

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE

B.Sc.(Hons.) Agriculture Summer 2016 – 17, Examination

Semester: 1

Subject Code: 20101101

Subject Name: Principles of Agronomy and Agricultural Meteorology

Date: 04/07/2017

Time: 10:00am to 1:00pm

Total Marks: 60

Instructions

1. Attempt all questions from each section.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Write section – A, section – B on separate answer sheets.

SECTION - A**Q.1 Fill in the blanks. (Each of 0.50 marks)****(10)**

1. Agriculture is derived from the Latin words ‘agar’ or ‘agri’ means _____ and ‘cultura’ means _____.
2. Total geographical area in India is _____ Million hectare.
3. “Agriculture” is a _____ word.
4. Father of Green Revolution in India is _____.
5. Rice is a type of _____ plant as per “Photo-periodically”.
6. Father of tillage _____.
7. Father of Green Revolution in world is _____.
8. Growing three crops per year in sequence are known as _____.
9. The line joining the places of equal rainfall is called _____.
10. The tillage operation that is carried out in the standing crop is called _____.
11. Under Dry-land or limited irrigation, drought tolerant crops are _____.
12. Growing sub-groups to maintain the yield of main crop are known as _____.
13. Mixing of seeds and raising two-three crops at the same time and in the same field are known as _____.
14. Father of White Revolution _____.
15. Low lying and flood prone areas, water stagnation tolerant crops are _____.
16. The boundary zones along with two air masses meet are called as _____.
17. Tillage operations that are carried out from the time of harvest of a crop to the sowing of the next crop are known as _____.
18. Lighter or finer operation performed on the soil after primary tillage is known as _____.
19. White revolution is related to _____.
20. Growing hardy or thorny crops around the main crop are known as _____.

Q.2 Match group A with group B. (Each of 0.50 marks)**(05)**

- | A | B |
|----------------------|----------------------------|
| 1) Golden Revolution | a) Fertilizer production |
| 2) Gray Revolution | b) Egg/poultry production |
| 3) Pink Revolution | c) Potato production |
| 4) Red Revolution | d) Fruit production |
| 5) Round Revolution | e) Meat/Tomato production |
| 6) Silver Revolution | f) Food grain production |
| 7) Green Revolution | g) Prawn production |
| 8) White Revolution | h) Fish production |
| 9) Yellow Revolution | i) Oilseeds production |
| 10) Blue Revolution | j) Milk production (dairy) |

Q.3 Define the following. (Any ten)**(05)**

1. Atmosphere
2. Hygrometer
3. Organic Farming
4. Anemometer
5. Climatology
6. Stratus
7. Ploughing
8. Mono-cropping
9. Dry Farming

10. Pudding
11. Cloud
12. Guard crops

Q.4 Answer the following. (Any ten)

(10)

1. What is precipitation & type of precipitation?
2. Components of Organic Farming
3. What is agriculture weather forecasting? Give its classification.
4. Write down any four Agriculture revolution & revolution is related to for what?
5. Write down the steps involved in development of agriculture.
6. Advantages of intercropping.
7. Write down the types of clouds and explain in brief.
8. Importance of wind in agriculture.
9. What are Rain and its types?
10. Tools used in agriculture. (any five)
11. Characteristics of subsidiary crops mixed with the main crops.
12. What is Sequential Cropping? Enlist its variations.

SECTION - B

Q.1 Multiple choice type questions. (Each of 0.50 mark)

(10)

