

Printing Pages: 2

Paper Code: MSC-AGRON-301

B

(SVSU:2025-26/R)

Enrollment No.

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Program Name M.Sc. Agriculture
3rdSemester / 2ndYear Examination
Subject Code-MSC-AGRON-301

Subject Name: AGRONOMY OF FODDER AND FORAGE CROPS

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

1. Fill in the blanks

[01×15=15]

I _____ is very popular method of sowing for fodder crops.

- a) Broad casting b) Dibbling
c) Transplanting d) Line to line Sowing

II Origin of Napier grass is _____.

- a) Sub-Saharan Africa b) India c) China d) Bangladesh

III B.N. of Dinanath grass is _____.

- a) Pennisetum pedicellatum b) Leucaena
c) Gliricidia d) Alanthus excelsa

IV Seedrate of Rhodes grass is _____ kg/ha.

- a) 30 b) 10 c) 50 d) 70

V On dry wt. basis _____ % of oxalic acid is present in fodder bajra.

- a) 10-20 b) 20-30 c) 50-60 d) 40-50

VI Napier grass belongs to family _____.

- a) Poaceae b) Solanaceous c) Cucurbitaceae d) Solanaceae

VII Dinanath grass contain _____ acid which is poisonous to animals.

- a) HCN b) phosphatase c) alkaline d) Saline

VIII _____ is a very popular variety of fodder maize for fodder purpose.

- a) African tall b) African Dwarf
c) Rajni d) Pusa Hybrid Makka

IX Napier grass contains about _____ % protein.

- a) 15 b) 20 c) 25 d) 28

X Centre of origin of Marvel grass is _____.

- a) North Africa b) South Africa c) Sri Lanka d) China

XI Average yield of Marvel grass is _____ ton/ha.

- a) 15 b) 22 c) 35 d) 10

- XII** B.N. of fodder bajra is _____.
a) Pennisetum glaucum b) Carex buchananii
c) Axonopus fissifolius d) Echinochloa crus-galli
- XIII** B. N. of Napier grass is _____.
a) Pennisetum purpureum b) Axonopus fissifolius
c) Echinochloa crus-galli d) Carex buchananii
- XIV** Seedrate of Dinanath grass is _____ kg/ha.
a) 10 b) 16 c) 22 d) 25
- XV** Origin of cluster bean is _____.
A) West Africa b) South Africa c) Sri Lanka d) China

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Paper Code: MSC-AGRON-303

C

(SVSU:2025-26/R)

Enrollment No.

Program Name- M.Sc. Agriculture

III Semester / II Year Examination

Subject Code MSC-AGRON-303

Subject Name: Experimental Designs

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : 1. Attempt all the questions as per given instructions.

1. **Multiple Choice Questions (MCQs)** [01×15=15]
- I With the increase in sample size, the error also ____
A) Decreases B) Increases C) Remains The Same D) All
- II When we do sampling in qualitative research, is it similar to the sampling in quantitative research?
A) Purposive Sampling B) Probability Sampling
C) All Of These D) None Of These
- III The sampling that is based on probability, that is equal, is known as ____
A) Simple Random Sampling B) Stratified Sampling
C) Probability Sampling D) Quota Sampling
- IV Descriptive research design is ____
A. Specific B. General C. Informative. D. none
- V The method of drawing a ____ is the fishbowl drawing.
A) Random Sample B) Independent Sample
C) Structural Sample D) Non-Random Sample
- VI Sample is known to be the subset of?
A) Population B) Data C) Set D) Information
- VII Which of the following is not a data-collection method?
A. Research questions B. Unstructured interviewing
C. Postal survey questionnaires D. Participant observation
- VIII Which of the following statement is correct?
(A) Reliability and validity are independent of each other
(B) Validity ensures reliability
(C) Reliability ensures the validity
(D) Reliability does not depend on objectivity
- IX To test null hypothesis, a researcher uses:
(A) t test (B) ANOVA (C) X2 (D) factorial analysis
- X What do we call sample value?
A) Statistic B) Parameter C) Data D) Variable
- XI The research is always –
(A) verifying the old knowledge (B) exploring new knowledge
(C) filling the gap between knowledge (D) all of these

- XII** When the available population is _____, we use a stratified sample.
 A) heterogeneous B) very large C) homogeneous D) too small
- XIII** Out Of The Given Options, Which Will Need The Biggest Sample Size?
 A) Cluster Sampling
 B) Proportional Stratified Sampling
 C) Systematic Sampling
 D) Simple Random Sampling
- XIV** The error of sampling is found only in
 A) sample survey B) any survey
 C) census survey D) quota survey
- XV** Research is
 (A) Working in a scientific way to search for the truth of any problem
 (B) Finding a solution to any problem
 (C) Searching again and again
 (D) None of the above

2. Answer in long (any three)

[10×3=30]

- I** Define the split plot design?
- II** Explain the use of split plot design?
- III** Define the basic principle of experimental design.
- IV** Discuss the aims of Analysis of Variances.
- V** Explain the Randomized Block Design (RBD).

3. Answer in short (any five)

[5x5=25]

- I** Explain the main features of progeny row selection.
- II** Distinguish between advantage and disadvantage of Complete Randomized Design (CRD).
- III** Explain the Latin Square design (LSD).
- IV** Define the factorial experiments.
- V** Distinguish split plot design and strip plot design.
- VI** Discuss the role of Livestock in Agriculture.
- VII** Discuss the contribution of livestock in India Economy.
- VIII** Express the statistical organization in India.

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Paper Code: MSC-AGRON-302

A

(SVSU:2025-26/R)

Enrollment No.

