Seat No:_____ **Enrolment No:_____**

PARUL UNIVERSITY

COLLEGE OF AGRICULTURE

B.Sc. (Hons.)Agriculture Winter 2019-20 Examination

Semester: 5 **Date: 18/11/2019**
Subject Code: 20101301 **Time: 10:30am to 01:00pm**
Subject Name: Farming System and Sustainable Agriculture **Total Marks: 60**

Instructions

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as Directed.

A. Fill in the blanks. (Each of 1.00 marks) **(10)**

1. New alluvial known as_____, and old alluvial known as _____.
2. Condensation of water vapour present in the air in cool nights results in _____.
3. Relative humidity of _____% is suitable for most of the crop plants.
4. When relative humidity is high there is chance for the infestation of _____ in rice crop.
5. _____ colour light is found to be most favourable for plant growth.
6. Graded bunds are recommended on land having slop _____%.
7. Plant tissue contains _____% moisture.
8. _____ is the attraction of two dissimilar kinds of molecules like attraction of water molecules for the solid surface of soil.
9. _____ is in calories required to raise the temperature of one gram of substance to one degree C.
10. Soils with low pH are injurious to plants due high toxicity of **_____.**

B. Multiple choice type questions. (Each of 1.00 mark) **(10)**

1. Soil with low pH is injurious to plant due to toxicity of _____.
a) Fe c) Mo
b) B d) N

2. The practice of growing crops across the slope is known as_____.
a) Contour farming c) Mix cropping
b) Strip cropping d) Intercropping

3. Low level of O_2 and High level of CO_2 is found in soil.
a) Arid c) Saline
b) Alkaline d) Waterlogged

4. _____is an important tree suitable for coastal belts.
a)Casuarina c) Sapota
b) Khijari d) Neem

5. The fruit crop is suitable in salt affected soil.
a) Ber c) Almond
b) Lemon d) Sapota

6. Evaporation increase with increase in _____.
a) RH c) Dew
b) Wind Velocity d) Rainfall

7. Rice + Fish + Azolla is an example of _____.
a) Wetland IFS c) Gardenland IFS
b) Dryland IFS d) Irrigated IFS

8. Gujarat has _____ km coastal line.
a) 1600 c) 8000
b) 6500 d) 6000

9. Shifting cultivation cover an area of _____million ha.
a) 9.86 c) 5.74
b) 2.33 d) 4.36

10. Pyric factors means_____.
a) Fire factors c) Physiographic factors
b) Soil factors d) Aerial factors

11. Crop + Agroforestry + goat + farm pond is an example of _____.
a) Wetland IFS c) Garden land IFS
b) Dryland IFS d) Irrigated IFS

12. Which practices reduce the external input usage on the farm?
a) LEISA c)DRIS
b) HEISA d) FIRBS

13. Cropping intensity means
a) % ratio of gross cropped area to net cropped area c) % ratio of number of crops in rotation to period of one rotation
b) % ratio of net cropped area to gross cropped area d) None

14. The basic principle of taking crop rotation is
a)To maintain the fertility status of soil c)To keep the weeds under control
b)To take higher returns per unit area of the soil d)To take higher crop yield

15. The addition of lime :
a) Reduces soil acidicity c) Increases porosity of soil
b) Causes decomposition of organic material d) Will change soil texture

16. _____ include all forms of falling rom atmosphere.
a) Evaporation c)transpiration
b) Precipitation d) vapour

17. _____ is an example of Crop rotation.
a) Rice – Wheat - Moong c) Maize + Greengram - Chickpea
b) Rice – Wheat + Chickpea d) All of the above

18. The most important green manure crop for salt affected soil is _____.
a) Dhaincha c)Sunhemp
b) Clusterbean d) Green gram

19. BGA fix atmospheric nitrogen in _____ field.
a) Wheat c)Jute
b) Rice d) Sun hemp

20. _____ is mechanical approach to weed control.
a) Moving c)Smother crop
b) Allelopathic plant d) Crop rotation

Q.2 Do as Directed.

A. Define following (Any Five). **(5)**

1. IFS
2. Organic farming
3. Mix cropping
4. Soil reaction
5. Dry land
6. Soil conservation

B. Answer the following. (Any Five) **(5)**

1. Enlist mechanical methods of soil conservations.
2. What is waste land?
3. What is marshy land?
4. Enlist types of batch terracing.
5. HEISA stand for:
6. Classify salt affected soil.

Q.3 Write short notes. (Any five) **(15)**

1. Differentiate Organic farming vs. natural farming.
2. Why sustainable farming system?
3. Give scope of farming system.
4. Enlist the characters of dry land ecosystem.
5. How we can conserve energy resources?
6. Write classification of waste land given by NWDB.

Q.4 Attempt any Three/Long Questions/Example **(15)**

1. Give key principle of organic farming.
2. Explain effect of high and low temperature on growth of plants.
3. Write short note on reclamation of salt affected soil.
4. Describe basic concept of LEISA.