Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0811 08 AERD 5101: Monitoring and Evaluation
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

Section A

1.	(a)	Explain the purpose and scope of monitoring in agricultural extension programs and discuss how monitoring data can improve extension service delivery. [L2; CLO1]	3.0
	(b)	Analyze the procedure for monitoring extension activities such as farmers' training, field demonstrations, and district or upazila agricultural fairs. [L4; CLO1]	3.0
	(c)	Evaluate the effectiveness of a farmers' training program by examining the performance of instructors, trainees, training content, and methods used. [L5; CLO1]	4.0
2.	(a)	Describe the differences between quantitative monitoring and qualitative monitoring in agricultural extension programs. [L2; CLO1]	3.0
	(b)	Apply appropriate monitoring techniques to assess the effectiveness of farmer group activities in an agricultural extension program. [L3; CLO1]	3.0
	(c)	Critically assess the key steps involved in evaluating an agricultural extension program. [L5; CLO1]	4.0
3.	(a)	Explain the meaning and major types of monitoring and evaluation used in agricultural development projects. [L2; CLO2]	3.0
	(b)	Analyze the nature of information required for effective monitoring and evaluation of agricultural extension projects at the project level. [L4; CLO2]	3.0
	(c)	Evaluate the major limitations of current monitoring and evaluation results in agricultural development programs. [L5; CLO2]	4.0
4.	(a)	Explain the monitoring and evaluation strategies used by the Department of Agricultural Extension (DAE) in agricultural development programs. [L2; CLO2]	3.0
	(b)	Analyze the monitoring and evaluation processes commonly used by NGOs in agricultural extension and rural development projects. [L4; CLO2]	3.0
	(c)	Evaluate the role of gender-sensitive monitoring and evaluation techniques in improving the effectiveness of agricultural development interventions. [L5; CLO2]	4.0

Section B

5.	(a)	Why do we need to assess students/learners? [L2; CLO3]	3.0
	(b)	State the functions of assessment. [L2; CLO3]	3.0
	(c)	What are the criteria/factors that influence choosing an assessment method? [L2; CLO3]	2.0
	(d)	What should we do with the information from assessment? [L4; CLO3]	2.0
6.	(a)	Why is 'Portfolio' important for students? [L4; CLO3]	2.0
	(b)	Explain the models through which we can understand "What portfolio contains"? [L2; CLO3]	3.0
	(c)	What is "Rubric"? When is "Rubric" used? [L2; CLO3]	3.0
	(d)	Why is "SAAO's (BS's) Diary" important in DAE? [L4; CLO3]	2.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0811 08 AERD 5101: Monitoring and Evaluation
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

7.	(a)	What are the aspects regarding which management decisions could be made with the help of SEMS? [L2; CLO4]	3.0
	(b)	State the actions that could be taken to improve poor methods of extension. [L2; CLO3]	2.5
	(c)	What are the functions of "In-Charge SEMS" that need to be ensured? [L2; CLO3]	2.0
	(d)	When and why are the KAP surveys implemented? [L2; CLO4]	2.5
8.	(a)	State the steps to be followed in a KAP survey. [L2; CLO4]	3.0
	(b)	Compare between RRA and PRA. [L5; CLO4]	3.0
	(c)	What are the factors to be considered in the preparation and presentation of a PRA report? [L2; CLO4]	2.0
	(d)	List down the agricultural issues for RRA. [L2; CLO4]	2.0

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0811 08 AERD 5105: Project Planning and Development for Agriculture
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

