

Visva-Bharati
Palli Siksha Bhavana
Ph.D Course Work Examination 2020: Agricultural Extension
Subject: Research Methodology and Techniques
Paper Code: AEX-601

Time: 4 hrs.

Full Marks: 80

Questions are of value as indicated in the margin

(Attempt any Five Questions)

- | | | |
|---|--|------------|
| 1 | Classify experimental and non-experimental research. Define theory, concept, construct and variable in research with suitable example. Describe the steps in extension research. | 6+6+4=16 |
| 2 | Discuss MAXMINCON principle of research design. What do you mean by the internal and external validity of research designs? Enumerate four levels of measurement. Define measurement error, sampling error, type I and type II errors | 4+4+4+4=16 |
| 3 | Define reliability and validity of a scale with example? Establish the relationship between reliability and validity with respect to their expressions in terms of different variances. Give an account of the methods of estimating reliability | 4+6+6=16 |
| 4 | Compare the concepts of the knowledge test, index and scale. Classify different types of scales used in extension research and briefly describe the steps of constructing any one type of scale. | 4+4+8=16 |
| 5 | Define probability and non-probability sampling. Discuss the main steps for drawing a stratified random sample with suitable examples. Point out the limitations of sampling. | 4+8+4=16 |
| 6 | Classify research data and explain different types of research data with examples. State different factors to be considered during the selection of appropriate data collection methods. Write down the difference between an interview and questionnaire methods. Write down the differences between an interview and questionnaire methods. What do you mean by pretesting of interview schedule and questionnaire | 4+4+4+4=16 |
| 7 | Logically describe the building blocks of a theory? Elucidate elaboration likelihood model and general deterrence theory of social science | 8+8=16 |
| 8 | Write short notes (any four) on | 4x4=16 |
| | a. Usefulness of social science research | |
| | b. Inductive and deductive logic | |
| | c. Before and after with control design | |
| | d. Quota sampling and snowball sampling | |
| | e. Case study method | |
| | f. Data, information and knowledge | |
| | g. Approaches to theorizing | |
| | h. Conceptual content analysis | |

Ph.D in Agricultural Extension Coursework Examination 2022
Course No.: AEX-601
(Research Methodology and Techniques)

Time: 3 hours

Full marks: 80

Answer *any five* questions
All questions carry equal marks

1. Define theory. Enumerate the benefits of theories in research. Describe the attributes of a good theory. Describe different social science theories. 2+4+4+6=16
2. Discuss the principles of research design. Classify different types of research designs under quantitative and qualitative approaches that can be used in extension studies. Describe the research designs with examples under any one approach. 3+8+5=16
3. Define the term variable. Describe different types of dependent and independent variables relevant to extension research. What are the four levels of measurement of variables and their features? 2+10+4=16
4. Define data and information. What are the various types of data and data collection methods? Write in detail about collection of secondary data in the field of Agricultural Extension. 4+6+6=16
5. Classify the probability and non-probability sampling techniques. Describe stratified random sampling technique with a framework. Discuss the reliability and validity of a scale. How to test reliability of a scale? 4+4+4+4=16
6. Briefly explain Knowledge test, Index and Scale? Classify different scaling techniques based on classical test theory and item response theory of psychometrics. Describe the steps to construct a knowledge test. 6+5+5=16
7. Differentiate between (*any four*): 4x4=16
 - a) Proposition and Hypothesis
 - b) Construct and Concept
 - c) Inductive and Deductive Research
 - d) Type I and Type II error
 - e) Projective and Non-projective technique of data collection
 - f) Participant and Non-Participant observation
 - g) Interview Schedule and Questionnaire
8. Write short notes on (*any four*) 4x4=16
 - a) Four paradigms of social science research
 - b) Steps in extension research
 - c) Types of validity
 - d) Case study method
 - e) Content analysis
 - f) Pre-testing of Interview Schedule
 - g) Focus Group Discussion

Ph.D Coursework Examination in Agricultural Extension Education 2023
Course No: AEX-601
(Research Methodologies and Techniques for Social and Behavioural Research)

Time - 3 Hours

Full marks - 80

Questions are of value as indicated in the margin.

