G O A C O L L E G E O F A G R I C U L T U R E

Affiliated to Goa University

B. Sc. (Hons.) Agriculture

MIDTERM EXAMINATION

Academic Year: 2024-25 **Semester: II**

Course No.: AGRO-123 **Course Title: Fundamentals of Agronomy-II**

Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)

Time: 9.30 to 10.50 am (Section 'A'- 20 min & Section 'B' – 1.0 hr)

Date: 18/02/2025 **Roll No:**

Note: 1) Use of laptop, mobile, smart watch is prohibited.

2) Draw neat labelled diagrams wherever necessary.

3) In Section 'A' all questions are compulsory.

4) Section 'A' should be answered in OMR sheet.

SECTION "A" (15Q x 1M =15 Marks)

Multiple choice questions

1. **What is the role of water in plants?**
   A. Helps in photosynthesis
   B. Acts as a solvent for nutrient uptake
   C. Maintains plant structure and turgidity
   D. All of the above
2. Which component of plants transports water from roots to other parts?
   A. Phloem C. Chloroplast
   B. Xylem D. Epidermis
3. Which of the following is the objective of Irrigation?
   A. Modification of soil & climatic environment
   B. To mitigate i.e., Reducing the risk of drought
   C. National food security
   D. All of the above
4. Dams like Salaulim and Anjunem are constructed in Goa for:
   A. Flood control
   B. Hydroelectric power generation
   C. Drinking water supply and irrigation
   D. River navigation
5. Which of the following rivers originates in Karnataka but flows through Goa?
   A. Mandovi C. Zuari
   B. Terekhol D. Sal
6. The average rainfall of India is …… mm/annum.
   A. 3000 mm C. 1200 mm
   B. 1194 mm D. 1100 mm

P.T.O

7. World water day is celebrated every year on **……..** for generating public awareness about the water related issues.

A. 1 July
B. 21 March
C. 22 March
D. 23 March

8. Infiltration rate is expressed in **……..**

A. cm/hr
B. mm/hr
C. Both A & B
D. None of these

9. ……is the uppermost limit of available soil moisture.

A. Maximum water holding capacity
B. Field capacity
C. Permanent Wilting point
D. Both B and C

10. ……is attraction of water molecules for each other.

A. Adhesion
B. Cohesion
C. Both A & B
D. None of these

11. Downward movement of water due to force of gravity called ……

A. Infiltration
B. Seepage
C. Percolation
D. Both A & C

12. Lateral movement of water from Channel or canal called…….

A. Infiltration
B. Seepage
C. Percolation
D. Both A & C

13. Removal of excess water from field known as……

A. Drainage
B. Irrigation
C. Percolation
D. None of these

14. Downward movement of water from soil surface known as ……

A. Infiltration
B. Seepage
C. Percolation
D. Both A & C

15. The soil moisture tension at PWP is …….

A. -0.33 atm
B. -0.15 atm
C. -0.15 Bar
D. Both B & C

SECTION "B"

Answer any five questions (5 X 3 = 15 Marks)

Q1. Define Irrigation Water Management and discuss in detail the key objectives of irrigation.

Q2. Explain the role of water in plants.

Q3. Enlist the different types of water movement in the soil, explain in detail Infiltration.

Q4. Enlist types of soil water and explain in short physical classification.

Q5. Write a short note on "Volume and Mass Relationships of Soil Constituents"

Q.6 Enlist different soil moisture constants and write in short about soil moisture characteristic curve.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University
B. Sc. (Hons.) Agriculture
Midterm Examination

Academic Year: 2024-25 **Semester: II**
Course No.: BOT-121 **Course Title: Fundamentals of Crop Physiology**
Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)
Time: 09:30-10:50 a.m **(Section 'A'- 20 min & Section 'B' – 1.0 hr)**
Date:17/02/2025 **Roll No:**

Note: 1) Use of laptop, mobile, smartwatch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A"

(15Q x 1M = 20 Marks)

Multiple Choice Questions.