Section A

1.	(a)	Describe the concept of a project in the context of agricultural development and rural extension programs. [L2; CLO1]	3.0
	(b)	Analyze the phases of the project cycle in agricultural development projects. [L4; CLO1]	3.0
	(c)	Evaluate the criteria that determine the success of an agricultural development project. [L5; CLO1]	4.0
2.	(a)	Discuss the conceptual framework of a project in the context of agricultural development and extension management. [L2; CLO1]	2.0
	(b)	Apply appropriate project processing procedures to plan an agricultural development project in Bangladesh. [L3; CLO1]	2.0
	(c)	Suppose 'Adoption Dynamics and Barriers to Climate-Smart Agricultural Technologies in the Southwestern Coastal Region of Bangladesh' is a project. Design a project management log-frame matrix that can improve this success of the project. [L6; CLO1]	6.0
3.	(a)	Explain the concept of program execution in agricultural extension programs. [L2; CLO2]	3.0
	(b)	Analyze the factors that can hinder effective execution of agricultural extension programs. [L4; CLO2]	3.0
	(c)	Evaluate the criteria used to judge the effectiveness of agricultural extension programs. [L5; CLO2]	4.0
4.	(a)	Explain the importance of pre-feasibility and feasibility analysis in agricultural project preparation. [L2; CLO2]	3.0
	(b)	Discuss the different types of project proposal in Bangladesh. [L2; CLO2]	3.0
	(c)	Evaluate the role of a logical framework in enhancing the effectiveness of agricultural project planning and management. [L5; CLO2]	4.0

Section B

5.	(a)	What is meant by project? [L2; CLO2]	2.0
	(b)	Draw the project organization chart. [L2; CLO2]	2.0
	(c)	Explain the project organization structure. [L2; CLO2]	3.0
	(d)	Show diagrammatically what should be initially think about input pathways and result chains before formulating any project. [L3; CLO2]	3.0
6.	(a)	What are factors to be considered in agricultural interventions? [L2; CLO2]	2.0
	(b)	State the approaches of project implementation. [L2; CLO3]	3.0
	(c)	Highlight the issues concerned with project implementation schedule. [L2; CLO3]	2.0
	(d)	How to determine a GANTT Chart? [L3; CLO3]	3.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0811 08 AERD 5105: Project Planning and Development for Agriculture
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

7.	(a)	What is project appraisal? Why is it done? [L1,4; CLO2]	2.0
	(b)	What are the issues that considered in case of market appraisal. [L2; CLO2]	3.0
	(c)	Explain the "Concept of Time Value of Money" in case project appraisal. [L2; CLO2]	2.0
	(d)	Explain the decisions made based on discounted analyses for project approval. [L4; CLO2]	3.0
8.	(a)	How does activities/tasks are characterized by in case of project scheduling? [L2; CLO3]	3.0
	(b)	State the secondary objectives of project scheduling. [L2; CLO3]	2.0
	(c)	What are the Network Diagrams that are involved in Mathematical analysis of project scheduling? [L2; CLO3]	2.0
	(d)	Cite an example of AO diagram and explain it. [L2; CLO3]	3.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0688 08 ICT 5151: Information and Communication Technology
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

Section A

1.	(a)	Enumerate the purposes of communication in Development and Extension Education. [L2; CLO1]	2.0
	(b)	State the components of extension system. [L2; CLO1]	3.0
	(c)	How does ICT strengthen communication system? [L4; CLO1]	2.0
	(d)	Highlight the digital platforms of AIS. [L2; CLO1]	3.0
2.	(a)	Define communication and explain its main functions in agricultural extension education. [L1; CLO1]	3.0
	(b)	Illustrate the key elements of the Mathematical Model of Communication and explain the role of noise in the communication process. [L4; CLO1]	3.0
	(c)	Explain the main assumptions of the Social Psychological Model of Communication and discuss how psychological factors influence communication effectiveness in extension work. [L4; CLO1]	4.0
3.	(a)	Explain how source credibility influences the effectiveness of a communication message in extension education. [L2; CLO2]	3.0
	(b)	State two-sided message. When is it used - explain with example? [L4; CLO2]	3.0
	(c)	Design a communication message using fear, emotional, rationale and reward appeal to motivate farmers to adopt a new agricultural practice. [L6; CLO2]	4.0
4.	(a)	Differentiate between mass media channels and interpersonal communication channels in the dissemination of agricultural information. [L2; CLO2]	3.0
	(b)	Analyze the major communication problems faced by extension organizations while delivering agricultural information to rural communities. [L4; CLO2]	3.0
	(c)	Evaluate the effects of mass communication on social change in rural communities. [L5; CLO2]	4.0

