

[Time : 3:00 Hours]

[Max. Marks : 75]

I. Objectives Question: Answer All Question

[15×1=15]

1. The target of producing the renewable energy from small hydro project is-
(a) 10GW (b) 5GW (c) 60GW (d) 40GW
2. Which one of the following is a lentic water body-
(a) Pond (b) streams (c) Rivers (d) Bowli
3. Which one of the most prevalent hotspots of biodiversity in India.
(a) Himalayas (b) Western Ghats (c) Ganges (d) None of them
4. World Environment day is celebrated on-
(a) 5th September (b) 5th October (c) 16th September (d) 5th June
5. Cloud formation happens in which one of the following layer-
(a) Troposphere (b) Stratosphere (c) Mesosphere (d) Thermosphere
6. The compressed form of biological diversity was coined by-
(a) R .F. Dasmann (b) W.G. Rosen (c) Water G. Rosen (d) Both b and c
7. National park is a-----conservation measures of biodiversity.
(a) In-situ (b) Ex-situ (c) Both the a and b (d) None of these
8. Identify the incorrect statement-
(a) World Ozone day is not on 16th September every year.
(b) World Earth day is on 22nd April every year.
(c) World Wetland day is on 2nd February every year.
(d) World Environment day is on 5th June every year.
9. Full form of CBD-
(a) Convention on biological diversity (b) Conservation of biological diversity
(c) Community of blind dog (d) Conservation of biodiversity
10. Mark the incorrect statement-
(i) Ozone day is celebrated on 16th September
(ii) Forest festival is celebrated on 1 to 7th July
(iii) The GHI score of a country is calculated based on five parameters
(iv) SYL is a dispute between Punjab and Haryana
11. The National Institute of Disaster Management (NIDM) was established on-
(a) September 23, 2002 (b) August 14, 2001
(c) October 16, 2003 (d) August 14, 2004

12. How many steps are there in the disaster recovery process?
(a) 7 (b) 4 (c) 8 (d) 5
13. International Day of Natural Disaster Reduction is celebrated on?
(a) June 15 (b) March 5 (c) October 13 (d) September 13
14. Which one of the following is not a Natural Disaster?
(a) Volcano eruption (b) Flood (c) Blow-out (d) Tsunami
15. Threatened animals and plants are placed in a separate care unit for protection. This type of conservation is called-
(a) In-situ (b) Ex-situ (c) Both the a and b (d) None of these

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

1. Define and explain the Phantom Pile concept with suitable example.
2. Define pollution? Discuss the causes, effects and control measures of water pollution.
3. Define disaster? Explain the disaster management in details.
4. Define the atmosphere? Discuss the different layers of the atmosphere?
5. Define Biodiversity? Discuss the different scales of Biodiversity and calculate all the biodiversity from the given figure-

Ecosystem A	a	b	d	e	f	g	h	k	l	m	n	o	p	q	s
Ecosystem B	a	b	c	d	e	f	g	k	m	n	o	p	q	h	s
Ecosystem C	s	c	d	e	h	j	i	k	l	n	o	p	r	s	q

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

1. Define and explain the different type of ecological pyramids with suitable example.
2. What is an "earthquake"? What is the difference between the "magnitude" and the "intensity" of an earthquake?
3. Differentiate between ex-situ and in-situ conservation measures of biodiversity.
4. Discuss the biotic structure of pond ecosystem in details?
5. Define flood? Discuss the control measures of flood.
6. Define drought? Discuss the classification of drought as per the IMD. Also classify the below given area as per IMD directions-

Area	Normal rainfall (in cm)	Current year rainfall (in mm)
Area A	154	1200
Area B	130	500
Area C	145	1200

7. Write short notes global warming and climate change
8. Define the laws of energy flow in ecosystem? If the energy at first trophic level is 45687Kcal, then find out the energy at third trophic level of the aquatic ecosystem.

Printing Pages :2

Paper Code: AG-309

B (SVSU:2023-24/R)

Enrollment No.												
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B.Sc.(Ag.)

IInd YEAR/IIIrd SEM EXAMINATION

Sub. Name –Statistical Method

Sub. Code – AG-309

[Time : 3:00 Hours]

[Max. Marks : 75]

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

I. Objectives Question: Answer All Question [15×1= 15]

- Median is the measure of
(a) Location (b) dispersion (c) Skewness (d) None of these
- If mean, median and mode are same then distribution is called
(a) asymmetrical distribution (b) symmetrical distribution
(c) Binomial distribution (d) None of these
- Standard deviation is always measured from
(a) Mean (b) Median (c) Mode (d) None of these
- If the observations are 1,5,1,5,1 the mode is
(a) 0 (b) 1 (c) 5 (d) None of these
- Range is a measure of
(a) Location (b) dispersion (c) Skewness (d) None of these
- Discrete variables are represented by
(a) graphs (b) Line diagram (c) Bar diagram (d) All of these
- Root mean square deviation is
(a) Q.D. (b) S.D. (c) M.D. (d) None of these
- Variance of the identical units 2,2,2,2,2 is
(a) 1 (b) 0 (c) 2 (d) None of these
- The measurements of spread or scatter of the individual values around the central point is called:
(a) Measures of dispersion (b) Measures of central tendency
(c) Measures of skewness (d) Measures of kurtosis
- A large sample size is
(a) $n = 20$ (b) $n = 60$ (c) $n \leq 30$ (d) none of these
- Which one is a symmetrical distribution?
(a) Poisson distribution (b) normal distribution
(c) beta distribution (d) None of these
- t test is a test of analysis of
(a) proportions (b) variances (c) means (d) All of these
- The most frequently occurring value is called
(a) Mean (b) mode (c) M.D. (d) None of these
- Degrees of freedom is related to
(a) No. of Independent observations (b) variances
(c) means (d) none

P.T.O.

