii) Five Laws of Library Sciences
- (xiii) Library legislations in India
- (xiv) Digital Library
- (xv) Intellectual Property Rights (IPR)
- (xvi) National and International Library Associations: ILA, IASLIC, IATLIS, IFLA, FID ALA, ASLIB etc
- (xvii) National and intercalation Agencies: UNESCO, OCLC, PRRLF, UGC, INFLIBNET, DELNET etc
- (xviii) Information Centres, DRTC, ISI, INSDOC (NISCAIR), NASSDOC, DESIDOC, SENDOC, etc

Unit-III

20 Marks

- (x) Basic Terminology: call Number, Class Number, Book Number, Isolates
- (xi) Classification; concept & purpose.
- (xii) Types and characteristics of classification scheme.
- (xiii) ISBD, ISBN, ISSN; classification schemes.
- (xiv) Features of DDC, UDC, and CC
- (xv) Five Fundamental Categories
- (xvi) Notation: Definition and Purpose
- (xvii) Library Catalogue; Definition and purpose

(xviii) Cannons of Classification and Cataloguing

Unit-IV

20 Marks

- (ix) Principles of Book Selection
- (x) Selection Tool; Print and Non-Print Materials
- (xi) Processing of Documents; Accessioning, Classification, Cataloguing, labelling and shelving
- (xii) Difference between catalogue, Accession Register, bibliography and Shelf list.
- (xiii) Serials/ Journals; Selection and procurement
- (xiv) Book Transaction System: Traditional and Modern
- (xv) Stock verification of Books; Methods and Tools
- (xvi) Weeding Process

Unit-V

20 Marks

- (ix) Information sources: Definition, types and importance;
- (x) Information sources- Primary, Secondary and Tertiary.
- (xi) Information Services: Definition and need of reference, documentation and information services.
- (xii) Types of Dictionaries, Encyclopaedias
- (xiii) Geographical and Biographical Sources
- (xiv) Indexing and Abstracting Sources
- (xv) Types of Bibliographies
- (xvi) Bibliographies Sources

Unit-VI

20 Marks

- (i) Types of Reference service, Ready reference service, Long Rang Reference Service
- (ii) Reference Librarian: Role Skills and Competences
- (iii) User Education/ Information Literacy Skills
- (iv) CAS/SDI
- (v) International Information System; INIS, AGRIS, MEDLARS/MEDLINE, INSPEC
- (vi) Information Seeking Pattern

Annexure "Z"

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

- (i) Fundamentals of computer sciences
- (ii) Hardware & Software
- (iii) Input and output devices
- (iv) Operating system
- (v) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (vi) E_mail & Internet

Annexure "AA"

Syllabus for Written Test (Objective Type)

Marks: 60

Time: 60 Minutes

S. No.	Subjects/ Topic	Marks assigned
1	GENERAL AWARENESS with Special reference to J&K UT	20
2	GENERAL ENGLISH & COMPREHENSION	20
3	GENERAL INTELLIGENCE & REASONING	10
4	COMPUTER APPLICATIONS	10
TOTAL		60

1. GENERAL AWARENESS with special reference of J&K UT.

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

2. GENERAL ENGLISH & COMPREHENSION

- (i) Tenses
- (ii) Narration
- (iii) Modals
- (iv) Articles
- (v) Reading Comprehension
- (vi) Fill in the blanks with Phrases, Pronouns, homonyms/ homophones etc
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Rearranging of jumbled sentences.
- (xi) Idioms and phrases.
- (xii) Uses of Prepositions.
- (xiii) Active & Passive Voice
- (xiv) Error Spotting
- (xv) Sentence Correction
- (xvi) Spellings Correction

3. GENERAL INTELLIGENCE & REASONING

- (i) Number series, Letter series, Semantic Series, Speed, Distance and Time, Statements and conclusions, Logical Reasoning, Mental Reasoning, Word Building, Numerical Operations, Semantic Analogy, Symbolic/ Number Analogy, Figural Analogy, Semantic Classification, Symbolic/ Number Classification, Figural Classification, Problem Solving.
- (ii) Symbolic Operations, Trends, Space Orientation, Space Visualization, Venn Diagrams, Drawing inferences, Punched hole/ pattern- folding & un-folding, Figural Pattern- folding and completion, Indexing, Address matching, Date & city matching, Classification of centre codes/roll numbers, Small & Capital letters.

4. COMPUTER APPLICATIONS

- (i) Basic Applications of Computer and its component.
- (ii) Fundamentals of computer sciences.
- (iii) Hardware & Software, Concept of Open-Source Technologies.
- (iv) Input & output Devices.
- (v) Knowledge of MS Word, MS Excel, MS Access, MS PowerPoint, PDF Internet and E-mail.
- (vi) Concept of Computer Virus and Latest Anti-Virus.
- (vii) Terms and Abbreviation used in IT.
- (viii) Role of Information Technology in Governance

Annexure "AB"

Subject: Syllabus for Written Test.

Marks =120

120 Minutes

Constitutional Law:

15 Marks

- (i) Salient features of Indian Constitution.
- (ii) Parliamentary form of Government.
- (iii) President of India- Election, Qualifications, Impeachment, Position, Powers and Privileges.
- (iv) Cabinet System, Collective Responsibility-Individual responsibility, President-Prime Minister relationship
- (v) Distribution of Legislative Powers (Art. 245, 246 & 254)
- (vi) Failure of Constitutional Machinery (Art. 356)
- (vii) Constitutional Amendments – Methods and limitation (Art. 368)
- (viii) Freedom of Trade and Commerce
- (ix) Regulatory and Compensatory measures (Articles 301-304).
- (x) Articles 141 and 143.
- (xi) Appointment and impeachment of the Judges of the High Courts and Supreme Court.
- (xii) Services under the Constitution- Doctrine of Pleasure (Art. 310), Restrictions (Art. 311)
- (xiii) Fundamental Rights (Articles 14-16, 19-22 and 25-30).
- (xiv) Constitutional remedies. Writ Jurisdiction
- (xv) Scope of Article 32
- (xvi) Scope of Article 226
- (xvii) Directive Principles of State Policy; Relationship between Directive Principles and Fundamental Rights.
- (xviii) Emergency Provisions: Arts 352 to 354, 358 and 359.

Administrative Law:

10 Marks

- (i) Classification of Administrative Action:
- (ii) Definition of administrative actions.
- (iii) Need for classification
- (iv) Identification of legislative action
- (v) Identification of quasi-judicial and administrative actions. Legislative powers of administration.
- (vi) Necessity for delegation of legislative powers and its constitutional validity.
- (vii) Principles of Natural Justice:
- (viii) No man shall be judge in his own cause.
- (ix) No man shall be condemned unheard.
- (x) Administrative Discretion
- (xi) Need for Administrative Discretion

- (xii) Administrative Discretion and rule of law
- (xiii) Need for safeguards.
- (xiv) Doctrine of Excessive Delegation of Discretion
- (xv) Constitutionality of discretionary powers
- (xvi) Administrative discrimination and arbitrariness
- (xvii) De tournament De preuvoir
- (xviii) Malafide exercise of discretion Improper purpose
- (xix) Irrelevant considerations Unreasonableness
- (xx) Non-exercise of discretionary powers
- (xxi) Liability of the Government
- (xxii) Statutory- immunity
- (xxiii) Act of State
- (xxiv) Contractual liability of Government
- (xxv) Government privileges in legal proceedings
- (xxvi) Public accountability
- (xxvii) Ombudsman

Muslim Law:

05 Marks

- (i) Sources and Schools of Muslim Law.
- (ii) Nature, scope, validity and classification of marriage under Muslim Law
- (iii) Polygamy, Divorce and matrimonial remedies under Muslim Law
- (iv) Dissolution of Muslim Marriage Act, 1939.
- (v) Maintenance under section 125 of the Code of Criminal Procedure, 1973.
- (vi) Maintenance under Muslim Women (Protection of Rights on Divorce) Act, 1986

Hindu Law:

05 Marks

- (i) Nature, concept and essential conditions of Hindu Marriage.
- (ii) Grounds of divorce and divorce by mutual consent under Hindu Law
- (iii) Matrimonial remedies under Hindu Law:
- (iv) Nullity of marriage
- (v) Restitution of conjugal rights
- (vi) Judicial separation
- (vii) Dissolution of marriage
- (viii) Joint family and coparcenary under Mitakshara law
- (ix) Karta-his powers, privileges and obligations.
- (x) Adoption and Guardianship.

Law of Contract

15 Marks

- (i) Agreement and contract – Definitions, elements and kinds.
- (ii) Proposal and acceptance: their various forms, essential elements, communications and revocation.
- (iii) Intention to create legal relationship.

- (iv) Consideration: its need, meaning, kinds, essential elements-privy of contract, promissory estoppel, exceptions to consideration; adequacy of consideration; present, past and executory consideration; unlawful consideration and its effects; views of Law Commission of India on consideration; evaluation of the doctrine of consideration.
- (v) Capacity to contract: meaning, definition of minor, necessities supplied to a minor, agreements beneficial and detrimental to a minor affirmation-restitution in cases of minor's agreement-fraud by minor- agreements made on behalf of a minor's agreement and tested-evaluation of the law relating to minor's agreement.
- (vi) Quasi-contracts of certain relations resembling those created by contracts
- (vii) Damages: kinds- Remoteness of damages- ascertainment of damages.
- (viii) Specific performance of contracts.
- (ix) Contract that can be specifically enforced.
- (x) Rescission and cancellation.
- (xi) Injunction.
- (xii) Indemnity: Definition, nature and extent of liability of the indemnifier, commencement of liability of the indemnifier.
- (xiii) Guarantee: Definition, basic essentials for a valid guarantee contract, Nature and extent of surety's liability, discharge of surety's liability.
- (xiv) Bailment: Definition, kinds of bailees, duties of bailor and bailee towards each other, rights of bailor and bailee, finder of goods as a bailee.
- (xv) Agency: Kinds of agents and agencies; Distinction between agent and servant; Essentials of agency transaction; Various methods of creation of agency; delegation.
- (xvi) Sale of Goods: Concept of sale as a contract; Essentials of a contract of sale; Implied terms in contract of sale; Rule of Caveat Emptor and the exceptions thereto; Changing concept of Caveat Emptor; Unpaid seller and his rights.

Company Law

10 Marks

- (i) Concept of registration and incorporation; Memorandum of Association, Doctrine of ultra vires; Articles of Association; Doctrine of constructive notice and indoor management; Prospectus-statement in lieu of prospectus;
- (ii) Promoters- position, duties and liabilities;
- (iii) Directors- position, appointment, qualifications, vacation of office, removal, resignation, powers and duties of directors; meeting registers, loans, remuneration of directors, role of nominee directors- compensation for loss of office- managing directors- compensation for loss of office-managing directors and other managerial personnel;
- (iv) Meetings- kinds- procedure- voting;
- (v) Debentures- meaning- fixed and floating charge- kinds of debentures- shareholder and debenture holder- remedies of debenture holders.
- (vi) Protection of minority rights.
- (vii) Winding up- types- by court- reasonable- grounds- who can apply- power of court-consequences of winding up order- voluntary winding up by members and creditors- winding up subject to supervision of courts- liability

of past members- payment of liabilities- preferential payment, unclaimed dividends, winding up of unregistered company.

Labour Laws

10 Marks

- (i) Definition of Trade Union and the right to form the Trade Union.
- (ii) Legal Control and Protection of Trade Union: Registration, amalgamation, rights, immunities, liabilities and dissolution. Trade Union Funds.
- (iii) Collective bargaining.
- (iv) Strikes, lock-outs, lay off and retrenchment. Transfer and closure.
- (v) Unfair Labour practices.
- (vi) Disciplinary proceedings.
- (vii) Labour welfare: concept, classification and importance.
- (viii) Obligations of employer for health, safety and welfare.
- (ix) Working hours of adults and Annual Leave with wages.
- (x) Employment of young persons: prohibition of employment of children, regulation of employment of young persons.
- (xi) Concept of minimum wage, fair wage, living wage and need based minimum wage.
- (xii) Procedure for fixation and revision of minimum wages.
- (xiii) Components of wages: dearness allowance, principle of fixation.
- (xiv) Definition of wage under Payment of Wages Act, 1936 and responsibility for payment of wages.
- (xv) Concept of employer, workmen, dependent, disablement.
- (xvi) Workmen's compensation: employer's liability for compensation, amount and distribution of compensation.
- (xvii) Employee's State Insurance: benefits, ESI fund and contribution.

Criminal Law

10 Marks

Indian Penal Code: General defences (Sections 76-106); Group liability (Sections 34 & 149); Unlawful Assembly, Rioting and Affray; Abetment; Criminal Conspiracy; Criminal Attempt; Offences against body (Sections 299-304, 319-326, 339-343, 349-353 and 359-363); Offences against property (Sections 378, 379, 383, 384, 390-392, 395, 405, 415-417, 425 and 426).

