Notice

It is notified for the information of all eligible candidates that the S**yllabi for the** posts of **Museum Artist, Junior Museum Assistant, Landscape Development Officer and Curator advertised vide Advertisement Notification No. 11 of 2025, dated: 28-11-2025** are **annexed herewith as Annexure-I-IV.**

By Order,

Sd/-
Deputy Registrar
(Recruitment)

No. F(Syllabi-11 of 2025)KU/26
Dated: 12-03-2026

ANNEXURE -I

Syllabus for

1. Musuem Artist Post code: PGD-CA-31

Chapter I: Museology

Unit 1: Museum Organisation and Management

- Concept, objectives, and social role of museums
- Museum administration and governance
- Collection management: acquisition policies, ethics of collection
- Modes of acquisition: excavation, exploration, donation, bequest, loan, exchange
- Legal framework governing collections in India:
  - Indian Treasure Trove Act, 1878
  - Ancient Monuments and Archaeological Sites and Remains Act, 1958
  - Antiquities and Art Treasures Act, 1972
  - Wildlife Protection Act, 1972

Unit 2: Conservation and Preservation of Museum Objects

- Principles of conservation: preventive and curative measures
- Causes of deterioration: physical, chemical and biological factors
- Conservation of organic and inorganic materials
- Preservation of materials: stone, metal, glass, textile, paper, wood and paintings
- Environmental controls: temperature, humidity, light and pollution
- Emergency conservation and first aid
- Conservation of objects in storage, display and travelling exhibitions

Unit 3: Documentation, Presentation and Interpretation

- Museum documentation systems:
  - Accessioning and de-accessioning
  - Marking, numbering and movement records
  - Daybook, historic files and digital documentation
- Exhibition planning:
  - Types and organisation of exhibitions
  - Object selection, layout and audience consideration
- Exhibition design and equipment:
  - Showcases, pedestals, lighting and audio-visual aids
  - Labelling, signage and publicity
- Interpretation strategies:
  - Thematic vs chronological exhibitions
  - Visitor types and behaviour patterns

Chapter II: Archaeology

Unit 1: Archaeological Methods and Material Culture

- Relative and absolute dating methods; Exploration and excavation techniques

- Artefacts and ecofacts
- Introduction to rock art and symbolic behaviour
- Distribution, significance and major rock art sites

Unit 2: Experimental Archaeology and Ancient Technologies

- Concept, development and methodologies of experimental archaeology
- Stone tool technologies and flint knapping
- Pottery production, bead-making and metallurgy
- Experimental reconstruction of dwellings and fire-making

Unit 3: Cultural Heritage and Conservation

- Concept and scope of cultural heritage management
- Heritage legislation and management in India
- Threats to cultural heritage and sustainable tourism
- Conservation of ancient structures and archaeological materials

Chapter III: Ancient History

Unit 1: Early Indian History

- Sources: archaeological and literary
- Prehistoric and protohistoric cultures:
  - Palaeolithic, Mesolithic, Neolithic and Chalcolithic
- Indus Valley Civilization: material culture and decline
- Vedic Age: polity, economy and society

Unit 2: Early Historic India

- Second Urbanisation (600–300 BCE): causes and features
- Rise of Magadha
- Non-conformist movements: Buddhism and Jainism
- Mauryan Empire: administration, economy, society and Ashoka's Dhamma

Unit 3: Ancient Kashmir – Prehistoric to Early Historic

- Kashmir's geographical evolution and Sources for the history of Kashmir
- Prehistoric Kashmir: Palaeolithic and Neolithic cultures
- Early historic Kashmir up to Kushans
- Karkotas, Utpalas and Loharas: Ancient monuments of Kashmir.