15. variation is a measure of
(a) Location (b) dispersion (c) Skewness (d) None of these

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

1. What do you understand by Graphical Presentation?

Draw a histogram of the following data –

x	8-10	10-12	12-14	14-16	16-18	18-20
F	4	2	4	8	12	8

2. Discuss correlation for bivariate data?

Find coeff. of correlation of the following data –

x	8	12	6	10	8
f	6	2	4	12	10

3. Discuss small Sample Testing procedure and their methods of testing.
4. What do you understand by Analysis of Variance? Explain its principles.
5. Discuss Regression and its coefficient and its uses.

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

1. Write a note on measures of Central Tendency?
2. Describe Methods of finding mode of a distribution.
3. Write about Null and Alternate hypothesis.
4. Describe Large testing procedure.
5. Discuss various methods of collection of a secondary data.
6. What is Mean Deviation and Range of Data?
7. Write a note on Frequency polygon.
8. Discuss Stratified Sampling procedure.

Printing Pages :2

Paper Code: AG-108

A (SVSU:2023-24/R)

Enrollment No.														
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Program Name B.Sc. (Ag)

II Year/Sem.: III Semester

Subject Name: Comprehension and Communication Skills in English

Subject Code: AG-108

[Time : 03:00 Hours]

[Max. Marks : 75]

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

Multiple Choice Questions (MCQs)

[01×15=15]

- I State true or false.
The antonym of dispute is non-violence.
- II Fill in the blanks with suitable word.
Ritu has _____ the water just.
a) drunk (b) drinks (c) drunken (d) drinking
- III Select the correctly spelt.
a) decivee (b) deceev (c) deceive (d) decev
- IV Select the appropriate synonym of renounce.
(a) accept (b) consider (c) approve (d) reject
- V Choose the adequate antonym of paucity.
(a) lack (b) abundance (c) dearth (d) scarcity
- VI Mumbai is the most populated city of India. Identify the underline part of speech.
(a) noun (b) preposition (c) verb (d) adverb
- VII Fill in the blanks with suitable word.
I am very tired _____ working hard
a) with (b) in (c) to (d) of
- VIII The synonym of calm.
(a) assuage (b) Pacify (c) Gigantic (d) Etiquette
- IX State true or false.
The synonym of aversion.
(a) Happy (b) joy (c) happiness (d) disdainful
- X The antonym of agree is-
a) unagree b. disagree c agreement d. agreeable
- XI He is coming to your city today. Tick correct noun form in the sentence.
a) proper (b) common (c) material (d) abstract
- XII Rabindranath Tagore was a great poet of India. Select adjective in the sentence.
(a) was (b) poet (c) great (d) India
- XIII Fill in the blanks with suitable word.
I have _____ unique book.
(a) an (b) the (c) a (d) none of these

XIV Fill in the blanks with suitable word.

He is _____ university student.

(a) an (b) the (c) a (d) none of these

XV Select an appropriate part of speech of underlined word.

I live in this town.

(a) noun (b) preposition (c) verb (d) adverb

Answer in long (attempt any three) (10×3=30)

1. How many Parts of Speech are there in English Grammar, explain them in detail with example of each.
2. Give a detailed note on articles with the help of definition, kinds and example of each.
3. Draw a detailed note on all types of nouns in English Grammar.
4. Write a detailed essay on 'Agriculture'.

Answer in short (attempt any five) (5×6=30)

1. What is pronoun? Mention its kinds?
2. Write any four names of adjective with its example.
3. Give the definition of Adverb and mention its kinds.
4. Write a brief note on Parts of Speech.
5. Write your Self-Introduction.
6. Briefly define kinds of tenses.
7. What is a sentence?

Printing Pages :2

Paper Code: AG-310

A (SVSU:2023-24/R)

Enrollment No.														
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B.Sc. Agriculture

2nd Year 3rd SEM. Examination

Subject Code- AG-310

Subject Name-Fundamental of Soil and Water Conservation

[Time : 03:00 Hours]

[Max. Marks : 75]

Note : Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×15=15]

- I What is soil
(a) Soil is a matured body (b) Soil is a dynamic body
(c) Soil is formed by weathering of rocks (d) All of these
- II Who said that soil is a natural body
(a) Randhawa (b) Mongala Rai (c) Joffe-1949 (d) none of those
- III What is the range of pH
(a) 1 to 14 (b) 1 to 9 (c) 0 to 14 (d) All of these
- IV Which is secondary mineral
(a) Amphiboles (b) Olivines (c) Mica (d) Iron oxide
- V Select the correct option
(a) Soil is a store house of water & nutrients (b) Abode of flora and fauna
(c) Space for air and aeration (d) All of those
- VI Which is 2:1 type mineral
(a) Kaolinite (b) Mica (c) Monomillonite (d) All of these
- VII What is Diatoms
(a) Bacteria (b) Fungi (c) Actrimycacates (d) Algae
- VIII what is P in RKLSCP
(a) Slope length (b) Slope percentage
(b) (c) Rainfall factor (d) Conservation practice
- IX What is Agronomical measures for erosion control
(a) Mixed cropping (b) Inter cropping
(b) (c) Counter cropping (d) All of these
- X Water erosion due to
(a) Rainfall (b) Slope (c) Vegetation (d) All of these
- XI Which is primary stage of water erosion
(a) Sheet erosion (b) Rill erosion (c) Splash erosion (d) All of these