Jurisprudence

10 Marks

Meaning and scope of Jurisprudence; Nature and definition of "Law"; Schools of Law (Analytical positivism, Natural Law, Historical School and Sociological School); Sources of Law (Legislation, precedents, customs and juristic writings); Rights and duties- concept and co-relationship); Concept of person, Ownership and Possession.

International Law And Human Rights

20 Marks

- (i) Origin, Development, Definition, Nature and Theories of International Law; Its relation with Municipal Law.
- (ii) Sources of International Law, Custom. Treaties. General Principles of Law and writings.
- (iii) Subjects of International Law: State including Recognition of States; Individuals and peoples; International Organizations.
- (iv) Jurisdiction of States: Territorial, Personal and Universal.
- (v) Extradition and Asylum.
- (vi) Law of State Responsibility.
- (vii) Peaceful Settlement of Disputes including settlement by ICJ.
- (viii) Use of Forces under International Law.
- (ix) Human Rights: Origin, development and nature of Human Rights; International Bill of Human Rights; Regional Systems of Human Rights Law; Protection of Human Rights Act and International Humanitarian Law.

Environmental Law

10 Marks

- (i) Environmental Pollution: Meaning and issues.
- (ii) Constitutional provisions-Art. 14, 19(1)(g), 21, 48A & 51A, right to wholesome environment-evolution and application. PIL and protection of Environment.
- (iii) Water and Air Pollution Control Acts:
- (iv) Standards, CPCB and SPCB, Consent Mechanism, Control Areas and Restraint Orders
- (v) Citizen Suit and Access to Environmental Information
- (vi) Corporate and Governmental Liability for Environmental Offences
- (vii) Environmental Protection Act, 1986 and other environmental legislations
- International Environmental Law and Norms:
- (viii) Stockholm Declaration, Global Warming and Ozone Conventions
- (ix) Sustainable development, Public Trust Doctrine
- (x) Precautionary Principle, Polluter Pays Principle
- (xi) Local Environmental Laws and Problems in J&K:
- (xii) Forest Act, 1930, J&K Wildlife Protection Act, JEK Forest (Conservation) Act (Summary of the provisions with special emphasis on Forest Dwellers and Forests, medicinal plants and related traditional knowledge)
- (xiii) Protection of Biodiversity in J&K- Local Laws and Central Acts- Forest (Protection) Force Act
- (xiv) Preservation and protection of lakes and waterways in J&K- Existing related laws and future needs.

Annexure "AC"

Syllabus for written test

Marks: 120

Hrs.

Time: 02.00

GENERAL ENGLISH

20 Marks

- (i) Tenses
- (ii) Rearranging of jumbled sentences.
- (iii) Narration
- (iv) Models
- (v) Articles
- (vi) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Idioms and phrases.
- (xi) Uses of Prepositions.
- (xii) Active & Passive Voice

GENERAL KNOWLEDGE AND CURRENT AFFAIRS

20 Marks

- (i) Indian History with special reference to Freedom struggle
- (ii) First in world (Adventure, Sports, Discoveries)
- (iii) First in India (Adventure, Sports, Discoveries)
- (iv) Popular Personalities (Politics, Scientific discoveries, Geographical, Sports, History)
- (v) The Newspaper world – (Current Dailies & Weeklies of India)
- (vi) Languages & Culture
- (vii) International Organisations- UNO, WHO, WTO, IMF, UNESCO, UNCTAD etc.
- (viii) Important Regional Organizations and Blocs- BRICS, OPEC, ASEAN, SAARC, BIMSTEC, G-20, G-7 etc.
- (ix) Sustainable Development Goals
- (x) Communicable Diseases- cure and prevention
- (xi) NCDC- COVID-19 - SOPs, Advisories, Guidelines etc
- (xii) World famous Awards
- (xiii) The world of Sports

- (xiv) Climate & Crops in India
- (xv) Political & Physical divisions of world & India
- (xvi) Important Rivers & Lakes in India
- (xvii) Current Events of National and International importance
- (xviii) Agriculture in economic development; Industrialization and economic development.
- (xix) Foreign Trade & Balance of payments
- (xx) New economic reforms
- (xxi) Inflation, Monetary Policy, Fiscal Policy, Capital Markets, Role of RBI, Taxation in India- Direct & Indirect Tax - CBDT, GST etc.
- (xxii) India's Atomic Research Programme,
- (xxiii) Thermal / Nuclear/ Hydro Power Plants in India.

GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO UT of J&K **20 Marks**

- (i) Popular names of personalities and their achievements/ Contribution (National and International).
- (ii) Weather, Climate, Crops, Means of Transport.
- (iii) J&K History, Economy and Culture
- (iv) Flora and Fauna of J&K
- (v) Rivers and Lakes.
- (vi) Important Tourist Destinations.
- (vii) J&K Panchayati Raj Act, 1989 (as amended upto December, 2020), 73rd & 74th Constitutional amendments.
- (viii) J&K Reorganisation Act, 2019

GENERAL SCIENCE **20**
Marks

- (i) Various sources of energy; conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy)
- (ii) Non-conventional sources of energy (Solar energy, Tidal energy).
- (iii) Mechanics, Rest, motion, Velocities, acceleration, Newton Laws of motion,
- (iv) Voltage, Current, Resistance, Power, D.C Batteries
- (v) Waves, light as a wave, Sound waves, Transverse and longitudinal waves.
- (vi) Structure of Atom
- (vii) Solids, Liquids and Gases(Basics)
- (viii) Life processes: Nutrition and its types, Respiration, Transportation of water, food and minerals in plants.
- (ix) Vitamins- Diseases related to vitamin deficiency.

- (x) Environmental pollution.
- (xi) Ecosystem – Its components, Food chains and Food webs.
- (xii) Ozone layer, its depletion, Green House Effect.
- (xiii) Importance of water in life

MENTAL ABILITY TEST

20 Marks

- (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.
- (ix) Logical Reasoning.
- (x) Mental Reasoning.

COMPUTER APPLICATIONS

20 Marks

- (i) Fundamentals of computer sciences
- (ii) Hardware & Software
- (iii) Input and output devices
- (iv) Operating system
- (v) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (vi) E_mail & Internet

Annexure "AD"

Syllabus for Written test

Marks:-120

Time: - 2.00

Hours

GENERAL KNOWLEDGE AND CURRENT AFFAIRS

15 MARKS

- (i) Indian History with special reference to Freedom struggle
- (ii) Languages & Culture
- (iii) International Organisations- UNO, WHO, WTO, IMF, UNESCO, UNCTAD etc.
- (iv) Important Regional Organizations and Blocs- BRICS, OPEC, ASEAN, SAARC, BIMSTEC, G-20, G-7 etc.
- (v) Sustainable Development Goals
- (vi) Communicable Diseases- cure and prevention
- (vii) NCDC- COVID-19 - SOPs, Advisories, Guidelines etc
- (viii) World famous Awards
- (ix) The world of Sports
- (x) Climate & Crops in India
- (xi) Political & Physical divisions of world & India
- (xii) Important Rivers & Lakes in India
- (xiii) Current Events of National and International importance

GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO UT of J&K

10

Marks

- (i) Popular names of personalities and their achievements/ Contribution (National and International).
- (ii) Weather, Climate, Crops, Means of Transport.
- (iii) J&K History, Economy and Culture
- (iv) Flora and Fauna of J&K
- (v) Rivers and Lakes.
- (vi) Important Tourist Destinations.
- (vii) J&K Panchayati Raj Act, 1989 (as amended upto December, 2020), 73rd & 74th Constitutional amendments.
- (viii) J&K Reorganisation Act, 2019

STATISTICAL METHODS & APPLIED STATISTICS

25 MARKS

- (i) Primary and secondary data.
- (ii) Methods of collecting Primary and Secondary Data
- (iii) Preparation of questionnaires
- (iv) Tabulation and compilation of Data
- (v) Measures of central Tendency
- (vi) Theory of Probability
- (vii) Correlation and regression- Concept and simple applications.
- (viii) Theory of Attributes- Basic concepts and their applications.

- (ix) Theory of Index Numbers: Tests of Index numbers- Wholesale and consumer price Index numbers.
- (x) Demography-Census, its features and functions.
- (xi) Vital Statistics- Measures of fertility, Crude fertility rates, specific fertility rates, gross and net reproduction rates., Measures of Mortality
- (xii) Interpolation & Extrapolation.

GENERAL ECONOMICS

25 MARKS

- (i) Meaning and scope of Economics; Methodology of Economic Analysis.
- (ii) Utility, Supply, Demand and Elasticity of Demand, Commodity Value, Market.
- (iii) Theory of Consumer Demand and Demand Analysis.
- (iv) Factors of Production and Laws of Production.
- (v) Pricing and Market Structures.
- (vi) Production Theory and Costs.
- (vii) Concept of Economic Growth of Development; Theories of Growth of Development.
- (viii) Determination of National Income.
- (ix) Public Finance; Revenue, Public Expenditure, Public Debt, Deficit Financing.
- (x) Foreign Trade & Balance of payments.
- (xi) Money & Inflation.
- (xii) Banking and Monetary Policy.
- (xiii) Money & Capital Markets.
- (xiv) Agriculture & economic development; Industrialization and economic development.
- (xv) Planning versus Market Economy.
- (xvi) Green Revolution in India, Poverty/ Unemployment, Role of Agriculture.
- (xvii) Economic Reforms in India.

COMPUTER APPLICATIONS

15 MARKS

- (i) Fundamentals of computer sciences,
- (ii) Hardware & Software, Concept of Open Source Technologies
- (iii) Input & Output Devices,
- (iv) Flow Charts and Algorithms
- (v) Operating System:- MS Word, MS Excel, MS Access, MS Power-Pont ,PDF
- (vi) Internet & E-mail
- (vii) Concept of Computer Virus & latest Anti-Virus.
- (viii) Data Communication and Networking
- (ix) Introduction to Database Management

INFORMATION TECHNOLOGY

15

MARKS

- (i) Information concept & Processing
- (ii) Computer Appreciation

- (iii) Elements of Computers Processing System Hardware CPU, Peripherals, Storage Media, Software Definition, Role and Categories Firmware and Human-ware.
- (iv) Computer & Communication.
- (v) Programming Language Classification
- (vi) Information Technology Applications of India
- (vii) Representation of Information.
- (viii) Basic Electronics- Semiconductor Diodes, Operational Amplifiers, Bipolar Junction Transistor etc

MATHEMATICS

15 MARKS

- (i) Set Theory - Basic Concepts & Applications.
- (ii) Matrices & Determinants, Simultaneous Linear Equations- Cramer's Rule.
- (iii) Analytical Geometry.
- (iv) Differentiation- Basic Concepts (Addition, Product & Chain Rule)
- (v) Integration-Reduction & Substitution Method.
- (vi) Differential Equations.

ANNEXURE "AE"

Syllabus for Written test

Marks: 150

Time: 02:30 Hours

Note:

- (i) Part "I" will comprise of Multiple Choice Objective Type Questions.
- (ii) Part "II" (Urdu portion) will be of descriptive nature.
- (iii) Both the parts viz Part "I" and part "II" will be compulsory
- (iv) The candidates competing for Open Merit posts will be required to score at least 40% marks and candidates belonging to other categories (except OM) are required to score at least 35% marks with at least 33% in each part.
- (v) There will be negative marking (0.25 per question per wrong answer) in Part 'I'.

PART I (100 marks)

General Knowledge & Current Affairs

30 Marks

- (i) Current Events of National and International importance
- (ii) Science & Technology.
- (iii) Environment, Ecology & Bio-diversity
- (iv) Indian National Movement.
- (v) Political & Physical divisions of world & India
- (vi) Indian Economy.
- (vii) Indian Culture & Heritage.
- (viii) Climate & Crops in India
- (ix) Transport & Communication.
- (x) Demography
- (xi) Important Rivers & Lakes in India.

UNIT-II GENERAL KNOWLEDGE with special reference to J&K UT

20 Marks

- (i) History, Economy, and Culture of J&K UT.
- (ii) Geography -Weather, Climate, Crops, Soils
- (iii) Means of Transport.
- (iv) Flora and Fauna of J&K
- (v) Rivers and Lakes.
- (vi) Important Tourist Destinations
- (vii) J&K Reorganisation Act, 2019

GENERAL ENGLISH**20 Marks**

- (i) Tenses
- (ii) Rearranging of jumbled sentences.
- (iii) Narration
- (iv) Models
- (v) Articles
- (vi) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Idioms and phrases.
- (xi) Uses of Prepositions.
- (xii) Active & Passive Voice

Knowledge of Computers**15 Marks**

- (i) Introduction and Objectives.
- (ii) Basic Applications of Computer and its component.
- (iii) Fundamentals of computer sciences.
- (iv) Hardware & Software, Concept of Open Source Technologies.
- (v) Input & output Devices.
- (vi) Knowledge of MS Word, MS Excel, MS Access, MS Powerpoint, PDF Internet and E-mail.
- (vii) Concept of Computer Virus and Anti-Virus.