1. Growing three crops per year in sequence are known as _____
 - a) Double cropping
 - b) Quadruple cropping
 - c) Triple cropping
 - d) Relay cropping
2. Agronomy is derived from _____ word.
 - a) Greek
 - b) Latin
 - c) English
 - d) None of these
3. Inter crops are of _____ duration & are harvested much earlier than main.
 - a) Short
 - b) Long
 - c) Same
 - d) All of these
4. The isothermal layer marking the end of temperature decrease is called _____
 - a) Tropo-pause
 - b) Strato-pause
 - c) Thermo-pause
 - d) None of these
5. CAZRI is located in _____
 - a) Jodhpur, Rajasthan
 - b) Simla, H.P.
 - c) Mysore, Karnataka
 - d) Nagpur, Maharashtra
6. In which crop are requiring longer day length for flowering?
 - a) Cotton, Rice, Jowar, Bajara
 - b) Wheat, Gram, Sunflower
 - c) Groundnuts, Watermelon, Pumpkins
 - d) All of these
7. Total geographical area in India _____
 - a) 328.848 million ha
 - b) 304.300 million ha
 - c) 179.750 million ha
 - d) 161.300 million ha
8. Green gram, black gram and pea are _____ crops.
 - a) Grain crops.
 - b) Forage crop
 - c) legume crops
 - d) Fibre crops
9. Moderate winds have speeds of about _____.
 - a) 10-18 km/hr.
 - b) 20-38 km/hr.
 - c) 2-3 km/hr.
 - d) 40 -58 km/hr.
10. The forecasting for a month or a season is known as _____.
 - a) Long range forecast
 - b) Short range forecast
 - c) Medium range forecast
 - d) Now casting
11. _____ defined Meteorology as a study of lower atmosphere.
 - a) Arnon
 - b) Aristotle
 - c) Munch
 - d) Mendal
12. A _____ is a devise used to measure temperature.
 - a) Barometer
 - b) Psychrometer
 - c) Thermometer
 - d) Anemometer
13. Current atmospheric condition is known as _____.
 - a) Cyclone
 - b) Weather
 - c) Climate
 - d) Anti-Cyclone

14. Require winter season to grow well from Oct to March month are known as _____.
 a) Rabi crops
 b) Cold seasons crops
 c) winter crops
 d) All of these
15. Simultaneous precipitation of the mixture of rain and snow is called as _____.
 a) Snow
 b) Sleet
 c) Shower
 d) Rain
16. Green revolution has been most successful in _____.
 a) Wheat & potato
 b) Tea & coffee
 c) Wheat & rice
 d) Barley & rice
17. $P = \text{_____} + DST + S$
 a) ST
 b) RT
 c) ET
 d) XT
18. Mixed Forms of precipitation is _____.
 a) Snow
 b) Hailstrom
 c) Shower
 d) Rain
19. DALR is stand for _____.
 a) Dry adiabatic lapse rate
 b) Day adiabatic lapse rate
 c) Dry air lapse rate
 d) Day air lapse rate
20. Mixing of seeds and rising two – three crops at the same time & in same field.
 a) Companion Crops
 b) Mixed Crops
 c) Guard crops
 d) Augmenting crops

Q.2 Give the sentence true or false. (Each of 0.50 mark)

(05)

1. Rainfall associated with hail stone is called hailstorm.
2. Weather is defined as generalized or average condition of weather of a place or region.
3. Long range forecast valid for more than 1 day.
4. Growing four crops per year in sequence are known as Triple cropping.
5. Crops grown in summer month from March to June are known as Kharif crop.
6. Drug crop used for preparation for medicines.
7. The air that moves parallel to any part of the earth surface is called hail.
8. On the basis of the vertical temperature difference, the atmosphere can be divided into four horizontal layers or shells.
9. Oil seeds crop seeds are rich in fatty acids.
10. The drizzle drop is less than 0.5 mm in size

Q.3 Write short notes. (Any five)

(10)

1. What is tillage? Write down Aims and objectives of tillage.
2. What is hydrological cycle and steps of Hydrological cycle?
3. Write down agronomic classification and their uses with examples.
4. Importance and Scope of Meteorology in Agriculture.
5. What is mixed cropping? Write down objectives of mixed cropping.
6. Write down classification based on growing season.

Q.4 Differentiate the following. (Any five)

(05)

1. Calm air and Strong Winds
2. Meteorology and Climatology.
3. Weather and Climate.
4. Dry land Farming and Rain fed Farming.
5. Intercropping and Mixed cropping.
6. Primary Tillage and Secondary Tillage.
7. Kharif Crops and Rabi Crops.