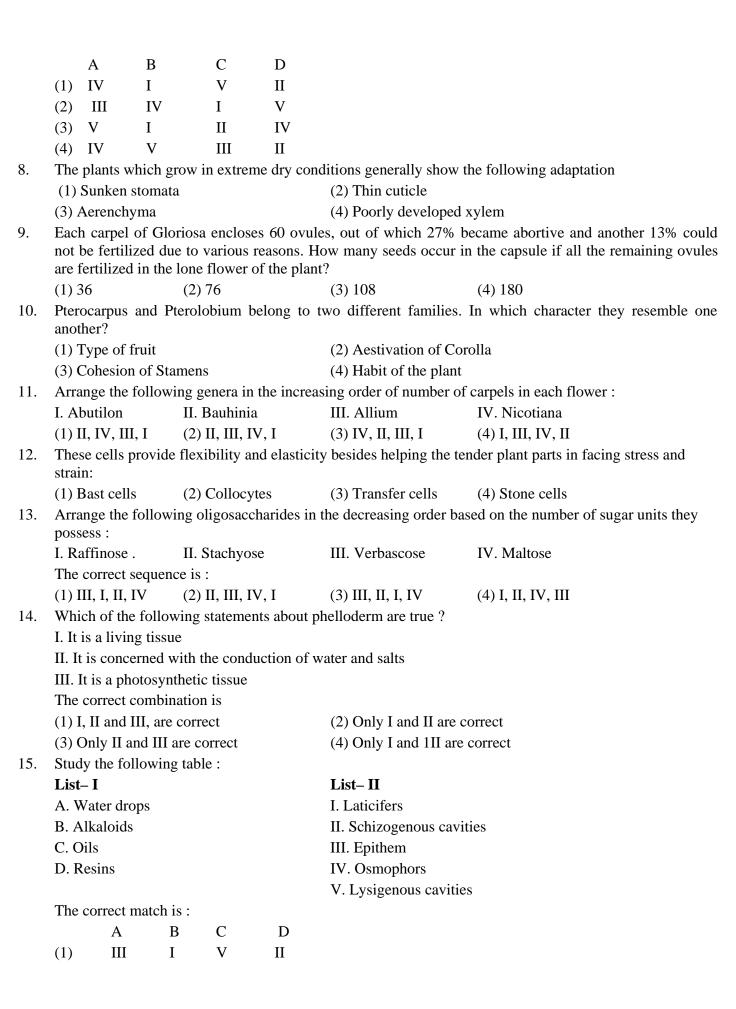
	E	3OTANY :: 2004							
1.	Study the following table:								
	List –I	List – II							
	A. M.O.P. Iyengar	I. Williamsonia Sewardiana							
	B. M.S.Swaminathan	II. Fertilization of Plant in test tubes							
	C. Birbal Sahni	III. Dwarf varieties of Wheat							
	D. P. Maheswari	IV. Rust research							
		V. Fritschella							
	Correct Match is								
	A B C	D							
	(1) V IV III	II							
	(2) IV II I	III							
	(3) V III I	II							
	(4) II III IV	I							
2.	A plant which lives on rocks under	water with photosynthetic roots is:							
	(1) Tinospora (2) Podostemo	m (3) Taeniophyllum (4) Vanda							
3.	Study the following statements:								
	I. Food is stored in the leaf bases								
	II. Buds develop from leaf apices								
	III. Presence of tunicated bulb								
	Identify the correct combination with reference to Scilla								
	(1) I, II and III are correct	(2) Only I and II are correct							
	(3) Only I and III are correct	(4) Only II and III are correct							
4.	Which ,one of the following statem	ents is correct with reference to amentum?							
	(1) The peduncle is fleshy and bears unisex	tual flowers and the flowers open in basipetal manner							
	(3) The peduncle is condensed an	d bears bisexual flowers and the flowers open in an acropetal manner							
	(4) The peduncle grows indefinite	ely and bears bisexual flowers' and flowers open in basipetal manner							
5.	What is the fruit that develops from	a tricarpellary, syncarpous, inferior ovary with parietal placentation?							
	(1) Pepo (2) Pome	(3) Cypsela (4) Capsule							
6.	Which of the following mechanism	s is associated with the release of pollen grains in Pilea and Urtica?							
	(1) Safety mechanism	(2) Piston mechanism							
	(3) Gun powder mechanism	(4) Censer mechanism							
7.	Study the following table:								
	List –I	List –II							
	(Structure Before Seed Formation)	(Structure After Seed Formation)							
	A. Funiculus	I. Hilum							
	B. Scar of Ovule	II. Tegmen							
	C. Zygote	III. Testa							
	D. Inner integument	IV. Stalk of seed							
		V. Embryo							
	Identify the correct match:								



