

Printing Pages :2

Paper Code: AG-607

A (SVSU:2024-25/R)

Enrollment No.														
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Program Name: B.Sc Agriculture

III Year / VI Semester Year Examination

Subject Code: AG-607

Subject Name: Watershed and Wasteland Management

[Time : 03:00 Hours]

[Max. Marks : 75]

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

- I. Multiple Choice Questions (MCQs) [01×15=15]
 - I Planting pattern should always be followed under dryland conditions is
a. rectangular type b. square type c. Circular d. Hexagonal
 - II Organic matter content in most of the soils under dryland conditions is
a. < 1% b. > 1% c. 0.5% d. None
 - III In India nearly-----m/ha of land is subjected to different land degradations.
a. 185 b. 145 c. 175 d. 165
 - IV Presence of deep cracks is seen in-----soils
a. red b. Sandy c. Clay d. Sandy loamy
 - V Contour bunds are followed in rainfall of—
a. <600mm b. >600 mm c. >800 mm d. None
 - VI Alley cropping is also known as---
a. Hedgerow intercropping b. Avenue cropping
c. a & b d. None
 - VII Cultivation of crops in regions with annual rainfall less than 750 mm is called as
a. Rainfed farming b. Dry farming
c. Dryland farming d. None
 - VIII Length of growing period between 75- and 120-days present for
a. Rainfed farming b. Dry farming
c. Dryland farming d. None
 - IX Dryland Agriculture occupies-----% of cultivated area
a. 60 b. 40 c. 75 d. 50
 - X Temporary moisture less condition in soil is called as-----
a. Drought b. Famine c. Aridity d. Dry spell
 - XI Moisture Index (Im) value of -66.7 to -33.3 is for
a. Arid b. Semi-arid c. Humid region d. Per humid
 - XII Moisture availability index was given by?
a. Trolls b. Koppen's c. Hargreaves d. Thornthwaite

XIII 1st dry land research station was started in the year
a. 1920 b. 1923 c. 1926 d. 1945

XIV ICRISAT was established in the year
a. 1972 b. 1985 c. 1974 d. 1982

XV Prolonged meteorological drought is called as
a. Agricultural drought b. Atmospheric drought
c. Hydrological drought d. Relative drought

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

I Define the watershed management definition- concept & principles.

II Explain How do you manage a watershed?

III Describe the Factors effecting watershed management runoff & Soil loss management in a watershed.

IV Describe the watershed management runoff & soil management.

3. Answer in short (any six) [5x6=30]

I Write down the goals of watershed management.

II Define the soil quality & soil Erosion.

III Write down the Benefits of watershed management.

IV Explain the Contouring and Terracing farming.

V What are the Key policy approaches in watershed management?

VI Give the term of crop rotation and its importance.

VII Define the Wasteland management strategies.

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Paper Code: AG-604

B (SVSU:2024-25/R)

Enrollment No.													
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Program Name:B.Sc Agriculture

6th Semester / 3rd Year Examination

Subject Code:AG-604

Subject Name: FARM MANAGEMENT, PRODUCTION &
RESOURCE ECONOMICS

[Time :03:00 Hours]

[Max. Marks :75]

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

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

I What are fixing positive externality?

- (A) Subsidies
- (B) Government provides the goods
- (C) Government provides legal protection
- (D) All of these

II What are negative externality?

- A) Property rights are not defined B) Not all costs are registered
- C) A farm emitting pollution D) All of these

III What are common property resources ?

- A) Land resources B) Forest & pasture resources
- C) Water resources D) All of these

IV Why are natural source depleting?

- A) Use of fossil fuels B) Keep water clean
- C) Preserve forest D) All of these

V What are the causes of resource depletion ?

- A) Overpopulation B) Soil erosion
- C) Mining D) All of these

VI What are the effects of natural resources depletion?

- A) Resource scarcity B) Rising prices
- C) Water shortages D) All of these

VII What economic principles apply to farm management?

- A) Law of diminishing return B) Cost principle
- C) Factor substitution D) All of these

VIII What are specialized family terms?

- A) Terms of tenancy B) Structural integration
- C) Government policy directions D) All of these

IX What is the nature & scope of production economics?

- A) Resource allocation B) Resource management
- C) Resource administration D) All of these

- X** What are the disadvantages of farming?
 A) Greater risk of failure of crops
 B) Soil fertility cannot be maintained
 C) Income is received once a year
 D) All of these
- XI** What is diversified farming?
 A) Better utilization of productive resources
 B) Reduction of risk
 C) Regulation of quicker returns
 D) All of these
- XII** What is mixed farming?
 A) Livestock production
 B) Poultry
 C) Fisheries
 D) All of these
- XIII** What are the factors of farming ?
 A) Marketing cost
 B) Land values
 C) Availability of cash
 D) All of these
- XIV** What are systems of farming?
 A) Capitalistic farming
 B) State farming
 C) Collective farming
 D) All of these
- XV** What is the meaning & concept of cost ?
 A) Economic cost
 B) Social costs
 C) Separable cost
 D) All of these
- 2. Answer in long (any three) [10×3=30]**
- I** What is comprehensive crop insurance scheme?
- II** What is experimental crop insurance scheme ?
- III** What are concept of risk & uncertainty occurs in agriculture production ?
- IV** What are the steps in whole farm planning & budgeting ?
- 3. Answer in short (any six) [5x6=30]**
- I** What is inefficiency & welfare loss?
- II** What are factors mitigating scarcity?
- III** What are the causes of natural resources?
- IV** What are natural resource management?
- V** What are livestock insurance?
- VI** What is national crop insurance program?
- VII** What is salient features of (NAIS) National agricultural insurance scheme?

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Paper Code: BSA-602

A

(SVSU:2024-25/C)

Enrollment No.