Answer any five questions.

1. Define social science research. Describe the features of social science research. What are the goals of scientific social research? Describe major paradigms in scientific research. 2+6+4+4=16
2. Discuss the principles of research design. Classify different types of research designs under quantitative, qualitative and mixed methods that can be used in extension studies. 4+12=16
3. Define the terms concept, construct, proposition, and variable. Describe different types of dependent and independent variables relevant to extension research. What are the four levels of measurement of variables and their features? 4+8+4=16
4. Compare between narrative and systematic review. Describe the basic elements of extension research problem. Elaborate the various types of data collection methods in social science research. 6+4+6=16
5. Explain the probability and non-probability sampling techniques with examples. Discuss the types of reliability and validity. Describe any one method of testing each reliability and validity of a scale. 6+6+4=16
6. Write down the steps to develop a knowledge test. Classify different scaling techniques based on classical test theory and item response theory of psychometrics. Describe the steps to construct any one type of scale. 5+6+5=16
7. Discuss different types of errors and biases related to social science research. Give an account of procedures for missing data treatment and outlier treatment. 8+8=16
8. Write Short Notes on the following (Any Four) 4x4=16
 - a) Inductive and deductive Research
 - b) Steps in extension research
 - c) Case study method
 - d) Content analysis
 - e) Pilot study
 - f) Focus group discussion
 - g) Canonical correlation
 - h) Social network analysis

Ph.D. Course Work Examination 2024
(New Ordinance)
Agricultural Extension: Paper - I
Course No.: AEX-601
Research Methodologies and Techniques for Social and Behavioural Research

Time: 3 hours

Full marks: 80

Answer *any five* questions
All questions carry equal marks

1. Define social science research. Describe the objectives and usefulness of social science research. What are the goals of scientific social research? Write the basic elements of a problem statement. 2+6+4+4=16
2. Discuss the MAXMINCON principles of research design. Classify different types of research designs under quantitative, qualitative, and mixed methods that can be used in extension studies. 4+12=16
3. Write the key features of narrative and systematic review. Describe different levels of measurements with example of variables under each level of measurement? What are the ways to control extraneous variance? 6+6+4=16
4. What is hypothesis? What are the functions of hypothesis? Describe various types of data collection methods in social science research with their advantages and disadvantages. 2+4+10=16
5. What is the sampling framework? Classify probability and non-probability sampling techniques. Establish the relationship between reliability and validity. Describe any one method of testing both reliability and validity of a scale. 2+4+4+6=16
6. Compare between the knowledge test, index, and attitude scale. What do you mean by classical test theory and item response theory of psychometrics? Describe the steps to construct any one type of scale. 6+4+6=16
7. Discuss different steps in extension research. Define variable and classify the variables with examples. Discuss different types of validity. 5+6+5 =16
8. Write short notes on (*any four*) 4x4 =16
 - a) Inductive and deductive Research
 - b) Pilot study
 - c) Type I and Type II error
 - d) Biases during data collection
 - e) Dimensionality
 - f) Types of measurement errors
 - g) Sociometry

Visva-Bharati
Palli Siksha Bhavana
Ph.D Course Work Examination 2020: Agricultural Extension
Subject: Advances in Extension Education
Paper Code: AEX-602

Time: 4 hrs

Full Marks: 80

Questions are of value as indicated in the margin
(Attempt any Five Questions)

