

GOVERNMENT OF JAMMU AND KASHMIR
JAMMU & KASHMIR SERVICES SELECTION BOARD

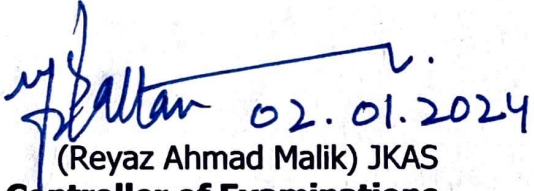
CPO Chowk Panjtirithi, Jammu/ Zamzam Complex Rambagh Srinagar.
www.jkssb.nic.in

Subject: Advance notice for the conduct of Written Examination for the various posts.

It is hereby notified for the information of candidates that J&K Services Selection Board (JKSSB) is scheduled to conduct the written test for the various posts whose details are given in **Annexure "A"** to this notice, tentatively on the dates mentioned against each.

The exact dates along with the schedule for downloading admit cards shall be notified separately in due course of time. This is an advance notice for the information of concerned candidates.

The syllabus for the examinations for the posts mentioned in **Annexure "A"** are annexed herewith as **Annexure "B" to "E"**.


(Reyaz Ahmad Malik) JKAS
Controller of Examinations
J&K Services Selection Board

No. JKSSB-COE0EXAM/10/2022-04 (7055504)

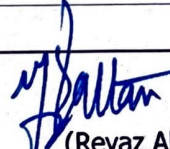
Dated:02-01-2024

Copy to the:

- 1) Commissioner/Secretary to the Government, General Administration Department, Civil Secretariat, J&K, Jammu/Srinagar.
- 2) Director Information & Public Relations, J&K Government with the request to get the said notification published in at least three leading local newspapers of Jammu/Srinagar for three consecutive days.
- 3) Member(s) ALL, J&K Services Selection Board.
- 4) Secretary, J&K Services Selection Board.
- 5) Administrative Officer, J&K Services Selection Board, Jammu/Srinagar.
- 6) P.A. to Chairman, J&K Services Selection Board
- 7) In-charge Website, J&K Services Selection Board, Jammu.
- 8) Office record.

Annexure "A"

S.No.	Department	Name of the post	Notification No.	Item No.	Tentative Date of Examination	Syllabus at
1	Animal/Sheep Husbandry & Fisheries Department.	Deputy Inspector/Equivalent	04 of 2022	143	03.03.2024	Annexure "B"
2				144		
3	Finance department	Sub Inspector	04 of 2020	118	10.03.2024	Annexure "C"
4				121		
5				123		
6	Finance department	Inspector	04 of 2020	117	17.03.2024	Annexure "D"
7	Revenue department	Patwari	02 of 2021	455	31.03.2024	Annexure "E"
8				458		
9				464		
10				468		
11				471		
12				475		


 02/01/2024
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Annexure "B"

Syllabus for the post of Deputy Inspector Fisheries and Fisheries Development Assistant.

I. Principles of taxonomy

Nomenclature, types Classification and interrelationships. Criteria for generic and specific identification. Morphological, morphometric and meristic characteristics of taxonomic significance. Major taxa of inland and marine fishes up to family level. Commercially important freshwater and marine fishes of India and their morphological characteristics. Introduction to modern taxonomic tools: karyotaxonomy, DNA barcoding, protein analysis and DNA polymorphism. Study of external morphology and meristic characteristics of crustacea and mollusca. Classification of crustacea and mollusca up to the level of species with examples of commercially important species.

II. Anatomy and Physiology of vertebrates with special reference to finfish

Integumentary System: Derivatives of integument; Skeletal System, Evolution of visceral arches; Digestive System; Respiratory System; Circulatory System; Excretory system.

III. Classical and Molecular Genetics

Mendelian genetics. Linkage, Linkage maps and crossing over ; Nature of heterochromatin; Organisation of genetic material in prokaryotes and eukaryotes. Multiple alleles, Lethality, Epistasis, Sex linked inheritance, Extra chromosomal Inheritance; Mutations: Structural and numerical changes in chromosomes; Gene mutations; Replication: Replication in prokaryotes and eukaryotes; Transcription and translation: Transcription and post transcriptional modifications, Translation; Sex Determination, Chromosomal mechanisms, Dosage compensation; Principles of genetics and breeding, Gene and chromosome as basis of inheritance, Mendel's law of inheritance – complete and incomplete dominance, monohybrid and dihybrid ratios. Gene interactions – dominant and recessive epistasis. Pleiotropism. Lethal genes.

IV. Fresh water Aquaculture

Major species cultured, production trends and prospect in different parts of the world. Freshwater aquaculture resources-ponds, tanks, lakes, reservoirs etc. Nursery, rearing and grow-out ponds preparation and management-control of aquatic weeds and algal blooms, predatory and weed fishes, liming, fertilization/manuring, use of biofertilizers, supplementary feeding. Water quality management. Selection, transportation and acclimatization of seed. Traits of important cultivable fish and shellfish and their culture methods-Indian major carp, exotic carp, air breathing fish, cold water fish, freshwater prawns.