ANNEXURE -II

Syllabus for

1. Junior Musuem Assistant Post code: PGD-CA-32

Chapter I: Archaeology

Unit 1: Archaeological Methods and Material Culture

- Relative and absolute dating methods; Exploration and excavation techniques
- Artefacts and ecofacts
- Introduction to rock art and symbolic behaviour
- Computer applications in Archaeology

Unit 2: Experimental Archaeology, computational Archaeology & Technologies

- Concept, development and methodologies of experimental archaeology
- Computational software and their applications
- Pottery production, bead-making and metallurgy
- Practical uses of computational archaeology

Unit 3: Cultural Heritage and Conservation

- Concept and scope of cultural heritage management
- Heritage legislation and management in India
- Threats to cultural heritage and sustainable tourism
- Conservation of ancient structures and archaeological materials

Chapter II: Museology

Unit 1: Museum Organisation and Management

- Concept, objectives, and social role of museums
- Museum administration and governance
- Collection management: acquisition policies, ethics of collection
- Modes of acquisition: excavation, exploration, donation, bequest, loan, exchange
- Legal framework governing collections in India:
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Unit 2: Conservation and Preservation of Museum Objects

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- Conservation of organic and inorganic materials
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- Conservation of objects in storage, display and travelling exhibitions

Unit 3: Documentation, Presentation and Interpretation

- Museum documentation systems:
  - Accessioning and de-accessioning
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  - Daybook, historic files and digital documentation
- Exhibition planning:
  - Types and organisation of exhibitions
  - Object selection, layout and audience consideration
- Exhibition design and equipment:
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- Interpretation strategies:
  - Thematic vs chronological exhibitions
  - Visitor types and behaviour patterns

ANNEXURE -III

Subject Syllabus for the post of Landscape Development Officer (ULD)

Advertisement Notice No. 11 of 2025 dated 28.11.2025
Name of the post: Landscape Development Officer (PGD-ULD-1)
Department: University Landscape Division (ULD)

Unit-1: Floriculture

- History, definitions, scope of ornamental horticulture, aesthetic values; types of ornamental plants - annuals, biennales, herbaceous perennials, grasses, bulbous plants, ferns, indoor plants, palms, shrubs, climbers, trees and cycads.
- Nursery techniques and management practices of floriculture crops (ornamentals), cultivation techniques of different ornamentals, Scope of plant multiplication, use of plant growth regulators, post-harvest management in ornamentals, seed and propagule storage, commercial importance of floriculture .
- Training and pruning methods in ornamentals; sowing, planting time and flowering of different ornamentals.
- Floriculture industry of J&K (area, production, revenue) scope, prospects and limitations;

Unit-2: Landscape Principles

- Scope and importance of gardens - types and design, principles of landscape design; Design and establishment of garden features/components viz. hedge, edge, borders, flower beds, paths, fences, garden walls, gates, carpet bed, fountains, avenue planting.
- Basic components of landscaping Lawns: types, establishment and maintenance; Turf designing and maintenance; water and weed management, production methods of indoor plants; Environmental sustainability in landscape design.
- Propagation Structures: Mist chamber, humidifiers, greenhouses, glasshouses, polyhouses, phytotrons (tools and implements).
- Types of soil, physical, chemical and biological properties of soils; Essential plant nutrients, biofertilizers, Vermicompost; Soil conservation and reclamation, Common soil test methods for fertilizer recommendations.

Unit-3: Pathology and disease management

- General characteristics of viruses, bacteria and fungi; modes of transmission **in viruses; nutrition** and reproduction in fungi.
- Structural diversity in Oomycota, Zygomycota, Ascomycota and Basidiomycota.

- Pathogen and pathogenicity: host pathogen interaction (Molecular basis): Types of plant diseases in ornamentals, diseases symptoms and management practices, biological control measures.
- Symptoms, etiology, epidemiology and control of plant diseases (powdery mildew, black stem rust, scab, damping off seedlings.
- Entomology: Definition, scope and classification of insects: Important storage pests of ornamental crops, Pollinator types and Insect-plant interactions.