Program Name ...B.Sc Agriculture

VI..Semester / III... Year Examination

Subject Code-BSA-602

Subject Name: Principles of Seed Technology

[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 The Seed Control Order was passed inYear

A. 1983 B. 1986 C. 1987 D. 1988

II NSC is located in

A. Shimla B. New Delhi C. Jaipur D. Bhopal

III NSRTC located at

A. Varanasi B. Lucknow C. New Delhi D. Meerut

IV ICAR located at

A. New Delhi B. Jaipur C. Ludhiana D. None of Above

V Full form of SCO

A. Seed Certification Officer B. Seed Certificate Officer
C. Seed Certified Officer D. All are incorrect

VI Full form of ADSC:

A. Assistant Director Seed Certification
B. Associate Director Seed Certification
C. Assistant District Seed Certification
D. None of Above

VII Full form of STL

A. Seed Testing Laboratory B. Seeds Testing Laboratory
C. Seed Test Laboratory D. None of Above

VIII Seed Act was launched inYear

A. 1966 B. 1968 C. 1965 D. 1964

IX IARI located at

A. New Delhi B. Bihar C. Punjab D. UP

X Full form of SSCA

A. State Seed Certification Agency
B. State Seeds Certificate Agency
C. State Seed Certified Agency
D. None of Above

- XI Full Form of NSC**
 A. National Seed Corporation
 B. National Seed Cooperation
 C. National Seeds Cooperation
 D. None of Above
- XII Full form of STO**
 A Seed Technical officer B. Seed Testing officer
 C. Seeds Testing Officer D. None of Above
- XIII Who was the father of Seed Technology.....**
 A. Badrinarayan Barwale B. S.K. Day
 C. F.L. Brayne D. None of Above
- XIV HYVP Launched inYear**
 A. 1966-67 B. 1976-78 C. 1956-57 D. 1945-46
- XV Who is the President of ICAR**
 A. Dr. Narendra Singh Tomar B. Dr. T. Mohapatra
 C. Dr. Narendra Singh Rathore D. None of Above
- 2. Answer in long (any three) [10×3=30]**
- I Explain the LSU dryer with neat and clean diagram.**
- II Describe different steps of foundation seed production of Wheat.**
- III Discuss about the the different factors which affect the quality of seed.**
- IV Describe the continue mixing and non mixing dryer**
- 3. Answer in short (any five) [5×5=25]**
- I Explain Seed and their Importance?**
- II Draw the Structure of Dicotyledons with neat and clean Diagram?**
- III Define physical and Physiological characteristics of good quality seeds?**
- IV Define the Goal of Seed Technology.**
- V How to maintain the quality of seed?**
- VI Describe the embryo and their different arts with neat and clean diagram.**
- VII Define the nuclear, Breeder, Foundation and Certified seed ?**

Printing Pages :2

Paper Code: BSA-604

C (SVSU:2023-24/R)

Enrollment No.

Program Name B.Sc. Agriculture
VI Semester / III Year Examination
Subject Code – BSA 604

Subject Name- Livestock Production Management

[Time : 03:00 Hours]

[Max. Marks : 70]

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

2. Fill the correct answer of MCQs

- 1. Multiple Choice Questions (MCQs) [01×15=15]**
- I** Central Institute for research on cattles is situated at....
 a) Delhi (b) Haryana (c) Ghaziabad (d) Meerut
- II** CSWRI is situated at.....
 a) Delhi (b) Haryana (c) Ghaziabad (d) Rajasthan
- III** CPRI located at
 (a) Meerut (b) Shimla
 (c) Both A & B (d) None of the above
- IV** Floor space requirements of old calves in covered area (meter square)
 (a) 2.0 (b) 2.5 (c) 3.5 (d) 3.0
- V** Floor space requirements of lamb in covered area (meter square)

 (a) 0.4 (b) 0.3 (c) 0.7 (d) 0.8
- VI** National Dairy Development Board is situated at.....
 (a) Delhi (b) Haryana (c) Rajasthan (d) Gujrat
- VII** National Institute of Veterinary Epidemiology and Diseases Informatics situated at.....
 (a) Delhi (b) Karnal (c) Jodhpur (d) Karnataka
- VIII** Floor space requirements of down calves in open area (meter square)
 (a) 8 (b) 10 (c) 11 (d) 12
- IX** How old the age of broiler in poultry farm
 (a) 0-6 weeks (b) 0-8 weeks (c) 0-9 weeks (d) 0-10 weeks
- X** Floor space requirements (square feet) of broiler.
 (a) 0.8-1.0 (b) 1.2-1.5 (c) 1.8-2.0 (d) 2.2-2.5

- XI** NBAGR situated at?
(a) Punjab (b) Haryana (c) Bareilly (d) Delhi
- XII** Temperature requirement in poultry for housing?
(a) 10-20 (b) 30-40 (c) 5-6 (d) None of these
- XIII** NDRI situated at?
(a) Karnataka (b) Haryana (c) Bareilly (d) None of these
- XIV** Light provided for old chicks should be in poultry farm?
(a) 10 hours (b) 15 hours (c) 20 hours (d) 23 hours
- XV** What is temperature of cryo-preservation?
(a) -196°C (b) -195°C (c) -150°C (d) -200°C

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

- I** Write down the reproduction techniques in farm animal and poultry?
- II** Discuss about digestive system of ruminant in detail?
- III** Write in detail about the digestive system of poultry?
- IV** Write down the disease symptoms and management as given below?
a) Anthrax b) Black quarter
c) Brucellosis d) Mastitis e) Milk fever

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

- I** Describe the role of livestock in national economy?
- II** Differentiate between milk and colostrum?
- III** Define heifer and also discuss their importance of its?
- IV** Describe importance of feeding in farm animals?
- V** What do you mean by bio security in farm animal?
- VI** What are mulch animals? Discuss the purpose of its breeding?
- VII** Define reproduction? describe the importance in livestock?

B.Sc. Agriculture**3rd Year 6th SEM. Examination****Fundamentals of Agriculture Business Management****Subject Code: BSA-607****[Time :03:00 Hours]****[Max. Marks :70]****Note : Attempt all the questions as per given instructions.**

- 1. Multiple Choice Questions (MCQs) [01×15=15]**
- I** In marketing, what is the term for the usefulness of a product that is a consequence of its creation from raw material?
(a) Form utility (b) Place utility(c) Position utility (d) Price utility
- II** What type of utility does a bag of rice acquire for the consumer upon purchase?
(a) Place(b) Ownership (c) Form(d) Position
- III** Which of the following is the final phase in the product development process?
(a) Commercialization (b) Building a prototype
(c) Test marketing (d) None of these
- IV** HR department maintains the record of
(a) Sales (b) Employee
(c) Production (d) Inventory
- V** Major export of Pakistan is
(a) Textiles (b) Fisheries
(c) Forestry (d) Wheat
- VI** Working under a written agreement with another person called
(a) Contour farming (b) Contract farming
(c) Organic farming (d) Mixed farming
- VII** Cotton is crop of
(a) Rabi (b) Kharif
(c) Zaid (d) None of the above
- VIII** Law passed by legislative body or parliament of country
(a) Ordinance (b) Act (c) Rule (d) None of the above
- IX** Totality of individuals or observations under consideration
(a) Population (b) Sample (c) Sampling frame (d) Sampling unit
- X** Roger's category of users contains how much ratio of late majority for product adoption
(a) 36 % (b) 34 % (c) 35 % (d) 50%