1. In photosynthesis, light energy is converted into…
   A. Heat energy
   B. Hexose sugar
   C. Chemical energy
   D. All of the above
2. The loss of water through the impervious cuticle is called as…
   A. Cuticular transpiration
   B. lenticular transpiration
   C. Stomatal transpiration
   D. None of the above
3. Ascent of sap in higher plant takes place through…
   A. Xylem
   B. Phloem
   C. Parenchyma
   D. None of the above
4. The factor that does not affect the rate of transpiration…
   A. Intensity of light
   B. Velocity of wind
   C. $C0_2$
   D. O_2
5. In rainy season, door gets swelled up due to…
   A. Imbibition
   B. Transpiration
   C. Evaporation
   D. Respiration
6. …… a process by which the molecules of a solvent pass from a solution of low concentration to a solution of high concentration through a semi-permeable membrane.
   A. Imbibition
   B. Osmosis
   C. Diffusion
   D. Root pressure
7. …….. is one that has a higher solute concentration inside the cell than outside.
   A. Hypotonic solution
   B. hypertonic solution

PTO

C. Isotonic solution D. None of the above

8. …….. is one that has a higher solute concentration outside the cell than inside.

A. Hypotonic solution C. Isotonic solution

B. hypertonic solution D. None of the above

9. When a substance is placed in a hypotonic solution, the solvent molecules move inside the cell and the cell becomes turgid or undergoes deplasmolysis is known as….

A. Endosmosis. C. Pure osmosis

B. Exo-osmosis D. None of the above

10. ……..is the water that moves through the soil by the force of gravity and drains

A. Capillary water C. Gravitational water

B. Hygroscopic water D. Crystalline water

11. A plant that requires not less than 10 hours of light to flower is called….

A. Day-neutral plant C. Long day plant

B. Short day plant D. None of the above

Match the pairs

12. Ribosome	A. Membrane bound bag
13. Lysosome	B. Power house of cell
14. Mitochondria	C. Store DNA
15. Nucleus	D. Protein synthesis

SECTION "B"

Answer any five questions

(5Q X 3M = 15 Marks)

Q1. Define transpiration and write in short, essay on transpiration and its advantages to the plant.

Q2. Draw the well labelled diagram of plant cell and write functions of Nucleus and chloroplast.

Q3. What do you mean by macro-nutrients? Describe the physiological role of Nitrogen and phosphorus.

Q4. Write functions of water in plants. Draw the diagram pathway of water absorption.

Q5. Define crop physiology and write its importance in agriculture.

Q6. Differentiate between active absorption and passive absorption.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University
B. Sc. (Hons.) Agriculture
Midterm Examination

Academic Year: 2024-25 **Semester: II**
Course No.: ECON-121 Course Title: Fundamentals of Agricultural Economics
Total marks: 40 (Section 'A'- 20 marks + Section 'B'- 20 marks)
Time: 01:15-02:40 p.m **Section 'A'- 25 min & Section 'B' – 1.0 hr)**
Date:21/02/2025 **Roll No:**

Note: 1) Use of laptop, mobile, smartwatch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A"

All questions are compulsory

(20Q x 1M = 20 Marks)

Multiple Choice Questions.

1. _____ is known as the Father of Modern Economics.
   A. J. M. Keynes C. Adam Smith
   B. Lionel Robbins D. Alfred Marshall
2. Anything that satisfies human wants or needs is called as_____.
   A. Commodity C. Good
   B. Service D. None of these
3. The goods which are scarce and can be had only on payment are called as_____.
   A. Free Goods C. Producer Goods
   B. Economics Goods D. None of these
4. Which one among the following is not an example of poly period good?
   A. Machinery C. Seeds
   B. Farm Building D. Implements
5. The power or ability of a good or commodity to satisfy a human want is termed as_____.
   A. Utility B. Economics C. Service D. Behaviour
6. The utility obtained by transportation of goods or commodities is_____.
   A. Possession Utility C. Form Utility
   B. Time Utility D. Place Utility