Mental Ability & Reasoning**15 Marks**

- (i) Number series.
- (ii) Letter series.
- (iii) Coding decoding.
- (iv) Direction sense.
- (v) Blood relations.
- (vi) Statements and conclusions.
- (vii) Logical Reasoning.
- (viii) Mental Reasoning.

PART II (50 marks)**Guidelines for checking working knowledge of Urdu**

The exam intends to check the “*working knowledge of Urdu*” of the candidates. The same will be tested through a Reading and a Writing test (total comprising of 50 marks in a duration of 60 Minutes), to be conducted on the same day. The candidates belonging to ‘OM’ Category will be required to score at least 40% marks(overall) in the said exam with at least 33% marks in both Reading and Writing sections to be considered as having ‘*working knowledge of Urdu*’ for the purpose of this exam/qualified. The candidates belonging to other categories (except OM) are required to score at least 35% marks (overall) with at least 33% in each Section.

Reading Section -20 Marks

Candidates would be required to answer questions each carrying one mark each out of given passages.

Writing Section – 30 Marks

Letter writing of minimum 100 words on a particular situation.	10 marks
One English passage to be translated into Urdu or Vice Versa.	10 marks
One Essay of about 100 words on any topic of social relevance.	10 marks

ANNEXURE "AF"

Syllabus for Written test

Marks =120

120 Minutes

Subject: Syllabus for Written test (Objective Type) for the post of Accounts Assistant (Finance).

Marks: 120

Time: 02:00 Hours

General Knowledge with special reference to J&K UT **30 Marks**

- (xii) Current Events of National and International importance
- (xiii) Political & Physical divisions of world & India
- (xiv) Indian Culture, Heritage and Freedom Struggle/Movement.
- (xv) Transport & Communication.
- (xvi) Demography- Census, its feature and functions.
- (xvii) Important Rivers & Lakes in India.
- (xviii) Weather, Climate, Crops, Means of Transport of India.
- (xix) Environment, Ecology & Bio-diversity.
- (xx) J&K UT
 - k) History
 - l) Economy
 - m) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
 - n) Heritage & Culture
 - o) Important Tourist Destinations
- (xxi) J&K Reorganisation Act, 2019.

Accountancy and Book Keeping **30 Marks**

- (i) Introduction to Financial Accounting and its terms.
- (ii) Accounting equation and Journal.
- (iii) Voucher Approach in Accounting.
- (iv) Bank Reconciliation Statement.
- (v) Financial Management/Statements.
- (vi) Partnership Accounts.
- (vii) Ledger Accounts.
- (viii) Cash Book, Financial Audit.
- (ix) Elements of Double entry Book Keeping.
- (x) Trial Balance.
- (xi) Trading Account.
- (xii) Profit Loss Account and Balance Sheet.

- (xiii) Concept of Social Accounting, Social Audit and cash based single entry system of accounting.
- (xiv) Public Financial Management System (PFMS).
- (xv) Indian Financial Management System.
- (xvi) Taxation, Tax Laws- Direct , Indirect
- (xvii) Cost Management-Budgetary control
- (xviii) Cost Accounting
- (xix) Developments in Accounting

GENERAL ENGLISH
10 Marks

- (vi) Tenses
- (vii) Rearranging of jumbled sentences.
- (viii) Narration
- (ix) Modals
- (x) Articles
- (xi) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (xii) Clauses
- (xiii) Synonyms and antonyms
- (xiv) Pairs of words and their use in meaningful sentences.
- (xv) Idioms and phrases.
- (xvi) Uses of Prepositions.
- (xvii) Active & Passive Voice

Statistics
10 Marks

- (i) Primary and secondary data.
- (ii) Methods of collecting Primary and Secondary Data
- (iii) Preparation of questionnaires
- (iv) Tabulation and compilation of Data
- (v) Measures of central Tendency
- (vi) Theory of Probability
- (vii) Theory of Attributes- Basic concepts and their applications.
- (viii) Theory of Index Numbers: Tests of Index numbers- Wholesale and consumer price Index numbers.
- (ix) Demography-Census, its features and functions.
- (x) Vital Statistics- Measures of fertility, Crude fertility rates, specific fertility rates, gross and net reproduction rates., Measures of Mortality

Mathematics
10 Marks

- (i) Simple / Compound interest.
- (ii) Linear equations with two variables.
- (iii) Permutations/ Combinations & Binomial Theorem.

- (iv) Limits & Derivatives.
- (v) Set Theory- Basic Concepts and Applications.
- (vi) Relations and Functions
- (vii) Matrices & Determinants
- (viii) Probability
- (ix) Coordinate & Three dimensional Geometry
- (x) Vectors.

General Economics

10 Marks

- (i) Introduction of Economics- Basic concept and Principles.
- (ii) Fiscal & Monetary Policy- Meaning, Scope and Methodology.
- (iii) Theory of consumers demand using indifference curve technique.
- (iv) Demand Analysis
- (v) Factor Pricing –Marginal productivity Theory & Ricardian Theory of Rent
- (vi) Pricing under various forms of Market.
- (vii) Factors of production & Laws of Production.
- (viii) Concept of Economic Growth and its measurement
- (ix) Characteristics and problems of developing economy
- (x) Planning vs Market Economy.
- (xi) Economic Reforms in India
- (xii) Concept & Measurement of National Income.
- (xiii) Role of RBI

General Science

10 Marks

- (i) Newtons Laws of Motion, Mass, Weight, Acceleration, Velocity, Speed etc
- (ii) Electric Current, Power, Energy, Voltage.
- (iii) Chemical Equation, types.
- (iv) Metals, Non-metals- Physical & Chemical properties.
- (v) Various sources of energy; Conventional sources of energy; Biomass and wind energy. Non-conventional sources of energy (Solar energy, Tidal energy).
- (vi) Nutrition and its types, Respiration, Transportation of water, food and minerals in plants.
- (vii) Communicable & Non-Communicable Diseases.
- (viii) Vitamins- Diseases related to vitamin deficiency.
- (ix) Ecosystem – Its components, Food chains and Food webs.
- (x) Environmental pollution. Ozone layer, its depletion, Green House Effect.

Knowledge of Computers

10 Marks

- (viii) Basic Applications of Computer and its component.
- (ix) Fundamentals of computer sciences.
- (x) Concept of Open Source Technologies.
- (xi) Input & output Devices.
- (i) Operating system

- (ii) Knowledge of MS Word, MS Excel, MS Access, MS Powerpoint, PDF Internet and E-mail.
- (iii) Concept of Computer Virus and Anti-Virus.
- (iv) Hardware & Software, Elements of Computers Processing System Hardware , CPU, Peripherals, Storage Media, Software Definition, Role and Categories Firmware and Human-ware.
- (v) Role of Information Technology in Governance.

ANNEXURE "AG"**Marks :-120
Time :- 2.00 Hours****Syllabus for the post of Drivers**

Name of Post		Light Motor Vehicle/ Heavy Motor Vehicle	Marks allotted
Driver	Topic	Subtopic	
	Traffic Rules and Signalling	Basic Road Rules, driving methods and speed limits	10
		Understanding Signals: 1.Traffic Police hand signals 2.Hand signals while driving 3.Traffic light signals 4.Road map reading	15
		Knowledge of traffic signage's for road safety	10
		Fitness to drive: 1.First aid kit 2.Good health & Road safety 3.Driving under influence of drugs/liquors	15
		Difficult driving condition: 1.Driving on wet surface 2.Driving in fog 3.Night driving 4.Running on pavement 5.Brake failure 6.Towing	10
		Basic knowledge about provisions of the Motor Vehicle Act	10
		Essential knowledge about vehicle pollution (Do's and Don't's)	10

		<p>Awareness about documents required for driving and offence related</p> <ol style="list-style-type: none"> 1.Registration 2.Licensing 3.Insurance. 	15
Driver	Motor parts and its repair	Identification of major assemblies of vehicle	25
		Knowledge of daily and periodic inspection	
		Knowledge of fault diagnosis in tyre and its changing procedure	
		Knowledge of fuel pump, clutch and brake working and their air bleeding procedure	
		Lubrication grades used in vehicle for engine, transmission, differential, suspension	
		Knowledge about servicing schedule and service centres location	
		Knowledge of different starting methods	
		Knowledge of dash board's symbols	

ANNEXURE "AH"

Syllabus for Written Test

Total Marks=100

Time=02 Hours

S. No.	Subjects/ Topic	Marks assigned
1	GENERAL ENGLISH	15
2	GENERAL AWARENESS	15
3	BASIC MATHEMATICS	20
4	GENERAL SCIENCE	20
5	SOCIAL STUDIES	20
6	REASONING & MENTAL ABILITY	10
TOTAL		100

UNIT I

15 Marks

- (i) Articles
- (ii) Tenses
- (iii) Modals
- (iv) Clauses
- (v) Determiners
- (vi) Preposition
- (vii) Idioms and Phrases.
- (viii) Synonyms / Antonyms
- (ix) Spellings
- (x) Sentences
- (xi) Phrases
- (xii) Homonyms/ Homophones

UNIT II

15 Marks

- (i) Current events of National importance
- (ii) Honours and Awards
- (iii) The World of Sports
- (iv) Geographical Discoveries
- (v) Principal Languages of India
- (vi) Capitals and Currencies of Countries
- (i) History, Geography, Culture and Economy of UT of Jammu and Kashmir
- (ii) Flora and Fauna of J&K
- (iii) Rivers and Lakes.
- (iv) Important Tourist Destinations of UT of Jammu and Kashmir

Unit III

20 Marks

- (i) Percentage
- (ii) Average
- (iii) Time, Work and Distance
- (iv) Ratio and Proportions
- (v) Problem of Age
- (vi) Probability
- (vii) LCM, HCF
- (viii) Mensuration
- (ix) Trigonometry
- (x) Polynomials and Quadratic equation

UNIT IV

20 Marks

- (i) Sources of energy; Conventional & Non-Conventional
- (ii) Reflection & refraction of light, Mirror formula.
- (iii) Refractive index, Lens formula, image formation, sign conventions.
- (iv) Defects of vision & their correctness.
- (v) Electric current; Electric potential and Potential difference
- (vi) Ohms Law, Heating effects of Current
- (vii) Environmental pollution
- (viii) Nutrition, Respiration, Excretion etc
- (ix) Communicable & Non-Communicable Diseases.
- (x) Ecosystem – Its components, Food chains and Food webs.
- (xi) Ozone layer, its depletion, Green House Effect.
- (xii) Chemical Equation, types of chemical reactions.
- (xiii) Oxidation & reduction reactions
- (xiv) Bonding in Carbon, Allotropes of Carbon
- (xv) Physical & Chemical properties of metals and non-metals.

Unit-V

20 Marks

- (i) Partition of Bengal.
- (ii) Boycott and Swadeshi Movement.
- (iii) Muslim League/ Khilafat Movement/Non-Cooperation Movement
- (iv) Quit India Movement.
- (v) Independence and Partition of India.
- (vi) Change of Seasons/ Planets/ Solar System
- (vii) Longitude - Latitude.
- (viii) Types of Forests
- (ix) Classification of Soils
- (x) Types of farming
- (xi) Major Crops
- (xii) Resources- Types, Conservation etc.
- (xiii) Federalism

- (xiv) Democracy – Direct & Indirect.
- (xv) Fundamental Rights, Fundamental Duties.
- (xvi) Representation, Franchise, Secret Ballot.
- (xvii) Political Parties- National, State, Regional etc.
- (xviii) Economy-Primary, Secondary and Tertiary Sectors

UNIT V

10 Marks

- (i) Analogies
- (ii) Relationship concepts
- (iii) Figure odd one out
- (iv) Direct Sense
- (v) Figure Series completion
- (vi) Venn Diagram
- (vii) Number series
- (viii) Coding/Decoding

Annexure "AI"

Syllabus for written test

Marks: 120
Hrs.

Time: 02.00

Unit-I	GENERAL ENGLISH	15
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Marks

- (i) Paragraph writing / Comprehension
- (ii) Editing / Proof Reading.
- (iii) Rearranging of jumbled sentences
- (iv) Dialogue
- (v) Narration
- (vi) Models
- (vii) Articles
- (viii) Paragraph writing with blanks to be filled in with the following
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (ix) Clauses
- (x) Punctuation
- (xi) Synonyms and antonyms
- (xii) Pairs of words and their use in meaningful sentences.
- (xiii) Idioms and phrases.
- (xiv) Uses of Prepositions

Unit-II	MATHEMATICS	15
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Marks

- (i) Problems on finding Surface areas and volumes of combinations of any two of the given cubes, cuboids, spheres, hemispheres and right circular cylinders / cones. Frustum of a cone.
- (ii) Problems involving converting one type of metallic solid into another and other mixed problems.
- (iii) Profit and loss
- (iv) Simple / Compound interest.
- (v) Linear equations with two variables.
- (vi) Progression / BODMAS
- (vii) Probability: Simple problems on Single event.

