RAMAKRISHNA MISSION VIVEKANANDA EDUCATIONAL AND RESEARCH INSTITUTE
NARENDRAPUR CAMPUS
(Deemed-to-be University declared by Govt. of India under Section 3 of UGC Act, 1956)
Head Quarter: Belur Math, Howrah, West Bengal: 711202
(Accredited by NAAC with A++ Grade)
Division of Agronomy | School of Agriculture and Rural Development
Ramakrishna Mission Ashrama, Narendrapur, Kolkata-700103

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Question Nos.	Max. Marks	Marks Obtained
SECTION-A: A.01—A.15 (Page Nos. 03-05)	**30**	
SECTION-B: B.01—B.06 (Page Nos.06-08)	**30**	
TOTAL	**60**	

ENTRANCE EXAMINATION FOR

ADMISSION TO M.Sc. (Ag.) in AGRONOMY – 2026

(Model Question)

Maximum Marks: 60 **SECTION-A:** 2 marks each
Duration: 2 Hours **SECTION-B:** 5 marks each

INSTRUCTIONS

1. ALL questions are COMPULSORY.
2. The question paper consists of two sections: Section-A (Short Answer Type Questions) and Section-B (Descriptive Type Questions).
3. Section-A carries 2 marks each. Answers should be brief and precise -not exceeding 60–80 words per answer.
4. Section-B carries 5 marks each. Write focused, organized answers -not exceeding 200–250 words per answer.
5. Question Distribution: Section-A includes 15 short-answer questions, and Section-B includes 6 descriptive questions.
6. Candidates must write their answers only in the space provided. **No additional sheets will be supplied**.
7. The use of **calculators, electronic devices, or any reference materials is strictly prohibited**.
8. Marks will be awarded based on: Clarity of expression, Relevance of content, Use of appropriate examples (where applicable) and Correct terminology.

(To be filled by the Candidates)

Name	
Signature	
Application ID	

Invigilator's Signature:

SPACE FOR ROUGH WORK

SECTION -A: SHORT ANSWER QUESTIONS

A.01. Define 'crop stand' and explain its significance in achieving optimum yield in paddy cultivation.

A.02. What is the law of minimum (Liebig's Law)? How does it apply to nutrient management in Indian agriculture?

A.03. Distinguish between 'C3' and 'C4' plants with two examples each relevant to Indian cropping systems.

A.04. What is the critical period of crop-weed competition? Illustrate with reference to kharif maize.

A.05. Define 'leaf area index' (LAI) and state its optimum range for a high-yielding wheat crop.

A.06. Explain the concept of 'soil health card' scheme of the Government of India and its agronomic relevance.

A.07. What is 'alternate wetting and drying' (AWD) in rice cultivation? State its advantage in water conservation.

A.08. Differentiate between 'agronomic dose' and 'economic threshold' of fertilizer application.

A.09. What is 'seed priming'? Name any two priming methods used in rainfed agriculture of India.

A.10. Define 'evapotranspiration' and state the factors affecting it in tropical agroecosystems.

A.11. What is 'zero tillage'? Mention two crop situations in India where it is successfully practiced.

A.12. Explain the term 'green manuring'. Name two green manure crops suitable for rice-based cropping systems.

A.13. What is the difference between 'kharif', 'rabi', and 'zaid' cropping seasons in the Indian context?

A.14. Define 'harvest index'. Which modern high-yielding variety has a higher harvest index -dwarf or tall wheat? Give reason.

A.15. What is 'integrated nutrient management' (INM)? Name two organic sources of nutrients used under INM in India.

SECTION -B: DESCRIPTIVE QUESTIONS

B.01. Describe the principles and components of a 'cropping system'. With suitable examples from Eastern India, explain how rice-based cropping systems contribute to food and nutritional security.

B.02. What is 'integrated weed management' (IWM)? Discuss the cultural, mechanical, and chemical methods of weed control in transplanted rice with their limitations and scope in the Indian context.

B.03. Explain the concept of 'soil organic carbon' (SOC) and its role in soil health. Discuss the agronomic interventions recommended to enhance SOC in the degraded soils of peninsular India.

B.04. Write a detailed note on 'water use efficiency' (WUE) in dryland agriculture. Explain the agronomic measures to improve WUE in rainfed crops of semi-arid India.

B.05. Discuss the role of 'micronutrients' -particularly zinc, boron, and iron -in crop production. What are the common deficiency symptoms, diagnostic methods, and corrective measures adopted in Indian soils?

B.06. Explain the concept of 'climate-smart agriculture' (CSA). Describe at least three CSA practices relevant to the Indian Sundarbans or coastal agroecosystems of West Bengal that help build resilience against climate change.