

## **Revised Plan of Written Examination**

All the aspirants are informed as under with respect to the written test to be conducted for the recruitment of **Livestock Supervisor (Advt. No.16 of 2022):-**

1. The Exam will be conducted in MCQ (Multiple Choice Questions) format. OMR sheets will be used for answering the questions.
2. The Exam would be of 2 hours 30 minutes duration.
3. The Exam will consist of two parts (Part A and Part B) as follows:-

(a) **Part A:-** Punjabi as Qualifying Exam as per Notification No. G.S.R.72 / Const. / Art.309/Amd.(22)/2022, dated:28.10.2022.

Part	Topic	No. of Questions	Marks (Each Question carries 1 mark)	Type of Questions
A	Punjabi (Qualifying Nature) (Annexure-1)	50	50	MCQs (Multiple Choice Questions)

**Note:- (i) There will be no negative marking in Part-A.**

**(ii) Part 'B' will be evaluated only if a candidate scores minimum 50% marks (i.e 25 marks) in Part 'A'.**

(b) **Part-B:-** Part-B will consist of two sub-sections i.e Section (I) and Section (II) as following:-

Part	Section	Topic	No. of Questions	Marks (Each Question carries 1 mark)	Type of Questions
B	(I)	Questions from the Subject (Annexure-2)	75	75	MCQs (Multiple Choice Questions)
	(II)	Questions from General Knowledge, English, Logical Reasoning and Mental ability (Annexure-3)	25	25	
<b>Total</b>			<b>100</b>	<b>100</b>	

**Note:-(i) There will be negative marking in Part-B. Each question carries 1 mark. For every wrong answer, 1/4<sup>th</sup> mark would be deducted. The question(s) not attempted will receive no credit or discredit.**

**(ii) The merit list of candidates, who will qualify Part-'A', will be prepared on the basis of marks secured by candidate in Part-B.**

4. Tentative syllabus for the written examination for the recruitment of Livestock Supervisor is annexed at Annexure-1,2 and 3.

Annexure-1 (Punjabi Syllabus)

Part-A (Punjabi Qualifying Exam)

1. ਜੀਵਨੀ ਅਤੇ ਰਚਨਾਵਾਂ ਨਾਲ ਸਬੰਧਤ ਪ੍ਰਸ਼ਨ:-  
ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ, ਸ੍ਰੀ ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ, ਸ੍ਰੀ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ,  
ਸ੍ਰੀ ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ, ਸ੍ਰੀ ਗੁਰੂ ਤੇਗ ਬਹਾਦਰ ਜੀ, ਸ੍ਰੀ ਗੁਰੂ ਗੋਬਿੰਦ ਸਿੰਘ ਜੀ।
2. ਵਿਰੋਧਾਰਥਕ ਸ਼ਬਦ, ਸਮਾਨਾਰਥਕ ਸ਼ਬਦ।
3. ਮੁਹਾਵਰੇ।
4. ਅਖਾਣ।
5. ਸ਼ਬਦ ਦੇ ਭੇਦ।
6. ਅਗੋਤਰ/ਪਿਛੇਤਰ।
7. ਵਚਨ ਬਦਲੇ ਤੇ ਲਿੰਗ ਬਦਲੇ।
8. ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ।
9. ਸ਼ਬਦਾਂ / ਵਾਕਾਂ ਨੂੰ ਸੁੱਧ ਕਰਕੇ ਲਿਖੋ।
10. ਅੰਗਰੇਜ਼ੀ ਸ਼ਬਦਾਂ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਸੁੱਧ ਰੂਪ।
11. ਅੰਕਾਂ, ਮਹੀਨੇ, ਦਿਨਾਂ ਦਾ ਸੁੱਧ ਪੰਜਾਬੀ ਰੂਪ।
12. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਨਾਲ ਸਬੰਧਤ ਪ੍ਰਸ਼ਨ।
13. ਪੰਜਾਬ ਦੇ ਇਤਿਹਾਸ ਨਾਲ ਸਬੰਧਤ ਪ੍ਰਸ਼ਨ।
14. ਪੰਜਾਬ ਦੇ ਸਭਿਆਚਾਰ ਨਾਲ ਸਬੰਧਤ ਪ੍ਰਸ਼ਨ।

## Annexure-2

### **Part B (I)-Subject Syllabus(Livestock Supervisor)**

#### **1. Elementary Animal Husbandry**

Common breeds of cattle, buffalo, sheep, goat, pig, horse and poultry; Animal production systems; Principles of housing for farm animals; Routine managements practices for various categories of livestock (calves, heifers, pregnant and lactating animals etc.) and sick animals; Introduction to methods of castration; Milking techniques; Clean milk production concept, significance and factors affecting clean milk production; Sanitation and hygiene practices; Routine farm practices including wallowing, watering and bathing; Record keeping and responsibilities of veterinary inspector/ para-veterinarian; waste management, Identification techniques in animals, Bio-security methods at livestock farm.