XII Measurement of runoff and soil loss is
(a) $Q=CIA$ (b) Runoff plot (c) Rainfall simulator (d) All of these

XIII Land degradation due to
(a) Mass movement (b) Water logging
(b) (c) On site and Off site effects (d) All of those

XIV Shifting cultivation practices is followed where
(a) Assam (b) Koraput (c) Manipur (d) All of these

XV Wind erosion is controlled by
(a) Cropping systems (b) Wind breaks
(b) (c) Shelter belts (d) All of these

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

- I** What is water erosion and types explain each type in detail.
- II** Explain measurement of runoff and soil loss in detail.
- III** Explain factors affecting water erosion in detail.
- IV** Explain engineering measures of soil erosion control.

3. Answer in short (any six) [6×5=30]

- I** What is soil erosion and explain accelerated erosion .
- II** Explain effect of water erosion.
- III** Mechanism of water erosion.
- IV** What is wind erosion and explain in detail .
- V** How to control wind erosion?
- VI** What is desertification and factors affecting it?
- VII** What is-
(a) Water logging (b) On site and Offsite movement.

Enrollment No.														
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-B.Sc. Animal Husbandry

III Semester / II Year Examination

Subject CodeBAH-310

Subject Name: Agricultural Finance and Management

[Time : 03:00 Hours]

[Max. Marks : 75]

Note: Attempt all the questions as per given instructions.

I. Multiple Choice Questions (MCQ)**1×15=15]**

1. NABARD was established in.....Year

A. 1982

B. 1981

C. 1983

D. 1986

2. Full form of VVV

A. Vikas Vahini volunteer

B. Vahini Volunteer Vikas

C. Volunteer Vikas Vahini

D. None of Above

3. Full form of RRBs

A. Regional Rural Banks

B. Retailer Rural Bank

C. Reserve Rural Banks

D. None of Above

4. RIDF was set up in.....Year

A. 1998-1999

B. 1991-1992

C. 1995-1996

D. 1999-2000

5. KCC was launched in Year

A. 1997

B. 1998

C. 1999

D. 1995

6. UPNRM started in.....Year

A. 2005

B. 2007

C. 2008

D. 2009

7. EShakti was launched on.....Year

A. 2015

B. 2017

C. 2018

D. 2020

8. How Many State Cooperative bank at Present time in India

A. 30

B. 40

C. 50

D. 15

9. Rural Credit Survey Committee was came inyear

A. 1939

B. 1959

C. 1969

D. None of Above

10. In short term credit the loan given to the farmer

A. 6-18 Month

B. 2-5 Year

C. 6-7 Year

D. 5-8 Year

11. Which is the apex banking institute for provide finance for agriculture and rural development in India

A. NABARD

B. PNB

C. SBID.

D. IBRD

12. Lead Bank Scheme was launched by

A. RBI

B. SBI

C. PNB

D. None of Above

13. What is the full form of MSP

A. Minimum Support Price

B. Maximum Support Price

C. Mine Support Price

D. None of Above

14. LBS scheme was launched in.....Year

A. 1969

B. 1999

C. 1997

D. 1995

15. NABARD head quarter located at

a. Delhi

b. Haryana

c. Punjab

d. U.P.

P.T.O.

II. Long Question: Answer Any Three

[10×3=30]

1. Define the NABARD and its different function?
2. Define the financial contribution of NABARD?
3. Define KCC in brief.
4. Describe the different source of Agriculture Finance.
5. What are important challenges during Agriculture Finance?

III. Short Question: Answer any Six

[6×5=30]

1. Define classification of Agriculture credit on the base of Purpose.
2. Describe the classification of credit on the base of Repayment period.
3. Describe RBI in brief?
4. What is crop Insurance? Define any two crop for insurance scheme.
5. Define crop loss assessment in brief
6. Define the benefit and different challenges in agriculture cooperative?
7. What is the different principle of agriculture cooperatives?

Printing Pages :2

Paper Code: AG-306

C (SVSU:2023-24/R)

Enrollment No.