P.T.O

7. Which of the following activities create possession utility?
   A. Transportation
   B. Processing
   C. Storage
   D. Purchasing and Selling
8. The theory in which it is assumed that Utility can be measured is_____.
   A. Cardinal Utility Theory
   B. Ordinal Utility Theory
   C. Economic Theory
   D. Price Theory
9. Value of a good or commodity expressed in monetary terms is called its_____.
   A. Wealth B. Utility C. Usefulness D. Price
10. Which among the following is an example of External Material Non-transferable Good?
   A. Land
   B. Goodwill of Business
   C. Degree Certificate
   D. Building
11. All the tangible and intangible possessions of the individuals besides loans due to them is called as_____.
   A. National Wealth
   B. Individual Wealth
   C. Social Wealth
   D. Cosmopolitan Wealth
12. Which of the following is also known as the Gossen's Second Law?
   A. Law of Diminishing Marginal Utility
   B. Law of Equi-marginal Utility
   C. Law of Demand
   D. Law of Supply
13. Law of Diminishing Marginal Utility is also known as_____.
   A. Gossen's Second Law
   B. Gossen's First Law
   C. Proportionate Rule
   D. Law of Demand
14. The difference between what the consumer is willing to pay and what he actually Pays is termed as_____.
   A. Consumer's Surplus
   B. Producer's Surplus
   C. Price of Good
   D. None of these
15. The various quantities of a good that would be purchased per unit of time at different prices in a given market is called as_____ of a good.
   A. Supply B. Demand C. Quantity D. Utility
16. Demand for goods which are needed for further production is referred to as_____.
   A. Derived Demand
   B. Price Demand
   C. Autonomous Demand
   D. Cross Demand
17. The demand derived of a good or service due to the change in prices of related or substitute good is termed as_____.
   A. Income Demand
   B. Cross Demand
   C. Price Demand
   D. Autonomous Demand

18. The increase in demand of a good or commodity solely due to the decrease in its price is termed as_____ in demand.
    A. Extension
    B. Contraction
    C. Decrease
    D. None of these
19. A schedule of the amount of a good that would be offered for sale at all possible prices at any period of time is called as_____ of that good.
    A. Demand B. Price C. Utility D. Supply
20. Which among the following is not an example of External Material Transferable Goods?
    A. Driving License
    B. Vehicle
    C. Building
    D. Jewellery

SECTION "B"

Answer Any Five Questions.

(5Q X 4M = 20 Marks)

Q1. Define Agricultural Economics. Give the importance of Agricultural Economics.

Q2. Define Utility. Enlist the types of Utility and give the characteristics of Utility.

Q3. Write in detail about the Law of Diminishing Marginal Utility.

Q4. Define the term Consumer's Surplus. Give its assumptions and difficulties in measuring Consumer's Surplus.

Q5. Define the term Demand. State and explain the Law of Demand along with its diagrammatic representation.

Q6. State the Law of Supply. Explain in brief about the determinants of supply.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University

B. Sc. (Hons.) Agriculture

MIDTERM EXAMINATION

Academic Year: 2024-25 **Semester: II**

Course No.: ENGG-121 **Course Title: Soil & Water Conservation Engineering**

Total Marks: 30 (Section 'A'- 15 marks + Section 'B' – 15 marks)

Time: 1.15 – 2.35 PM (SECTION 'A'- 20 min & SECTION 'B'- 1.0 hr)

Date: 17.02.2025 **Roll No:**

Note:

1) **Use of laptop, mobile smartwatch is prohibited**
2) **Draw neat labelled diagrams wherever necessary**
3) **In SECTION "A" all questions are compulsory**
4) **SECTION "A" should be answered in OMR sheet**

SECTION "A"

(15 Q X 1 M = 15 Marks)

