S BS/BGE-02/DSC-1

2. (a) Describe the 8,202,2 structure of a

(CBCS) toot tooonom

(2nd Semester)

(b) Write the anatomical difference between

Dicot and McYNATOB

Paper No.: BGE-02/DSC-1

(Plant Anatomy and Embryology)

Full Marks: 75 Pass Marks: 40%

(b) Define secondary growth. Write a note on the second gruod S: smiT dicot root 2+8=10

(PART : B—DESCRIPTIVE)

(Marks: 50)

The figures in the margin indicate full marks for the questions

Answer any five questions

1. (a) Discuss the theories of root apical meristem.

10 meristem. 10 meristem is a particular soft minimal (a) ...

with well different ated wall layers.

(b) Write notes on any two of the following:

 $5 \times 2 = 10$

- (i) Parenchyma wellot entre estinW
- (ii) Xylem
- (iii) Sclerenchyma

L23/517a

(Turn Over)

2.	(a)	Describe the internal structure of a monocot root.	
		Or True controls bass	
	(b)	Write the anatomical difference between Dicot and Monocot stem.	
3.	(a)	Describe the structure and function of vascular cambium. 10	
		Or Straits said	
		Define secondary growth. Write a note on the secondary growth in dicot root. 2+8=10	
4.	(a)	Write notes on the following: $5\times2=10$	
		(i) Epidermis in plants	
• • • • • • • • • • • • • • • • • • •	e 47	(ii) Types of stomata Or	
	k) .	Give an account on the adaptive system in xerophytes.	
0	Liter Park		
5.	(a)	Explain the structure of a typical anther with well differentiated wall layers.)
() (an		unand a incomposit sales arrive (d)	
	(b)	Write on the following: $5\times2=10$)
		(i) Anatropous ovule	
		(ii) Tetrasporic embryo sac	
L23	/517	그 그는 그는 그는 그를 가장하는 것이 되었다면 하는 것이 없다면 하는 것이 없다면 되었다.)

6. (a) Define pollination. Write a note on the different types of pollination in plants.

2+8=10

Or

(b) Write on the following:

 $5 \times 2 = 10$

- (i) Double fertilization
- (ii) Significance of seed dispersal
- 7. (a) Explain the types of endosperm.

10

Or

(b) Write on the following:

 $5 \times 2 = 10$

- (i) Characters of monocot embryo
- (ii) Role of endosperm in embryo development
- 8. (a) What is apomixis? Explain the types of apomixis. 2+8=10

Or

(b) Describe the practical application of apomixis.

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	(CBCS)	
	(2nd Semester)	
	BOTANY () meas	(0)
	Paper No.: BGE-02/DSC-1	
	(Plant Anatomy and Embryology)	'A, Wat
	(PART : A—OBJECTIVE)	cha
	(Marks : 25)	(α)
The fig	ures in the margin indicate full marks for the q	(d)
- 1.1.2 J.19	1 STARD TOOUTOIN	uestions (2)
	SECTION—I meta tooib	(5)
10	encial cross (Marks : 15)	5. Hea
Put a 7 bracket		the 1×15=15
bracket	s provided : boowass	
bracket	lem is a	
1. Xy	lem is a complex tissue () boow arrange ()	1×15=15 (0)
1. Xyl	lem is a complex tissue ()	1×15=15 (a) (b)
1. Xyl (a) (b) (c) (d)	s provided: lem is a complex tissue () simple tissue () Both (a) and (b) ()	1×15=15 (d) (o) (b)
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B8/EGE-02/D80-1

3.	Exarch xylem is found in		
	(a)	rachis ()	
	(b)	root () patennia DRS)	
	(c)	stem () WATOR	
	(d)	leaf ()20) KB ROB : ON 19999	
4.		er containing cavities in the vascular bundles is a racteristic feature of	
	(a)	dicot root ()	
	(b)	monocot stem ()	
	(c)	monocot leaves ()	
	(d)	dicot stem ()	
5.	Hea	rtwood is also known as	
	(a)	durament 100" (**) thank against th (**) **Off to the durament of the control of	
	(b)	sapwood ()	
	(c)	non-porous wood ()	
	(d)	porous wood () sused sign s (d).	
6.		wth that increases the girth and thickness of the	
	(a)	primary growth (1000) sew vicedi magaistil :	
	(b)	secondary growth ()	
	(c)	tertiary growth ()	
	(d)	None of the above	
		그는 그는 그는 그는 그를 가는 것이 되는 사람들이 되는 것이 않는 것이 되었다. 그는 그를 받는 것이 되었다. 	

7.		oma surroun tinctly smalle						iš .01
						nergids	ive (
	(a)	anisocytic	(&)				
	1-9	amoooy aro	,	()	-	tipodal cells	na (5)
	(b)	paracytic	())	iar nuclei	og (
	(c)	anomocytic		()		exals (t) ch	
	(d)	diacytic	()				
8.	Pla	nt cuticle is p				to the		
	(a)	epidermis	() ()	mogamy	ori (i	
	(b)	endodermis		()		thogamy	o) die	
•	(c)	cortex	()			tonogamy	y ger	0)
	(d)	periderm	<u>(*)</u> (*,	o)				5)
9 .	Cyto	oplasm of the	poll	en gr	ains is	s rich in	ne ser	12. T
	(a)	starch	()			eguments	toi, Ų	
	(b)	proteins	() X		ary (70 (6	
	(c)	minerals	, () ()	dosperm	as k	1
	(d)	vitamins	(,)	()	qтеліл	or (f	'n
BS/B	GE-0	2/DSC-1/517				728(1-08)	1/80-9	88/80

10.	The	three chalazal cells of an embryo sac are called	the A
	(a)	synergids ()	(a)
	(b)	antipodal cells ()	
	(c)	polar nuclei ()	
	(d)	chalaza () oltypomorus	(0)
		diacytic () b surprise contract	
11.		deposition of pollen on the stigma of anot er of the same plant is known as	her
	(a)	homogamy () (
	(b)	dichogamy ()) simusbohns	
	(c)	geitonogamy () xeltoo	(0)
	(d)	xenogamy ()	(d)
12.	The	seed coat is formed from	9. Cyt
	(a)	integuments ()	(0)
	(b)	ovary ()	(4)
	(c)	endosperm () () signatura	(6)
	(d)	pericarp () () admistiv	(5)
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13.	Wh	tich of the following is the main function of dosperm?
(H)	(a)	Write on the following in fe(r sc)ntence noisoubsensT
	(b)	Protection ()
	(c)	Restriction ()
,	(d)	Nourishment ()
14.	The	portion below the epicotyl is
	(a)	suspensor ()
•	(b)	cotyledons ()
	(c)	hypocotyl ()
.,	(d)	None of the above ()
15.	The	term 'Apomixis' was coined by
	(a)	Ernst ()
	(b)	Swingle ()
	(c)	Winkler ()
	(d)	Navashin ()
BS/B	GE-0	2/DSC-1/517

to name SECTION II old ode to tistdW .E.I (Marks: 10) Write on the following in few sentences (any five): $2 \times 5 = 10$ 1. Procambium

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PITCL THOUSOMER OF

2. Conjunctive tissue

3. Bulliform cells



3. Bulliform cells

4. Xeropytes

5. Tapetum



5. Tapetum



7. Orthoroppus evule

6. Apomixis

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7. Orthotropous ovule

6. Apomistis