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B.Sc Agriculture

3 Sem / 2 Year, Regular Examination

Farm Power and Machinery (AG-306)

[Time : 03:00 Hours]

[Max. Marks:75]

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

Multiple Choice Questions (MCQs)

[01×15=15]

1. What is the methane percentage in biogas
 1. 55 %
 2. 40 %
 3. 80 %
 4. 100 %
2. What is the carbon dioxide percentage in biogas
 1. 45 %
 2. 55 %
 3. 65 %
 4. 75 %
3. Thermal Efficiency of petrol engine
 1. 32 to 38 %
 2. 25 to 32 %
 3. 80 to 95 %
 4. None of these
4. Compression ratio of diesel engine
 1. 14:1 to 22:1
 2. 10:1 to 18:1
 3. 33:1 to 44:1
 4. 65:1 to 75:1
5. Fuel supply in diesel engine
 1. Spark plug
 2. Injector
 3. Thermo valve
 4. None of these
6. Temperature of petrol engine
 1. Spark plug
 2. Injector
 3. Thermo valve
 4. None of these
7. Global warming is caused by
 1. Greenhouse gases
 2. Hydrogen
 3. Nitrogen dioxide
 4. All of the above
8. Exhaust gases go out through
 1. Suction valve
 2. Power valve
 3. Exhaust valve
 4. Intake valve
9. Useful life of tractor
 1. 10000 for 10 year
 2. 20000 for 20 year
 3. 50000 for 50 year
 4. None of these
10. Useful life of power tiller
 1. 8000 for 10 year
 2. 4000 for 05 year
 3. 6000 for 03 year
 4. None of these

11. The full form of I.C. engine

1. Internal Combustion Engine
2. Internal Common Engine
3. Internet Combustion Engine
4. None of these

12. Compression ratio of petrol engine

1. 5:1 to 8:1
2. 6:1 to 9:2
3. 8:8 to 9:9
4. 4:1 to 6:1

13. Ignition in diesel engine by

1. heat of compression
2. Electric sparks
3. air of compression
4. None of these

14. Fuel consumption of 2 stroke engine

1. Easy
2. High
3. Equal
4. None of these

15. Fuel consumption of 4 stroke engine

1. Easy
2. High
3. Equal
4. None of these

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

I Explain the working of tractor during ploughing? Define the complete steps?

II A four-stroke engine has a mean effective pressure of 7 kg/cm² (686 kPa) area of piston is 730 cm², stroke length 45 cm, torque due to brake load is 110 kg-m (1078 Nm). Consumption / h. is 4.5 kg and working speed is 120 per minute.

Calculate the indicated power, brake power, mechanical efficiency, specific fuel consumption.

III Explain the petrol engine of 02 stroke and 4 stroke?

IV Explain the sowing and plantation equipment?

3. Answer in short (any six) [5×6=30]

I Define the working of clutch and gear drive system and write the status of farm power in India?

II A four-stroke petrol engine per day 02 hr. working in the field for ploughing. The initial cost found of the machine is 1400 Rs. Calculate the repair and maintenance cost of the four-stroke petrol engine?

III Describe the radiator working system in tractor with suitable diagram?

IV A diesel engine transmits 25 kW at the end of the crank shaft moving at 1650 rev/min. find the torque exerted by the piston?

V Define the working of lubricant? Write their types?

VI Define the working of crank shaft and piston?

VII Define the status of farm power?

VIII Define the sources of farm power?

Printing Pages :2

Paper Code: BAH-305

A (SVSU:2023-24/R)

Enrollment No.											
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B.Sc. Animal Husbandry
3RD Semester / 2ND Year Examination

Subject Code- BAH - 305

Subject Name: Poultry Production

[Time : 03:00 Hours]

[Max. Marks : 75]

Note : Attempt all the questions as per given instructions.

1. Fill in the blanks

[01×15=15]

- I Which of the following is not typically included in poultry farming?
A. Cow B. Chicken C. Duck D. Turkey
- II Which of the following is not an important component of poultry farm management
A. Disease free breed B. Proper food
C. Dirty conditions D. Safe farm conditions
- III What is a domestic fowl?
A. It lives in particular region B. It is a foreign breed
C. A bird kept for obtaining meat and eggs
D. A specific bird kept for breeding purposes only
- IV Poultry bird which are exclusively grown for meat are called
A. Layers B. Cockerel C. Rooster D. Broilers
- V Which of the following is not obtained by eating eggs
A. Protein B. Lipid C. Carbohydrate D. Alcohol
- VI Which of the following is an Indian breed of poultry
A. Busra B. White leghorn C. Australorp D. Plymouth rock
- VII Which of the following is not an exotic breed reared in India
A. Rhode island red B. White leghorn C. Plymouth rock D. Ghagus
- VIII Chickens prefer a laying house temperature of about
A. 23.8 °C B. 25.5 °C C. 30.8 °C D. 35.9 °C
- IX When the laying house temperature is above
A. 32.3 °C B. 25.5 °C C. 30.8 °C D. 35.9 °C
- X Average body weight of broiler
A. 1.5 – 2.0 kg B. 2.5 – 3.5 kg C. 5.5 – 6.5 kg D. 7.5 – 8.5 kg
- XI What is the average feeder space of bird for up to 18 days
A. 3 cm B. 6 cm C. 9 cm D. 12 cm

- XII** What is the average feeder space of waterer for up to 18 days
A. 1.5 cm B. 6.5 cm C. 9.5 cm D. 12.5 cm
- XIII** What is the butcher age for broiler
A. 7 – 12 weeks B. 14 – 20 weeks
C. 5 – 12 weeks D. Both A & B
- XIV** What is the butcher age for fryer
A. 7 – 12 weeks B. 14 – 20 weeks
C. 5 – 12 weeks D. Both A & B
- XV** What is the butcher age for roaster
A. 7 – 12 weeks B. 14 – 20 weeks
C. 5 – 12 weeks D. Both A & B
- 2. Answer in long (any three) [10×3=30]**
- I** Explain the poultry production and their management?
- II** Explain the classification of chicken?
- III** How to incubation of egg? Explain it.
- IV** Explain the selection and care management of hatching egg?
- 3. Answer in short (any six) [5x6=30]**
- I** Write the importance of poultry keeping in India?
- II** How to selection of good quality eggs?
- III** Define the care and management of broiler?
- IV** Write the five breeds name of duck and chicken?
- V** Draw a complete diagram of poultry farm?
- VI** Define the thermal stress in poultry during summer?
- VII** What is the parameter for egg storage?

