GOVERNMENT OF MIZORAM
AGRICULTURE & FARMERS' WELFARE DEPARTMENT
*****

NOTIFICATION

Aizawl, the 7th of July, 2025

No. A-12018/46/2025-AGR: The competent authority is pleased to notify the syllabus for direct recruitment to the post of Group 'C' (Laboratory Assistant) under Agriculture & Farmers' Welfare Department, as appended, with immediate effect and until further orders.

This syllabus is vetted by DP&AR (GSW) vide their I.D. No. GSW 1/2025/e-7091 dated 1st July, 2025.

Sd/- RAMDINLIANI
Special Secretary to the Govt. of Mizoram
Agriculture & Farmers' Welfare Department

Memo No. A-12018/46/2025-AGR : ***Aizawl, the 7th of July, 2025***

Copy:

1) P.S. to Minister, Agriculture & Farmers' Welfare Department, Mizoram.
2) Sr. P.P.S. to Chief Secretary, Mizoram.
3) P.S. to Special Secretary, A&FW Department, Mizoram.
4) Director of Agriculture & Farmers' Welfare, Mizoram.
5) Controller, P&S with 2 (two) spare copies for publication in the Mizoram Gazette.
6) Under Secretary, DP&AR (GSW).
7) Deputy Director (Extension), Agriculture & Farmers' Welfare, Mizoram for uploading in the Department website.
8) Guard File No. 28

7/7/25
(LALREMRUATI)
Deputy Secretary to the Govt. of Mizoram
Agriculture & Farmers' Welfare Department

ANNEXURE

APPROVED SYLLABUS FOR DIRECT RECRUITMENT TO THE POST OF LABORATORY ASSISTANT IN LEVEL - 05 OF THE PAY MATRIX UNDER AGRICULTURE & FARMER'S WELFARE DEPARTMENT

PAPER – I	200 MARKS
PAPER – II (TECHNICAL PAPER – I)	200 MARKS
PAPER – III (TECHNICAL PAPER – II)	200 MARKS
INTERVIEW	100 MARKS
TOTAL	**700 MARKS**

Paper		Subject	Marks	Duration
PAPER I	1	General Knowledge (*25 questions*)	50	3 hours with additional time of 20 minutes per hour for persons with benchmark disabilities
	2	General English (*20 questions*)	40	
	3	Essay Writing	20	
	4	English Comprehension (Class X level)	20	
	5	Simple Arithmetic - Class X level (*20 questions*)	40	
	6	Basic Computer Knowledge (*15 questions*)	30	
		TOTAL	**200**	
PAPER II	a	Agronomy (30 questions)	60	3 hours with additional time of 20 minutes per hour for persons with benchmark disabilities
	b	Soil Science (25 questions)	50	
	c	Plant Protection (25 questions)	50	
	d	Horticulture (20 questions)	40	
		TOTAL	**200**	
PAPER III	a	Seeds & Seed Production Technology *(30 questions)*	60	3 hours with additional time of 20 minutes per hour for persons with benchmark disabilities
	b	Plant Breeding and Genetics (*30 questions*)	60	
	c	Plant Physiology /Crop Physiology (*20 questions*)	40	
	d	Post-Harvest Technology (*20 questions*)	40	
		TOTAL	**200**	

Notes:

1) *Questions shall be set in Objective Type Multiple Choice patterns only except for essay writing and English comprehension under Paper-I with all questions carrying equal marks and answers for each of the questions shall be marked using blue or black ball point pen. In other words, there shall be multiple probable answers (at least four) wherein the candidate has to choose the correct answer for every objective type question.*
2) *Questions will be set in tune with the level of educational qualifications prescribed in the corresponding Recruitment Rules for the post(s).*
3) *A brief description of the syllabus for direct recruitment to the post Laboratory Assistant under Agriculture & farmers' Welfare Department is as follows:*

DESCRIPTION OF SYLLABUS FOR DIRECT RECRUITMENT TO THE POST OF LABORATORY ASSISTANT

PAPER – I

1) **General Knowledge**: Questions will be designed to test the candidate's knowledge of current events and of such matters of everyday observation and experience as may be expected of an educated person. The test will also include questions relating to Indian history and culture, Indian polity including the Constitution of India, geography, economy and general science. Questions on Mizo history and culture will also form part of the syllabus.

2) **General English**: Questions will be designed to test the candidate's understanding and knowledge of English language, vocabulary, spelling, grammar, sentence structure, synonyms, antonyms, sentence completion, phrases and idiomatic use of words etc. There will be questions on comprehension of a passage also.

3) **Essay Writing**: Question on essay writing will be designed to test the candidate's grasp of his material, its relevance to the subject chosen, and to his ability to think constructively and to present his ideas logically, constructively and concisely.

