Enrolment No: _____ Seat No: ___

PARUL UNIVERSITY

COLLEGE OF AGRICULTURE

B.Sc. (Hons.) Agriculture Summer 2018 - 19 Examination

Semester: 1 Date: 15/04/2019

Subject Code: 20101103 Time: 02:00pm To 04:30pm

Subject Name: Fundamentals of Agronomy Total Marks: 50

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Ing	tri	icti	ons

- 1. All questions are compulsory.
- 2. Figures to the right indicate full marks.
- 3. N
- 4. St

Do as Directed. Fill in the blanks. (Each of 0.5 marks)	
1. In the term 'Agronomy' 'Agros' means	and 'nomos' means
2. Turning into the soil green leaves and tender	twigs collected from outside of the field is known as
2. Turning into the soil green leaves and tender	twigs conceived from outside of the field is known as
3is an example for comple	ex fertilizer.
4. An example for natural chelating agent is5. 'One cusec' is equals to6. The average rainfall of world is	
5. 'One cusec' is equals to	litres of water.
6. The average rainfall of world is	mm.
7. The rate of growth of crop per unit area (CGR	R) is expressed in(unit)
8 is considered as up	per limit of water availability of plants.
9 is an exam	iple for complete stem parasite.
10. The seeds which require light for inducing g	ermination are called
. Multiple choice type questions. (Each of 0.5 n	
1. Potassium is called as	element.
a) Quantity	c) Secondary element
b) Quality	d) Micro element
2. Tillage is referred as mar	nipulation of soil.
a) Physical	c) Biological
b) Chemical	d) All of these
3. Bulky organic manures are characterized by _	
a) Supply of nutrients in small quantity	c) No definite chemical formula
a) Supply of nutrients in small quantityb) Low analytical value	d) All of the above
4. The N fertilizer containing highest amount of	
a) Ammonium sulphate	c) Urea
b) MOP	d) SSP
5. Soil moisture held against the gravitational fo	,
a) Maximum water holding capacity	
b) Permanent wilting point	d) Ultimate wilting point
6. Integrated Nutrient Management includes	
a) Recycling of organic manures	c) Green manuring
a) Recycling of organic manuresb) Biological nitrogen fixation	d) All of the above
7. The energy status of water at hygroscopic co	efficient is
a) – 10000 Bar	c) – 100 Bar
b) – 1000 Bar	d) – 10 Bar
8. For drought resistant crops scheduling of irrig	
moisture is adequate.	, or supremon or available bon
a) 50 %	c) 25 %
b) 75 %	d) 100 %
9. The % nutrient (Nitrogen) present in urea is _	
a) 100 %	c) 82 %
b) 46 %	d) 18 %
10. The fertilizer which is/are organic in nature_	
a) Urea	c) Both A and B
b) Calcium cyanamide	d) None of the above
o) Calcium cyanamue	u) mone of the above

	11. The first organ to emerge from the soil is		
	a) Plumule	c) Hypocotyl	
	b) Radicle	d) Mesocotyl	
	12. 'Cyprus rotundas' is an example for	weed.	
	a) Grassy	c) Sedge	
	b) Broad leaved	d) Parasitic weed	
	13. The boron content in normal water should		
	a) < 3 ppm	c) 4-5 ppm	
	b) 5-10 ppm	d) > 10 ppm	
	14. The growth analysis parameter which is s		
	a) Leaf Area Index (LAI)	c) Crop Growth Rate (CGR)	
	b) Absolute Growth Rate (AGR)	d) Relative Growth Rate (PGR)	
		nd seeds of weed from an area is known as	
	a) Prevention	c) Eradication	
	b) Weed control	d) Weed management	
	16. Continuous application of same herbicide		
	a) Agricultural ecotypes	c) Weed shift	
	b) Chemo types	d) All of the above	
	17. Which growth phase is considered as 'gra	- -	
	a) Lag phase	c) Log phase	
	b) Decreasing growth rate	d)Senescence	
	18. The unit to express the water use efficience	ey (WUE)	
	a) kg/ha mm ⁻¹	c) kg/ha	
	b) kg ha/mm	d) None of the above	
	19. The soil moisture held by oven dry soil at	98 % relative humidity	
	a) Maximum water holding capacity		
	b) Field capacity	d) Hygroscopic coefficient	
	20. One or two flushes of weeds are destroyed		
	a) Soil solarization	c) Stale seedbed	
	b) Flooding	d) Pre sowing irrigation	
0.2	Do as Directed.	a) 110 bowing inigation	
	Define the following. (Any five)		(05)
	1. Agronomy		(02)
	2. Tillage		
	3. Exotic crops		
	4. Fertilizer ratio		
	5. Nutrient Efficiency ratio (NRE)6. Growth and Development		
	7. Soil solarization		
ъ			(05)
В	Answer the following. (Any Five)		(05)
	1. Who has given the term 'Allelopathy'		
	2. Define intercropping	1.1.00	
	3. Why MOP/KCl is not suitable for crops lik	te sugarcane and tobacco??	
	4. What is irrigation frequency		
	5. What is Stale seedbed		
	6. Field capacity		
	7. Mention the 3 principles of weed managem	nent	
Q.3	Write short notes. (Any five)		(10)
	1. 'Criteria of essentiality'		
	2. Classification of nitrogenous fertilizers wit	h their examples.	
	3. Explain water Use Efficiency and its type	-	
	4. Water requirement and consumptive use of	water	
	5. Sigmoid growth curve		
	6. Physical/mechanical weed control		

Q.4 Attempt any Three/Long Questions/Example

- **(15)**
- 1. What are the important roles and deficiency symptoms of N, P and K in plant metabolism?
- 2. Explain the different soil moisture constants with their energy status.
- 3. What is 'Weed management'? Mention the 3 principles of weed management and explain the physical / mechanical method of weed control.
- 4. Explain the 'Growth and Development' analysis parameters