Multiple choice questions

1. Which ancient civilizations became extinct due to neglect of their lands?

A. Indus Valley and Mesopotamia B. Mohenjo-Daro and Harappa

C. Egyptian and Roman D. Maya and Aztec

2. What type of erosion results from the impact of falling raindrops?

A. Gully erosion

B. Rill erosion

C. Sheet erosion

D. Raindrop erosion/Splash erosion

3. What shape is formed by gullies where both topsoil and subsoil have the same resistance to erosion?

A. U-shaped

B. V-shaped

C. Trapezoidal

D. Cylindrical

4. What is the major factor influencing soil detachment during wind erosion?

A. Soil colour

B. Soil particle size and texture

C. Soil Ph

D. Depth of groundwater

5. Class-I land is most suitable for:

A. Wildlife

B. Pasture

C. Intensive cultivation

D. Industrial development

P.T.O

6. What is Geological Erosion

A. Erosion caused by human activities

B. Erosion due to Natural process without human influence

C. Erosion due to deforestation and farming

D. Erosion caused by mining and construction

7. The Drop inlet spillway is most suitable when the drop height is

A. Less than 1 meter

B. Between 1 to 2 meter

C. More than 3 meter

D. Only in flat terrain

8. What is accelerated erosion?

A. Natural process occurring over thousands of years

B. Rapid soil removal due to human activities

C. Erosion that occurs only in forests

D. Erosion that occurs only due to wind action

9. Which of the following is the correct form of the USLE equation?

A. A = R X K X LS X C X P

B. A = P X K X LS X C X R

C. A = R X K X LS /C X P

D. A = R X K / LS X C X P

10. What is the primary function of a chute spillway?

A. To store excess water in a reservoir

B. To safely dispose of excess water from an upstream storage structure

C. To increase groundwater recharge

D. To generate hydroelectric power

11. The term "erosion" is derived from the Latin word "erodere," which means:

A. To build up
B. To wear away OR to excavate
C. To mix
D. To strengthen

12. Gully erosion is an advanced stage of:

A. Sheet erosion

B. Rill erosion

C. Wind erosion

D. Coastal erosion

13. The soil particles moved by wind in a series of bounces or jumps is called:

A. Suspension

B. Surface creep

C. Saltation

D. Deflation

P.T.O

14. The two land capability groups are:

A. Saline and Alkaline
C. Fertile and Barren
B. Arable and Non-Arable
D. Agricultural and Industrial

15. The standard length and slope used in the USLE (Universal Soil Loss Equation) study plot is:

A. 10 m and 5 %
C. 30 m and 12 %
B. 22.1 m and 9 %
D. 50 m and 15 %

SECTION "B"

Answer any five questions

(5 Q X 3 M = 15 Marks)

Q.1. Define soil erosion, enlist the classification of soil erosion and explain in details the raindrop erosion

Q.2. Write in details about classification of gullies.

Q.3. Describe the types of soil movement caused by wind and their mechanisms.

Q.4. Describe the various classes of land capability classification.

Q.5. Using the given data: R=300 MJ* mm/ha*h ; K=0.25 t*ha*h/ha*MJ*mm ; LS=0.8 ; C=0.4 ; P=1. Calculate the average annual soil loss and explain the effect of reducing P to 0.5.

Q.6. Enlist engineering erosion control measures, explain in details bench terraces with neat labelled diagrams.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University
B. Sc. (Hons.) Agriculture
Midterm Examination

Academic Year: 2024-25 **Semester: II**
Course No.: ENTO 121 **Course Title: Fundamentals of Entomology**
Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)
Time: 09:30 – 10:50 am **(Section 'A'- 20 min & Section 'B' – 1.0 hr)**
Date: 21/02/2025 **Roll No:**

Note: 1) Use of laptop, mobile, smartwatch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A"

(15Q x 1M =15 Marks)

Multiple choice questions/Match the pairs

1. Which of the following is not an Insect

A. Silverfish B. Butterfly C. Blister Beetle D. Spider

2. Antenna is absent in Order……..

A. Odonata B. Protura C. Coleoptera D. Lepidoptera

3. Insects are dominant on the earth, because of

A. Capacity to fly B. Hexapod locomotion C. Chitinous Exoskeleton D. Short life

4. The layer Endoskeleton is consisting of

A. Chitin and Sclerotin C. Chitin

B. Chitin and Arthropodin D. Chitin and Elastin

5. Berlese Funnel is used for collection of

A. Aquatic insects B. Terrestrial insects C. Soil dwelling Insects D. None of these

6. In Honey bees, pollen basket is present on

A. Outer side of hindleg Tibia B. Inner side of hindleg Tibia

C. Outer side of Foreleg Tibia D. Outer side of Foreleg Tibia

P.T.O.