- XI** Refractometer measured is
(a) TSS (b) TDS (c) TPS (d) TMS
- XII** Market value of all goods and services produced within a country in a given period
(a) GNN (b) GDP (c) NNP (d) None of the above
- XIII** Cotton is also known as
(a) White gold (b) Silver gold (c) Yellow gold (d) blue gold
- XIV** On the recommendation of Royal Commission on Agriculture in India (1928), The agricultural produce Act was enacted in
(a) 1930 (b) 1939 (c) 1929 (d) 1947
- XV** What type of utility does a bag of rice acquire for the consumer upon purchase?
(a) Ownership (b) Place (c) Form (d) Position

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

- I** Explain the capital management and financial management of agribusiness.
- II** Explain the agricultural policy for farmer and agriculture sectors.
- III** Explain the 4Ps marketing and market segmentation with suitable example.
- IV** Explain the importance of financial statement and balance sheet.

3. Answer in short (any five) [5x5=25]

- I** What is the importance of good management?
- II** Define the types of agro-based industries.
- III** Define the role of fertilizer for crops.
- IV** Describe the NABARD.
- V** Write the five names of agro-based industries.
- VI** Define the analysis of financial statement.
- VII** What is the value added products?

Printing Pages :2

Paper Code: BSA-601

C (SVSU:2023-24/R)

Enrollment No.

Program Name B.Sc. Agriculture

3rd Year 6th Semester / Examination

Subject Code- BSA-601

Sub Name: Farming System, Sustainable Agri and Organic Farming

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

1. MCQ: [01×15=15]
- I Farming type where entire production is used for family consumption
A) Subsistence B) Intensive C) Extensive D) mixed farming
 - II What is the key of organic farming?
(a). Soil is fed. (b). Crop is fed.
(c). Both a and b. (d). None of the above
 - III Earthworm daily feed material time more than ____ its own weight.
(a)1to2 (b)4to5 (c)8to9 (d)10 to11
 - IV Which type of farming improves the soil fertility
A) Dairy farming B) Mushroom
C) vermicompost D) all of the above
 - V Azolla biofertilizer is mostly used in ____ crop.
(a) Maize (b) Groundnut (c) Green grain (d) flooded rice
 - VI Farming type which refers to the livestock production along with usual cultivated crops
A) Subsistence B) commercial C) Extensive D) mixed farming
 - VII Which is not an objective of sustainable agriculture?
(a). Healthy environment (b). Economic profitability
(c). Higher crop production (d). Social and economic equity
 - VIII ____ chemical is used to prevent volatilization loss of N in FYM
(a) Super phosphate (b) kinite (c) Gypsum (d) all of the above
 - IX Which is a cover crop?
(a). Maize. (b). Cowpea. (c). Redgram. (d). All of the above.
 - X Which water erosion is known as death of farmers?
(a). Splash erosion. (b). Rill erosion.
(c). Sheet erosion. (d). None of the above

- XI** Which of the following system efficiently uses the available moisture in soil?
(a). Inter-cropping. (b). Mixed cropping
(c). Relay cropping. (d). All of the above.
- XII** The sludge that is settled at the bottom of tank is known as
(a) Inactivated sludge (b) Green sludge
(c) Dry sludge (d) Activated sludge
- XIII** Sustainable agriculture is deriving from word
A) Greek B) Latin C) Italic D) none of the above
- XIV** In India ___ is considered as 100% organic farming state.
(a) Assam (b) Gujarat (C) Sikkim (d) Punjab
- XV** Vermicompost is an example of
A) Bulky organic manure B) concentrated organic manure
C) fertilizers D) Biofertilizers

2. Answer in long (any three)

[10×3=30]

- I** Describe the 'Land Degradation and conservation of natural Resources.
- II** Define farming system. Give their principle and component of farming system.
- III** What are the specific objectives of farming systems?
- IV** What is low-external input sustainable agriculture (LEISA)?

3. Answer in short (any five)

[5×5=25]

- I** What is trap crop and give their two example of trap crop?
- II** Define IFS. Give their example of IFS models.
- III** What is bio-fertilizer and give their example?
- IV** What is alternative agriculture?
- V** What is conventional agriculture?
- VI** What is Natural farming?

Printing Pages : 2

Paper Code: AG-605

B (SVSU:2024-25/R)

Enrollment No.

B.Sc Agriculture

6th Semester / 3rd Year ExaminationSubject Name: Diseases of Field and Horticultural Crop and Their
Management-II

Subject Code: AG-605

[Time : 03:00 Hours]

[Max. Marks : 75]

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

- I Concentric ring symptom formed on the leaf by which pathogens.....?
(A) Pythophthora sp. (B) Erysiphe sp.
(C) Both a and B (D) Alternaria
- II Citrus canker caused by?
(a) Strong fungus (b) Bacteria (c) Both a and b (B) Virus
- III Which of the following types of disease symptom of plant?
(a) Mycota (b) Hypertrophy
(c) Stylet (d) Both a and b
- IV Which of the following best fungicides apply for control of powdery mildew disease?
(a) Sulphur fungicides (b) Copper fungicides
(b) Both a and b (d) None of these
- V Which of the following required dose of Trichoderma viridae for seed treatment?
(a) 2-3g/kg of seed (b) 12-18g/kg of seed
(c) 8-10g/kg of seed (d) None of these
- VI Dose of Vitavax fungicide should be use for seed treatment ?
(A) 0.5% (B) 0.25% (C) 8% (D) all of these
- VII Which of the following is a bactericides use for the bacterial disease in plant
(A) Propiconazole (B) Hexaconazole
(C) Chlorothalonil (D) Streptomycin
- VIII Black tip of Mango disease caused by?
(A) Biotic (B) Abiotic (C) Mesobiotic (D) all of the above
- IX Anthracnose of cotton disease caused by?
(A) Colletotrichum (B) Alternaria (C) Fusarium (D) None of these
- X Which of the following disease symptom appear as white floury patches appear on both side of leaves as well as tendrils, stem, pods of pea etc.
(a) Powdery mildew (b) Downey mildew
(c) White rust (d) None of these