Unit-III	HISTORY	15
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Marks

- (i) Revolt of 1857 - Causes and Effects.
- (ii) Rise of National Movement - Factors.
- (iii) Formation of the Indian National Congress in 1885 and Role of Moderates.
- (iv) Factors leading to the rise of Extremism in the Congress with special reference to the Partition of Bengal.
- (v) Important dates and historical events with reference to India
- (vi) Boycott and Swadeshi Movement.
- (vii) Rise of Muslim League in 1906 : Cause.
- (viii) Khilafat Movement and the Non-Cooperation Movement.
- (ix) Quit India Movement.
- (x) Independence and Partition of India.

Unit-IV CIVICS

15 Marks

- (i) Origin of democracy and its types. Direct and Indirect Democracy, Hindrance to Democracy
- (ii) Fundamental Rights.
- (iii) Fundamental duties.
- (iv) Directive Principles.
- (v) Public opinion.
- (vi) Representation.
- (vii) Franchise.
- (viii) Secret Ballot.
- (ix) Nomination.
- (x) Symbol.
- (xi) The Campaign
- (xii) Presidential elections.
- (xiii) Languages
- (xiv) Cities and Villages.
- (xv) The United Nations.

Unit-V GEOGRAPHY

15

Marks

- (i) Change of Seasons/ Planets/ Solar System/ Longitude - Latitude. Types of forests (with special reference of UT of J&K)
- (ii) Conservation and protection of forests.
- (iii) National / Zoological Parks and wildlife sanctuaries (Reference of J&K Sanctuaries and National Parks).
- (iv) Water resources. Sources of Water (with special reference of UT of J&K)
- (v) Resources. Conservation and management of water resources.
- (vi) Rainwater Harvesting.
- (vii) Roads (Different routes of UT of J&K)

Unit-VI GENERAL KNOWLEDGE AND CURRENT AFFAIRS

20

Marks

- (i) Abbreviations
- (ii) Popular Personalities
- (iii) Geographical Discoveries
- (iv) Principal Languages of India
- (v) Capitals and Currencies of Countries
- (vi) International Organisations- UNO, WHO, WTO, IMF, UNESCO, UNCTAD etc.
- (vii) Important Regional Organizations and Blocs- BRICS, OPEC, ASEAN, SAARC, BIMSTEC, G-20, G-7 etc.
- (viii) Space Programme of India
- (ix) India's Atomic Research Programme
- (x) Honours and Prizes, Seven Wonders.
- (xi) The World of Sports
- (xii) Exports and Imports
- (xiii) GDP, GNP, Per capita Income etc
- (xiv) Thermal / Nuclear/ Hydro Power Plants in India.

Unit-VI GENERAL KNOWLEDGE WITH SPECIAL REFERENCE to UT of J&K

15 Marks

- (v) Popular names of personalities and their achievements/ Contribution (National and International).
- (vi) Weather, Climate, Crops, Means of Transport.
- (vii) J&K History, Economy and Culture
- (viii) Flora and Fauna of J&K
- (ix) Rivers and Lakes.
- (x) Important Tourist Destinations.
- (xi) J&K Panchayati Raj Act, 1989 (as amended upto December, 2020), 73rd & 74th Constitutional amendments.
- (xii) J&K Reorganisation Act, 2019

Unit-VIII MENTAL ABILITY TEST

10

Marks

- (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

ANNEXURE "AJ"

Syllabus for Written Test

**Total Marks=120
Hours**

Time=02

UNIT I

15 Marks

- (xiii) Articles
- (xiv) Tenses
- (xv) Modals
- (xvi) Clauses
- (xvii) Determiners
- (xviii) Preposition
- (xix) Idioms and Phrases.
- (xx) Synonyms / Antonyms
- (xxi) Spellings
- (xxii) Sentences
- (xxiii) Phrases
- (xxiv) Homonyms/ Homophones

UNIT II

15 Marks

- (vii) Current events of National importance
- (viii) Honours and Awards
- (ix) The World of Sports
- (x) Geographical Discoveries
- (xi) Principal Languages of India
- (xii) Capitals and Currencies of Countries
- (xiii) History, Geography, Culture and Economy of UT of Jammu and Kashmir
- (xiv) Flora and Fauna of J&K
- (xv) Rivers and Lakes.
- (xvi) Important Tourist Destinations of UT of Jammu and Kashmir

Unit III

20 Marks

- (xi) Percentage
- (xii) Average
- (xiii) Time, Work and Distance
- (xiv) Ratio and Proportions
- (xv) Problem of Age
- (xvi) Probability
- (xvii) LCM, HCF
- (xviii) Mensuration

- (xix) Trigonometry
- (xx) Polynomials and Quadratic equation

UNIT IV

20 Marks

- (xvi) Sources of energy; Conventional & Non-Conventional
- (xvii) Reflection & refraction of light, Mirror formula.
- (xviii) Refractive index, Lens formula, image formation, sign conventions.
- (xix) Defects of vision & their correctness.
- (xx) Electric current; Electric potential and Potential difference
- (xxi) Ohms Law, Heating effects of Current
- (xxii) Environmental pollution
- (xxiii) Nutrition, Respiration, Excretion etc
- (xxiv) Communicable & Non-Communicable Diseases.
- (xxv) Ecosystem – Its components, Food chains and Food webs.
- (xxvi) Ozone layer, its depletion, Green House Effect.
- (xxvii) Chemical Equation, types of chemical reactions.
- (xxviii) Oxidation & reduction reactions
- (xxix) Bonding in Carbon, Allotropes of Carbon
- (xxx) Physical & Chemical properties of metals and non-metals.

Unit-V

20

Marks

- (xix) Partition of Bengal.
- (xx) Boycott and Swadeshi Movement.
- (xxi) Muslim League/ Khilafat Movement/Non-Cooperation Movement
- (xxii) Quit India Movement.
- (xxiii) Independence and Partition of India.
- (xxiv) Change of Seasons/ Planets/ Solar System
- (xxv) Longitude - Latitude.
- (xxvi) Types of Forests
- (xxvii) Classification of Soils
- (xxviii) Types of farming
- (xxix) Major Crops
- (xxx) Resources- Types, Conservation etc.
- (xxxi) Federalism
- (xxxii) Democracy – Direct & Indirect.
- (xxxiii) Fundamental Rights, Fundamental Duties.
- (xxxiv) Representation, Franchise, Secret Ballot.
- (xxxv) Political Parties- National, State, Regional etc.
- (xxxvi) Economy-Primary, Secondary and Tertiary Sectors

UNIT V

10 Marks

- (ix) Analogies
- (x) Relationship concepts
- (xi) Figure odd one out
- (xii) Direct Sense
- (xiii) Figure Series completion
- (xiv) Venn Diagram
- (xv) Number series
- (xvi) Coding/Decoding

Unit VI

20 Marks

- (i) Communication and its importance.
- (ii) Types of communication – verbal, non-verbal, written, email etc.
- (iii) Safety and Health- Importance of safety and health at workplace.
- (iv) Occupational Hazards- Basic Hazards, Chemical Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards.
- (v) First Aid, Care of injured & Sick at the workplaces.
- (vi) Pollution and pollutants including liquid, gaseous, solid and hazardous waste
- (vii) Skills, Working Aids, Automation, Environment, Motivation.
- (viii) Idea of ISO 9000 and BIS systems and its importance in maintaining qualities
- (ix) Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
- (x) Metric System: Measurement of length, breadth & height in metric units Measurement of weight in metric system. Unit conversion. Reading of plain scales. Reading of tapes & foot rules.

Annexure "AK"

Syllabus for written test

Marks: 120

Time: 02.00 Hrs.

GENERAL ENGLISH

10 Marks

- (xviii) Tenses
- (xix) Rearranging of jumbled sentences.
- (xx) Narration
- (xxi) Models
- (xxii) Articles
- (xxiii) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (xxiv) Clauses
- (xxv) Synonyms and antonyms
- (xxvi) Pairs of words and their use in meaningful sentences.
- (xxvii) Idioms and phrases.
- (xxviii) Uses of Prepositions.
- (xxix) Active & Passive Voice

GENERAL AWARENESS with special reference to J&K UT

20 Marks

- (xxii) Current Events of National and International importance
- (xxiii) Political & Physical divisions of world & India
- (xxiv) Indian Culture, Heritage and National Freedom Movement.
- (xxv) Basic features of the Indian Constitution- Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy etc.
- (xxvi) Transport & Communication.
- (xxvii) Demography- Census, its feature and functions.
- (xxviii) Important Rivers & Lakes in India.
- (xxix) Weather, Climate, Crops, Means of Transport of India.
- (xxx) Environment, Ecology & Bio-diversity.
- (xxxi) Sustainable Development Goals
- (xxxii) Communicable Diseases- cure and prevention
- (xxxiii) NCDC- COVID-19 - SOPs, Advisories, Guidelines etc
- (xxxiv) Economy- Inflation, Monetary Policy, Fiscal Policy, Capital Markets, Role of RBI, Taxation in India- Direct & Indirect Tax - CBDT, GST etc.
- (xxxv) J&K UT
 - p) History

- q) Economy
 - r) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
 - s) Heritage & Culture
 - t) Important Tourist Destinations
- (xxxvi) J&K Reorganisation Act, 2019.

INDIAN ECONOMY

20 Marks

- (i) Land System and its changes
- (ii) Manufacture and Transport: Jute, Cotton, Railways, Money and Credit.
- (iii) National and per capita income: patterns, trends, aggregate and sectoral composition and changes therein.
- (iv) Factors determining National income and distribution, Measures of New Economic Reform
- (v) New Economic Policy and Industry
- (vi) New Economic Policy and Public Finance: Fiscal Responsibility Act, Fifteenth Finance Commission and Fiscal Federalism and Fiscal Consolidation.
- (vii) New Economic Policy and Employment: Employment and poverty, Rural wages, Employment Generation, Poverty alleviation schemes, New Rural, Employment Guarantee Scheme.

INDIAN SOCIETY

20 Marks

- (i) Social background of Indian nationalism.
- (ii) Modernization of Indian tradition.
- (iii) Social reforms.
- (iv) Social Structure: Rural and Agrarian.
- (v) Features of Caste System.
- (vi) Untouchability – forms and perspectives.
- (vii) Social Classes in India- Agrarian class structure, Industrial class structure, Middle classes in India.
- (viii) Systems of Kinship in India: Lineage and descent in India, Types of kinship systems

LABOUR LAWS

20 Marks

- (i) Definition of Trade Union and the right to form the Trade Union.
- (ii) Strikes, lock-outs, lay off and retrenchment. Transfer and closure.
- (iii) Unfair labour practices.
- (iv) Disciplinary proceedings.
- (v) Labour welfare: concept, classification and importance.
- (vi) Obligations of employer for health, safety and welfare.
- (vii) Employment of young persons: prohibition of employment of children, regulation of employment of young persons.
- (viii) Concept of minimum wage, fair wage, living wage and need based minimum wage. Procedure for fixation and revision of minimum wages.

- (ix) Concept of employer, workmen, dependent, disablement.

COMMERCE

20 Marks

- (i) Nature Scope and Significance of Management.
- (ii) The process of Management
- (iii) Process of Control: Production Planning & Control, Quality Control, Inventory Control, Budgetary Control and Cost Control.
- (iv) Indian Financial System: An Overview
- (v) Money Markets: Participants, Structure and Instruments.
- (vi) Money and Banking: Monetary/ Fiscal policy- Role and functions of Reserve Bank of India;
- (vii) Capital Market: Primary and Secondary Market
- (viii) Financial Statement Analysis
- (ix) Cash flow statement
- (x) DBSM
- (xi) Entreprise Planning & Resourcing.

COMPUTER APPLICATIONS

10 Marks

- (vii) Fundamentals of computer sciences
- (viii) Hardware & Software
- (ix) Input and output devices
- (x) Operating system
- (xi) M.S Word, M.S Excel, M.S Acess and Powerpoint Presentation
- (xii) E_mail & Internet

Annexure "AL"

Syllabus for written test

Marks: 120

Time: 02.00 Hrs.

GENERAL ENGLISH

20 Marks

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

GENERAL AWARENESS

20 Marks

- (i) Current events of National Importance.
- (ii) International Organisations-UNO, WHO, WTO, IMF, Regional Organizations and Blocs-BRICS, SAARC, ASEAN, G-20, G-7 etc.
- (iii) Space Programme of India
- (iv) India's Atomic Research Programme
- (v) Honours and Prizes
- (vi) Exports and Imports
- (vii) GDP, GNP, Per capita Income etc
- (viii) Weather, Climate, Crops, Means of Transport.
- (ix) History, Geography, Economy and Culture of J&K UT
- (x) Flora and Fauna of J&K UT
- (xi) Rivers and Lakes J&K UT.
- (xii) J&K Reorganisation Act, 2019

GENERAL SCIENCE

20 Marks

- (i) Gravitation / Heat / Light / Matter / Acids / Salts / Elements / Cells.