#### **2. Elementary Livestock Handling**

An overview of animal behavior, Common tools used for animal control; Methods of restrain and handling of animals; Dentition, Farrier practices and shoeing, Hoof trimming in bovine; Prevention of cruelty to animals, Preparing animals for show/animal fair.

#### **3. Elementary Animal Nutrition**

Principles of animal nutrition; Digestive systems including rumination; Nutritional important of carbohydrates, lipids, proteins, vitamins, minerals and water; Common feeds and fodders; Scientific feeding and feeding schedule for different categories of livestock; Colostrums feeding- How, when and why to feed colostrums to calves? Feeding practice of cow & buffalo-Ration balancing; Anti nutritional factors; Feed additives; Hay and Silage making, Precautions in the storage of feed and fodder.

#### **4. Basic Computer Applications**

Knowledge about the computer accessories. Use of computer in handling and presenting veterinary and livestock data. Working in Windows operating system. Working with MS Word, Spreadsheets using MS Excel, Graphics and MS Power Point. Internet and World Wide Web, E-mail and internet services; Computer viruses, antivirus. Practice in Farm data recording.

#### **5. Elementary Anatomy and Physiology of Animals**

Introduction to anatomy and physiology of musculoskeletal, digestive, cardiovascular, respiratory, nervous, excretory, male and female reproductive and endocrine system; Mammary glands of domestic animals; Body cavities (Thoracic, abdominal and Pelvic) and its related organs. Basic physiological parameters of domestic animals.

#### **6. Elementary Pharmacology**

Introduction to Pharmacology, Nature and sources of drugs; Routes of drug administration; Dosage forms; Pharmaceutical processes; Handling of hazardous substances; Common antiseptics and disinfectants; Weights and measures; Pharmacy calculations; Classification of important drugs; Important Indigenous and allopathic drugs.

#### **7. Elementary Veterinary Epidemiology and Public Health**

Introduction to epidemiology, surveillance, and monitoring of common seasonal infectious diseases like Brucellosis, Rabies, Cysticercosis, TB, JD, Anthrax, FMD, Food borne pathogens, Public health considerations; Common zoonoses and their management; Disposal of cadaver; Concept of contagious, notifiable diseases and outbreaks.

#### **8. Elementary Poultry Science**

Poultry types-Layer, Broiler; Common breeds/strains of poultry; Meat and egg productivity, and production, Different housing/rearing systems; Management of layer and broiler farm; Brooding; Hatchery routines; Cleaning of poultry sheds and litter management; Bio-security; Feeding and poultry ration; Introduction to common poultry diseases; Vaccination.

#### **9. Elementary Animal Husbandry Extension**

Extension in rural welfare; Community development and rural sociology; Principles and objectives of veterinary and animal husbandry extension; Qualities of extension worker; Extension teaching methods; Extension and training programmers. Duties of veterinary inspector/ para-veterinarian; Communication tools and Role of media, Set-up of Animal Husbandry Department, Record maintenance at Veterinary Hospital, Government schemes for farmers benefits.

#### **10. Elementary Animal Reproduction**

Female genitalia of cattle, buffalo and goats, Reproductive cycle, Puberty, Oestrous cycle; Methods of heat detection including fern pattern; Gestation in domestic animals; Methods of pregnancy diagnosis; Abortion in domestic animals; Parturition and impending signs, Types of infertility in farm animals-causes and remedies; Sexual health and herd health programme; Care and management of dam and new born calf, Introduction to parturient problems in dairy animals.

#### **11. Elementary Andrology and Artificial Insemination**

Study of male genitalia and gonads; Puberty, Methods of semen collection and storage; Handling of fresh/frozen semen; Artificial insemination including optimum time of AI; Diseases transmitted through semen.

#### **12. Elementary Parasitology**

Introduction to common parasites i.e., protozoa (Theileria, Babesia, Anaplasma and Trypanosomes), Tremetodes (Liver flukes, amphistomes and lung flukes), cestodes (Moneizia, Dipylidiumcaninum, Taeniasis, Hydatid cyst), nematodes (Toxocare, Hemonchus, Lung worm, filarial nematodes etc) and arthropods (Flies, Ticks, Mites, Fleas and myiasis) in livestock; Economic importance of parasitic diseases of livestock.

#### **13. Procurement, Handling and Testing of milk**

History of dairy development in India. Three tier structure of dairy cooperative. An introduction to Indian dairy industry with special reference to dairy sector in Punjab. Milk- definition, its composition, factors affecting the quality of milk and standards. Milk collection systems and its handling (transportation, reception and storage). Platform tests for quality analysis of milk. Important sanitary and hygienic practices for milk handling. Cleaning and its importance. Introduction

to common detergents & sanitary agents. Milk pricing system and its concept.

#### **14. Basic Livestock Health Management**

Introduction to common diseases of livestock; Hemorrhagic Septicaemia. Brucellosis, Tuberculosis, Foot and Mouth disease, Rabies, Johne's disease, Glanders, Theileriosis, Classical swine fever, etc. Insecticide toxicities. Preventive health measures for bacterial, viral and parasitic diseases in various species.