Printing Pages :2

Paper Code: AG-311

A (SVSU:2023-24/R)

Enrollment No.

B.Sc. Agriculture

2nd Year 3rd SEM. Examination

Subject Name: Dairy Science

Subject Code: AG- 311

[Time: - 3:00 Hours]

[Max. Marks: 75]

I. Objectives Question: Answer All Question [15×1=15]

1. National milk day is observed on.....

(a) 28 Nov (b) 1 June (c) 24 Nov (d) 26 Nov

2. Father of white revolution in india

(a) Dr. Verghese kurien (b) M. s. Swaminathan
(c) Sam Pitroda (d) None of these

3. World milk day celebrated on

(a) 3 June (b) 8 June (c) 1st June (d) 6 June

4. Revolution is related to milk is known as

(a) Silver (b) White (c) Grey (d) Yellow

5. Potassium dichromate is

(a) Antioxidant (b) Preservative
(c) Emulsifier (d) Both a & b

6. How many types of filters

(a) One (b) Two (c) Three (d) Four

7. Starch iodine test gives colour

(a) Blue Black (b) Red (c) Yellow (d) Green

8. Measuring the protein content of milk
using methods(a) Pasteurization (b) Homogenization
(c) Kjeldahl (d) None of these

9. PMO denotes the

(a) Pasteurized Milk Ordinance
(b) Pasteurized Meat Ordinance
(c) Both a & b
(d) None of these

10. Sanitization also referred as
 (a) Cleaning (b) Pasteurization
 (c) Sterilization (d) None of these
11. Acinol – N is example of ?
 (a) Chealting chemicals (b) Wetting agents
 (c) Surface active (d) Both b & C
12. Types of Methods of Cleaning Dairy Equipment
 (a) One (b) Two (c) Three (d) Four
13. In can washing the capacity usually ranges from lids per minute
 (a) 4 to 12 (b) 2 to 6
 (c) 2 to 8 (d) 6 to 12
14. In can- washing hot air drying done at
 (a) 85- 105 °C (b) 95-112 °C
 (c) 92- 110 °C (d) None of these
15. Operation Flood, phase III occurs in which year ?
 (a) 1974-79 (b) 1980-85 (c) 1985-90 (d) 1969-74

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

1. Write down various factors affecting the quality and quantity of milk and also explain Nutritive value of milk and milk products ?
2. Explain the basic principles of refrigeration and cold storage of milk and milk products?
3. Detailed Explanation of five year plan in dairy Development?
4. Explain the common adulterants of khoa and their detection

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

1. Write a short note on quality control test for milk and their purpose ?
2. Write about the milk adulteration and its detection ?
3. Explain the Platform test?
4. What do you mean by filtration and clarification ?
5. Write about the standardization ?
6. Write about the contribution of Anand Pattern?
7. Write a short note on formalin and mercuric chloride?

Printing Pages :2

Paper Code: AG-312

B (SVSU:2023-24/R)

Enrollment No.

B.Sc. (Agriculture) Semester
2nd Year/ 3rd Year External Examination
Subject Code: AG-312

Subject Name: Fundamental of Entomology

[Time: 03:00 Hours]

[Max. Marks: 75]

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

- I. Multiple Choice Questions (MCQs) [01×15=15]**
- I The term Entomology is derived from the
 (a) Greek (b) Latin (c) French (d) None of the above
 - II Cold blooded animals also called as
 (a) Poikilothermic (b) Endothermic (c) Ectothermic (d) Amphithermic
 - III The minimum pest population at which control measures should be applied is called.
 (a) EIL (b) ETL (c) GEP (d) None of the above
 - IV DDT is first synthesized by
 (a) Paul H. Muller (b) V D Linden
 (c) Othamar Ziedler (d) None of the above
 - V BHC is synthesized by
 (a) Michael Faraday (b) Othamar Ziedler
 (c) Altman (d) All of the above
 - VI Locust warning organization is situated at
 (a) Jaipur (b) Jodhpur (c) Bikaner (d) Patana
 - VII Establishment of the entomology division at IARI New Delhi in year
 (a) 1937 (b) 1950 (c) 2000 (d) 1916
 - VIII National Institute of Integrated Pest Management
 (a) Bengaluru (b) Nagpur (c) Ludhiana (d) New Delhi
 - IX Father of agriculture in the world
 (a) M S Swaminathan (b) S L Bahuguna (c) N E Borlaug (d) Jonathan
 - X Droplet size of the mist in micrometer
 (a) 50- 100 μ (b) 100-200 μ (c) 5-50 μ (d) >500 μ
 - XI The full form of LD50 is
 (a) Lethal Dose50 (b) Legal Dose50
 (c) Large Dose50 (d) Less Dose50
 - XII Spray fluid require for High volume spray (HVS)
 (a) 100-500 lit. (b) 500-1000 lit. (c) >100 lit. (d) None of the above