V. Limnology

Introduction to limnology: inland water types, their characteristics and distribution; ponds and lakes; streams and rivers; dynamics of lentic and lotic environments. Lakes - their origin and diversity. Famous lakes of India with special reference to J&K; nature of lake environment; morphometry, physical and chemical conditions and related phenomena; biological relations: influence of physical and chemical conditions on living organisms in inland waters. Plankton: planktonic organisms; classification of plankton; distribution of plankton: geographic, vertical, horizontal and seasonal distribution of phytoplankton and zooplankton; seasonal changes of body form in planktonic organisms; food of planktonic organisms; primary productivity.

VI. Aquatic ecology and Biodiversity

Aquatic environment, Flora and fauna: Components of aquatic systems, Aquatic productivity, nutrient cycles, energy flow, food chain. Animal associations:

parasite relationship Aquatic biodiversity-its importance, species diversity, genetic diversity, habitat diversity, diversity indices. Ecological and evolutionary processes. Ecological niches - lagoons, estuaries, mangroves, coral reefs, flood plains, coastal wet lands, bheels, oxbow lakes. Threats to biodiversity- habitat destruction, introduction of exotic species, Conservation of habitats, marine parks and sanctuaries. Conservation programmes for endangered species, *ex situ* and *in situ* conservation, captive breeding and management of endangered species. Various national and international conventions and regulations concerning biodiversity, including use of selective gears and exclusion devices.

VII. Fish Nutrition and Biochemistry

Fundamentals of fish nutrition and growth in fish. Principal nutrients and nutritional requirements of cultivable fish and shellfish. Nutritional energetics: definition and forms of energy partitioning. Methods of feed formulation and manufacturing. Forms of feeds: wet feeds, moist feeds, dry feeds, mashes, pelleted feeds, floating and sinking pellets. Feed additives: binders, antioxidants, enzymes, pigments, growth promoters, feed stimulants. Feed storage: use of preservatives and antioxidants. Feed evaluation: feed conversion ratio, feed efficiency ratio, protein efficiency ratio, net protein utilization and biological value. Feeding devices and methods. Non-conventional feed ingredients and antinutritional factors. Digestive enzymes, feed digestibility. Factors affecting digestibility. Nutritional deficiency diseases. Carbohydrate metabolism: Glycolysis, Krebs-cycle, Pentose phosphate pathway, Gluconeogenesis, Glycogen metabolism, Electron transport chain; Lipid metabolism: Biosynthesis and β oxidation of palmitic acid. Protein metabolism: Transamination, deamination and urea cycle Enzymes: Introduction, Mechanism of action, Enzyme Kinetics, Inhibition and Regulation

VIII. Hill stream Fisheries

Introduction, Ecology and classification of hill streams. Geographical features, Drainage pattern, Climate and seasons with special reference to Himalayan Hill streams. Check list of some important hill streams. Biodiversity of hill stream fishes of Jammu, Kashmir and Ladakh. Grouping of hill stream fishes as per Menon (1954). Modifications in the hill stream fish fauna (External shape and form of the body, Scales, position of the mouth and lips, barbules, paired fins, caudal fin and caudal peduncle, eyes, gill apertures, and branchiostegal rays, skeleton, air bladder), adhesive apparatus, histological structure and mechanism of adhesion. Food of hill stream fishes. Primary and secondary productivity in hill streams. Evolution, distribution and origin of hill stream fishes. Fish culture in hill streams.

IX. Hatchery Management

Freshwater and marine fish seed resources. Natural breeding of finfishes. Selection of riverine spawn collection sites, gears used and methods of collection. Spawn quality and quantity indices. Advantages and disadvantages of riverine seed collection. Sexual maturity and breeding season of various cultivable species. Development of gametes in male and female. Fish egg and embryonic development. Methods of breeding; bundh breeding - wet and dry bundhs, collection and hatching of eggs, factors involved in bundh breeding, advantages and disadvantages of bundh breeding. Induced breeding of warmwater finfishes, environmental factors affecting spawning, sympatric breeding. Hypophysation of fishes. Fish pituitary gland - its structure, collection, preservation and preparation of extract for injection, dosages and methods of injection. Broodstock management and transportation of brood fish. Synthetic hormones used for induced breeding of carps. Different types of fish hatcheries-traditional, Chinese, glass jar and modern controlled hatcheries. Causes of mortalities of eggs and spawn and remedies. Spawn rearing techniques. Use of anaesthetics in fish breeding and transport. Breeding techniques for Indian major carp, exotic carp, mahaseer, trout, tilapia, catfish.