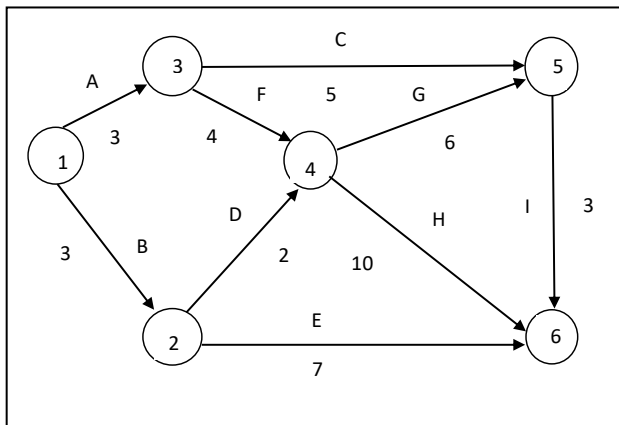
- | | | |
|---|--|----------|
| 1 | Define Human Resource management in extension organization. Discuss the managerial functions performed by the extension personnel. Discuss the principles of HRM in extension | 3+5+8=16 |
| 2 | Discuss Henry Fayol's modern management theory. Compare the theories of motivation with briefly highlighting salient features of each. According to you, which theory is the most appropriate in the context of extension personnel and why? | 5+7+4=16 |
| 3 | Discuss the concept of communication effectiveness. Elucidate the mathematical theory of communication. | 10+6=16 |
| 4 | Define communication behaviour. Enumerate the factors affecting communication behaviour | 4+12=16 |
| 5 | Point out the main features of present-day agricultural extension | 16 |
| 6 | Give a panoramic view on the genesis of extension education | 16 |
| 7 | Elucidate the main traits of the diffusion model and participatory model of development communication. Describe extension thread of development communication | 8+8=16 |
| 8 | Discuss logical framework approach (LFA) and participatory project cycle management (PPCM) | 8+8=16 |
| 9 | Write short notes on (any four) | 4 x 4=16 |
| | a. Errors in performance appraisal | |
| | b. X theory and Y theory | |
| | c. Entropy | |
| | d. Flag method | |
| | e. Mock-ups | |
| | f. Peripatetic team visits | |
| | g. Market-led extension | |

Time: 3 Hours

Full Marks: 80

Answer **Any Five** Question

1. Define Communication. Write in detail about any two communication models. Discuss various indigenous communication channels. 4+6+6=16
2. Define Development Communication. Write down the main characteristics of diffusion versus participatory model of communication. What are the Problems that Development Communication can Help to Overcome? 8+8=16
3. What is Log Frame Approach? Describe Problem Tree and Objective Tree with suitable diagram. Diagrammatically represent the Log Frame Matrix 4+6+6=16
4. Briefly describe the managerial functions applicable to an extension organisation. What are the four objectives of human resource management? Mention the steps of HRM. 5+4+7=16
5. What is performance appraisal? Schematically present the performance appraisal process. What are the modern methods of performance appraisal? Indicate the biases/ errors in the performance appraisal process. 2+5+5+4=16
6. Define Project. Describe the importance of Project management? Describe the steps in Project Management. Enumerate the steps involved in VAC and PAC. 2+4+4+6=16
7. What are the different instruments for managing extension projects. Differentiate between CPM, PERT and GERT. Calculate the Critical Path of the following network by following CPM (Only Forward Pass). 2+4+10=16



8. Write Short notes (Any Four) 4X4=16

- (a) Feedback
- (b) Message distortion
- (c) Development Support Communication (DSC)
- (d) Key performance areas of extension personnel
- (e) Leadership types in an extension organisation
- (f) Market led extension
- (g) PCM

Ph.D Coursework Examination in Agricultural Extension Education 2023
Course No: AEX-602
(Advances in Extension Education)

Time - 3 Hours

Full marks - 50

Questions are of value as indicated in the margin.

Answer any five questions.

