

PARUL UNIVERSITY
FACULTY OF AGRICULTURE
B. Tech FOA Winter 2019-20 Examination

Semester: 3

Date: 09 /12/2019

Subject Code: 20103202

Time: 10.30 am to 12.30 pm

Subject Name: Principle of Agronomy

Total Marks: 50

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 0.5 marks)****05**

1. _____ refers to the application of fertilizers into the soil close to the seed or plant in order to supply the nutrients in adequate amounts to the roots of growing plants.
2. The tillage operation that is done after the harvest of crop to bring the land under cultivation is known as _____.
3. _____ aims at obtaining maximum production at minimum cost by exploiting the knowledge of the basic and applied sciences for higher crop production.
4. Groundnut, Sesame and Castor are the examples of _____ crops.
5. Cotton and jute are the _____ crops.
6. Hybrid Napier grass and coconut are the examples of _____ crops.
7. The tillage operation that is done in a land with standing water is called _____.
8. _____ is the practice of growing two or more crops together on the same piece of land in one crop season.
9. The growing of different crops in succession on a piece of land _____.
10. The tillage operations that are performed on the soil after primary tillage to bring a good soil tilth are known as _____.

B. Multiple choice type questions.(Each of 0.5 marks)**10**

- (1) The inter tillage (after cultivation) operations that are carried out in _____.

(a) At sowing time	(b) In standing crop
(c) At transplanting time	(d) None of the above
- (2) The _____, _____ crops are grown with transplanting method.

(a) Maize, wheat	(b) Rice, Tomato
(c) Sesame, sorghum	(d) None of the above
- (3) The most important advantage of conservation tillage system is significantly _____ soil erosion due to wind and water.

(a) More	(b) Less
(c) No effect	(d) None of the above
- (4) The main disadvantage of broadcasting sowing method is _____.

(a) Low seed rate	(b) Seeds can be put in desired depth
(c) More seed rate is required.	(d) It is economical

- (5) The following crops are pulses.
 (a) Rice, Wheat (b) Green gram, Cowpea
 (c) Sorghum, Pearl millet (d) None of the above
- (6) Tillage is referred as _____ manipulation of soil.
 (a) Physical (b) Biological
 (c) Chemical (d) All of the above
- (7) Soil moisture held against the gravitational force is known as _____.
 (a) Maximum water holding capacity (b) Field capacity
 (c) Permanent wilting point (d) Ultimate wilting point
- (8) Complete removal of all live plant parts and seeds of weed from an area is known as _____.
 (a) Prevention (b) Eradication
 (c) Weed control (d) Weed management
- (9) The following crop is annual crop.
 (a) Sugar beet (b) Wheat
 (c) Coconut (d) Hybrid Napier
- (10) The following crop is medicinal crop.
 (a) Sugar beet (b) Isabgul
 (c) Coconut (d) Hybrid Napier
- (11) The following crop is biennial.
 (a) Beet root (b) Coconut
 (c) Wheat (d) Hybrid Napier
- (12) Till planting is one method of practicing _____.
 (a) Zero tillage (b) Primary tillage
 (c) Secondary tillage (d) None of the above
- (13) Puddling is carried out in _____ crop.
 (a) Wheat (b) Paddy
 (c) Pearl millet (d) Cotton
- (14) _____ practiced use for the application of fertilizers in orchards.
 (a) Hill placement (b) Row placement
 (c) Band placement (d) None of the above
- (15) _____ avoids or largely excludes the use of synthetic fertilizers, pesticides, growth regulators and livestock feed additives.
 (a) Organic farming (b) Mixed farming
 (c) Conventional farming (d) None of the above
- (16) _____ farming systems that are "capable of maintaining their productivity and usefulness to society indefinitely and must be resource-conserving, socially supportive, commercially competitive, and environmentally sound."
 (a) Sustainable (b) Rotational
 (c) Conventional (d) Mixed
- (17) Photoperiod does not have much influence for phasic change in following day neutral plants.
(a) Sunflower (b) Sorghum
 (c) Oats (d) Maize

- (18) Monocropping is when the field is used to grow only _____ crop season after season.
 (a) One (b) Three
 (c) Two (d) All of these
- (19) _____cropping the process of growing one crop, then planting another crop (usually a cover crop) in the same field before harvesting the first.
 (a) Mono (b) Relay
 (c) Inter (d) Mixed
- (20) _____water use by the plant growth.
 (a) Capillary (b) Gravitational
 (c) Hygroscopic (d) All of these

Q.2

Do as directed.

A. Define the following.(Any five out of seven)

05

- (1) Organic farming
- (2) Agronomy
- (3) Cohesion
- (4) Perennial crops
- (5) Integrated nutrient management
- (6) Capillary water
- (7) Long day plants

B. Answer the following.

05

1. Explain role of agronomist
2. What is the scope of organic farming?
3. Explain oil seeds crops.
4. What is the zero tillage (no tillage)? What is the purpose of it?
5. Write down the disadvantages of organic farming

Q.3 Write short notes. (Any five out of six)

10

- (1) Classify the types used in crops and write down details of any two.
- (2) Write down the name of crop seasons in India along with sowing period. What are the crops to be grown in each season?
- (3) Write down the advantages and disadvantages of sustainable agriculture.
- (4) What are the principles of weed management? Give the name of Physical/mechanical weed control?
- (5) What is primary tillage and secondary tillage?
- (6) What is wet tillage or puddling?

Q.4 Long Question/Example (Attempt any three out of four)

15

1. What is photoperiodism? Classify the plants depending on the length of photoperiod required for floral initiation and details along with examples of each.
2. What is the principle of tillage? What are the main objectives of tillage?
3. Enlist different sowing methods. Write down the details of three sowing methods along with examples.
4. What is the principle of tillage? What are the main objectives of tillage?