X. Sport Fisheries

Present status and future prospects of cold-water sport fishing. Different species of cold-water sport fishes and their natural breeding habit, ecology and behaviour. Different sport fishing techniques of fly fishing, spinner fishing and bait fishing. Casting/flipping/pitching, rigging, fish handling, live baits, rod and reel maintenance and repair, seasonal fish patterns, water and sun safety. State regulations governing sport fishing and management practices that maintain healthy fish populations.

XI. Fish Preservation, Processing and Value addition

Principle of fish preservation and processing. Processing of fish by traditional methods- salting, sun drying, smoking, marinating and fermentation. Theory of salting, methods of salting-wet salting and dry salting. Drying and dehydration-theory, importance of water activity in relation to microbial growth. Sun drying and artificial drying- solar dryer. Packaging and storage of salted and dried fish. Different types of spoilage in salt cured fish. Quality standard for salted and dry fish. Fish preservation by smoking-chemical composition of wood smoke and their role in preservation. Methods of smoking and equipments used for smoking. Carcinogenic compound in wood and methods to remove them. Hurdle technology in fish preservation and processing. Marinated and fermented fish products-role of acids in marinades, Fish and prawn pickles, fish sauce and Fish paste, traditional Indian fermented products.

XII. Fish Diseases, Diagnosis and Treatment

Introduction fish diseases. Common diseases of cold-water fish spp. Haemato-biochemical profile in fish disease. Immune system of fish; cell mediated, humoral immunity, non-specific immune system. Effect of environment on fish immune system. Important bacterial and Fungal diseases of cold-water fishes. Parasitic diseases of cold-water fishes; ecto and endo parasites, monogenetic and digenetic trematodes, black spot disease. Cestodiasis; Nematodiasis; Acanthocephalosis; Protozoon infections. Argulosis and other crustacean mediated diseases Diseases due to environmental stress. Host-pathogen interaction in fish. Disease surveillance, diagnosis, and treatment.

ANNEXURE "C"

SYLLABUS FOR THE POST OF SUB-INSPECTOR FINANCE

Total Marks: -120

Time:02 Hours

S. No	Subject/Topic	Marks Assigned
1.	GENERAL ENGLISH	20
2.	GENERAL KNOWLEDGE AND CURRENT AFFAIRS	20
3.	GENERAL KNOWLEDGE WITH SPECIAL REFERENCE TO UT OF J&K	20
4.	GENERAL SCIENCE	20
5.	MENTAL ABILITY TEST	20
6.	COMPUTER APPLICATIONS	20
TOTAL		120

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
 - a) Phrases
 - b) Pronouns
 - c) 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 Organizations: - 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; Industrializations 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 up to 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. MS Word, MS Excel, MS Access and Power Point Presentation.
- vi. E-mail and Internet.

ANNEXURE "D"

SYLLABUS FOR THE POST OF INSPECTOR FINANCE

Total Marks: -120

Time:02 Hours

S. No	Subject/Topic	Marks Assigned
1.	GENERAL AWARENESS with reference of J&K UT	36
2.	FINANCE & ACCOUNTS	36
3.	GENERAL ENGLISH & COMPREHENSION	12
4.	CONSTITUTION/GOVERNANCE/POLITY	12
5.	GENERAL INTELLIGENCE & REASONING	12
6.	COMPUTER APPLICATIONS	12
TOTAL		120

GENERAL KNOWLEDGE AND CURRENT AFFAIRS

36 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**36 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 organizations 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**12 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**12 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**12 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**12 Marks**

- i. Fundamentals of computer sciences
- ii. Hardware & Software
- iii. Input and output devices
- iv. Operating system
- v. MS Word, MS Excel, MS Access and Power point Presentation
- vi. Email & Internet
- vii. Role of Information Technology.

ANNEXURE "E"

SYLLABUS FOR THE POST OF PATWARI

- i. Part I (Urdu portion) will be of descriptive nature and qualifying only.
- ii. Part II will comprise of Multiple-Choice Objective Type Questions.
- iii. Both the parts viz Part "I" and part "II" will be compulsory.
- iv. There will be negative marking (0.25 per question per wrong answer) in part "II".

PART-I

Mark: 50 Marks

Time: 01.00 Hour

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 (separately) and the candidates belonging to other categories are required to score at least 35% marks (overall) with at least 33% in both Reading and Writing sections (separately) to be considered as having "working knowledge of Urdu" to be qualified.

1. Reading Section

20 Marks

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

2. 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

PART II

Marks :120 Marks

Time: 02.00 Hours

General Knowledge & Current Affairs

36 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

GENERAL KNOWLEDGE with special reference to J&K UT

24 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

24 Marks

- i. Tenses
- ii. Rearranging of jumbled sentences
- iii. Narration
- iv. Models
- v. Articles
- vi. Comprehension with blanks to be filled in with
 - a) Phrases
 - b) Pronouns
 - c) 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**18 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 Power point, PDF, Internet and E mail
- vii. Concept of Computer Virus and Anti-Virus

MENTAL ABILITY& REASONING**18 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