- XI** The powdery mildew of pea caused by _____
 (a) Erysiphe pasci (b) Erysiphe pisi
 (c) Erysiphe polygoni (d) None of these
- XII** Which one of the following disease caused by the Peronospora pisi?
 (a) Downey mildew (b) Powdery mildew
 (c) Citrus canker (d) None of these
- XIII** Which one of the following spore many year survive in the soil
 (a) Chlamydospore (b) Sporangiospore
 (c) Both a and b (d) all of these
- XIV** The causal organism of brown rust of wheat?
 (a) Puccinia graminis tritici (b) Puccinia recondita
 (c) Puccinia striiformis (d) Alternaria
- XV** The causal organism of yellow rust of wheat?
 (a) Puccinia graminis tritici (b) Puccinia recondita
 (c) Puccinia striiformis (d) Coal

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

- I** Write down the causal organism, symptoms, disease cycle, and disease management of black stem rust of wheat?
- II** Write down about the causal organism, symptoms, disease cycle, and disease management of Ascochyta blight of gram
- III** Explain with cause, symptom disease cycle and management of loose smut of wheat
- IV** Explain with cause, symptom disease cycle and management of Citrus canker disease

3. Answer in short (any six) [5×6=30]

- I** Alternaria leaf spot of mustard disease
- II** Red rot of sugarcane
- III** Define the following terms?
 (a) Symptom (b) Pathogen
- IV** Write down about the Wilt of gram disease and their management
- V** Write about in details on red rot of sugarcane disease and their management?
- VI** Write down management of bacterial blight of Cotton diseases?
- VII** Write about on grassy shoot of sugarcane disease?

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A (SVSU:2023-24/R)

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B.Sc. Agriculture

VI Semester / 3rd Year Examination

Subject Code: BSA – 606

Subject Name: Disease of Horticultural Crops & their Management

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs) [01×15=15]
 - I Disease causing microorganisms are known as _____.
(a) Pathogen (b) Antigen (c) Antibodies (d) All of these
 - II Which of the following can be used as biocontrol agent in the treatment of plant disease?
(a) Rhizobium (b) Chlorella (c) Trichoderma (d) Anabaena
 - III Purple Blotch is related to which of the following crop?
(a) Potato (b) Onion (c) Bhindi (d) Papaya
 - IV Which of the given is an example of Fungal disease in plants?
(a) Bud blight (b) Chlorosis (c) Curly Top (d) Powdery Mildew
 - V Where was the yellow vein mosaic reported first?
(a) Uttar Pradesh (b) Bihar (c) Bombay (d) Gujarat
 - VI What is the optimum temperature for growth of *Phomopsis vexans*?
(a) 8-10°C (b) 18-20°C (c) 20-24°C (d) 21-32°C
 - VII Which of the given diseases is related to guvava?
(a) Canker (b) Blight (c) Wilting (d) None of these
 - VIII Necrosis cannot be in the form of _____.
(a) Lesions (b) Scabs (c) Cankers (d) Rots
 - IX Which season is reported as most favorable for fungal growth?
(a) Rainy (b) Summer (c) Autumn (d) Winter
 - X What is used for the disease prevention against disease in plants?
(a) Fungicide (b) Fertilizer
(c) Resistant varieties (d) All of these
 - XI Which of the following is not a plant disease?
(a) Sigatoka (b) Chickenpox (c) Panama (d) Ring Spot
 - XII Fruit cracking in pomegranate is a form of _____.
(a) Ripening (b) Disease (c) Both. a & b (d) None of these

- XIII** Which of the following is not related to Necrosis?
(a) Tissue death (b) Fungal disease
(c) Leaf Curling (d) Discoloration
- XIV** Which of the following diseases are caused by Bacteria in plants?
(a) Soft rots (b) Hairy Root (c) Tuber disease (d) Root Rots
- XV** Which of the following factors are responsible for the spreading of plant diseases?
(a) Air (b) Rainfall (c) Insects (d) All a, b & c

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

- I** Discuss in detail about the economic importance, symptoms, etiology, disease cycle and management of Apple scab disease.
- II** Write down the economic importance, symptoms, etiology, disease cycle and management of downy mildew disease in cucurbits.
- III** Describe phomopsis disease of brinjal following with their economic importance, symptoms, disease cycle and management.
- IV** What are the economic importance, symptoms, etiology, disease cycle and management of malformation disease in mango?

3. Answer in short (any five) | 5×5=25 |

- I** Define dieback disease of citrus in your words.
- II** Write the causing agent and symptoms of powdery mildew in ber.
- III** Share your thoughts on the management of panama wilt disease of papaya.
- IV** Give a short note on Zn deficiency in guava.
- V** What is the causing pathogen and symptom of early blight of tomato?
- VI** Give the all management practices of rhizome rot of ginger.
- VII** Define the chilli anthracnose in short.

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Enrollment No.																			
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Program Name: B.Sc Agriculture
6th Semester / 3rd Year Examination

Subject Code: AG-603

Subject Name: Manures, Fertilizers & Soil fertility Management

[Time: 03:00 Hours]

[Max. Marks :75]

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

1. Multiple Choice Questions (MCQs)

[01×15=15]

I How to improve chemical properties?

- (A) Nutrients in balanced ratio (B) Slow release of nutrients
(C) Supply of nutrients (D) All of these

II What is the percentage of Nitrogen in cow urine?

- A) 1.35 B) 1.25 C) 1.00 D) All of these

III What is the percentage of Nitrogen in paddy straws?

- A) 0.36 B) 0.53 C) 0.40 D) All of these

IV Which gas is found in Gobar gas?

- A) Nitrogen B) Nitrate C) Methane D) All of these

V What is the chemical formula of Gypsum?

- A) $ZnSO_4$ B) K_2SO_4 C) $MnSO_4$ D) None of these

VI What is the percentage of Nitrogen in town compost?

- A) 1.40 B) 1.00 C) 1.5 D) All of these

VII What is the percentage of Nitrogen in night soil?

- A) 5.5 B) 4.0 C) 2.0 D) All of these

VIII What is the form of Nitrogen content in Urea?

- A) Sulphate B) Nitrate C) Ammonia D) All of these

IX What is the percentage of Nitrogen in coconut cake?