1. Describe Principles of Extension Education. Elucidate the Extension Education Process. Write briefly History of Extension Education in the World. 4+6+6=16
2. Define Development Communication as proposed by different scientists / organisations. What are the problems that Development Communication can help to overcome? 4+12=16
3. Why is Project Management necessary? Write a brief note on Logical Framework Analysis. Write a note on the Project Cycle Management Method (PCM). 3+8+5=16
4. Highlight the genesis and evolution of management theories applicable to an extension organisation. Mention the objectives, functions, and process of Human Resource Management (HRM). 6+3+3+4=16
5. Describe the managerial functions performed in an extension organisation. Specify the key performance areas for various categories of extension personnel. Mention the core competencies (critical attributes) of the extension personnel required for delivering an efficient and effective extension advisory services. 5+5+6=16
6. Define Communication Behaviour. Write in detail about important factors affecting communication behaviour. 4+12=16
7. Explain about objects, models and mock-ups as communication aids. 4+8+4=16
8. Write Short Notes on the following (Any Four) 4x4=16
 - a) Compare between Theory X and Theory Y
 - b) Compare between Management, administration, and supervision
 - c) Communication IQ
 - d) Communication Network
 - e) PERT
 - f) ZOPP Method of Management
 - g) Participatory thread of Development Communication)

Ph.D Course Work Examination in Agricultural Extension Education 2024
Course No: AEX-602
(Advances in Extension Education)

Time - 3 Hours

Full marks - 80

Questions are of value as indicated in the margin.

Answer any five questions.

1. Elucidate the evolutionary definition of extension education. Write a note on Policy Implications to Improve Agricultural Extension in Central Asia. 8+8=16
2. Write a note on Status of Agricultural Extension and Rural Advisory Services in Asian Countries. Write a comparative note on Status of Agricultural Extension and Rural Advisory Services in Central and South American countries and European countries. 8+8=16
3. What is Behaviour Change Theory? Compare between Self-efficacy Theory, Learning theories/behaviour analytic theories of change, Social learning/social cognitive theory, and Theory of Reasoned Action. 4+12=16
4. What is Behaviour Change Communication? Differentiate between BCC and IEC. Describe the process of designing BCC programme. 2+4+10=16
5. Write note on Evolution of Development Communication. What is Development Support Communication? Describe Key Issues of Development Communication. 5+5+6=16
6. What Is HRM? Describe the Role of HRM. Elucidate Lifecycle Stages and HRM Strategy. 2+6+8=16
7. Elucidate Basic Elements, Characteristic Feature, Importance and Steps involved in Project Management. 4+4+4+4=16
8. Write Short Notes on the following (Any Four) 4x4=16
 - a) Transtheoretical (Stages of Change) Model
 - b) Theory of Planned Behaviour
 - c) Bar Chart
 - d) Comparison between CPM, PERT and GERT
 - e) Optimal Scheduling by CPM
 - f) Problem Tree
 - g) Log Frame Matrix

Ph.D Coursework Examination in Agricultural Extension Education 2023
Course number: AEX-603
(Reviewing of Published Research Work and Presentation of Synopsis)

Time: 3 hrs.

Full Marks: 80

Questions are of value as indicated in the margin.

(Attempt any three Questions from Section-A and Section-B is compulsory)

- | | | |
|-------------|--|-----------|
| A. 1 | Enlist the components of a thesis. Outline the major components of writing a synopsis. | 5+5=10 |
| 2 | Write the differences between a Thesis and a Dissertation. What is the purpose of writing an abstract? | 5+5=10 |
| 3 | What is the importance of the 'Review of Literature' chapter in the thesis? Explain the basic steps in writing a 'Review of literature.' | 5+5=10 |
| 4 | What is the recommended structure for a 'Research Methodology' chapter? | 10 |
| 5 | Explain in brief the various steps and guidelines followed in writing the Results and Discussion chapter. | 10 |
| 6 | Write the framework of the "summary and conclusion" chapter. Briefly explain the academic importance of implications and recommendations. | 5+5=10 |
| 7 | Write a short note on the following (Any four) a. Reference b. Bibliography c. Indexing d. Abstract e. APA style f. Plagiarism | 2.5x4=10 |
| B. 1 | Presentation of Research Synopsis | 50 |

Ph.D Coursework Examination in Agricultural Extension Education 2024
Course number: AEX-603
(Reviewing of Published Research Work and Presentation of Synopsis)

Time: 3 hrs.