- XIII High LD50 denotes that the insecticides are
(a) Less toxic (b) High toxic (c) Normal toxic (d) None of the above
- XIV Liquid insecticide sprayed with
(a) Duster (b) Hand (c) Sprayer (d) None of these above
- XV Bright red symbol shows the insecticides are.
(a) Less toxic (b) Normal toxic (c) Moderate toxic (d) Highly toxic

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

- I Write down the classification of insecticides on the basis of their mode of action.
- II Describe in detail importance, limitations and hazards of insecticides.
- III Write down the different formulations of insecticides
- IV Describe the Insect ecology and its components
- V Define the IPM, Describe in detail the tools of IPM.

3. Write down the short notes on followings (any five) [6×5=30]

- I Entomology
- II Regular pest
- III Properties of insecticides
- IV Economic Threshold Level
- V Repellents
- VI Integrated pest management
- VII Pest

Printing Pages :2

Paper Code: AG-305 C (SVSU:2023-24/R)

Enrollment No.													
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Keral Verma Subharti College of Science

B.Sc. Agriculture

III Semester / II Year Examination

Subject Code: AG-305

Subject Name: Agriculture Finance & Cooperation

[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 The basis for any credit transaction is trust related with which of the following Cs of credit:
 - (a) Capital (b) Capacity (c) Character (d) condition
 - II Traders are the example of which type of resources?
 - (a) Institutional (b) Non-Institutional
 - (c) Both (a) & (b) (d) None of these
 - III Balance sheet is also known as:
 - (a) Net worth statement (b) Flow of fund statement
 - (c) cash flow statement (d) Income statement
 - IV Headquarters of RBI:
 - (a) Patna (b) Bhopal (c) Delhi (d) Mumbai
 - V RRBs is relate to:
 - (a) Regional rural banks (b) Reserve rural banks
 - (c) Real rural banks (d) None of these
 - VI Which of the following are / is the type of mortgage loan.
 - (a) Simple (b) Equitable (c) Both a & b (d) Complicated
 - VII Income statement is also called as:
 - (a) Net worth statement (b) Profit & loss statement
 - (c) cash flow statement (d) None of the above
 - VIII NPW is relate to the:
 - (a) Net Present Worth (b) No Present Worth
 - (c) Net Past Worth (d) None of these
 - IX What is the full form of SHGs?
 - (a) Self-Help Groups (b) Special-Help groups
 - (c) Social-Help Groups (d) None of these
 - X Things which are owned by farmer called as.
 - (a) Assets (b) Liabilities (c) Equity (d) All of above

XI Land development banks are the part of :

- (a) Commercial Bank (b) Cooperative bank (c) RRB (d) SBI

XII Establishment of year RRB is:

- (a) 1972 (b) 1975 (c) 1982 (d) 1918

XIII Short-Term Credit duration for farmers:

- (a) 3 to 10 months (b) 5 to 8 months
(c) 6 to 18 months (d) 6 to 36 months

XIV Relatives are the type of resources?

- (a) Non-Institutional (b) Institutional
(c) Cooperative (d) All of these

XV What indicates the availability of money with the farmer - borrower.

- (a) Capital (b) Capacity (c) Character (d) Condition

2. Answer in long (any three)

[10×3=30]

- I Discuss in detail about Kisan Credit Card with their criteria and benefits.
- II Describe the role and importance of world bank.
- III Write a detail note on SWOT analysis.
- IV Discuss in detail about Agriculture Finance and their importance.

3. Answer in short (any Six)

[5x6=30]

- I Briefly discuss the role of NCUI
- II Write a short note on agriculture cooperation.
- III What are the Institutional sources of agriculture finance?
- IV Write down about the 3C's of credits.
- V Write the role of NAFED in detail
- VI Briefly discuss about unfair practices of money lenders.
- VII Write the brief history of cooperative development in India.

Printing Pages :2

Paper Code: AG-301 A (SVSU:2023-24/R)

Enrollment No.														
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Program Name B.Sc. Agriculture
III Semester / 2nd Year Examination

Subject Code AG-301

Subject Name: Crop Production Technology
1(Kharif)

[Time : 03:00 Hours]

[Max. Marks : 75]

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

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

- I Which of the following crop is called as queen of cereal?
 (a) Rice (b) Maize (c) Sorghum (d) Wheat
- II Which of the following leading state in area and production of Rice?
 (a) West Bangal (b) U.P. (c) M.P. (d) Punjab
- III Protein content in Soybean is about-
 (a) 10-12% (b) 20-22% (c) 30-32% (d) 40-42%
- IV Which of the following family of cotton.
 (a) Poaceae (b) Leguminoseae (c) Malvaceae (d) Tilliaceae
- V Jaya is the variety of –
 (a) Maize (b) Sorghum (c) Cotton (d) Rice

1.(2) Match the coulum:

- | | |
|---------------|-----------|
| I Pegging | Maize |
| II Puddling | Cotton |
| III Tasseling | Groundnut |
| IV Ginning | Pulse |
| V Rhizobium | Paddy |

1.(3) True OR False

- I Azolla is mostly use in pulses. ()
- II Maize protein is known as zein. ()
- III Rice inflorescence is known as panicle. ()
- IV Bajra most drought tolerant crop among cereals. ()
- V Aflatoxin is produced in jute. ()

2. Answer in long (any three)

[10×3=30]

- I Write the cultivation of Rice.
- II Write the cultivation of maize.
- III Write the cultivation of cotton.
- IV Write the cultivation of groundnut.