- A) 3.0 B) 1.9 C) 1.8 D) 2.0

X What is the reaction of SSP in soil?

- A) Alkali B) Neutral C) Acidic D) None of these

XI What is the actual name of muriate of potash?

- A) K_2Cl B) ZCl C) KCl D) All of these

XII What is the name of amendment found in reclamation saline soil?

- A) Gypsum B) Pyrites
C) Calcium Carbonate D) None of these

XIII What is complex fertilizer?

- A) Mix 2 straight fertilizers B) Mix two primary elements
C) Contains all three elements D) All of these

XIV Which of these is phosphoric acid?

- A) CaSO_4 B) H_3PO_4 C) HF D) ZnSO_4

XV Which of these is autonomous body of government?

- A) CPRI B) IARI C) NDRI D) All of these

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

- I** What is the role of bio fertilizer in Agriculture?
- II** What is the role of Potassic fertilizer ? How to prepare muriate of Potash ?
- III** How is urban compost prepared & what is its role in Agriculture ?
- IV** Complete the following abbreviations. KRIBHCO, IFFCO, IISCO, HFCL, HCL, GSFC, FCI, DMCC, FAO, MFL

3. Answer in short (any six) [5×6=30]

- I** What is a chelate ? What is the advantage of adding chelated compound for supply of micronutrients?
- II** List the advantages & disadvantages of fertilizer mixtures.
- III** State the materials used for fertilizer mixtures.
- IV** Define the following terms
A) Soil amendments B) Lining C) Soil pH
- V** What are the common soil amendments for alkaline soil ?
- VI** What is the difference between top dressing & side dressing ?
- VII** What is saline soil ? How to reclaim & management for crop growing ?

17/05/2025

Printing Pages : 2

Paper Code:BSA-605

C (SVSU:2023-24/R)

Enrollment No.

Program Name ...B.Sc. (Ag.)

VIth Semester / IIIrd Year Examination

Subject Code- BSA-605.....

Subject Name- Post Harvest Management and Value Addition of
Fruit and Vegetables

[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 CFTRI is situated-
(a) Shimla (b) Mysore (c) Delhi (d) Haryana
- II TSS of Jam should be-
(a) 65% Brix (b) 68% Brix (c) 70% Brix (d) 69% Brix
- III Wax 'W' means-
(a) Dose not Shine (b) Give Shine (c) A&B (d) None of these
- IV Maturity Type is-
(a) Horticulture Maturity (b) Harvest Maturity
(c) A&B (d) None of these
- V IARI is located at-
(a) Delhi (b) Haryana (c) Lucknow (d) Jodhpur
- VI Which fruit is most suitable for Jelly?
(a) Banana (b) Litchi (c) Guava (d) Grape
- VII Father of Preservation-
(a) Nicolas Apart (b) Aristotle
(c) Adam smith (d) None of these
- VIII Which vegetable used for curing-
(a) Onion (b) Lemon (c) Tomato (d) All of above
- IX Lye-peeling is done by-
(a) 1-2% NaCl (b) 1-2% NO₃
(c) 1-2% NaOH (d) None of these
- X Chemical Preservative is-
(a) KMS (b) Sodium Benzoate
(c) Both A&B (d) None of these
- XI Example of Non- Climacteric fruit-
(a) Apple (b) Grape (c) Banana (d) Mango

- XII** Olericulture is the word of which language- -
(a) Greek (b) Latin (c) French (d) None of these
- XIII** Greening in Potato is due to which Pigment-
(a) Solanine (b) Lycopene (c) Anthocyanin (d) Chlorophyll
- XIV** In Post harvest losses fruit are generally attacked-
(a) Fungus (b) Bacteria (c) Yeast (d) Both A&B
- XV** ZECC Discover by-
(a) Dr. S.K. Roy (b) Nicolas Apart
(c) R.N. Singh (d) None of these
- 2. Answer in long (any three) [10×3=30]**
- I** What are the various factors responsible for deterioration of harvested fruit and vegetable?
- II** Describe various Principles of fruit Preservation
- III** Explain about the importance of Post Harvest Management?
- IV** Discuss in brief about different methods of storage.
- 3. Answer in short (any five) [5×5=25]**
- I** Enlist Pre-harvest factors affecting Post harvest quality.
- II** Write in detail of Post harvest handling of vegetable.
- III** Define Zero Energy Cool Chambers with suitable diagram?
- IV** Differentiate between Climacteric and Non-Climacteric fruits?
- V** What is the difference between fruit and vegetables?
- VI** Write in details about materials of Packaging.
- VII** Write the name of chemicals used for hastening and delaying ripening of fruit and vegetable.

Printing Pages :2

Paper Code: BSA-608

C (SVSU:2023-24/R)

Enrollment No.

Program Name: B.Sc. Agriculture

Third Year Sixth Semester / Examination

Subject Code: BSA-608

Subject Name: Environmental Science

[Time : 3:00 Hours]

[Max. Marks : 70]

III. Objectives Question: Answer All Question

[15×1=15]

1. Identify the incorrect statement/s-

- (i) Ponds are considered as lentic water body
- (ii) Bowli are considered as lentic water body
- (iii) Streams are considered as lentic water body
- (iv) Rivers are considered as lotic water body

2. Food web are interconnected of

- (i) Producer (ii) Trophic level (iii) Food chain (iv) Trees

3. National river of India is-

- (i) Yamuna (ii) Ganga (iii) Saraswati (iv) Kosi

4. The limit of Total Dissolved Solids (TDS) for drinking water is-

- (i) 100 (ii) 500 (iii) 1000 (iv) 2000

5. Total forest and trees cover of India is about?

- (i) 21.71% & 2.91% (ii) 2.91% & 21.71%
- (iii) 24.62% & 2.91% (iv) 2.91% & 24.62%

6. India ranks ----- in world hunger index 2022.

- (i) 94 (ii) 107 (iii) 116 (iv) 98

7. "Wasting assets" is the other name of which of the following resource-

- (i) Forest (ii) Minerals (iii) Land (iv) Water

8. World Environment day is celebrated on-

- (i) 5th September (ii) 5th October (iii) 16th September (iv) 5th June

9. When trees are cut, amount of oxygen

- (i) Decreases (ii) Increases (iii) both i and ii (iv) Remains same

10. Heterotrophs are also called-

- (i) Producer (ii) Herbivores (iii) Consumer (iv) Decomposers

11. Sulphur eating bacteria are-

- (i) Producer (ii) Herbivores (iii) Consumer (iv) Decomposers

12. Full form of WMO

- (i) World Money Organization (ii) World Matter Organization
- (iii) World Meteorological Organization (iv) None of the above