Full Marks: 80

Questions are of value as indicated in the margin.

(Attempt any three Questions from Section-A and Section-B is compulsory)

- | | | |
|-------------|--|-----------|
| A. 1 | Enlist the sections of a thesis. Write the differences between a Thesis and a Dissertation. | 5+5=10 |
| 2 | Outline the major components of writing a synopsis. What is the purpose of writing an abstract? | 5+5=10 |
| 3 | What is the relevance of the 'Review of Literature' chapter in the thesis? Explain the steps in writing a 'Review of literature.' | 5+5=10 |
| 4 | What is the recommended structure for a 'Research Methodology' chapter? | 10 |
| 5 | Explain in brief the various steps and guidelines followed in writing the Results and Discussion chapter. | 10 |
| 6 | Write the framework of the "summary and conclusion" chapter. Briefly explain the academic importance of implications and recommendations. | 5+5=10 |
| 7 | Write a short note on the following (Any four) a. Reference b. Bibliography c. Indexing d. Introduction e. APA style f. Plagiarism | 2.5x4=10 |
| B. 1 | Presentation of Research Synopsis | 50 |

Visva-Bharati
Palli Siksha Bhavana
Ph.D Course Work Examination 2020: Agricultural Extension
Subject: Courses on Thesis Writing
Paper Code: AEX-604

Time: 4 hrs.

Full Marks: 80

Questions are of value as indicated in the margin

(Attempt any Five Questions from Section-A and Section-B is compulsory)

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|-----------|----|---|----|
| A. | 1 | What is Thesis? Enlist the components of a thesis | 8 |
| | 2 | What is Synopsis? What is the difference between a Thesis and a Synopsis? | 8 |
| | 3 | Write the differences between Reference and Bibliography | 8 |
| | 4 | What are the important components to be considered in the 'Introduction' chapter of a thesis? | 8 |
| | 5 | What is the importance of the 'Review of literature' chapter of a thesis? Explain the crucial points to be followed in writing it | 8 |
| | 6 | What are the essential components to be incorporated in the 'Research methodology' chapter of a thesis? | 8 |
| | 7 | Explain in brief the various research designs used in extension Research | 8 |
| | 8 | What is Plagiarism? Mention the ways to reduce it. Name a few standard plagiarism detection software available? | 8 |
| | 9 | What is an Abstract? What is the purpose of writing an abstract and outline the major components to be added while writing it? | 8 |
| | 10 | What is referencing style? List the different referencing styles used for citing sources. List the reference manager software available for formatting citations. | 8 |
| | 11 | Write the critical differences between Summary and Conclusion | 8 |
| B. | 1 | Presentation of Research Synopsis | 40 |

Ph.D in Agricultural Extension Coursework Examination 2022
Course number: AEX-604
(Courses on Thesis Writing)

Time: 3 hrs.

Full Marks: 80

Questions are of value as indicated in the margin.

(Attempt any Four Questions from Section-A and Section-B is compulsory)

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|------|---|----------|
| A. 1 | What is a Thesis? Enlist the components of a thesis. What are the critical components to be considered in the 'Introduction' chapter of a thesis? | 2+4+4=10 |
| 2 | Write the differences between a Thesis and a Dissertation. What is the purpose of writing an abstract? Outline the major components of writing a synopsis. | 5+2+3=10 |
| 3 | What is Review of literature? What is the importance of the 'Review of literature' chapter in thesis? Explain the basic steps in writing a 'Review of literature.' | 2+4+4=10 |
| 4 | What is the recommended structure for a 'Research Methodology' chapter? Explain in brief the various research designs used in extension research with examples under each design. | 5+5=10 |
| 5 | Explain in brief the various steps and guidelines followed in writing Results and Discussion chapter. | 10 |
| 6 | What is a referencing style? List the different referencing styles used for citing sources. Write the differences between a Reference and a Bibliography | 3+3+4=10 |
| 7 | Write a short note on the following (Any four) a. Summary b. Conclusion c. Implication d. Recommendation e. APA style f. Plagiarism | 2.5x4=10 |
| B. 1 | Presentation of Research Synopsis | 40 |

Ph.D Coursework Examination in Agricultural Extension Education 2023
Course No: AEX-605
(Policy Engagement and Extension)

Time - 3 Hours

Full marks - 50

Questions are of value as indicated in the margin.