- (ii) Various sources of energy; conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy)
- (iii) Non-conventional sources of energy (Solar energy, Energy from sea).
- (iv) Physical properties of metals and non-metals.
- (v) Chemical properties of metals like action of water, air, acids, salts; Reactivity series of metals.
- (vi) Occurrence of metals; their extraction, enrichment of ores. Extraction of metals in accordance with activity series; refining of metals.
- (vii) Life processes: Nutrition and its types, Respiration, Transportation of water, food and minerals in plants, Excretion with reference to plants and animals.
- (viii) Environmental pollution.
- (ix) Ecosystem – Its components, Food chains and Food webs.
- (x) Ozone layer, its depletion, Green House Effect.
- (xi) Mendal's contribution and experiments on pea plant.
- (xii) Types of reproduction in Plants and Animals.
- (xiii) Classification of Plants and Animals.

MATHEMATICS

20 Marks

- (i) Problems on finding Surface areas and volumes of combinations of any two of the given cubes, cuboids, spheres, hemispheres and right circular cylinders / cones. Frustum of a cone.
- (ii) Problems involving converting one type of metallic solid into another and other mixed problems.
- (iii) Profit and loss
- (iv) Simple / Compound interest.
- (v) Linear equations with two variables.
- (vi) Progression / BODMAS
- (vii) Probability: Simple problems on Single event.

COMPUTER APPLICATIONS

20 Marks

- (i) Fundamentals of computer sciences
- (ii) Hardware & Software
- (iii) Input and output devices
- (iv) Operating system
- (v) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (vi) E_mail & Internet

MENTAL ABILITY TEST

20 Marks

- (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.

Annexure "AM"

Syllabus for Written test

Marks: -100

Time: - 2.00 Hours

General English

10

Marks

- (i) Tenses
- (ii) Rearranging of jumbled sentences.
- (iii) Narration
- (iv) Models
- (v) Articles
- (vi) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Idioms and phrases.
- (xi) Uses of Prepositions.
- (xii) Active & Passive Voice

Indian Economy

20 Marks

- (i) Land System and its changes
- (ii) Commercialization of Agriculture
- (iii) Drain theory, Laizzez faire theory and critique.
- (iv) Manufacture and Transport: Jute, Cotton, Railways, Money and Credit.
- (v) Agriculture: Land Reforms and land tenure system, Green Revolution and capital formation in agriculture
- (vi) National and per capita income: patterns, trends, aggregate and sectoral composition and changes their in.
- (vii) Factors determining National income and distribution, Measures of New Economic Reform
- (viii) New Economics Policy and Industry
- (ix) New Economic Policy and Trade: Intellectual property rights: Implications of TRIPS, TRIMS, GATS and new EXIM policy.
- (x) New Economic Policy and Public Finance: Fiscal Responsibility Act, Fifteenth Finance Commission and Fiscal Federalism and Fiscal Consolidation.
- (xi) New Economic Policy and Employment: Employment and poverty, Rural wages, Employment Generation, Poverty alleviation schemes, New Rural, Employment Guarantee Scheme.

Indian Society**20****Marks**

- (i) Social background of Indian nationalism.
- (ii) Modernization of Indian tradition.
- (iii) Protests and movements during the colonial period.
- (iv) Social reforms.
- (v) Social Structure: Rural and Agrarian.
- (vi) Agrarian social Structure – evolution of land tenure system, land reforms
- (vii) Caste System
- (viii) Features of Caste System.
- (ix) Untouchability – forms and perspectives.
- (x) Tribal communities in India- Definitional problems, Geographical spread and Issues of integration and autonomy
- (xi) Social Classes in India- Agrarian class structure, Industrial class structure, Middle classes in India.
- (xii) Systems of Kinship in India: Lineage and descent in India, Types of kinship systems

Labour Laws**30****Marks**

- (i) Definition of Trade Union and the right to form the Trade Union.
- (ii) Legal Control and Protection of Trade Union: Registration, amalgamation, rights, immunities, liabilities and dissolution. Trade Union Funds.
- (iii) Strikes, lock-outs, lay off and retrenchment. Transfer and closure.
- (iv) Unfair labour practices.
- (v) Disciplinary proceedings.
- (vi) Labour welfare: concept, classification and importance.
- (vii) Obligations of employer for health, safety and welfare.
- (viii) Working hours of adults and Annual Leave with wages.
- (ix) Employment of young persons: prohibition of employment of children, regulation of employment of young persons.
- (x) Concept of minimum wage, fair wage, living wage and need based minimum wage. Procedure for fixation and revision of minimum wages.
- (xi) Components of wages: dearness allowance, principle of fixation.
- (xii) Payment of Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
- (xiii) Definition of wage under Payment of Wages Act, 1936 and responsibility for payment of wages.
- (xiv) Concept of employer, workmen, dependent, disablement.
- (xv) Workmen's compensation: employer's liability for compensation, amount and distribution of compensation.
- (xvi) Employee's State Insurance: Employees State Insurance Act (ESI), benefits, ESI fund and contribution.

Constitution/ Governance/ Polity**20****Marks**

- (i) Indian Constitution – Overview, nature & Philosophy of the Indian Constitution
- (ii) Features of the Constitution- Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy
- (iii) Parliamentary System & Amendment Procedures
- (iv) Federal structure, devolution of powers and finances.
- (v) Important aspects of governance, transparency, accountability, e-governance etc.

Financial Markets and Institutions

10 Marks

- (i) Indian Financial System: An Overview
- (ii) Money Markets: Participants, Structure and Instruments.
- (iii) Commercial Banks-functions of commercial Banks/ RRB/ Payment Banks.
- (iv) Reforms in Banking sector.
- (v) Money and Banking: Monetary/ Fiscal policy- Role and functions of Reserve Bank of India;
- (vi) Capital Market: Primary and Secondary Market.
- (vii) Financial Market Instruments and Innovative Debt Instruments; SEBI as a Regulator,
- (viii) Financial Services: Mutual Funds, Venture Capital, Credit Rating Agencies, Insurance and IRDA.

Mental Ability Test

10 Marks

- (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.
- (ix) Logical Reasoning.
- (x) Mental Reasoning.

Annexure "AN"

SYLLABUS FOR WRITTEN TEST

Marks :-120

Time :- 2.00 Hours

- Importance of safety and general precautions observed in the Instt. and in the section. Importance of trade in the development of Industrial Economy of the Country. Related Instruction. Recreational, medical facilities & other extra curricular activities of the Instt. (All necessary guidance to be provided to the new working of Industrial Training Institute system including stores procedures etc.
- Nomenclature. Description and use of drawing instruments & various equipment in drawing office. Their care and maintenance, lay out of a drawing sheet.
- Type of lettering proportion and spacing of letter and words.
- Terms & definitions-polygons and circles. Lines and their meaning, section lines of different materials, conventional signs, symbols & abbreviations, hatching, & shading, Norms of dimensioning different types of drawing sheets.
- Definition of ellipse, parabola, hyperbola, different methods of their construction, Definition and method of drawing involutes cycloid curves, helix and spiral.
- Planes and their normal, projections, projection and orthographic projection, first angle and Third angle projection.
- Concept about Horizontal & Vertical Plane.
- Principle of orthographic Projection, projection of solids like prism, cones, pyramids and frustums in various position.
- Solution of problems to find out the true shape of surfaces when solids are cut by different cutting planes.
- Construction of different types of scales, their appropriate uses, principle of R.F. diagonal & vernier.
- Importance of free hand sketching, machine drawing. Material and equipment required in Sketching.

- Importance of sectional views. Types of Sectional views & their uses. Parts not shown in Section.
- Definition of Intersection & interpenetration curves. Common methods to find out the curve of interpenetration.
- Solution o problems on interpenetration of prism, cones, and pyramids with their axes intersecting at an angle. Intersection of cylinder.
- Theory of projection as specified in SP - 46-1938.
- Definition of development, its need in industry and different method of developing the surface.
- Principle of Isometric projection, Difference between isometric drawing and isometric projection. Isometric Scale, Dimensions an isometric drawing.
- Different methods of drawing Isometric views.
- Principle and types of oblique projection. Advantage of oblique projection over isomertic projection.
- Types of perspective projection fundamental concept & definition, location of station point.
- Terminology- feature, functional feature, functional dimension, datum dimension, principle.
- Units of dimensioning, system of dimensioning, method of dimensioning and common features limit, fit, tolerance. Tolerances dimensioning, geometrical tolerance. Indication of symbols for machining and surface finishes on drg. (Grades and micron values).
- Screw thread, terms and nomenclature, type of screw thread, proportion and their uses, Thread conventions.
- Types of bolts and nuts their proportions, uses, different types of locking devices.
- Different types of machine screws cap screws and their specifications. Different types of foundation bolts.
- Purpose, terms different types keys(Heavy duty and light duty) and proportions use of cotters, pins and circlips.

- Types of fastening materials, types of rivets, their proportion & uses. Types of riveted joints, terms & proportions or riveted joints. Conventional representation.
- Causes of failure of riveted joints, efficiency of riveted joints.
- Description of welded joints and their representation (Actual and symbolic) Indication of welding symbols on drawings as per BIS.
- Description and use of drafting machine. Different sizes of drawing sheets as per BIS
- Safety precaution descriptions uses and care o hand tools including contraction rule. Brief description of production of cast iron, wrought iron steel and alloy steel.
- Safety precautions, Hand tools used for moulding. The description, use and care of hand tools. Description of different types of moulding. Description of different types of core, sand, and dressing material, Description of cupola.
- Description of measuring tools and hand tools used in forge work. Description and use of the mechanical hammer. Colour coding of different metals and identification.
- Description and application of simple measuring tools, description of parts of lathe & its accessories.
- Method of using precision measuring instrument such as inside & outside micrometers, depth gauges, vernier, calipers dial indicator, slip gauges, sine bars, universal bevel protractor etc.
- Brief description of milling, shaping, slotting and planning machines, quick return mechanism of these machines.
- Name and brief description of common equipment necessary for sheet metal work. Different type and uses of joints employed in sheet metal work.
- AC & DC Motors, Generators of common types and their uses. Names and brie description of common equipment necessary for sheet metal work.
- Type of Ferro-printing papers. Specification of Sensitized. Ammonia papes-Expiry-precautions in Ammonia Printing.

- Introduction to computer-DoS, windows and to AUTO CAD. related theory.
- Procedure of inking a drawing conventional colours used for different metals as per ISI material an equipment for colouring procedure.
- Procedure of tracing on tracing cloth and specification of tracing cloth.
- Types of assembly drawing. Different types of detailed drawings and preparation of bill of materials.
- Use of bearing, types of bearing and materials used.
- Difference between frictional and antifriction bearing. Advantages of antifiction bearing over frictional bearing. Materials and proportion of pats for drawing purposes.
- Heat treatment of steel.
- Shadelines & their use on machine drawings. Conventional method for drawings shade lines, surface shading by means of lines.
- Piping materials and specifications of WI & Steel pipes, pipe threads pipe fittings, specifications of fittings.
- Different types of pipe joints.
- Use of gears in transmission of power. Different types of gears. Cast gears and machined gears. Use of odontograph for drawing profile of gears etc.
- Brief description of Petrol, Diesel and Gas engines.
- Brief description, working principle and function of hydraulic jack, press accumulator, ram etc.
- Different locating methods clamping devices.
- Lay out of machine foundations. Brief treatment of the principal involved and the precautions to be observed, Lay out of machine foundation.
- Related theories of press tool with tolerance.
- Working of Blow off cock and simple carburetor.
- Numbering of drawings and standard parts > Familiarization with BIS.698

- Production of interchangeable parts, fits limits, tolerance & familiarisation with IS -919 & IS 2709 . Different methods of showing machine surfaces on drawings.
- Familiarisation with-
(Drg Board), IS-1360, IS-13609T-Sqr), IS-696(code of Engg. Drg).