13. Dominant metal of earth Crust is-
(i) Oxygen (ii) Aluminum (iii) Iron (iv) Silicon
14. Earth is protected from ultra violet radiations by
(i) Ozone layer (ii) Troposphere (iii) Mesosphere (iv) Oxygen layer
15. First layer of atmosphere from bottom is-
(i) Exosphere (ii) Thermosphere (iii) Troposphere (iv) stratosphere

I Long Question : Answer Any Three

[10×3=30]

1. Define environment? Discuss different components of the atmosphere in detail?
2. Classify the natural resource on the basis of-
 - (a) Availability
 - (b) Use
 - (c) Distribution
 - (d) R.F. Dashmann
3. Define the ecosystem? Also describe the structure of ecosystem in detail?
4. Write the definition of phantom pile concept? Explain the phantom pile concept with suitable example?

II. Short Question: Answer any Five

[5×5=25]

1. Define the need and ways of spreading the environmental awareness?
2. Explain the multidisciplinary nature of environmental studies?
3. Define and explain the phantom pile concept with example.
4. Explain the 10% law of Energy flow in ecosystem? If the energy at third trophic level is 15000Kcal, then what will be the energy at first trophic level?
5. Define Flood? Discuss the causes and control measures of flood?
6. Define forest resource? Discuss the causes and effects of deforestation?
7. Define and explain Mining as robber industry?

Printing Pages : 2

Paper Code :BSA-603

B (SVSU:2022-23/R)

Enrollment No.														
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Course: B.Sc. (Agriculture)

3rd Year / 6th Sem. Examination

**Extension Methodology of Transfer of Agriculture Technology
BSA-603**

[Time : 03:00 Hours]

[Max. Marks :70

Note : Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×15=15]

1. PMKAY launched inYear
(a). 2015 (b). 2016 (c). 2017 (d). 2019
2. The Etawah Pilot Project was launched in the..... year
a. 1947 b. 1948 c. 1946 d. 1950
3. Farm and home visits are...?
(a). Group contact. (b). Mass contact.
(c). Individual contact. (d). None of the above.
4. In group Method Size of small group should be
A 10-20 B. 30-40 C 5-10 D. None of Above
5. The Method Demonstration involve ...?
(a). Seeing (b). Hearing (c). Participating (d). All of Above
6. Swami Kalyan Dev Krishi Vigyan Kendra located at
a. Hastinapur b. Hapur c. Bagpat d. None of Above
7. In 1961.....Scheme was launched
a. IADP b. IAAP c. HYVP d. None of Above
8. Sriniketan Project was launched in..... Year
a. 1915 b. 1914 c. 1916 d. 1917
9. An exhibition is a systematic display of
A. Models B Specimens
C. Charts D All of Above
10. Full form of MSP
a. Minimum Sold Price b. Minimum Selling Price
c. Minimum Support Price d. None of Above
11. Result demonstration includes...
(a). Old technology. (b). New technology.
(c). Both a and b. (d). None of the above

12. IARI located at
A Ludhiana B. Karnal C New Delhi D Meerut
13. First KVK was established by
A Mohan Singh Mehta B. Narendra Mohan
C. Narendra Singh D. None of Above
14. The exhibition may be held at
A Village level C. Block Level
C District level D All are correct
15. SAMETI is located at
A Shimla B. Jodhpur C Jabalpur D None of Above

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

- I Define the differentiate method demonstration and result demonstration.
- II Define different steps of extension program planning.
- III Define different methods of communication in brief.
- IV Define the PMGAY in brief.

3. Answer in short (any Five) [5x5=25]

- I Define Group contact methods in brief.
- II Define the different extension teaching methods in brief
- III Define the Communication and different types.
- IV Define the Farm Science Center in brief.
- V Define Farmer Fair in brief .
- VI What are the small group discussion techniques?

Printing Pages :2

Paper Code: AG-606

A (SVSU:2024-25/R)

Enrollment No.														
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Course: B.Sc. (Agriculture)

Year/Sem: 3rd Year / 6th Sem

Subject Name: Post Harvest Management and Value addition of
Fruits and Vegetables

Subject Code: AG-606

[Time: - 3:00 Hours]

[Max. Marks: 75]

I. Objectives Question: Answer All Question

15×1=15]

1. Full form of ZECC
A. Zero Energy Cool Chamber B. Zeros Energy Cool Chember
C. Zero Emissions Coole Chamber D. None of Above
2. Dehydration is the Process in which moisture remove at.....level
A. Safe B. Bone Dry
C. Both are correct D. None of Above
3. The unit of TSS is.....
A. Degree Brix B. Degree Centigrade
C. Degree Ferenite D. Degree Kelvin
4. Drying is the process in which moisture remove for
A. Safe level B. Bone Dry Level
C Both A and D. None of Above
5. After heat treatment of beverages At the time of cooling the temperature should be.....°C
A10 B. 2 C. 3 D. 5
6. Scalping is the process in which remove of the..... particals
A. Large B. Small C. Both A and B D. None of Above
7. The TSS of mango fruttiness is.....°Brix
A. 15 B. 8 C. 10 D. 17
8. In cold storage gas is available
A. Nitrogen B. Hydrogen C. Carbon-dioxide D. None of Above
9. FSSAI was banned on CaC2in Year
A. 2011 B. 2006 C. 2004 D. 2005
10. PMKSY was launched inYear
A. 2015 B. 2016 C. 2017 D. 2020
11. In present time minister of MoFPI is.....
A. Chirag Paswan B. Shivraj Singh Chauhan
C. Bhupendra Yadav D. None of Above

12. The DG OF ICAR.....
 A. Himanshu Pathak B.T. Mohapatra
 C. Narendra Singh Tomar D. None of Above
13. Total fruits and Vegetables lost in India.....
 A. 30 B. 40 C. Both A and B D. None of Above
14. In Control atmosphere storage
 A. Ripening is fast B. Ripening is slow
 C. Ripening is Constant D. None of these
15. Name of ICAR president is.....
 A Shivraj Singh Chauhan B. Himanshu Pathak
 C Narendra Singh Tomar D. None of Above

II Long Question: Answer Any Three [10×3=30]

1. Define the different post harvest techniques if fruits and vegetables.
2. What are the different factors to consider when choosing processing techniques? Describe in brief
3. Define the different thermal processing methods used in food preservation.
4. Define the different chemical methods of food preservation in brief.
5. Describe the Major causes of food spoilage.