7. Which of the following statement is correct

A. Epidermis is the unicellular layer of an Exoskeleton

B. Cuticle is the Unicellular layer of an Exoskeleton

C. Exocuticle contain chitin

D. Epidermis is noncellular layer of an Exoskeleton

8. To become 5th instar, insect larva has to undergo ……. molts

A. 3 B. 4 C. 5 D. 2

9. NBAIR is located at

A. Bengalore B. Kolkata C. Tamilnadu D. Delhi

10. The logo of Entomological society of India

A. Walking leaf insect B. Stick insect C. Grasshopper D. Praying mantis

11. The word Entomology is originated from …… word

A. Latin B. Greek C. Italic D. None of this

Match the pair from Section II to I

Section I	**Section II**
12. Fossorial legs	A. Grasshopper
13. Amplexiform	B. Honey bees
14. Geniculate Antena	C. Butterfly
15. Prognathous	D. Beetles

SECTION "B"

Answer any five questions

(5Q X 3M = 15 Marks)

Q1. Elaborate insights on the history of entomology in India.

Q2. Draw a neat labelled figure of Insect wing showing angles, margins and regions.

Q3. Classify the insects on the basis of mouthparts and give the feeding mechanism of honey bees.

Q4. Draw a flow chart showing molting process in insects.

Q5. Elaborate your views on economic importance of insects.

Q6. Enlist reasons for insect dominance on the earth and explain anyone.

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GOA COLLEGE OF AGRICULTURE
Affiliated to Goa University

F.Y.B. Sc. (Hons.) Agriculture
Midterm Examination

Academic Year: 2024-2025 **Semester: II**
Course No.: EXTN 122 **Course Title: Fundaments of Agricultural Extension Education**
Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)
Time: 1.15 to 2.35 pm (Section 'A'- 20 min & Section 'B' – 1.0 hr)
Date: 18/02/2025 **Roll No:**

Note: **1) Use of laptop, mobile, smartwatch is prohibited.**
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A"

(15Q x 1M =15 Marks)

Multiple choice questions

1. Extension education is ..... type of education.
A. Formal B. Informal C. Non formal D. Quest formal

2. Innovation means .....
A.Idea B. Object C. Practice D. All options correct

3. Mental application of an innovation observed in ..... stage.
A.Adoption B. Evaluation C. Trail D. Interest

4. Campaign is the best example of ..... contact method of extension.
A. Individual B. Group C. Mass D. None

5. In S-MC-R-E model of communication, E stands for .....
A.Encoding B. Entrance C. Effect D. Exit

6. Goa state opted ..... tier of Panchayat Raj system.
A.1 B. 2 C. 3 D. None

7. The basic philosophy of Extension is .....
A.how to do not what to do B. where to do not when to do
C. why to do not which to do D. whom to do not who's to do

8. Sevagram was a ..... programme of extension service of our country initiated by Mahatma Gandhi.
A. Post independence B. during 1920-1930
C. during 1950-1955 D. Pre independence

9. Community development programme launched in .....

A.1962 B. 1972 C. 1952 B. 1942

10. Kisan Call centre is a ..... contact method.

A.Group B. Individual C. Mass D. Cyber

11. Gurgaon Experiment was launched by .....

A.Mr. F. L. Brayne B. Mr. S.K. Dey C. Dr. Hatch D. Mr. Tagore

12. Nilokheri Experiment was launched by .....

A. Mr. F. L. Brayne B. Mr. S.K. Dey C. Dr. Hatch D. Mr. Tagore

13. Sri Niketan Project was launched by .....

A.Mr. F. L. Brayne B. Mr. S.K. Dey C. Dr. Hatch D. Mr. Tagore

14. Marthandam Project was launched by .....

A.Mr. F. L. Brayne B. Mr. S.K. Dey C. Dr. Hatch D. Mr. Tagore

15. The book entitled with Extension communication and management is authored by .....

A.Ray G.L. B. Dahama O.P. C. Singh A.K. D. Mehta D.S.

SECTION "B"

Answer any five questions

(5Q X 3M = 15 Marks)

Q1. Explain adopter's categories with the help of diagram.

Q2. Explain one pre independence & one post independence programme of extension services.

Q3. Write classification of extension teaching methods with example.

Q4. Explain different types of training in brief.

Q5. Enlist principles of extension education and explain any two with example.