Answer any five questions.

1. Define Policy. Elucidate the components of a Policy Document. Write a note on Guiding Principles Set in the Methodology for Policy Analysis and Coordination. 3+2+5=10
2. Describe the role of Extension in SARD and its Policy Implications. 10
3. List up the issues that the Extension Policy should address. Write notes on the following issues: Extension Mission and Goals, Extension Approach and Functions, Subject Matter, and Target Beneficiaries. 3+7=10
4. What are the objectives of Agricultural Policy? Write a note on Sectoral Dimension and Policy Integration. 3+7=10
5. Write notes on Instruments of Agricultural Policy. 10
6. What is Policy Advocacy? What are the different approaches to policy advocacy? 4+6=10
7. What is Policy Analysis? What are the different steps for conducting a policy evaluation? 5+5=10
8. Write Short Notes on the following (Any Four) 2.5x4=10
 - a) Policy Cycle
 - b) Types of Policies
 - c) De Minimis
 - d) Types of Advocacies
 - e) Five-E approach of Policy Analysis
 - f) Policy Instruments for Policy Analysis and Coordination
 - g) National Mission for Sustainable Agriculture (NMSA)

Ph.D. Course Work Examination 2024
(New Ordinance)
Agricultural Extension Education
Course No.: AEX-605
Policy Engagement and Extension

Time: 3 hours

Full marks: 50

Answer *any five* questions
All questions carry equal marks

1. What is policy? Why policy is important for extension? Describe different types of policies with examples. 2+3+5=10
2. What are the roles of the policies in Agricultural Extension. Discuss different theories of framing various models of policy. 5+5=10
3. “A policy is both process and product”- explain. How policies and institutions influence performance in extension organizations? 5+5=10
4. Discuss the role of policies & institutions in defining organizational roles & performance in extension organisation. What are the different types of policy analyses? 5+5=10
5. Write the process of undertaking policy analysis. Describe techniques used in policy analysis 5+5=10
6. Define policy advocacy. Describe the approaches of policy advocacy. 2+8=10
7. Who drives policy change? Explain different stages of policy development. 2+8=10
8. What are the challenges in policy implementation? What is the importance of social media in influencing policies? 5+5=10

Ph.D. Coursework Examination in Agricultural Extension Education 2023
Course No.: AEX-606
(Technology Commercialisation and Incubation)

Full marks: 50

Time: 3 Hours

Answer **any five** questions.
All questions carry equal marks.

1. Define Agricultural Technology. Explain generation of Agricultural Technology. Write down functions of Agricultural Technology. 3+3+4=10
2. Explain various phases of Technology Life Cycle with graphical representation. 10
3. What do you mean by Technology Licensing? Why is it necessary? Explain different types of Technology Licensing. 3+3+4=10
4. Write down different methods and limitations of Technology valuation. 7+3=10
5. Give concept, functions and types of Technology Incubation. Explain in detail about village incubator. 2+2+3+3=10
6. What is Technology Promotion? What are its objectives? How do you promote Agricultural Technologies? 2+2+6=10
7. Differentiate the following 2.5×4=10
 - a. Innovation vs. Technology
 - b. Start-up vs. Scale-up
 - c. Lateral vs. External Business Communication
 - d. Business Communication vs. Business Etiquettes
8. Write Short notes on the following (**any four**) 2.5×4=10
 - a. Types of Innovation
 - b. Technology Transfer
 - c. Intellectual Property Rights
 - d. Technology Commercialization
 - e. Technology Assessment and Refinement
 - f. Technology Scouting

**Ph.D. Course Work Examination, 2025
in Agricultural Extension Education
Course No.: AEX-606
Technology Commercialisation and Incubation**

Full marks: 50

Time: 3 Hours

Answer *any five* questions.
All questions carry equal marks.