Program Name: M.Sc Agriculture

II Year /III Semester Year Examination

Subject Code: M.Sc AGRON-302

Subject Name: Agrostology and Agro- Forestry

[Time :03:00 Hours]

[Max. Marks :70]

Note: Attempt all the questions as per given instructions.

I. Multiple Choice Questions (MCQs)**[01×15=15]**

(I) Which of the following is NOT a factor affecting crop growth and development in agrometeorology?

- a) Temperature b) Humidity c) Soil pH d) Light

(II) The study of weather and climate and their effects on agriculture is known as:

- a) Agronomy b) Meteorology c) Agroecology d) Agrometeorology

(III) Which of the following is a common method used in agrometeorology to measure soil moisture?

- a) Windsock b) Psychrometer c) Tensiometer d) All of these

(IV) The science of measuring and analyzing the effects of weather on crops is termed as:

- a) Agronomy b) Climatology c) Phenology d) Agrometeorology

V) Which of the following greenhouse gases is primarily responsible for the enhanced greenhouse effect?

- a) Carbon dioxide (CO₂) b) Methane (CH₄)
c) Nitrous oxide (N₂O) d) Chlorofluorocarbons (CFCs)

(VI) The term "climate change" refers to:

- a) Fluctuations in weather patterns over short periods of time
b) Long-term shifts in temperature and weather patterns across the globe
c) Changes in the Earth's orbit around the sun
d) Variations in the intensity of solar radiation

(VII) What is the main source of human-induced carbon dioxide emissions?

- a) Deforestation b) Volcanic eruptions
c) Industrial processes d) Agricultural activities

(VIII) The phenomenon in which Earth's average temperature gradually increases due to human activities is known as:

- a) Global cooling b) Climate oscillation
c) Global warming d) Weather anomaly

a) Heating the Earth's surface b) Cooling the Earth's surface
c) Regulating the Earth's atmospheric pressure d) Generating wind patterns

a) 1 to 3 days b) 1 to 2 weeks c) 1 to 3 months d) 6 months to 1 year

a) Temperature
b) Humidity
c) Historical events
d) Wind speed and direction

(a) A type of cloud formation
(b) A large-scale atmospheric circulation system characterized by low pressure at its center

(XIII In which part of the world are tropical cyclones known as hurricanes?)

a) Western Pacific Ocean
(c) Atlantic Ocean

(b) Indian Ocean
(d) Southern Ocean

(b) A large-scale atmospheric circulation system characterized by high pressure at its center

(XV) Which of the following weather conditions is typically associated with an anticyclone?

a) Heavy rainfall
b) Strong winds
c) Clear skies and calm weather
d) Tornadoes

[10×3=30]

II Classify the pasture & their improvement and renovation-natural pastures.

IV Recall the Key problems and management of grasslands.

[5x5=25]

II Differentiate the Manure & Fertilizers with example..

IV Describe the scope and status of pastures.

V Determine the Natural farming & Organic Farming.

VI Discuss in Brief Agri-silviculture & Silvipasture

Printing Pages: 2

Paper Code: MSC-AGRON-304 A (SVSU:2025-26/R)

Enrollment No.

Program Name: M.Sc. Agriculture

3rd Semester / 2nd Year Examination

Subject Code-MSC-AGRON-304

Subject Name: Basic Sampling Techniques

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : 1. Attempt all the questions as per given instructions.

1. Fill in the blanks [01×15=15]

I What is suitable ratio of soil and water for pH analysis

A. 1:2 B. 1:2.5 C. 2: 3 D. A and B

II Soluble salts are determined by ---

A. pH meter B. EC meter C. Colorimeter D. Burette

III What is concentrate solution---

A. More solvent B. Less Solvent C. More solute D. Above all

IV What instrument use for determination of Na

A. Colorimeter B. Spectrophotometer
C. Flame photometer D. Pipette method

V How many elements are determined by AAS –

A. Less than 30 elements B. More than 60 element
C. Above 100 element D. None of them

VI What is temperature required for drying plant samples in oven --

A. 60 o C B. 100 o C C. 1o5 o C D. 80 o C

VII What is pH of Na₂CO₃ in sodic soil –

A. 3.0 B. 6.5 C. 10.5 D.7.6

VIII plant takes nitrogen —

A. Ammonium B. Nitrate C. Amino acid D. A and B both

IX 0.005 M DTPA Analysis for

A. pH B. EC C. Micronutrient D. Potassium

X Olsen method use for analysis ---

A. Sodium B. Calcium C. Potassium D. Phosphorus

XI What is ESP of Sodic soil –

A. More than 15 B. Less than 15 C. Less than 8 D. None of them

- XII** Full form of RSC –
 A. Residual sodium carbonate B. Residual Salinity carbonate
 C. Residual sugar carbonate D. Residual Sulphur carbonate
- XIII** Which wavelength phosphorus can read—
 A. 600 nm B. 400 nm C. 900 nm D. 200 nm
- XIV** Which is chelating agents ---
 A. DTPA B. EDTA C. HNO₃ D. A and B both
- XV** What is sieve size for analysis of Organic carbon—
 A. 2.0 mm B. 3.0 mm C. 0.5 mm D. 1.0 mm

2. Answer in long (any three) [10×3=30]

- I** Explain the planning process of sample survey with its essential components.
- II** Describe the procedure and advantages of simple random sampling without replacement.
- III** Explain the concept of sampling distribution and its role in statistical inference.
- IV** Recall the principles and applications of stratified sampling in survey research.

3. Answer in short (any five) [5×6=25]

- I** State the concept of sampling and its advantages over complete enumeration.
- II** Discuss briefly about types of sampling methods.
- III** Write down the principles of sample size determination.
- IV** Recall the main components of stratified sampling design.
- V** Define sampling frame and sampling unit.
- VI** Write a short note of Population vs Sample.