Annexure "AO"

Syllabus for Written Test

**Total Marks=120
Hours**

Time=02

GENERAL ENGLISH

10 Marks

- (i) Tenses
- (ii) Rearranging of jumbled sentences.
- (iii) Narration
- (iv) Models
- (v) Articles
- (vi) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Idioms and phrases.
- (xi) Uses of Prepositions.
- (xii) Active & Passive Voice

VEHICLE MAINTENANCE

10 Marks

- (i) First Aid
- (ii) Fire hazard
- (iii) Vehicle maintenance
- (iv) Motor vehicle laws in India & JK UT.
- (v) Pollution standards
- (vi) Road safety rules

BASIC COURSES IN ENGINEERING / TECHNOLOGY

20 Marks

- (i) Applied Mechanics
- (ii) Engineering Drawing
- (iii) Elements of Mechanical Engineering
- (iv) Fundamentals of Thermal Engineering
- (v) Hydraulic and Hydraulic Mechanic

APPLIED COURSES IN ENGINEERING / TECHNOLOGY

40 Marks

- (i) Auto Engineering Drawing
- (ii) Auto Engine
- (iii) Automotive Materials
- (iv) Chasis, Body and Transmission

- (v) MVA and Transport Management
- (vi) Automotive Emission Control
- (vii) Applied thermodynamics
- (viii) CADD
- (ix) Theory of Machines
- (x) CNC machines
- (xi) Metrology and quality control
- (xii) Maintenance

MECHANICAL ENGINEERING

20 Marks

- (i) Transmission of Power
- (ii) Internal combustion Engines
- (iii) Refrigeration and Air Conditioning Systems
- (iv) Hydraulics

ELECTRICAL ENGINEERING

20 Marks

- (i) Fundamental Dynamics Engineering Graphics & Coputer Modelling
- (ii) Mechanics of Materials – I & II
- (iii) Theory of Machines – I & II
- (iv) Applied Thermodynamic-I & II
- (v) Theory of Machines – I & II
- (vi) Hydraulic Machinery
- (vii) Measurement and Instrumentation

Annexure "AP"

Syllabus for written test

Marks: 100

Time: 02.00 Hrs.

S. No.	Subjects/ Topic	Marks assigned
1	GENERAL AWARENESS with special reference of J&K UT	30
2	FINANCE & ACCOUNTS	30
3	GENERAL ENGLISH & COMPREHENSION	10
4	CONSTITUTION/ GOVERNANCE/POLITY	10
5	GENERAL INTELLIGENCE & REASONING	10
6	COMPUTER APPLICATIONS	10
TOTAL		100

GENERAL KNOWLEDGE AND CURRENT AFFAIRS

30 Marks

- (i) Current Events of National and International Importance
- (ii) Political & Physical divisions of India
- (iii) Climate & Crops in India
- (iv) Transport & Communication.
- (v) Demography & Vital Statistics.
- (vi) Important Rivers & Lakes in India.
- (vii) Indian Economy.
- (viii) Indian Culture & Heritage.
- (ix) Indian History with special reference to Freedom Movement.
- (x) Science & Technology.
- (xi) Environment, Ecology & Bio-diversity.
- (xii) Books & Authors
- (xiii) Persons & Places
- (xiv) Sports
- (xv) Taxation in India- Direct & Indirect Tax, GST, Income Tax, Central Excise & Customs, CBDT, CBIC etc.
- (xvi) J&K UT
 - a) History
 - b) Economy
 - c) Geography- (Weather, Climate, Crops, Rivers, Lakes, Flora, Fauna etc.)
 - d) Heritage & Culture
 - e) Important Tourist Destinations
 - f) J&K Reorganisation Act, 2019.

FINANCE AND ACCOUNTS

30 Marks

- (i) Financial Accounting: Nature and scope, Limitations of Financial Accounting, Basic concepts and Conventions.
- (ii) Basic concepts of Accounting: Single and double entry, Books of original Entry, Bank Reconciliation, Journal, ledgers, Trial Balance, Rectification of Errors, Manufacturing, Trading, Balance Sheet
- (iii) Distinction between Capital and Revenue Expenditure, Depreciation Accounting, Valuation of Inventories, Non-profit organisations Accounts, Receipts and Payments and Income & Expenditure Accounts, Bills of Exchange.
- (iv) Money and Banking: Monetary/ Fiscal policy- Role and functions of Reserve Bank of India; functions of commercial Banks/ RRB/ Payment Banks.
- (v) Budget and Fiscal deficits and Balance of payments.
- (vi) Fiscal Responsibility and Budget Management Act, 2003.

GENERAL ENGLISH & COMPREHENSION

10 Marks

- (i) Tenses
- (ii) Narration
- (iii) Modals
- (iv) Articles
- (v) Reading Comprehension
- (vi) Fill in the blanks with Phrases, Pronouns, homonyms/ homophones etc
- (vii) Clauses
- (viii) Synonyms and antonyms
- (ix) Pairs of words and their use in meaningful sentences.
- (x) Rearranging of jumbled sentences.
- (xi) Idioms and phrases.
- (xii) Uses of Prepositions.
- (xiii) Active & Passive Voice
- (xiv) Error Spotting
- (xv) Sentence Correction
- (xvi) Spellings Correction

CONSTITUTION/ GOVERNANCE/POLITY

10 Marks

- (i) Indian Constitution – Overview, nature & Philosophy of the Indian Constitution
- (ii) Features of the Constitution- Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy
- (iii) Parliamentary System & Amendment Procedures
- (iv) Federal structure, devolution of powers and finances.
- (v) Important aspects of governance, transparency, accountability, e-governance etc.

REASONING & MENTAL ABILITY

10 Marks

Number series, Letter series, Semantic Series, Speed, Distance and Time, Statements and conclusions, Logical Reasoning, Mental Reasoning, Word Building, Numerical Operations, Semantic Analogy, Symbolic/ Number Analogy, Figural Analogy, Semantic Classification, Symbolic/ Number Classification, Figural Classification, Problem Solving.

COMPUTERS & INFORMATION TECHNOLOGY

10 Marks

- (i) Fundamentals of computer sciences
- (ii) Hardware & Software
- (iii) Input and output devices
- (iv) Operating system
- (v) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (vi) E_mail & Internet
- (vii) Role of Information Technology in Governance.

ANNEXURE "AQ"

Syllabus for written test

Max. Marks: 120

Time: 2:00 hrs

1. Origin and Evolution of Tabla. (10 Marks)
2. Sangeet and Taal. (10 Marks)
3. Tabla and its six Gharanas with examples. (10 Marks)
4. Taal and its "Ten Pranas". (10 Marks)
5. Jaati and its Five Kinds. (10 Marks)
6. Writting ability of different compositions in different Taals with different Layakaries. (10 Marks)
7. Brief knowledge of "Rasas"and its use in Tabla. (15 Marks)
8. Knowledge about :Hindustani"and "Karnataki"Taals Padhati. (15 Marks)
9. Knowledge about the following Layakaries:- 2:3, 4:5, 4:7 (15 Marks)
10. Brief Biographical Sketch of:- (15 Marks)
 - (a) Ustad Allah Rakha Khan
 - (b) Pandit Krishan Maharaj

- (c) Pandit Samta Prasad
- (d) Ustad Zakir Hussain

Annexure "AR"

SYLLABUS FOR WRITTEN TEST

Marks :-

120

Time :- 2.00 Hours

<u>Foundation of Physical Education:</u>	15
Marks	

- i. Concept of Physical Education.
- ii. Aims and objectives of Physical Education. Scope of Physical Education in modern Era.
- iii. Explain Cognitive domain, psychomotor domain, Affective domain.
- iv. Relationship between Physical Education and General Education.
- v. Nature, meaning and scope of Philosophy in Physical Education.
- vi. Major components of Philosophy.
- vii. Philosophies of Physical Education (Idealism, Naturalism, Pragmatism, Realism & Existentialism).

<u>Historical Perspective:</u>	10
Marks	

- i. Physical education in Ancient and Modern India
- ii. Physical Education in Greece, USA, Germany, British and Rome.
- iii. Ancient and Modern Olympic Games
- iv. Asian and Common Wealth Games.
- v. South Asian Federation (S.A.F) Games
- vi. National sports awards (Arjuna award, Dronacharya award, Rajiv Ghandi khel Ratna Award, Maulana Abul Kalam Azad (MAKA) Trophy.
- vii. Famous sports Personalities in India.

<u>Officiating and Coaching:</u>	10
Marks	

- i. Concept of Officiating and Coaching
- ii. Moderns Trends in Coaching
- iii. Duties of Officials
- iv. Layout of standard track.
- v. Dimension and marking for track and field events.
- vi. Rules and their interpretation of track and field events.
- vii. Rules and regulations of different games (Football, Volley Ball, Hockey, Basket Ball, Cricket, Kho Kho, Kabaddi and Badminton).

Psychological Foundations: **10**
Marks

- i. Sports Psychology and factors effecting sports performance.
- ii. Elements of learning, individual differences in learning, Learning Curve
- iii. Theories of learning, Nature of motor skill learning.
- iv. Transfer of training.
- v. Personality, Dimensions of personality.
- vi. Growth and Development at different stages.
- vii. Heredity and Environment.

Sociological Foundation: **10**
Marks

- i. Socialization bases of Physical Education,
- ii. Sports as cultural Heritage of Man Kind
- iii. Cooperation and competition, social recognition.
- iv. Social Institutions, Social Development.
- v. Group Dynamics, Leadership and its importance.
- vi. Media in Sports, Politics in Sports
- vii. National / International integration through Sports

Kinesiology: **10**
Marks

- i. Historical Development of kinesiology, its need and scope in Physical Education & Sports.
- ii. Axes and planes of movements, line of pull.
- iii. Structure, Classification of the muscles and Joints.
- iv. Origin Insertion and action of major muscles.
- v. Meaning of Biomechanics, role of biomechanics in Physical Education.
- vi. Motion, types of motion, Newton's laws of motion.
- vii. Equilibrium, Stability and its principles. Lever and its types. Spin, Projectile and Impulse,

Training Methods: **15**
Marks

- i. Characteristics and principle of sports training
- ii. Different methods of sports training.(Interval training, Weight Training Circuit training, Fartlek training and Plyometric Training).
- iii. Development of Different Motor Abilities.
- iv. Vital capacity, Second wind, Fatigue, Oxygen debt.

- v. Effect of training on muscular system, Respiratory system and Circulatory System.
- vi. Technical and tactical preparation of Sports
- vii. Warm-up, its types and values.

<u>Management:</u>	15
Marks	

- i. Introduction, Meaning and Definition of management.
- ii. Management techniques and financial management.
- iii. Meaning of Organization and Administration.
- iv. Organization of Physical Education and sports at different levels.
- v. Supervision and Evaluation in physical education and sports.
- vi. Concept of teaching and Learning and Methods of Teaching.
- vii. Lesson plan, Importance and need of lesson plan.

<u>Planning:</u>	15
Marks	

- i. Meaning, Importance and Principles of Planning.
- ii. Short term & Long Term Planning.
- iii. Intra-mural and Extra mural tournaments.
- iv. Talent Identification & Classification of students
- v. Sports meet and Sports day.
- vi. Education technology and Teaching aids.
- vii. Criteria for the selection of Players.

<u>First aid:</u>	10
Marks	

- i. Concept, Meaning of first aid and its types.
- ii. Principles of First Aid.
- iii. Sports injuries, types of injuries, causes of injuries and their Treatment in various cases (Sprain, Strain, Dislocation, Fracture, Burns, abrasions, & Cuts).
- iv. Definition and concept of Rehabilitation.
- v. Goals and principles of Rehabilitation.
- vi. Massage Manipulation & therapeutic Exercises.
- vii. Doping in Sports.

Annexure "AS"

SYLLABUS FOR WRITTEN TEST

Marks: 120
Time: 02:00 Hours

ITEM GRID AND SYLLABUS:

	GRID	TOTAL NUMBER OF QUESTIONS
APTITUDE	General English	20
	General knowledge and current affairs (India)	15
	<u>General knowledge with special reference to J&K</u>	5
	Numerical and Reasoning Ability	15
	Basic Concepts of Computers	5
	TOTAL MARKS (APTITUDE)	60
TECHNICAL	TECHNICAL QUESTIONS	40
	TOTAL MARKS	100

DETAILED SYLLABUS INDICATED BELOW FOR *APTITUDE* AND *TECHNICAL* APTITUDE SYLLABUS

GENERAL ENGLISH

- Articles
- Clauses
- Pronouns
- Homonyms/ homophones
- Tenses
- Clauses

- Punctuation
- Synonyms and antonyms
- Analogies
- Idioms and phrases
- Uses of Prepositions

GENERAL KNOWLEDGE AND CURRENT AFFAIRS (INDIA)

- Important dates in Indian History / Freedom struggle, different dates and events
- First in world (Adventure, Sports, Discoveries). First in India (Adventure, Sports, Discoveries)
- Popular names of Personalities (Religion, Politics, Scientific discoveries, Geographical, Sports, History)
- The Newspaper world – (Current Dailies & Weeklies of India)
- Books & Authors – General
- Languages
- Capitals & Currencies
- United Nations Organizations
 -
 - Veto Powers
 - No. of Countries as its Members
 - Principal organs and their functions
- SAARC, ASEAN
- Everyday Science
- World famous Awards - (1. in Science)
 - (2. in Literature)
 - (3. in Sports)
- National Awards - (1. in Science)
 - (2. in Literature)
 - (3. in Sports)
- The world of Sports
- Climate & Crops in India
- Democratic institutions
- Forms of Government
- Political & Physical divisions of world & India
- Important rivers & Lakes in India