#### **15. Veterinary Hospital Maintenance**

Maintenance of case record and log books of scheduled drugs Basic accounting; Preparation of bills and maintenance of consumable and non-consumable stock of hospital; History taking, Prescription reading and dispensing of drugs, Preparation of animals for surgical operation; Care and maintenance of surgical, anesthetic and other common equipments; Assisting veterinary surgeon in post-operative care; Hospital hygiene, Sterilization of operation theatre; Surgical pack and surgical instruments; Types of suture material, Categorization of biomedical waste, its disposal as per pollution control board regulations.

#### **16. Elementary Veterinary Medicine**

Introduction to digestive, respiratory, urinary and production systems and their diseases (Milk fever, Ketosis; Haemoglobinuria); Preliminary knowledge about indigestion, bloat, constipation, diarrhea, aspiration pneumonia and urinary incontinence, Mastitis; Common mineral and vitamin deficiencies, Hoof care.

#### **17. Elements of Wound care and Management**

Wound causes, classification; Types of wound dressings; Basic concepts of abscess, ulcers, haematoma, cyst, tumor and hernia; Clinical use of antiseptics, fly repellents, anti-maggot etc.; First aid in sick animals including fracture cases. Management of bloat; Hoof care.

#### **18. Basic Clinical Pathology and Laboratory techniques**

Handling of laboratory equipment, glassware and chemicals; Cleaning and sterilizing of laboratory wares; Basic microscopy principles; Blood collection techniques; Use of anticoagulants; Serum and plasma separation; Urine collection, preservation and common physical and chemical tests; Collection, preservation and dispatch of tissues for histopathology, Protocols for necropsy of mammals and poultry birds.

#### **19. Practical On-Farm/Farmer's Door Training**

Handling, management practices of Dairy farm, Stud Farm, Poultry Farm, Piggery Farm, Sheep and Goat farm, Routine farm operations including vaccination etc. Communication with farmers; Use of audio and visual aids for training of farmers; Organizing farmer interactions, Extension programmes viz. KisanMela, Livestock shows, Animal markets and Animal welfare camps.

#### **20. Practical In-Clinics Training**

Handling and dealing with sick animals, Record keeping; History taking;

Sampling of body fluid/tissues; Medication; Pos-operative management of surgical patients; Care of pregnant animals; Vaccination; Preparation of solutions, lotions, tinctures, ointments, mixtures (carminatives, laxatives, purgatives, febrifuge etc.) Electuaries etc.

#### **21. Practical Lab/Hospital Training**

Handling of laboratory equipment; Methodology for transporting various samples to laboratory for examination; Blood smear preparation; Staining; Complete blood count; Serum and plasma separation; Preservations of serum, plasma and tissues; Urine examination; Preparation of smears for faecal examination.

#### **22. Practical Bull Centre Training**

Management of breeding bull; preparation of dummy; Artificial vagina preparation; Preparation of extenders; Handling of chilled and frozen semen, Storage of semen; Handling of liquid nitrogen including its containers; Artificial insemination; Record keeping.

**Annexure-3**

**Part B(II)--General Knowledge, Logical Reasoning and Mental Ability.**

<b>Sr. No.</b>	<b>Indicative Contents of Syllabus</b>	<b>Weightage (Approx.)</b>
1	<p><b>General Knowledge and Current affairs of National and International importance including:</b></p> <ul style="list-style-type: none"> <li>(i) Political issues,</li> <li>(ii) Environment issues,</li> <li>(iii) Current Affairs,</li> <li>(iv) Science and Technology,</li> <li>(v) Economic issues,</li> <li>(vi) History of India with special reference to Indian freedom struggle movement.</li> <li>(vii) Sports,</li> <li>(viii) Cinema and Literature.</li> </ul>	10
2	<p><b>Logical Reasoning &amp; Mental Ability:</b></p> <p>Verbal reasoning: Coding, Decoding, Analogy, Classification, Series, Direction sense test, relations, mathematical operations, time test, odd man out problems.</p> <p>Non Verbal reasoning: Series, Analogy and Classification.</p> <p>Basic numerical skills, Percentage, Number system, LCM and HCF, Ratio and Proportion, Number series, Average, Problems based on Ages, Profit &amp; Loss, Partnership and Mixture, Simple and Compound Interest, Work and Time, Time and Distance. Mensuration and Data Interpretation.</p>	10
3.	<p><b>English:-</b></p> <p>Basic Grammar, Subject and Verb, Adjectives and Adverbs, Synonyms, Antonyms, One Word Substitution, Fill in the Blanks, Correction in Sentences, Idioms and their meanings, Spell Checks, Adjectives, Articles, Prepositions, Direct and Indirect Speech, Active and Passive Voice, Correction in Sentences, etc.</p>	5
	<b>Maximum Marks</b>	25

Note:-a) The distribution of marks/question in each section is indicative. It may vary slightly.

b) The syllabus is broadly classified as above but may vary to some extent.