Unit-4: Post-harvest management

- Methods and scope of harvesting ornamental propagules, hardening, grading, sorting and packaging of cut flowers: maturity indices.
- Factors affecting shelf-life: Pre-harvest factors, respiration, transpiration, ethylene production, and sensitivity; post-harvest storage techniques: management and plant protection measures, cultural practices.
- Post-Harvest Treatments - preservatives (bud opening solutions), fungicide, and growth regulator applications.
- Value Addition & Drying-techniques for drying flowers/foliage, preservation, and essential oil extraction; Packaging materials and packing methods for cut flowers and loose flowers.

Unit 5: Plant Improvement

- Floral Biology: Flower structure and development, Microsporogenesis, Megasporogenesis, pollination types, factors promoting self and cross pollination; Principles for sexual and asexual (clonal) methods of propagation; Methods of selection (pure line, clonal), hybridization (pedigree, backcross), and heterosis breeding, concept and scope of hybrids and cybrids.

- Mutation Breeding - Induction and scope, physical mutagens (Gamma rays, X-rays, fast neutrons) and chemical mutagens (EMS, DES) – methods of treatment and utility in improvement of ornamentals, evaluation and selection of mutants, management of mutants.

- Polyploidy Breeding - scope of polyploidy in ornamentals, Induction of autopolyploidy and allopolyploidy: Chromosome doubling using colchicine, applications and achievements with suitable examples.

- Improved flower color, fragrance, shelf-life, vase life, and resistance to biotic/abiotic stresses in select ornamentals (Rose, Chrysanthemum, Carnation, Gladiolus, Lilies, Marigold, and Tulips).

Unit-6: Plant Morphology and Taxonomy

- Morphology of root, stem and leaf and their modifications; types of tissues, types of inflorescences; anatomy of dicot and monocot root, stem and leaf.
- Salient features of five kingdom classification system; Principles of plant Taxonomy, plant identification and nomenclature; Artificial, Natural and Phylogenetic Classification.
- Diagnostic features of selected plant families: Rosaceae, Asteraceae, Caryophyllaceae, Orchidaceae, Liliacae, Iridaceae, Amaryllidaceae, Fabaceae.
- Biodiversity conservation- levels of biodiversity, threats to biodiversity, biodiversity hotspots, In-situ and ex-situ methods of biodiversity conservation

Unit-7: Plant Physiology and Ecology

- Plant-water relations-water potential, osmosis, diffusion, plasmolysis, imbibition; Mechanism of transpiration,
- Photosynthesis: C3 and C4 cycles, photorespiration; Respiration – glycolysis, Kreb's Cycle; aerobic and anaerobic respiration; plant growth regulators (auxin, gibberellin, cytokinin) and their utility in floriculture.
- Ecosystem: Concept & types of ecosystems; biotic and abiotic components; Energy flow, Primary & Secondary Production; Nutrient cycling (C, N, P); Concept of ecosystem services.
- Characteristics of population and population interactions; Plant Community-General Structure, Concept of ecological Succession, Consequences of climate change on biodiversity, ecosystems and phenology.

Unit 8: Biotechnology

- Tissue culture: Tools and techniques for invitro-propagation, Callus culture, meristem culture; Tissue culture for micropropagation; somaclonal variation and in-vitro selection in ornamentals.
- Genetic Engineering: Restriction enzymes & cloning vectors - types and characteristics, gel electrophoresis, PCR.
- Agrobacterium-mediated transformation and biolistic gun (gene gun) for introducing foreign genes; genetic engineering for improvement of selected traits in ornamentals (flower color, flower form, flower size, shelf life, disease resistance etc.)
- Molecular Markers: Use of DNA markers (RAPD, SSR, ISSR) for variety identification, mapping, and Marker-Assisted Selection (MAS) in ornamentals.