3. Answer in short (any six)

[5×6=30]

- I Write cultivation of rice on following heads:
(a) Water management (b) Insect management
- II Write cultivation of maize on following heads:
(a) Climate and Soil (b) Varieties and Composition
- III Write cultivation of sorghum on following heads:
(a) Climate requirement (b) Varieties
- IV Write cultivation of pearl millet on following heads:
(a) Seed and Sowing (b) Weed management
- V Write cultivation of finger millet on following heads:
(a) Disease management (b) Harvesting
- VI Write cultivation of groundnut on following heads:
(a) Soil and Climate (b) Classification
- VII Write cultivation of soyabean on following heads:
(a) Seed and Sowing (b) Weed management

Printing Page(s) : 3

Paper Code : BSA 307
(C) (SVSU:2020-21/R)

Enrollment No.

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**B.Sc.(Ag.)
IInd YEAR EXAMINATION**

Statistics

[Max. Marks : 70]

[Time : 3:00 Hours]

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

1. Explain Probability Distributions and their types.
Write a note on Poisson distribution.
2. What do you understand by Sampling Techniques?
Discuss types of Sampling.
3. Discuss Large Sample Testing procedure and their methods of testing.
4. What do you understand by Analysis of Variance? Explain the principles of Design of Experiment.
5. Discuss correlation and its coefficient and its uses.

II. Short Question: Answer any five [5×5=25]

1. Write a note on measures of Dispersions?
2. Discuss testing of hypothesis.
3. What do you understand by types of quartiles?
4. Describe level of significance in detail.
5. Discuss ANOVA and its Applications.
6. What is scatter diagram and show it graphically.
7. Discuss lines of Regression in detail.
8. Discuss Stratified Sampling procedure.

III. Objectives Question: Answer All Question [15×1= 15]

1. Mean Deviation is the measure of
(i) Location (ii) dispersion (iii) Skewness (iv) None of these

2. If mean, median and mode are same then distribution is called
 - (i) asymmetrical distribution (ii) symmetrical distribution
 - (iii) Binomial distribution (iv) None of these
3. Mean deviation is mostly measured from
 - (i) Mean (ii) Median (iii) Mode (iv) None of these
4. Diagrams and graphs are tool of
 - (i) Collection of data (ii) Analysis of data
 - (iii) Presentation of data (iv) association of data
5. Quartile deviation is a measure of
 - (i) Location (ii) dispersion (iii) Skewness (iv) None of these
6. Data originally collected for an investigation is known as
 - (i) primary data (ii) secondary data (iii) single Data (iv) None of these
7. Chi square test is used for testing
 - (i) means (ii) variances (iii) modes (iv) none
8. Inference is a technique of
 - (i) summation (ii) reading (iii) testing (iv) none
9. To perform a Chi-square test
 - (i) Data conform to a normal distribution
 - (ii) Data be measured on a nominal scale
 - (iii) Each cell has equal number of frequency of these (iv) All of these
10. A small sample size is
 - (i) $n = 50$ (ii) $n = 100$ (iii) $n \leq 30$ (iv) none of these
11. In testing the variables follows
 - (i) poisson distribution (ii) normal distribution
 - (iii) beta distribution (iv) None of these
12. t test is a test of analysis of
 - (i) proportions (ii) variances (iii) means (iv) All of these
13. The most frequently occurring value is called
 - (i) mean (ii) mode (iii) M.D. (iv) None of these
14. Degrees of freedom is related to Independent observations
 - (i) variances (iii) means (iv) none (i) No. of
15. Regression can be measured by
 - (i) coeff. of correlation (ii) coeff. of association (iii) coeff. of regression (iv) None of these

B.Sc. Agriculture

2nd Year/ III Sem

Subject Name: Agriculture microbiology

Subject code: AG-304

Time: 3:00 Hours

MM: 70

[Part-A] Long questions: Give the answer of any three questions.

[10x3=30]

1. What do you mean about genetic recombination and what are horizontal transfer methods of genetics information in bacteria.
2. What do you mean about bacteria sketch label diagram and describe internal and external component of bacteria.
3. What do you mean about nitrogen and describe nitrogen cycle with help of figure.
4. What do you mean about growth curve of bacteria describe in detail.
5. Write down the difference between gram⁺ and gram⁻ bacteria.

[Part-B] Short questions: Give the answer of any five questions.

[5x5=25]

1. Write down the short note on Viruses.
2. Write down a short note on 'Ammonification'.
3. Define fungi and write down its significance in agriculture.
4. What you know about cell arrangement in bacteria explain in brief.
5. What do you mean about Plasmids explain in brief.
6. Write down the contribution of any five Scientists related to microbiology.
7. Classify bacteria on the basis of flagella arrangement with example.

[Part-B] Objective type questions: All questions are compulsory.