III. Short Question: Answer any Six .6×5=30]

1. Define Sensory Analysis in short.
2. What is the procedure for determination of TSS of RTS by refractometer?
3. Describe the procedure for separation of cream from milk by centrifuge method.
4. Define the advantages and disadvantages of ZECC.
5. What is the different materials used in construction of ZECC ?
6. What are difference factors which affect the post harvest losses?
7. What is ripening?

Printing Pages :2

Paper Code: AG-608

C (SVSU:2024-25/R)

Enrollment No.														
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Program Name-B.Sc. Agriculture
VI Semester / III Year Examination

Subject Code -AG-608

Subject Name -Beneficial Insects and Pest of Horticultural
Crops and Their Management

[Time : 03:00 Hours]

[Max. Marks : 75]

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

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

- I** Hygrometer in silkworm rearing is used to measure
(a) Temperature (b) Humidity (c) Light (d) Sound
- II** Mounting refers to
(a) Hatching (b) Rearing
(c) Providing place for spinning cocoon (d) None
- III** Eri silkworm feeds mainly on:
(a) Castor (b) Mulberry (c) Sal (d) Oak
- IV** Cleaning of net general practice in rearing of silkworm is used to:
(a) Catch moths (b) Separate excreta
(c) Cut leaves (d) Kill pests
- V** Uzi fly is a
(a) Disease (b) Pest (c) Fungus (d) Virus
- VI** Which silkworm is fully domesticated?
(a) Bombyx mori (b) Antheraea mylitta
(c) Samia cynthia (d) None
- VII** Common propagation method of mulberry is
(a) Seed (b) Stem cutting (c) Grafting (d) Budding
- VIII** Morus alba is a variety of
(a) Apple (b) Mulberry (c) Grape (d) Tea
- IX** The harvested leaves of mulberry should be
(a) Wet (b) Spoiled
(c) Fresh and clean (d) Over matured
- X** Leaf picking method is suitable for
(a) Young silkworms (b) Mature silkworms
(c) Egg stage (d) None
- XI** Cocoon should be harvested after:
(a) 1 day of spinning (b) 5-7 days of spinning
(c) Immediately (d) 10 days

- XII** Good cocoon should be
(a) Light (b) Compact and oval (c) Flat (d) Green
- XIII** Honey bee is a
(a) Pest (b) Beneficial insect
(c) Parasite (d) Vector
- XIV** Beneficial insects are important for
(a) Spreading diseases (b) Reducing crops
(c) Ecosystem balance (d) None
- XV** Royal jelly is secreted by
(a) Drone (b) Worker bee (c) Queen (d) Larva
- 2. Answer in long (any three) [10×3=30]**
- I** Discuss about communication methods in honey bees?
- II** Write down the biology of silkworm with suitable diagram in detail?
- III** Write down the life cycle of lac with suitable diagram?
- IV** Discuss about biology of honey bee with suitable diagram?
- 3. Answer in short (any six) [5×6=30]**
- I** Write down the importance of beneficial insects?
- II** Write a short note on queen bee?
- III** Why insects are beneficial for human being?
- IV** Write down the important local cultivar of mulberry?
- V** Discuss about the silkworm rearing equipment with suitable diagram?
- VI** Write down the importance of preserving mulberry leaves?
- VII** Write down the composition of lac?
- VIII** What is the effect of bee pollination in crops?

Enrollment No.														
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Program Name: B. Sc Agriculture
6th Semester / 3rd Year Examination

Subject Code: AG-601

Subject Name: FARMING SYSTEM, PRECISION FARMING & SUSTAINABLE AGRICULTURE

[Time : 03:00 Hours]

[Max. Marks: 75]

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

1. Multiple Choice Questions (MCQs)

[01×15=15]

- I _____ chemical is used to prevent volatilization loss of N in FYM
A) Super phosphate B) kinite C) Gypsum D) all of the above
- II After first year of application fresh organic matter has break down rate is _____.
A) 10-30% B) 30-50% C) 50-80% D) 80-90 %
- III Earthworm daily feed material time more than _____ its own weight.
A) 1to2 B) 4to5 C) 8to9 D) 10 to11
- IV Growing of green manure crops in the field and incorporating in its green stage' in the same field is known as _____.
A) In situ green manuring B) Green leaf manure
C) Ex situ Been manuring D) Brown manure
- V Azolla biofertilizer is mostly used in _____ crop.
A) Maize B) Groundnut C) Green grain D) flooded rice
- VI JI-144 castor variety is resistant against
A) Capsule borer B) Stem borer C) White fly D) Helicoverpa
- VII Vermicompost is an example of
A) Bulky organic manure B) concentrated organic manure
C) fertilizers D) Biofertilizers
- VIII Process of harnessing solar energy in the form of economic plant and animal product
A) Farming B) Farming system C) cropping system D) none
- IX Farming type where entire production is used for family consumption
A) Subsistence B) Intensive C) Extensive D) mixed farming
- X Farming type where entire production is to sell in market is
A) Subsistence B) commercial C) Extensive D) mixed farming
- XI Farming type which refers to the livestock production along with usual cultivated crops
A) Subsistence B) commercial C) Extensive D) mixed farming

- XII** Farm in which no enterprise is contributing to 50% or more income is called asfarming
 A) Specialized B) Diversified C) mixed D) commercialized
- XIII** Sustainable agriculture is deriving from word
 A) Greek B) Latin C) Italic D) none of the above.
- XIV** Maintenance of diversity is possible in farming
 A) HEIA B) LEISA C) LEISA D) none of the above
- XV** Which type of farming improves the soil fertility
 A) Dairy farming B) Mushroom
 C) vermicompost D) all of the above

2. Answer in long (any three)

[10×3=30]

- I** What do you mean by farm hygiene? Explain in detail.
- II** Discuss about the diseases avian flu and Brucellosis.
- III** Explain the purification and sanitation of water with methods and purpose.
- IV** What is the possibility of recycling farm surplus waste?