4) **English Comprehension**: There will be questions on comprehension of passages also to test the vocabulary, grammar, logical thought ability and overall grasp of the candidates over English language.

5) **Simple Arithmetic**: Number system, simplification, roots, averages, discounts, percentages, profit & loss, ratio and proportion, partnership, chain rule, time & work, time & distance, simple & compound interest, mensuration, permutations & combinations, heights & distances, line graphs, bar graphs, pie charts and tabulation.

6) **Basic Computer knowledge**: Introduction to Computers, introduction to Graphical user interface-based Operating System, elements of Word Processing, Spreadsheets, Power-point presentations, Computer communication and internet, world wide web and web browser, communication and collaboration.

PAPER – II

Agronomy:

Agronomy meaning and scope, National & International Agricultural Research Institutes in India, Agro-climatic zones of India, tillage and intercultural operations, implements for ploughing, nursery management, organic farming, precision farming, Integrated Farming Systems, principles of crop ecology and crop adaptation, climate shift and its ecological implications, agro-ecological regions in India, geographical distribution of crop plants, greenhouse effect, climatic factors and their effect on plant processes and crop productivity, role of remote sensing and GIS in agriculture. Package of practices of cereals, pulses, oilseeds, fiber crops, fodder a forage and commercial crops. Weed management principles, management, classification, biology and ecology of weeds, crop weed competition and weed control, Integrated weed management, classification, formulations, selectivity and resistance of herbicides, herbicide persistence in soil and plants, application methods and equipments.

Soil Science:

Soil physical, chemical and biological properties and their brief descriptions. Problem soils acid, saline and sodic soils their characteristics, formation, problems and management. Soil fertility and fertilizers- essential plant nutrients and their deficiency symptoms, concept of essentiality of plant nutrients, indicators of soil fertility and productivity, fertilizer materials and their availability to plants, slow-release fertilizers, principles and methods of fertilizer application, Integrated Nutrient Management, methods of soil sample collection, soil testing and fertilizer recommendations. Soil classifications major soils of India, soil micro-organisms, classification and their roles. Organic matter decomposition, C:N ratios, mineralization and immobilization process, humus, role of organic matter in soil quality. Fertilizers and manures classifications, NPK fertilizers, their reactions in soils, green manuring, recycling of organic waste, composting. Characteristic features of Biofertilizers.

Plant Protection:

Classification of animals, classification of insect-pests, principles of pest management, pesticides and their formulation, fungicides and bactericides, plant protection equipments and spraying techniques, Bio-pesticides, Integrated Pest Management (IPM), Integrated disease management. Major insect pests and diseases of agricultural crops like cereals, pulses, oilseeds, commercial crops and their management, biological control of crop pests.

Horticulture:

Meaning & definition of Horticulture, branches of Horticulture, classification of Fruits, Vegetables. Major fruit crops and their culture, major vegetable crops and their culture, Spices and condiments, floriculture, medicinal and aromatic plants, plantation crops, fruit and vegetables preservation, kitchen gardening. Methods of plant propagation. Harvesting, storage, processing, value addition and marketing of fruits and vegetables. Major pests and diseases of Horticulture crops and their control.

PAPER - III

Seeds & Seed Production Technology:

Definition of seeds, seed certification techniques and processing, Seed testing laboratories, ISTA standards for seed testing, Seed village concept and Seed Act, production techniques of quality seeds, seed hybridization, principles of plant breeding and genetics, GM seeds, HYV, Hybrid seeds. Seed sampling: principles and procedures, Seed storage and packaging. Intellectual Property Rights, Protection of Plant Varieties and Famers' Rights Act (PPVFRA) and Geographical Indications.

Plant Breeding and Genetics:

Plant breeding as a dynamic science, genetic basis of Plant Breeding classical, quantitative and molecular, plant breeding in India limitation, major achievement, sexual reproduction (cross and self-pollination), asexual reproduction, pollination control mechanism (incompatibility, sterility and implications of reproductive systems on population structure). Hybridization, selection and breeding techniques. Heterosis-concepts, estimation and its genetic basis.

Plant Physiology/Crop Physiology:

Plant physiology importance in agriculture. Seed gemination, viability and vigour. Photosynthesis significance of C-3, C-4 and CAM pathway, photorespiration and its implications. Translocation of assimilates, dry matter partitioning and Harvest index of crops. Growth and development, growth analysis and crop-water relationship. Plant nutrients and their functions. Phytohormones and their physiological role. Photo-periodism, vernalisation; pollination/fertilization in flowering plants. Post-harvest physiology and its significance.

Post-harvest Technology:

Post-harvest losses, post-harvest operations and value addition, post-harvest technology of cereals, coarse cereals, pulses, oilseeds, tuber crops and spices crops.