Section B

5.	(a)	What are the aims of development communication? [L1; CLO3]	2.0
	(b)	Differentiate between horizontal and vertical communication with examples. [L5; CLO3]	2.0
	(c)	Explain participatory development communication. [L2; CLO3]	3.0
	(d)	How does ICT transform agricultural extension? [L3; CLO3]	3.0
6.	(a)	How does mass communication play a role in (i) knowledge transfer and innovation and (ii) behavior change and capacity building for agricultural extension and rural development? [L4; CLO3]	3.0
	(b)	What are the challenges in implementing communication modes and how could they be overcome or addressed? [L1,3; CLO3]	3.0
	(c)	Highlight the role of telecommunication for rapid dissemination of information. [L2;	2.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0688 08 ICT 5151: Information and Communication Technology
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

CLO3]

(d) What is Email? Express its function in technology diffusion. [L1,2; CLO3] 2.0

7. (a) What are the roles of websites in technology diffusion? [L2; CLO3] 3.0
   (b) Differentiate between interactive and non-interactive communication technology. [L5; CLO3] 2.0
   (c) Outline the basic functional components of a computer system. [L2; CLO4] 3.0
   (d) Highlight the use of micro-computers in agricultural extension. [L2; CLO4] 2.0

8. (a) Why is MIS used in agricultural extension system? [L4; CLO4] 3.0
   (b) Outline the levels of management supported by MIS. [L3; CLO4] 2.0
   (c) Enlist the key activities for identification of information needs. [L2; CLO4] 2.0
   (d) Compare among MIS, DSS and ERP. [L5; CLO4] 3.0

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0413 08 AERD 5153: Program Management and Public Administration
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

Section A

1.	(a)	Identify and explain four essential criteria that characterize a 'good' extension program, and describe how these criteria ensure that a plan remains practical for local farmers. [L2; CLO1]	3.0
	(b)	Critique the 'Program Projection' approach in extension planning by comparing its long-term strategic benefits against the potential loss of flexibility when responding to immediate local environmental or economic crises. [L5; CLO1]	3.0
	(c)	Develop a comprehensive role description for an extension specialist that justifies how their specific technical expertise must be integrated with participatory methods to ensure a bottom-up planning process rather than a top-down technical imposition. [L6; CLO1]	4.0
2.	(a)	Compare between plan of work and calendar of work. [L5; CLO1]	3.0
	(b)	Differentiate between the 'felt needs' and 'unfelt needs' of a rural community, and analyze how a reliance on only one of these concepts can lead to the failure of an agricultural extension program. [L4; CLO1]	4.0
	(c)	Evaluate the role of 'Appraisal of Accomplishment' in the program planning cycle. [L5; CLO1]	3.0
3.	(a)	Describe the administrative functions of a Chief Executive. [L2; CLO2]	3.0
	(b)	Select three core principles of administration. Explain how an extension director would apply these principles to manage a large-scale agricultural project effectively. [L3; CLO2]	3.0
	(c)	Compare the primary goals of public administration with those of private administration. [L4; CLO2]	4.0
4.	(a)	Explain how an administrator would utilize specific investigation techniques to identify and resolve a resource allocation conflict within an agricultural project. [L3; CLO2]	3.0
	(b)	Distinguish between coercive and non-coercive administrative powers by comparing how each type influences the behavior and compliance of extension staff. [L4; CLO2]	3.0
	(c)	Assess the effectiveness of non-coercive inspection methods in fostering long-term professional growth compared to traditional top-down oversight. [L5; CLO2]	4.0

Section B

5.	(a)	What is meant by organization? [L2; CLO2]	2.0
	(b)	Explain resources and tenacity as the characteristics of an organization. [L4; CLO2]	4.0
	(c)	Differentiate between line and staff organizations. [L5; CLO2]	4.0
6.	(a)	Explain 'Delegation' as a determinant of scaler system with examples. [L4; CLO2]	2.0
	(b)	What are meant by decisions in response to opportunities and threats? [L4; CLO3]	3.0
	(c)	Draw the steps in decision making. [L2; CLO3]	2.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0413 08 AERD 5153: Program Management and Public Administration
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