3. Answer in short (any Six)

[5×6=30]

- I** What do you mean by sources of air pollution in animal house and effect on animal health?
- II** Which importance of zoonotic diseases?
- III** What is the water contamination?
- IV** Discuss about the sanitation of animal housing.
- V** Explain water sources for livestock.
- VI** What is the Potential contamination?
- VII** Define hygiene on a livestock farm.

Printing Pages :2

Paper Code: AG-62

B

(SVSU:2024-25/R)

Enrollment No.														
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Course: B.Sc. (Agriculture)

Year/Sem: 3rd Year / 6th Sem

Exam: Regular Examination

Subject Name: Hi-Tech Horticulture

Subject Code: AG-62

[Time: - 3:00 Hours]

[Max. Marks: 75]

I. Objectives Question: Answer All Question

15×1=15]

1. Components of drip irrigation are.....
 - a. Main line b. Sub main line c. Dripper d. All of Above
2. Water loss is more in sprinkle irrigation due to
 - a. Evaporation b. Evapotranspiration
 - c. Both A and B d. None of Above
3. The fertilizer application methods are
 - a. Broadcasting b. Banding c. Fertigation d. All of Above
4.% Water saving in sprinkle irrigation
 - a. 70 b. 30 c. 40 d. 50
5. Benefits of pH-Based fertilizer Scheduling
 - a. An Increase crop yield b. Improve Nutrient uptake
 - c. Reduce fertilizer waste d. All of Above
6. What is the full form of DSS
 - a. Decision Support System b. Decision Supporting System
 - c. Decision Subordinate System d. None of Above
7. Full form of GPS.....is
 - a. Global Positioning System b. Globals Positioning System
 - c. Global Position System d. None of Above
8. Full form of VRT
 - a. Variable Rate Technology b. Variable Rate Techniques
 - c. Variable Rate Transformation c. None of Above
9. Full form of VRI
 - a. Variable Rate Irrigation b. Vocable Rate Irrigation
 - c. Variable rates Irrigation d. All of Above
10. Full form of GIS
 - a. Geographic Information Systems b. Geographical Information Systems
 - c. Geological Information Systems d. None of Above
11. Full form of FYM
 - a. Farm Yard Manure b. Farm Yard Manures
 - c. Form Yard Manure d. None of Above

12. Key concepts of Hi-Tech Horticulture are
 - a. Smart Farming
 - b. Precision Farming
 - c. Protected cultivation
 - d. All of Above
13. What is the main nutrient supplied to plants through fertigation process
 - a. Nitrogen
 - b. Phosphorus
 - c. Potassium
 - d. None of Above
14. Full form of WUE
 - a. Water Use Efficiency
 - b. Waste Utilization Efficiency
 - c. Water Underground emitter
 - d. None of these
15. Lean to Type green house is
 - a. Attached to home
 - b. Away from home
 - c. Both are correct
 - d. Both are Incorrect

II Long Question: Answer Any Three [10×3=30]

1. Explain the lean to type green house in brief with neat and clean diagram .
2. Explain the Rigid furrow to type green house in brief with neat and clean diagram.
3. Describe the different points which consider at the time of green house construction.
4. Explain nursery management in brief.

III. Short Question: Answer any Six 6×5=30]

1. Describe the micro propagation in short .
2. Explain the Aeroponic and Hydroponic System.
3. Define Hi-Tech Horticulture in short.
4. Define the greenhouse and its advantages.
5. What are the different tolls which use in green house?
6. Describe the irrigation in short
7. Explain the smart farming..

Printing Pages :2

Paper Code: AG-602

C

(SVSU:2024-25/R)

Enrollment No.

Program Name B.Sc. Agriculture
VI Semester / 3rd Year Examination
Subject Code: AG-602

Subject Name: Crop Improvement-II (Rabi crop)

[Time : 03:00 Hours]

[Max. Marks : 75]

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

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

- I** Crop rotation with berseem recommended to reclaim soils is –
a. Rice – berseem b. Rice- maize
c. Maize – wheat d. Berseem – alfaalfa
- II** berseem enriches soil through –
a. Phosphorous fixation b. Symbiotic Nitrogen fixation
c. Asymbiotic fixation d. Pulling water from soil
- III** Chromosome number of wheat is
a. 42 b. 43 c. 44 d. 48
- IV** Chromosome number of *Hordeum vulgare* is
a. 14 b. 43 c. 44 d. 48
- V** Chromosome number of chickpea is
a. 14 b. 16 c. 44 d. 48
- VI** Chromosome number of MUSTARD is
a. 14 b. 16 c. 36 d. 48
- VII** Barseem belongs to the family of –
a. Fabaceae b. Solanaceae
c. Leguminosae d. Saucaceae
- VIII** Famous method of sowing of oats –
a. Dibbling b. Broadcasting c. Drilling d. Line
- IX** Oats contain a legume like protein called as –
a. Avenalin b. Fevastik c. Fevistik d. Oryza
- X** Origin of tobacco –
a. India b. South America c. Phillipines d. Norway
- XI** Family of Tobacco plant –
a. Ravulfoliaceae b. Leguminaceae
c. Nictoinaceae d. Solanaceae
- XII** The best method of irrigation for potato –
a. Flooding b. Furrow method
c. Ridge method d. Channel method

XIII " True potato seed " was developed by –

- a. Dr. Ramanujan b. Dr. reddy
- c. Swaminthan d. Phulwa

XIV flower color of garden pea –

- a. Yellow b. Blue c. Pink d. White

XV Major pea producing state of india –

- a. Madhya Pradesh b. Odisha
- c. Uttar Pradesh d. Bihar

2. Answer in long (any three)

[10×3=30]

- I** Write about the floral biology and draw the wheat opened spikelet and labelled it.
- II** Explain the breeding objective and methods for potato crop improvement.
- III** Explain the breeding objective and methods for mustard crop improvement.
- IV** Write the scientific name, family, chromosome number, centre of origin and distribution of wheat, chickpea, pea, mustard, sunflower and sugarcane.

3. Answer in short (any Six)

[5x6=30]

- I** Explain the distribution, floral biology, breeding objective of chickpea in detail.
- II** Describe the floral biology of mustard.
- III** Describe the floral biology of Pea.
- IV** Describe the methods for sunflower crop improvement. Explain any one suitable method in detail.
- V** Briefly describe the major difference between Desi and Kabuli Bengal gram.
- VI** Summarize the various objectives and important of crop improvement.
- VII** Objective of plant breeding in cotton crop.