[15x1=15]

1. Which one of the following microorganisms is smallest in size?
a) Fungi b) Protozoa c) Bacteria d) Algae
2. Extra chromosomal DNA (plasmids) is associated with:
a) Algae b) Bacteria c) Protozoa d) Fungi
3. A harmful microorganisms which responsible for plant diseases is called:
a) Pest b) Parasite c) Pathogens d) Host
4. Who first time proved that anthrax is caused by bacterium?
a) Robert Hook b) Louis Pasteur c) A. V. Leeuwenhoek d) Robert Koch
5. Alexander Fleming discovered first antibiotic Penicillin in which year?
a) 1884 b) 1952 c) 1864 d) 1929
6. When single or tuft of flagella found on both sides of bacterial cell it is called:
a) Lophotrichous b) Peritrichous c) Amphitrichous d) Monotrichous
7. A external part of bacterial cell which facilitate transferring DNA:
a) Flagella b) Pilli c) Capsule d) Cell wall
8. How much percent lipid found in gram negative bacteria:
a) 10-20 % b) 20-30 % c) 30-40 % d) 40-50 %
9. Cell wall thickness of gram positive bacteria is:
a) 8-10 nm b) 40-60 nm c) 20 -80 nm d) 60-80 nm
10. Which one of the following bacterial growth phase where only cell size increase;
a) Log phase b) Lag phase c) Stationary phase d) Decline Phase
11. In which method of genetic recombination one bacterium transfers its DNA to another through virus:
a) Transduction b) Conjugation c) Transformation d) All of these
12. Most dominant group of microorganisms in the soil is:
a) Fungi b) Algae c) Bacteria d) Protozoa
13. Microorganisms break the complex organic compound in soil with process:
a) Respiration and oxidation b) Oxidation and reduction
c) Photosynthesis and oxidation d) Photosynthesis and reduction
14. What process in which Rhizobium bacteria fix N₂ in soil from the environment?
a) Photosynthesis b) Antibiosis c) Symbiosis d) None of thses
25. Which bacteria responsible for conversion of nitrites in to nitrate
a) Nitrobacter b) Nitrosomonas c) Clavibacter d) None of thses

Printing Pages :2

Paper Code: AG-307 A (SVSU:2023-24/R)

Enrollment No.															
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B.Sc. Agriculture

III Semester / II Year Examination

Subject: Principles of Integrated Diseases Management

Subject code: AG-307

[Time : 03:00 Hours]

[Max. Marks : 75]

I. Long questions: Give the answer of any three questions.

[10x3=30]

1. Write down the general principles of plant diseases management and explain the avoidance and exclusion.
2. Write down the cultural method of plant diseases management and explain in brief with example.
3. What you know about Plant Quarantine and write down the methods of plant Quarantine.
4. What do you mean about therapy in plant diseases management? Describe in detail.
5. Define fungicide and write down characters of an ideal fungicide

II. Short questions: Give the answer of any Six questions.

[5x6=30]

1. Write down short note on eradication of plant pathogens.
2. What you know about roughing in IDM write in brief with example.
3. Write down short note on soil solarization.
4. Write down short note on hot water treatment.
5. What you know about Plant quarantine organizations in India
6. What you know about antibiotics explain in brief.
7. What you know about Biological control explain in brief.

III. Objective type questions: All questions are compulsory.

[15x1=15]

1. Quarantine measures come under which type principals of plant diseases management:
a) Immunization b) Eradication c) Exclusion d) Avoidance
2. Destruction of plant pathogens by heat/chemical treatments come under which type principals of plant diseases management:
a) Immunization b) Eradication c) Exclusion d) Avoidance
3. Barberry bush is the alternate host of:
a) Yellow rust b) Brawn rust c) Black rust d) All of these
4. According to Whetzel (1929) how many methods for plant diseases control were classified?
a) Two b) Three c) Six d) Four
5. Destructive Insects and Pests (DIP) Act was passed:
a) 1906 b) 1914 c) 1912 d) 1946
6. Barberry bush is the alternate host of:
a) Stem rust b) Leaf rust c) Strip rust d) All of these

7. How many land frontiers working under (DIP) Act for import and export of seed and planting material for commercial purpose:
a) 7 b) 9 c) 10 d) 26
8. Reduction of disease producing activities of a pathogen by one or more organisms is called:
a) Chemical control b) Biological control c) Cultural control d) All of these
9. Solar heat treatment was first time used against:
a) Karnal bunt of wheat b) Rust of wheat c) Loose smut of wheat d) All of these
10. Which one of the following is biological control agent:
a) *Rhizoctonia* b) *Macrophomina* c) *Trichoderma* d) *Scierotium*
11. Which one of the following is not bacterial biological control agent:
a) *Pseudomonas fluorescens* b) *Trichoderma viride*
c) *Bacillus subtilis* d) None of these
12. Soil solarization is most effective method for eradication of:
a) Pathogen b) Insects c) Weed d) All of these
13. Those chemicals do not kill the fungal pathogens only arrest the growth temporarily is called:
a) Fungi stat b) Fungicide c) Antisporulant d) None of these
14. Those fungicide which is effective only if applied prior to fungal infection is called:
a) Therapeutant b) Protectant c) Eradicant d) None of these
15. Completely removing the diseased plants to prevent further spread of disease is called:
a) Rouging b) Mulching c) Field sanitation d) None of these