Q6. Define extension education. Explain its need & importance in agriculture.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University

B. Sc. (Hons.) Agriculture

Midterm Examination

Academic Year: 2024-25 **Semester: II**

Course No.: GPB 121 **Course Title: Fundamentals of Genetics**

Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)

Time: 09:30 to 10:50 a.m. (Section 'A'- 20 min & Section 'B' – 1.0 hr)

Date: 19.02.2025 **Roll No:**

Note: 1) Use of laptop, mobile, smartwatch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A" (15Q x 1M =15 Marks)

Multiple choice questions/match the pairs

1. The term genetics was coined by
   A) Charles Darwin C) Lamarck
   B) Mendel D) Bateson
2. Stroma and grana are parts of
   A) Chloroplast C) Mitochondria
   B) Vacuoles D) Golgi complex
3. Meiosis is also referred to as
   A) Equational division C) Homotypic division
   B) Reductional division D) All of the above
4. In Garden pea, Mendel studied the dominant and recessive behaviour of
   A) Five characters C) Three characters
   B) Seven characters D) fifteen characters
5. Crossing over takes place during
   A) Leptotene C) Zygotene
   B) Pachytene D) Diplotene
6. Theory of Acquired Characters was put forth by
   A) De Vries C) Morgan
   B) Lamarck D) Mendel
7. The coupling and repulsion phases of linkage were given by
   A) Bateson and Punnet C) T.H. Morgan
   B) Hutchinson D) H.J. Muller
8. Manifold effects of a gene refer to
   A) Penetrance C) Expressivity
   B) Pleiotropy D) Epistasis
9. A cross of F1 with its homozygous recessive parents is known as
   A) Reciprocal cross C) Test cross
   B) Top Cross D) None of the above
10 ……is the process of the division of nucleus.

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A) Karyokinesis C) Cytokinesis
B) Binary fission D) None of the above

11. The term gene was coined by ……(1909).
A) Johannsen C) Mendel
B) Morgan D) Correns

Match the pairs

	A	**B**
12.	Lethal Gene action	A) 9:3:4
13.	Law of Independent Assortment	B) 1:2:1
14.	Incomplete Dominance	C) 9:3:3:1
15.	Supplementary Epistasis	D) 2:1

SECTION "B" **(5Q X 3M = 15 Marks)**

(Answer any five questions)

Q.1. Explain in brief Mendel's Laws of Segregation.

Q.2. Define Mitosis. Explain different stages of mitosis along with diagram.

Q.3. Draw well labelled diagram of Plant cell and Enlist function of different cell organelles.

Q.4. What is mean by Incomplete Dominance? Give its example.

Q.5. Write a note on Multiple allele.

Q.6. Define Linkage. Explain in brief different types of linkage.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University
B. Sc. (Hons.) Agriculture
Midterm Examination

Academic Year: 2024-25 **Semester:** II
Course No.: PATH 121 **Course Title:** Fundamentals of Plant Pathology
Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)
Time:1:15 to 2:35 Section 'A'- 20 min & Section 'B' – 1.0 hr)
Date: 20/02/2025 **Roll No:**

Note: 1) Use of laptop, mobile, smartwatch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A"

(15Q x 1M =15 Marks)

Multiple choice questions/Match the pairs

1. Pathogen requires many years to complete one life cycle

(A) Polyetic (B) Polycyclic (C) Monocyclic (D) None of the above

2. Cell wall of oomycetes contain

(A) Chitin (B) Cellulose (C) Both (D) Chitosan

3. The fourth and fifth factors added to previously conceived disease triangle are

(A) Time and human
(B) Edaphic factor and human factor
(C) Climate change and time factor
(D) None of the above

4. Who discovered Spiroplasma ?

(A) Ricketts (B) T.O Dienier (C) Doi.et.al (D) Davies

5. Which of the following is complete root parasite

(A) Cuscuta (B) Orobanche (C) Loranthus (D) Striga.