	(d)	What is decision timing? Why do we consider legal factor/issue in evaluating alternatives? [L4; CLO3]	3.0
7.	(a)	Diagrammatically show the principles of co-ordination. Why do we need to follow principles of early beginning/start for co-ordination? [L2, 4; CLO3]	4.0
	(b)	Differentiate between co-ordination and co-operation. [L5; CLO3]	4.0
	(c)	Explain in brief the story of/about four imaginary characters such as 'everybody, somebody, anybody and nobody' which indicate lack of co-ordination. [L4; CLO3]	2.0
8.	(a)	Compare between efficiency and effectiveness. [L5; CLO3]	2.0
	(b)	Why does development of human manpower an important function management of an organization. [L2; CLO3]	2.0
	(c)	Show diagrammatically the factors affecting staffing of an organization. [L2; CLO3]	2.0
	(d)	State the career development objectives of performance appraisal. [L2; CLO3]	2.0
	(e)	When does performance appraisal become ineffective? [L3; CLO3]	2.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]

Khulna University

School: Life Science **Discipline:** Agrotechnology **Program:** MS in AERD
Year: 1st **Term:** 1st **Examination Year:** 2026 **Session:** 2025-2026
0588 08 AERD 5161: Social Research Methods and Design
Full Marks: 60 **Time:** 03 Hours **Credit:** 03

- There are four questions in each section, answer any three from each.
- Use separate sheet for each section. Sketch and label wherever necessary.

Section A

1.	(a)	Explain the characteristics of a good research problem. [L2; CLO1]	3.0
	(b)	Analyze the differences among qualitative, quantitative, and mixed methods research. [L4; CLO1]	3.0
	(c)	Evaluate the characteristics of a good researchable problem. [L5; CLO1]	4.0
2.	(a)	Describe the needs for prioritization in research. [L2; CLO1]	3.0
	(b)	Explain the components of a research proposal. [L2; CLO1]	3.0
	(c)	Draw a Gantt chart showing the time schedule (work plan) of a research proposal. [L6; CLO1]	4.0
3.	(a)	Explain the levels of measurement focusing data with usefulness and example. [L3; CLO1]	3.0
	(b)	When data is called a variable? Analyze the types of variables. [L4; CLO1]	3.0
	(c)	Evaluate the characteristics of good data. [L5; CLO1]	4.0
4.	(a)	List the digital platforms used for questionnaire and write the main feature for each. [L2; CLO2]	3.0
	(b)	Analyze the reliability and validity in questionnaires. [L4; CLO2]	3.0
	(c)	Evaluate the characteristics of a good questionnaire. [L5; CLO2]	4.0

Section B

5.	(a)	State the nature of measurement in social research. [L2; CLO2]	2.0
	(b)	Draw an outline of scales/levels of measurement according to S.S. Stevens. [L2, 3; CLO2]	2.0
	(c)	How does measurement proceed step by step from theory to data analysis? Depict it in a conceptual diagram. [L2; CLO2]	3.0
	(d)	Compare between measures of central tendency and measures of dispersion with examples. [L5; CLO2]	3.0
6.	(a)	Discuss about different types of tests used in social science with examples. [L4; CLO2]	3.0
	(b)	Explain Thurstone scale considering its structure and construction process. [L2; CLO2]	3.0
	(c)	Enlist the methods used in exploratory design and when is exploratory design used? [L1, 4; CLO3]	2.0
	(d)	When do we address a sample as a good sample? [L3; CLO3]	2.0
7.	(a)	Suppose you want to represent all categories of farmers in your research. Which one of the sampling methods will you follow for drawing the sample? Explain that method with an example. [L2, 4; CLO3]	3.0
	(b)	Compare between probability and non-probability sampling. [L5; CLO3]	2.0
	(c)	Enlist the non-sampling errors and biases. [L2; CLO4]	2.0
	(d)	State the methods of data collection. [L2; CLO4]	3.0
8.	(a)	Why do we need to analyze data? [L2; CLO3]	2.0
	(b)	Summarize different forms of data presentation. [L2; CLO3]	3.0
	(c)	What are the procedures followed in data interpretation? [L4; CLO3]	3.0
	(d)	List down the common styles of citation. Cite examples of writing references following APA style from a book and journal. [L3; CLO3]	2.0

[L1-Remember, L2-Understand, L3-Apply, L4-Analyze, L5-Evaluate, L6-Create]