SGU	**Sanjay Ghodawat University, Kolhapur** Established as State Private University under Govt. of Maharashtra. Act No XL, 2017	2019-20

Year and Program: B.Sc, 2019-20	**School of Science**	**S.Y B.Sc.**
Course Code: BOS 201	**BOTANY III**	**Semester – Odd (III)**
Date and Day: 25.11.19/ Monday	**End Semester Examination**	**Time: 3 Hrs, Max Marks: 100**
PRN:	**Seat No:**	**Section A Marks out of 20**

Section A 10.30 am to 11.00 pm

Instructions: 1) All Questions are compulsory.
2) For MCQs mark/tic (√) for correct answer. No marks for multiple tics (√).
3) Section A should submitted to Jr. Supervisor immediately after first ½ hour.

Q.1	Choose the correct alternative for the following.	Marks 20	Blooms Level	CO
1	Radial vascular bundles are present in _____ a. Sunflower stem b. Maize stem c. Maize root d. Jowar stem	1	L1	1
2	The exine of a pollen grain contains _____ a. Pectocellulose b. Sporopollenin c. Pectin d. Callose	1	L2	3
3	Phellem, phellogen and phelloderm are collectively called as _____ a. Periderm b. Pericycle c. Endoplasm d. Endoderm	1	L1	2
4	Vertical distribution of megaspores is called as _____ a. Isobilateral b. Linear c. Decusate d. Lateral	1	L2	4
5	The outermost coat in a dicot seed is called as _____ a. Integument b. Tegment c. Testa d. Seed coat	1	L1	3
6	The _____ cell provides nourishment to the second embryo a. Synergid b. Legule c. Antipodal cell d. Cleoptile	1	L2	3
7	Bulliform cells are present in _____ a. Monocot Root b. Dicot Leaf c. Monocot Stem d. Monocot Leaf	1	L1	2
8	Kooper Kappe theory relates to the _____ a. Vascular cambium b. Root apical meristem c. Leaf d. Shoot apical meristem	1	L1	1
9	Hard bark of the plant is made up of _____ cells. a. Parenchyma b. Sclerenchyma c. Sclerids d. Collenchyma	1	L1	2

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10	_____ cells of the phloem tissue are responsible for conduction of nutrients in plants a. Companion b. Vessels c. Sieve tubes d. Tracheids	1	L2	1
11	Onion propogates through its _____ a. Tuber b. Bulb c. Rhizome d. Seed	1	L1	4
12	Resins arise from the _____ of a plant a. Bast b. Hardwood c. Sapwood d. Stele	1	L2	3
13	The attractive part of the flower that is responsible for attracting insects is called as _____ a. calyx b. Stigma c. Stamen d. Corolla	1	L1	4
14	Aloe vera plant is a _____ a. Mesophyte b. Xerophyte c. Hydrophyte d. Gametophyte	1	L2	3
15	Functional megaspore in a flowering plant develops into a _____ a. Endosperm b. Embryo c. Ovule d. Synergid	1	L2	3
16	Embryo sac is located inside the _____ a. Ovule b. Ovary c. Stigma d. Style	1	L1	4
17	When 3 out of 4 megaspores degenerate from the micropylar end, such kind of a development is called as _____ type a. Polygonum b. Oenothora c. Allium d. Endymian	1	L2	3
18	The type of fertilization in which the pollen tube enters through integuments is called as _____ a. Siphonogamy b. Mesogamy c. Porogamy d. Chalazogamy	1	L2	4
19	The endosperm in which the cells posess a well-defined cell membrane is called as _____ a. Hallobial b. Nuclear c. Intermittent d. Cellular	1	L1	4
20	Pollination brought about by bats is known as _____ a. Chiropterophily b. Anemophily c. Hydrophily d. Zoophily	1	L1	4

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PRN:	**Seat No:**	**Section B Marks out of 80**

Section B

11.00 am to 1.30 pm

Q.2		**Answer the following**	**15**		
	a)	What is meristem. Explain in detail about root apical meristem with a labeled diagram.	08	L2	1
	b)	List down the adaptive nature of hydrophytes with the help of appropriate examples.	07	L1	2
		OR			
	b)	State the structural organization of conductive tissues in a plant in brief.	07	L1	1
Q.3		**Answer the following**	**15**		
	a)	Describe the anatomy of a dicot stem with the help of a labeled diagram.	08	L3	2
	b)	Discuss the structure of vascular cambium and cork cambium in a plant with the help of generalized diagram.	07	L2	2
		OR			
	b)	Explain in brief, the general structure of ovary in flowering plants.	07	L2	3
Q.4		**Answer the following**	**15**		
	a)	Define fertilization. Describe the series of events that take place during double fertilization.	08	L3	3
	b)	Demonstrate the ultrastructure of a mature embryo sac with the help of a neat labeled diagram.	07	L4	3
		OR			
	b)	Compare the structure of a monocot seed with that of a dicot seed.	07	L4	3
Q.5		**Answer the following**	**15**		
	a)	Name the parts of a monocotyledonous embryo. State the relationship of an embryo with the endosperm.	08	L1	4
	b)	Mention the types of endosperms with the help of suitable	07	L2	4

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examples

OR

	b)	What do you understand by Polyembryony? Describe the types of polyembryony observed in plants.	07	L2	4
Q.6		**Write short notes on the following (any Four)**	**20**		
	i)	Apomyxis	05	L2	4
	ii)	Tunica corpus theory	05	L1	1
	iii)	Structure of microspore	05	L2	3
	iv)	Cork cambium	05	L1	2
	v)	Halobial type of endosperm	05	L2	4
	vi)	Ornithophily	05	L1	3

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