- Current Events of National and International Level
- Role of Mathematics in Economics
- Agriculture in economic development; Industrialization and economic development
- Indian Foreign Trade
- New economic reforms and growth of foreign trade
- Inflation – Concept and types; Causes and consequences

GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO J&K

- Abbreviations, Important dates, popular names of personalities and their achievements/Contribution (National and International)
- Constitution of J&K – Formation, Fundamental rights, Directive Principles
- Weather, Climate, Crops, Means of Transport
- Important power projects and their impact on State Economy
- Rivers and Lakes
- Important Tourist Destinations
- History of J&K
- Historical places of the State and their importance
- RTI Act
- Indus Water Treaty and its impact on State economy

NUMERICAL AND REASONING ABILITY

The candidates will be tested primarily on the fundamental mathematical concepts and application oriented reasoning. The broad areas will include the following;

Basic Arithmetic:

- Number System
- Percentage
- Average
- Profit & Loss
- Ratio & Proportion
- Speed, Distance and Time
- Mathematical reasoning

Reasoning ability:

- Number series
- Letter series
- Coding decoding
- Direction sense
- Blood relations

- Statements and conclusions
- Logical Reasoning
- Mental Reasoning

BASIC CONCEPTS OF COMPUTERS

The candidates' understanding of the concepts of computers and its application will be tested and it will broadly cover the following:

- Computer terminology
- Hardware and Software
- Storage and Operating systems
- Safety and Security
- E-mail and Internet Usage

TECHNICAL SYLLABUS

- Fundamentals of Electrical Engineering
- Basics of Information Technology
- Engineering Drawing
- Electronic Components and Materials
- Basic Electronics
- General Engineering
- Electronic Devices and Circuits
- Electronic Instruments and Measurements
- Principles of Communication Engineering
- Digital Electronics
- Electronic Drawing, Design and Fabrication Techniques
- Computer Programming and Applications
- Electrical Machines
- Communication Systems
- Network Filters and Transmission Lines
- Microprocessors and Applications
- Fundamentals of Electronic Instrumentation
- Microwave and Radar Engineering
- Troubleshooting of Electronic Equipment
- Power Electronics
- Advanced Microprocessors
- Consumer Electronics
- Micro controllers and Embedded Systems
- Digital and Data Communication

Annexure "AT"

Total Marks 120

Time 2 Hours

Paper I (Non Medical Subjects)

13 Marks

➤ **Chemistry**

- Chemical periodicity, main group of elements and their compounds, concept of acids and bases, Hard Soft acid Concept, Non aqueous solvents, organometallic compounds - synthesis bonding and structure and reactivity, characterisation of inorganic compounds
- Periodic properties, atomic structure, chemical structure, chemical bonding, and molecular structure, electrochemistry, Basic principles of electrochemistry.
- Qualitative Analysis Sample preparation, dissolution, digestion, and fusion, nature of trace analysis, spot test and spectroscopic methods.
- Quantitative Analysis - Volumetric and gravimetric analysis
- Solvent Extraction.
- Chromatography- Introduction, Principle, procedure and applications.
- Spectrophotometry
- Forensic Chemistry and Toxicology.

➤ **Physics**

12 Marks

- Theory of motion, Special Theory of relativity, metrics system, Mechanics, Fundamentals of Nuclear Physics, magnetism and electricity, Basic concept of spectroscopy- Fundamental ideas, Holography, Heat, Light, Sound, Metric System, Fundamental Newtonian.
- Basic concept of spectroscopy
- Forensic Physics and forensic Ballistics.
- Forensic Questioned Documents.

➤ **Electronics**

13 Marks

- Electronics Devices and Circuits, Electronics Instrumentation, Digital Electronics, Basic concept of Computer Programming, Electronic devices(Active and Passive devices only), Digital electronics (Number system, logic operations, logic devices).

- **Mathematics** **12 Marks**
- Differential equations, Differential Calculus, Real Analysis, Logic and Sets, Analytical Geometry, Integral Calculus, Algebra, Vector Calculus, Number Theory, Mechanics, Probability and Statistics, Numerical Methods, Complex Analysis, Linear Programming.

- **Kinematics** **13 Marks**
- Displacement, velocity and acceleration of a particle moving in a straight line: Including the derivation and use of the formulae for constant acceleration, and the use of displacement-time and velocity-time graphs, Non-uniform acceleration problems involving the setting up and solution of first-order differential equations of the separable type, Appreciation of the identity $dv/dt = v dv/dx$, Angular speed, constant angular acceleration, Motion in a horizontal circle with uniform speed including the conical pendulum and banked tracks, Problems on projectiles: equation of the path of a projectile, its horizontal range, its associated time of flight, and the maximum height.

- **Computer Science/ Information Technology** **12 Marks**
- Digital Forensics and Cyber crimes, working with windows and DOS system, current computer forensic tools, Computer Hardware, Computer Software, Assembly language and High Level Language, Multiprogramming and time sharing operating system, Fundamentals of operating system, Basics of internet, Programming languages, Artificial intelligence, Network security, Cyber laws, Digital image processing, information security.
- Number System
- M.S. Office
- Installation of Operating System and device drivers
- Basics of Networking
- IP Addressing

Besides the candidates should possess the following

- **Introduction to Forensics** **15 Marks**

- Introduction, Definition, Principles, Scope and branches of Forensic Science.
- Development of Forensic Science in India.
- Crime Scene investigation and management, Physical Evidence
- Tools and techniques in Forensic Science.
- Basic Principles of Statistics
Probability, Mean, Median, Mode, Chi square, F-Test, measurement of uncertainty, Systematic and random sampling
- **Verbal Ability:** **10 Marks**
- The candidates are expected to have good command over English language and its usage. It will be tested with focus on Articles, Verbs, Tenses, Prepositions, Synonyms, Antonyms, Punctuation, Reading comprehension, Cloze passage, Grammar, Idioms and phrases
- **Analytical Ability:** **10 Marks**
- The candidates will be tested primarily on the various cognitive abilities using qualitative reasoning. The broad areas will include Letter Series, Number Series, Relationship Concepts, Direction Sense, Concept of Speed-Time-Distance, Coding-Decoding, Analogy etc.
- **General Awareness and Current Affairs:** **10 Marks**
- The objective of this section is to assess candidates' general knowledge of the candidate.

Total Marks 120

Time 2 Hours

Paper II (Medical Subjects)

1. Zoology

12 Marks

- Biochemistry, Developmental biology, ecology, microbiology, evolutionary biology and animal behaviour, cell biology, Economic Zoology, Immunology, Genetics and Genomics, Human Physiology, Human Anatomy.

- Properties, functions and classification of carbohydrates, proteins, Nucleic acid and lipids.
- Forensic Anthropology.

2. Botany

13 Marks

- Plant taxonomy, Modern trends in taxonomy, Plant ecology, Plant Biotechnology, Plant Physiology, Biochemistry.
- Cell Biology and Genetics.
- Plant anatomy.

3. Biology and Serology/Genetics/Molecular Biology/Biotechnology 13 Marks

- Molecular Biology, Genetics and Genomics, Microbiology, Human Physiology, Human anatomy
- Types Formation, composition and Distribution of Body Fluids- Their analysis and forensic significance.
- ABO system of Blood Grouping, types and properties of antigens and antibodies, serological techniques.
- Properties, functions and classification of carbohydrates, proteins , Nucleic acid and lipids.
- Microscopy:- Principals and different types of microscopes, its forensic applications
- Nucleic Acids: Structure and functions, Isolation of DNA and RNA from biological sources, types of DNA and their role in human identification, DNA amplification, electrophoretic Techniques.
- History and concept of Mendelian Genetics, Molecular Genetics, Pedigree linkage, Genetic maps, laws of Mendelian Genetics, concept of population Genetics
- RNA Metabolism, DNA Metabolism, DNA Profiling, History of DNA typing, Human Genetics, Hereditary alleles, mutations, Hardy Weinberg law, Genetic Code, Variation and Polymorphism, Mitosis and Meiosis Division, extraction of DNA from different types of biological samples, protein synthesis.
- Immunology and animal Biotechnology.
- Forensic Odontology, Forensic Anthropology, Forensic Genetic.

4. **Biochemistry**

12 Marks

- Cell Biology, Properties, Classification and functions of carbohydrates, proteins, nucleic acid, lipids, amino acids, Introduction to enzymes and enzymes kinetics, Mechanism, Bio synthesis and degradation of Bio molecules, Basic introduction to membrane biology and bio energetics, and thermodynamics, Basic principles functioning and application of spectroscopic techniques, chromatography, Gene organisation, hormones - Biochemistry and functions.
- Molecular Biology, Genetics and Genomics, Microbiology, Human Physiology, Human anatomy.
- Nucleic Acids: Structure and functions, Isolation of DNA and RNA from biological sources, types of DNA and their role in human identification, DNA amplification, electrophoretic Techniques.
- Hormone Biochemistry and Functions.

5. **Microbiology**

12 Marks

- History, classification and diversity of microbes, environmental microbiology.
- Basics of Biochemical Process: Bio synthesis and degradation of carbohydrates, lipids, proteins, and nucleic acids.
- Application of Microbiology in agriculture, waste management, food industry.
- Microbial physiology and metabolism, cell biology, Principles of Genetics, Biochemistry, Medical microbiology.
- Virology.
- Recombinant DNA Technology.
- Cell Biology and Biochemistry.
- Advances in Microbiology

➤ **Chemistry**

13 Marks

- Chemical periodicity, main group of elements and their compounds, concept of acids and bases, Hard Soft acid Concept, Non aqueous solvents, organometallic compounds - synthesis bonding and structure and reactivity, characterisation of in organic compounds

- Periodic properties, atomic structure, chemical structure, chemical bonding, and molecular structure, electrochemistry, Basic principles of electrochemistry.
- Qualitative Analysis Sample preparation, dissolution, digestion, and fusion, nature of trace analysis, spot test and spectroscopic methods.
- Quantitative Analysis - Volumetric and gravimetric analysis
- Solvent Extraction.
- Chromatography- Introduction, Principle, procedure and applications.
- Spectrophotometry
- Forensic Chemistry and Toxicology

7. Besides the candidates should possess the following

Introduction to Forensics

15 Marks

- Introduction, Definition, Principles, Scope and branches of Forensic Science.
- Development of Forensic Science in India.
- Crime Scene investigation and management, Physical Evidence
- Tools and techniques in Forensic Science.
- Basic Principles of Statistics
Probability, Mean, Median, Mode, Chi square, F-Test, measurement of uncertainty, Systematic and random sampling

Verbal Ability:

10 Marks

- The candidates are expected to have good command over English language and its usage. It will be tested with focus on Articles, Verbs, Tenses, Prepositions, Synonyms, Antonyms, Punctuation, Reading comprehension, Cloze passage, Grammar, Idioms and phrases

Analytical Ability:

10 Marks

- The candidates will be tested primarily on the various cognitive abilities using qualitative reasoning. The broad areas will include Letter Series, Number Series, Relationship Concepts, Direction Sense, Concept of Speed-Time-Distance, Coding-Decoding, Analogy etc.

General Awareness and Current Affairs:

10 Marks

- The objective of this section is to assess candidates' general knowledge of the candidate.

**Secretary
J&K Services Selection
Board
Jammu**

ANNEXURE "AU"

Syllabus for Written Test

**Total Marks=120
Hours**

Time=02

UNIT I

15 Marks

- (xxv) Articles
- (xxvi) Tenses
- (xxvii) Modals
- (xxviii) Clauses
- (xxix) Determiners
- (xxx) Preposition
- (xxxi) Idioms and Phrases.
- (xxxii) Synonyms / Antonyms
- (xxxiii) Spellings
- (xxxiv) Sentences
- (xxxv) Phrases
- (xxxvi) Homonyms/ Homophones

UNIT II

15 Marks

- (xiii) Current events of National importance
- (xiv) Honours and Awards
- (xv) The World of Sports
- (xvi) Geographical Discoveries
- (xvii) Principal Languages of India
- (xviii) Capitals and Currencies of Countries
- (xvii) History, Geography, Culture and Economy of UT of Jammu and Kashmir
- (xviii) Flora and Fauna of J&K
- (xix) Rivers and Lakes.
- (xx) Important Tourist Destinations of UT of Jammu and Kashmir

Unit III

20 Marks

- (xxi) Percentage
- (xxii) Average
- (xxiii) Time, Work and Distance
- (xxiv) Ratio and Proportions
- (xxv) Problem of Age
- (xxvi) Probability
- (xxvii) LCM, HCF
- (xxviii) Mensuration

- (xxix) Trigonometry
- (xxx) Polynomials and Quadratic equation

UNIT IV

20 Marks

- (xxxi) Sources of energy; Conventional & Non-Conventional
- (xxxii) Reflection & refraction of light, Mirror formula.
- (xxxiii) Refractive index, Lens formula, image formation, sign conventions.
- (xxxiv) Defects of vision & their correctness.
- (xxxv) Electric current; Electric potential and Potential difference
- (xxxvi) Ohms Law, Heating effects of Current
- (xxxvii) Environmental pollution
- (xxxviii) Nutrition, Respiration, Excretion etc
- (xxxix) Communicable & Non-Communicable Diseases.
- (xl) Ecosystem – Its components, Food chains and Food webs.
- (xli) Ozone layer, its depletion, Green House Effect.
- (xlii) Chemical Equation, types of chemical reactions.
- (xliii) Oxidation & reduction reactions
- (xliv) Bonding in Carbon, Allotropes of Carbon
- (xlv) Physical & Chemical properties of metals and non-metals.