ANNEXURE -IV

Syllabus for the post of Museum Curator - Zoology

Unit-1 Systematic Zoology

Introduction to Systematics: terms & definitions; taxonomic characters: definition and kinds - morphological, physiological, molecular, ecological, behavioral and geographical; taxonomic keys: definition and kinds- bracket key, indented key and pictorial key; ICZN: historical background, overview of terms, principles and articles; species concepts – morphological, biological, and phylogenetic ; scientific names and their basis; homonymy, synonymy and law of priority; typification: definitions, kinds and significance; taxonomic publications; integrative taxonomy- morphological and molecular approaches.

Unit-2 Invertebrate Zoology

Diagnostic characters, morphology, diversity and classification of Protozoa, Porifera, Cnidaria, Platyhelminthes, Aschelminthes, Annelida, Arthropoda, Mollusca, Echinodermata; parasitic protozoa-life cycle and adaptations (*Entamoeba histolytica, Plasmodium, Trypanosoma, Leishmania, Giardia, Balantidium coli*); canal system and skeleton in Porifera; polymorphism in Cnidaria; corals and coral reefs; ecological and economic importance of major invertebrate phyla; water vascular system in Echinodermata

Unit-3 Vertebrate Zoology

Diagnostic characters, morphology, diversity and classification of vertebrates (Pisces, Amphibia, Reptilia, Aves and Mammalia) with detailed treatment of orders represented in the Indian sub-continent; comparative anatomy of vertebrates; evolutionary trends in vertebrate classes; Osteology of fishes, amphibians, reptiles, birds, and mammals; endangered and protected vertebrates of India; scales and fins in fishes; poisonous and non-poisonous snakes; flight adaptations and migration in birds; thermoregulation and adaptive radiation in mammals; comparative anatomy of vertebrates; osteology of fishes, amphibians, reptiles, birds, and mammals.

Unit-4: Palaeontology & Biogeography

Geological time scale and major faunal assemblages; Basics of paleozoology and fossil preservation; zoogeographical realms of the world; biogeographical zones in India; Island biogeography; biological dispersal: types, mechanisms, and barriers.

Unit-5: Ecology, Biodiversity & Conservation

Ecosystem structure and energy flow; population and community ecology; biodiversity concepts and hotspots; threats to biodiversity and conservation strategies; protected area network in India; Biosphere reserves in India; role of protected areas in biodiversity conservation.

Unit-6 Museum techniques for mounting of invertebrates

Methods of collection, preservation and mounting of Protozoa, Porifera, Cnidaria, Crustacea, Arachnida, Myriapoda and Insects, Annelida, Helminthes, Mollusca, Echinodermata; tools, materials and preservatives; wet and dry preservation; terrestrial and aquatic sampling methods; slide preparation and preservation; labelling and cataloguing; ethical guidelines and legal permissions.

Unit-7 Museum techniques for mounting of vertebrates

Introduction, history and scope of taxidermy; tools and materials in taxidermy; methods for skinning, cleaning and preservation of dead animals; methods of collecting, skinning and mounting/stuffing of mammals and birds; methods for mounting of reptiles, amphibians, and fish; preservatives and compounds used in taxidermy; collecting and preparing eggs; preparation of skeleton; ethical and legal issues in taxidermy.

Unit-8 Animal museum-curating, maintenance and digitization

Curating of collections: preparation of material, housing, cataloguing, arrangement of collection, curating of types, exchange of material and loans; storage conditions: temperature, humidity, light; preventive conservation and pest management; standard procedures and safety in handling biological collections, chemicals and equipment; digitization of zoological collections; Global Biodiversity Information Facility (GBIF).

Unit-9 Museum administration and legislation

Role and responsibilities of a Museum Curator; legal and ethical compliance: Wildlife (Protection) Act, 1972: structure and recent amendments; Biological Diversity Act, 2002; Convention on International trade in Endangered Species (CITES) regulations; institutional and administrative guidelines.

Unit-10: Practical, Display & Outreach

Demonstration and Interpretation using zoological specimens; Preparation of exhibit notes for students; design of teaching displays; use of museum collections in UG and PG curricula; Outreach activities, awareness, citizen science and public engagement.