- | | |
|---|------------|
| 1. Conceptualise the term Agricultural Technology. Explain different types of Agricultural Technology. What is disruptive innovation? | 4+4+2=10 |
| 2. Explain various types of Business Communication and Business Etiquettes. | 5+5=10 |
| 3. What do you mean by scaling of innovation and scalability? What are the different dimension and types of scaling of an innovation? | 2+2+3+3=10 |
| 4. Write in detail about Technology Commercialisation. | 10 |
| 5. What is Technology Promotion? What are its objectives? How do you promote Agricultural Technologies? | 2+2+6=10 |
| 6. Write in detail about Technology Scouting. | 10 |
| 7. Differentiate the following | 2.5×4=10 |
| a. Agricultural Invention vs. Agricultural Innovation | |
| b. Technology Licencing in vs. Technology Licencing out | |
| c. Vertical vs. Horizontal Technology Transfer | |
| d. Start-up vs. Scale-up | |
| 8. Write Short notes on the following (<u>any four</u>) | 2.5×4=10 |
| a. Types of Innovation | |
| b. Technology Licencing | |
| c. Intellectual Property Rights | |
| d. Technology Lifecycle | |
| e. Components of TAR | |
| f. Valuation of Technology | |

Ph.D in Agricultural Extension Education Semester - I Examination 2024
Course No: AEX-607
(Educational Technology and Instructional Design)

Time - 3 Hours

Full marks - 50

Questions are of value as indicated in the margin.

Answer any five questions.

1. Enlist various learning theories applicable to instructional design. Discuss behaviourism, cognitivism and constructionism comparatively. 4+6=10
2. What are domains of learning? Discuss the categories/levels of the domains of learning. 3+7=10
3. What are learning styles? Explain Gardner's theory of multiple intelligence. 3+7=10
4. Enlist the models of Instructional design. Explain ADDIE model in the context of Extension education 4+6=10
5. Explain the Experiential learning cycle with a diagram highlighting Kolb's learning styles. 10
6. What is Blended learning? Explain the components of e-learning.
7. What is Teacher immediacy? Discuss the essential professional knowledge competencies for beginning teachers. 3+7=10
8. Write Short Notes on the following (Any Four) 2.5x4=10
 - a) Educational technology
 - b) Action verbs for objectives
 - c) Types of questions
 - d) Class lesson plan
 - e) Synchronous learning
 - f) Asynchronous learning
 - g) CAI

Ph.D in Agricultural Extension Education Semester - I Examination 2024
Course No: AEX-607
(Educational Technology and Instructional Design)

Time - 3 Hours

Full marks - 50

Questions are of value as indicated in the margin.

Answer any five questions.

1. List learning theories relevant to instructional design. Discuss behaviourism, cognitivism and constructionism comparatively. 4+6=10
2. What are domains of learning? Discuss the categories/levels of the domains of learning. 3+7=10
3. What is formative and summative evaluation? Briefly explain the assessment techniques for measuring learning behaviour. 3+7=10
4. Enumerate the models of Instructional design. Explain ADDIE model in the context of Extension education. 4+6=10
5. Explain the Experiential learning cycle with a diagram highlighting Kolb's learning styles. 10
6. Describe the role of Extensional professionals as instructional designers and architects of the learning experience in relation to Farmers' education. 10
7. What is Teacher immediacy? Discuss the essential professional knowledge competencies for beginning teachers. 3+7=10
8. Write Short Notes on the following (Any Four) 2.5x4=10
 - a) Educational technology
 - b) Action verbs for objectives
 - c) Types of questions
 - d) Class lesson plan
 - e) Synchronous learning
 - f) Asynchronous learning
 - g) e-learning