Unit-V

20

Marks

- (xxxvii) Partition of Bengal.
- (xxxviii) Boycott and Swadeshi Movement.
- (xxxix) Muslim League/ Khilafat Movement/Non-Cooperation Movement
- (xl) Quit India Movement.
- (xli) Independence and Partition of India.
- (xlii) Change of Seasons/ Planets/ Solar System
- (xliii) Longitude - Latitude.
- (xliv) Types of Forests
- (xlv) Classification of Soils
- (xlvi) Types of farming
- (xlvii) Major Crops
- (xlviii) Resources- Types, Conservation etc.
- (xlix) Federalism
- (l) Democracy – Direct & Indirect.
- (li) Fundamental Rights, Fundamental Duties.
- (lii) Representation, Franchise, Secret Ballot.
- (liii) Political Parties- National, State, Regional etc.
- (liv) Economy-Primary, Secondary and Tertiary Sectors

UNIT V

10 Marks

- (xvii) Analogies
- (xviii) Relationship concepts
- (xix) Figure odd one out
- (xx) Direct Sense
- (xxi) Figure Series completion
- (xxii) Venn Diagram
- (xxiii) Number series
- (xxiv) Coding/Decoding

Unit VI

20 Marks

- (xi) Communication and its importance.
- (xii) Types of communication – verbal, non-verbal, written, email etc.
- (xiii) Safety and Health- Importance of safety and health at workplace.
- (xiv) Occupational Hazards- Basic Hazards, Chemical Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards.
- (xv) First Aid, Care of injured & Sick at the workplaces.
- (xvi) Pollution and pollutants including liquid, gaseous, solid and hazardous waste
- (xvii) Skills, Working Aids, Automation, Environment, Motivation.
- (xviii) Idea of ISO 9000 and BIS systems and its importance in maintaining qualities
- (xix) Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's Compensation Act.
- (xx) Metric System: Measurement of length, breadth & height in metric units Measurement of weight in metric system. Unit conversion. Reading of plain scales. Reading of tapes & foot rules.

Annexure "AV"

Syllabus for written test

Marks: 120

Time: 02.00 Hrs.

GENERAL ENGLISH

20 Marks

- (xv) Paragraph writing / Comprehension
- (xvi) Editing / Proof Reading.
- (xvii) Rearranging of jumbled sentences
- (xviii) Dialogue
- (xix) Narration
- (xx) Models
- (xxi) Articles
- (xxii) Paragraph writing with blanks to be filled in with the following
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms/Homophones etc.
- (xxiii) Clauses
- (xxiv) Punctuation
- (xxv) Synonyms and antonyms
- (xxvi) Pairs of words and their use in meaningful sentences.
- (xxvii) Idioms and phrases.
- (xxviii) Uses of Prepositions

GENERAL AWARENESS

20 Marks

- (xiii) Current events of National Importance.
- (xiv) International Organisations-UNO, WHO, WTO, IMF, Regional Organizations and Blocs-BRICS, SAARC, ASEAN, G-20, G-7 etc.
- (xv) Space Programme of India
- (xvi) India's Atomic Research Programme
- (xvii) Honours and Prizes
- (xviii) Exports and Imports
- (xix) GDP, GNP, Per capita Income etc
- (xx) Weather, Climate, Crops, Means of Transport.
- (xxi) History, Geography, Economy and Culture of J&K UT
- (xxii) Flora and Fauna of J&K UT
- (xxiii) Rivers and Lakes J&K UT.
- (xxiv) J&K Reorganisation Act, 2019

GENERAL SCIENCE

20 Marks

- (xiv) Gravitation / Heat / Light / Matter / Acids / Salts / Elements / Cells.

- (xv) Various sources of energy; conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy)
- (xvi) Non-conventional sources of energy (Solar energy, Energy from sea).
- (xvii) Physical properties of metals and non-metals.
- (xviii) Chemical properties of metals like action of water, air, acids, salts; Reactivity series of metals.
- (xix) Occurrence of metals; their extraction, enrichment of ores. Extraction of metals in accordance with activity series; refining of metals.
- (xx) Life processes: Nutrition and its types, Respiration, Transportation of water, food and minerals in plants, Excretion with reference to plants and animals.
- (xxi) Environmental pollution.
- (xxii) Ecosystem – Its components, Food chains and Food webs.
- (xxiii) Ozone layer, its depletion, Green House Effect.
- (xxiv) Mendal's contribution and experiments on pea plant.
- (xxv) Types of reproduction in Plants and Animals.
- (xxvi) Classification of Plants and Animals.

MATHEMATICS

20 Marks

- (viii) Problems on finding Surface areas and volumes of combinations of any two of the given cubes, cuboids, spheres, hemispheres and right circular cylinders / cones. Frustum of a cone.
- (ix) Problems involving converting one type of metallic solid into another and other mixed problems.
- (x) Profit and loss
- (xi) Simple / Compound interest.
- (xii) Linear equations with two variables.
- (xiii) Progression / BODMAS
- (xiv) Probability: Simple problems on Single event.

COMPUTER APPLICATIONS

20 Marks

- (vii) Fundamentals of computer sciences
- (viii) Hardware & Software
- (ix) Input and output devices
- (x) Operating system
- (xi) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (xii) E_mail & Internet

MENTAL ABILITY TEST

20 Marks

- (ix) Number series

- (x) Letter series
- (xi) Coding decoding
- (xii) Direction sense
- (xiii) Blood relations
- (xiv) Mathematical reasoning
- (xv) Speed, Distance and Time
- (xvi) Statements and conclusions.

Annexure "AW"

Syllabus for Written Test

**Total Marks=120
Hours**

Time=02

GENERAL ENGLISH

10 Marks

- (xiii) Tenses
- (xiv) Rearranging of jumbled sentences.
- (xv) Narration
- (xvi) Models
- (xvii) Articles
- (xviii) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (xix) Clauses
- (xx) Synonyms and antonyms
- (xxi) Pairs of words and their use in meaningful sentences.
- (xxii) Idioms and phrases.
- (xxiii) Uses of Prepositions.
- (xxiv) Active & Passive Voice

VEHICLE MAINTENANCE

10 Marks

- (vii) First Aid
- (viii) Fire hazard
- (ix) Vehicle maintenance
- (x) Motor vehicle laws in India & JK UT.
- (xi) Pollution standards
- (xii) Road safety rules

BASIC COURSES IN ENGINEERING / TECHNOLOGY

20 Marks

- (vi) Applied Mechanics
- (vii) Engineering Drawing
- (viii) Elements of Mechanical Engineering
- (ix) Fundamentals of Thermal Engineering
- (x) Hydraulic and Hydraulic Mechanic

APPLIED COURSES IN ENGINEERING / TECHNOLOGY

40 Marks

- (xiii) Auto Engineering Drawing
- (xiv) Auto Engine
- (xv) Automotive Materials
- (xvi) Chasis, Body and Transmission

- (xvii) MVA and Transport Management
- (xviii) Automotive Emission Control
- (xix) Applied thermodynamics
- (xx) CADD
- (xxi) Theory of Machines
- (xxii) CNC machines
- (xxiii) Metrology and quality control
- (xxiv) Maintenance

MECHANICAL ENGINEERING

20 Marks

- (v) Transmission of Power
- (vi) Internal combustion Engines
- (vii) Refrigeration and Air Conditioning Systems
- (viii) Hydraulics

ELECTRICAL ENGINEERING

20 Marks

- (viii) Fundamental Dynamics Engineering Graphics & Computer Modelling
- (ix) Mechanics of Materials – I & II
- (x) Theory of Machines – I & II
- (xi) Applied Thermodynamic-I & II
- (xii) Theory of Machines – I & II
- (xiii) Hydraulic Machinery
- (xiv) Measurement and Instrumentation

Annexure "AX"

Syllabus for written test

Marks: 120

Hrs.

Time: 02.00

GENERAL ENGLISH

20 Marks

- (xiii) Tenses
- (xiv) Rearranging of jumbled sentences.
- (xv) Narration
- (xvi) Models
- (xvii) Articles
- (xviii) Comprehension with blanks to be filled in with
 - i. Phrases
 - ii. Pronouns
 - iii. Homonyms / homophones.
- (xix) Clauses
- (xx) Synonyms and antonyms
- (xxi) Pairs of words and their use in meaningful sentences.
- (xxii) Idioms and phrases.
- (xxiii) Uses of Prepositions.
- (xxiv) Active & Passive Voice

GENERAL KNOWLEDGE AND CURRENT AFFAIRS

20 Marks

- (xxiv) Indian History with special reference to Freedom struggle
- (xxv) First in world (Adventure, Sports, Discoveries)
- (xxvi) First in India (Adventure, Sports, Discoveries)
- (xxvii) Popular Personalities (Politics, Scientific discoveries, Geographical, Sports, History)
- (xxviii) The Newspaper world – (Current Dailies & Weeklies of India)
- (xxix) Languages & Culture
- (xxx) International Organisations- UNO, WHO, WTO, IMF, UNESCO, UNCTAD etc.
- (xxxi) Important Regional Organizations and Blocs- BRICS, OPEC, ASEAN, SAARC, BIMSTEC, G-20, G-7 etc.
- (xxxii) Sustainable Development Goals
- (xxxiii) Communicable Diseases- cure and prevention
- (xxxiv) NCDC- COVID-19 - SOPs, Advisories, Guidelines etc
- (xxxv) World famous Awards
- (xxxvi) The world of Sports

- (xxxvii) Climate & Crops in India
- (xxxviii) Political & Physical divisions of world & India
- (xxxix) Important Rivers & Lakes in India
- (xl) Current Events of National and International importance
- (xli) Agriculture in economic development; Industrialization and economic development.
- (xlii) Foreign Trade & Balance of payments
- (xlili) New economic reforms
- (xliv) Inflation, Monetary Policy, Fiscal Policy, Capital Markets, Role of RBI, Taxation in India- Direct & Indirect Tax - CDBT, GST etc.
- (xlv) India's Atomic Research Programme,
- (xlv) Thermal / Nuclear/ Hydro Power Plants in India.

GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO UT of J&K **20 Marks**

- (ix) Popular names of personalities and their achievements/ Contribution (National and International).
- (x) Weather, Climate, Crops, Means of Transport.
- (xi) J&K History, Economy and Culture
- (xii) Flora and Fauna of J&K
- (xiii) Rivers and Lakes.
- (xiv) Important Tourist Destinations.
- (xv) J&K Panchayati Raj Act, 1989 (as amended upto December, 2020), 73rd & 74th Constitutional amendments.
- (xvi) J&K Reorganisation Act, 2019

GENERAL SCIENCE **20**
Marks

- (xiv) Various sources of energy; conventional sources of energy; improvement in technology for using conventional source of energy (Biomass and wind energy)
- (xv) Non-conventional sources of energy (Solar energy, Tidal energy).
- (xvi) Mechanics, Rest, motion, Velocites, acceleration, Newton Laws of motion,
- (xvii) Voltage, Current, Resistance, Power, D.C Batteries
- (xviii) Waves, light as a wave, Sound waves, Transverse and longitudinal waves.
- (xix) Structure of Atom
- (xx) Solids, Liquids and Gases(Basics)
- (xxi) Life processes: Nutrition and its types, Respiration, Transportation of water, food and minerals in plants.
- (xxii) Vitamins- Diseases related to vitamin deficiency.

- (xxiii) Environmental pollution.
- (xxiv) Ecosystem – Its components, Food chains and Food webs.
- (xxv) Ozone layer, its depletion, Green House Effect.
- (xxvi) Importance of water in life

MENTAL ABILITY TEST

20 Marks

- (xi) Number series.
- (xii) Letter series.
- (xiii) Coding decoding.
- (xiv) Direction sense.
- (xv) Blood relations.
- (xvi) Mathematical reasoning.
- (xvii) Speed, Distance and Time.
- (xviii) Statements and conclusions.
- (xix) Logical Reasoning.
- (xx) Mental Reasoning.

COMPUTER APPLICATIONS

20 Marks

- (vii) Fundamentals of computer sciences
- (viii) Hardware & Software
- (ix) Input and output devices
- (x) Operating system
- (xi) M.S Word, M.S Excel, M.S Access and Powerpoint Presentation
- (xii) E_mail & Internet