6. The Ireland Famine was due to

(A) Early blight of potato (B) Wart disease of potato
(C) late blight of potato (D) PVX

7. Which of the following is used by fungi to absorb nutrients from cells of plant hosts.

(A) Appressorium (B) Haustorium (C)Rhizomorph (D) Infection peg

8. Etiolation is due to

(A) Low light (B) High moisture stress (C) High temperature (D) Frost injury

9. Death of infected cell/tissues in contact with pathogen is referred to as
(A) Galls (B) Necrosis (C) Scab (D) Wart

10. Chitin present in the cell wall of true fungi is a polymer of
(A) β N-acetyl glucosamine (B) β N-acetyl muramic acid
(C)Mannose (D) Glucose

Match the pairs

	Particular		**Definition**
11.	Epidemic disease	(A)	Disease is constantly present in a moderate to severe form and is confined to a particular country or district
12.	Endemic disease	(B)	Disease is characterised by a sudden or abnormally destructive outbreak of plant disease usually over an extended geographic area.
		(C)	Occur at very irregular intervals and locations and in relatively fewer instances.

	Particular		**Scientist**
13.	Father of Modern Plant Pathology	(A)	Pier Antonio Micheli
14.	Father of Mycology	(B)	E. J. Butler
15.	Father of Modern Plant Pathology in India	(C)	Anton de Bary
		(D)	Antony von Leeuwenhoek

SECTION "B"

Answer any five questions

(5Q X 3M = 15 Marks)

Q1. Define Plant Disease and Explain Disease triangle.

Q2. Differentiate between (a) Signs and Symptoms (b) Biotrophs and Necrotrophs (b) Septate and Aseptate mycelium (Any two)

Q3. Define Plant pathology and write the objectives of plant pathology.

Q4. Define pathogenesis. Enlist the different stages of pathogenesis. Explain inoculation.

Q5. Define fungus. Write a short note on characteristics of fungi.

Q6. Write a short note on symptoms of plant diseases.

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University

B. Sc. (Hons.) Agriculture

Midterm Examination

Academic Year: 2024-25 **Semester: II**

Course No.: FRST-121 **Course Title: Introduction to Forestry**

Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)

Time: 09:30 – 10:50 am **Section 'A'- 20 min & Section 'B' – 1.0 hr)**

Date: 20/02/2025 **Roll No:**

Note: 1) Use of laptop, mobile, smart watch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A"

(15Q x 1M =15 Marks)

Multiple choice questions

1. Which height measurement instrument is based on trigonometric principles?

   A. Tree calliper B. Ravi multimeter C. Tape D. Scale

2. Kokum belongs to family ……

   A. Fabaceae B. Apocynaceae C. Clusiaceae D. Lamiaceae

3. Forest Conservation Act came in to force in the year……

   A. 1972 B. 1980 C. 1894 D. 1988

4. …….. is first National Park of India

   A.Ramganga B. Ranthombor C. Pench D. Kanha

5. Which of the following is not deciduous in nature

   A. Teak B. Bakul C. Cotton tree D.Palas

6. Which of the following plant do not comes under Gymnosperm group

   A. Suru B. Deodar C. Maple 4. Christmas tree

7. Plant species grown out of its natural range is known as …….

   A. Indigenous B. Flag C. Umbrella D. Exotic

8. Pneumatophores are characteristics feature of which of the following plant

   A. Bombax *spp.* 2. Canna *spp*. 3. Artocarpus *spp.* 4. Avisennia *spp*.

9. Golden bamboo is perennial ……..

A. Shrub B. Tree C. Grass D. Woody climber

10. Dr. Salim Ali bird Wildlife sanctuary is located at ……..

A. Netrawali B. Sanguem C.Cancone D. Tiswadi

11. In low forest, regeneration is obtained through ……..

A. Coppice shoots B. Suckers C. Cuttings D. All above

12. …… is habit in plants that flower and fruit from their main stems or woody trunks

A. Ramiflory B.Cauliflory C.Vivypary D.Phyllotaxy

13. Indian Grassland and Fodder Research institute is located at……..

A. Deharadun B. Bhopal C. Jabalpur D. Jhansi

14. Botanical name of crocodile bark tree is……..

A. *Terminalia alata* B . *Terminalia elliptica* C. *Terminalia bellerica* D. *Terminalia chebula*

15. Bark thickness can be measured with the help of …….

A.Cristens hypsometer B. Presselers borer C. Swedish bark guage D. Spiegel relaskop

SECTION "B"

Answer any five questions

(5Q X 3M = 15 Marks)

Q1. State the difference between silvics and Silviculture. What are the objectives of Silviculture?

