

**PARUL UNIVERSITY**  
**COLLEGE OF AGRICULTURE**

**B.Sc.(Hons.) Agriculture Summer 2017 - 18 Examination**

Semester: 1

Subject Code: 20101103

Subject Name: Fundamentals of Agronomy

Date: 08/06/2018

Time: 2: 00 pm to 4.30 pm

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. Faecal matter or excretions of earthworms is known as \_\_\_\_\_
2. Azospirillum, azotobacter and rhizobium fix atmospheric \_\_\_\_\_ into the soil.
3. Chemical formula of Gypsum is \_\_\_\_\_
4. \_\_\_\_\_ destroys soil structure which is necessary for transplanting of rice seedlings.
5. The water content between field capacity and PWP is called \_\_\_\_\_
6. Sodic soil contains high amount of \_\_\_\_\_ .
7. Production of beijerinckia is high in \_\_\_\_\_ soil.
8. Drip irrigation is most suitable for \_\_\_\_\_ soil
9. The integration of crop and livestock production on the farm is- \_\_\_\_\_
10. Most widely used irrigation source in India is \_\_\_\_\_

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

1. Which country has the highest area under irrigation?
 

a) India	c) Pakistan
b) USA	d) China
2. Generally, in loam soil the value of field capacity is \_\_\_\_\_.
 

a) > ME	c) None
b) < ME	d) = ME
3. Saturated flows in different texture soils follow the order of \_\_\_\_\_.
 

a) Silt < Sand < Clay	c) Sand < Silt < Clay
b) Sand > silt > Clay	d) Sand > Loam > Clay
4. WR is equal to \_\_\_\_\_.
 

a) IR – ER – S	c) IR – ER + S
b) IR + ER – S	d) IR + ER + S
5. The method of irrigation where water is allowed to run over the soil surface and allowed to infiltrate is called as \_\_\_\_\_.
 

a) Drip irrigation	c) Check basin
b) Sprinkler irrigation	d) Surface irrigation
6. Water use efficiency is higher in \_\_\_\_\_.
 

a) CAM plants	c) C <sub>4</sub> plants
b) C <sub>3</sub> plants	d) All above
7. Water having RSC \_\_\_\_\_ meq/lit is not suitable for irrigation.
 

a) 1.25 to 2.50	c) More than 2.50
b) Less than 1.25	d) Both A & B
8. \_\_\_\_\_ stage is most critical stage for soil moisture in wheat crop.
 

a) Tillering	c) CRI
b) Milking	d) Jointing
9. Many weeds in India originated in some other part of the world is called
 

a) Facultative weed	c) Alien weed
b) Native weed	d) Noxious weed
10. Some weeds survive because of their similarity in morphology with the host crop is called
 

a) Facultative weed	c) Mimicry
b) Native	d) Noxious weed

**Q.2 Do as Directed.**

**A. Define the following. (Any five)**

**(05)**

1. Agronomy
2. Weed
3. Manure
4. Fertilizer
5. Water use efficiency
6. Water requirement
7. Crop density

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

**(05)**

1. Objectives of tillage.
2. Define Irrigation requirement. Types of Irrigation requirement
3. Enlist the Factor affecting Cu or ET or water requirement
4. Enlist the Theoretical approaches of irrigation scheduling
5. Give the advantages and disadvantages of sprinkler method
6. Advantages of Bulky organic manures
7. Advantages of irrigation scheduling

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

**(15)**

1. Role of Agronomist
2. Differentiate: Net irrigation requirement and Gross irrigation requirement
3. Differentiate: Monocot and Dicot
4. Enlist the Criteria to determine the quality of irrigation water and describe any two in detail.
5. Differentiate: Drip system and Sprinkler System
6. Differentiate: Root parasite and Stem parasite

**Q.4 Attempt any Three/Long Questions/Example**

**(15)**

1. Physical classification of soil moisture
2. Give the classification of potassic fertilizers with examples
3. Enlist the factor affecting Water use efficiency and Give the detail information about the agronomic factor
4. Briefly write about crop geometry