Q2. Define DBH. What are the standard rules for DBH measurement?

Q3. Write short note on forest types of Goa

Q4. Explain various stages of tree growth

Q5. What is forest? Describe its protective role

Q6. Give any three examples of local tree *spp*. with their botanical name belonging to Anacardiaceae family

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GOA COLLEGE OF AGRICULTURE

Affiliated to Goa University
B. Sc. (Hons.) Agriculture
Midterm Examination

Academic Year: 2024-25 **Semester: II**
Course No.: EXTN 123 **Course Title: Communication Skills and Personality Developments**
Total marks: 30 (Section 'A'- 15 marks + Section 'B'- 15 marks)
Time: 1.15 to 2.35 p.m. (Section 'A'- 20 min & Section 'B' – 1.0 hr)
Date: 19.02.2025 **Roll No:**

Note: 1) Use of laptop, mobile, smartwatch is prohibited.
2) Draw neat labelled diagrams wherever necessary.
3) In Section 'A' all questions are compulsory.
4) Section 'A' should be answered in OMR sheet.

SECTION "A" **(15Q x 1M =15 Marks)**

Q1. Multiple choice questions

1. **Which of the following is an example of non-verbal communication?**
   A) Speaking clearly
   B) Gestures
   C) Writing an email
   D) Listening attentively

2. **Which of the following is a barrier to effective communication in group discussions?**
   A) Listening actively
   B) Interrupting others
   C) Asking questions
   D) Giving feedback

3. **Which of the following is NOT a component of oral presentation?**
   A) content organization
   B) visual aids
   C) Rehearsal
   D) Ignoring audience

4. **Which of the following is not an essential component of effective written communication?**
   A) Clarity
   B) Conciseness
   C) Complexity
   D) Organization

5. **Which of the following is an example of non-verbal communication?**
   A) Saying "hello"
   B) Nodding your head to indicate agreement
   C) Asking a question
   D) Writing a report

6. **What does proxemics refer to in non-verbal communication?**
   A) use of gestures to communicate.
   B) The distance between people during interaction.
   C) The way you use facial expressions.
   D) The tone and pitch of your voice.

7. **Which of the following is an example of kinesics in non-verbal communication?**

P.T.O

A) The tone of your voice.
B) Your posture and body movements.
C) The space between you and another person.
D) The clothes you wear.

8. **Grapevine communication is most commonly used to:**
   A. Inform employees about new policies.
   B. Discuss personal issues among coworkers.
   C. Exchange rumors and unofficial information.
   D. Issue formal instructions from management.

9. **What is empath etic listening?**

   A) Listening to evaluate the accuracy of the message.
   B) Listening to understand the emotional state of the speaker and respond with compassion.
   C) Listening while planning your next conversation point.
   D) Listening to gather facts for decision-making.

10. **What is appreciative listening primarily used for?**

   A) To understand and remember facts.
   B) To enjoy and appreciate music, stories, or entertainment.
   C) To solve a problem or make a decision.
   D) To analyse and critique the speaker's arguments.

11. **Which of the following is the first stage of the listening process?**

   A) Understanding
   B) Evaluating
   C) Receiving
   D) Responding

Match the pairs

12. Written Communication	A. A structured conversation where participants share ideas and opinions to reach a decision.
13. Non-verbal Communication	B. The use of written texts (e.g., reports, emails) to convey information.
14. Group Discussion	C. The use of tone, body language, and facial expressions to communicate messages.
15. Oral Presentation	D.. A formal or informal speech in which a speaker conveys information to an audience.

P.T.O

SECTION "B"

(Answer any five questions)

(5Q X 3 = 15 Marks)

Q1**.** What is note taking, enlist types of notes taking and explain any 2.

Q2. What is listening, enlist types of listening skills and explain any 5.

Q3. Explain tips for effective presentation.

Q4. Define communication and explain process of communication.

Q5. Explain type's verbal and non- verbal communication.

Q6 Define presentation and explain Roger & Shoemaker model of communication.

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