	(2)	IV	II	I	III						
	(3)	I	IV	II	V						
	(4)	II	IV	III	I						
16.	Whic	ch of the	following	g characte	ers are rel	ated to spirogyra jog	gensis?				
	I. Die	oecious o	conjugatio	on		II. Attached spec	ies				
	III. N	Morpholo	gical anis	sogamy							
	The o	correct c	ombinatio	on is							
	(1) I,	II and II	II are com	rect		(2) Only I and II	are correct				
	(3) C	nly I and	d III are c	orrect		(4) Only II and I	II are correct				
17.			dome sha referred	•	le portion	s are found on erect	structure that arise from s	tolons. These			
	(1) G	emetang	gia (2) Progam	netangia	(3) Zygosporang	ia (4) Sporangiophore	es			
18.	Wha	t is the ra	atio of an	drocyte n	nother cel	ls to androcytes and	antherozoids formed in F	unaria?			
	(1) 1	:1:1	(2	1:2:2	2	(3) 1 : 2 : 4	(4) 1:4:8				
19.	Hapl	oid brow	n, hairlik	e, declica	ate unicel	lular outgrowths are					
	(1) F	Root hair	s of Gym	nosperm	S	(2) Paraphyses o	f mosses				
	(3) R	loot mod	ules of P	ılses		(4) Rhizoids of f	ern plants				
20.	What is the ratio of equationa divisions that take place in cycas and angiosperms respectively leading the formation of male gametes from pollen grains?										
	(1)3			3:1	1	(3) 2 : 1	(4) 2 : 3				
21,	` /		,	<i>'</i>	vcas is ca	alled zoodiogamy.	()				
,					-		on of pollen tube.				
	Reason (R): Fertilization in cycas takes place by the formation of pollen tube. The correct answer is:										
	(1) B	oth A an	nd R are t	rue and R	R is the co	rrect explanation of	A				
						e correct explanation					
			out R is fa			1					
	` ′		but R is t								
22.					0 S type	of ribosomes contain	as one of the following				
	An organism exclusively with 70 S type of ribosomes contains one of the following (1) DNA enclosed within a nuclear membrane										
	(2) Circular naked DNA										
					protein co	oat					
					rotein co						
23.		•	lowing tal	•							
	List		C			List –II	List –II				
	A. D	evoid of	flagella				I. Single spherical bacterium				
		od shape	_			II. Pneumonia causing bacteria					
		acteria in				III. Anthrax caus	•				
		oma shaj	-			IV. Cholera causing bacteria					
		~1	L			V. Pleiomorphic	-				
	The	correct m	natch is:			1					
		A	В	C	D						
	(1)	I	II	III	V						
	(2)	V	IV	П	Ţ						

	I. Plasmid Small circular DNA					Gene cloning					
<i>5</i> 0.	Study the following table: Component Character				a r	Used in					
30.	Stud	v the fo	llowing	table:							
	(4)	I	IV	III	II						
	(3)	IV	I	III	II						
	(2)	II	III	IV	I						
	(1)	II	IV	III	I						
	1110	A	B	C	D						
	The	correct	match Is	:		Zhaosperm canare					
	uom	idiicy O.	i occus			V. Endosperm culture					
	dormancy of seeds				geu	IV. Ovuie Cuiture					
	C. Production of Parthenocarpic fruitsD. Method of breaking prolonged					IV. Ovule culture					
	B. Induction of polyembryony C. Production of Porthonograpic fruits					III. Ovary culture					
	A. Development of haploid plants					I. Embryo culture II. Anther culture					
	List –I					List – II					
29.			llowing	table:		T * 4 TT					
•	(3) Bulk method					(4) Intraspecific hybridisation					
	(1) Intrageneric hybridization					(2) Back cross					
28.						oduction of 'Hessian Fly resistant' wheat variety?					
	(3) Only I, II and IV					(4) Only I, II and III					
	(1) . Only I, III and IV			[V		(2) Only II, III and IV					
	Identify the correct combination:										
	III. T	ransloc	cation			IV. Transcription					
	I. Ac	tivatior	n of amin	no acids		II. Elongation of polypeptide chain					
27.	A fe	w steps	involved	d in polyp	eptide synth	nesis are given below. In which of them, the t-RNA participates					
	(1)	Vitamin	ı A	(2) Vitam	in B	(3) Vitamin C (4) Vitamin E					
26.	The	aleuron	e layer o	f rice grai	n is rich in:	:					
	(4) T	he myc	elium as	septate; co	nidia, conid	liophores and setae are aseptate					
	(3) T	he coni	idia are a	septate; c	onidiophore	es, mycelium and setae are septate					
				-	-	and setae are septate					
		(1) The conidia and conidiophores are aseptate; mycelium and setae are septate									
25.	` ′				ents is corre	ect with respect to colletotrichum falcatum?					
	` ′		e but R i								
			but R is			•					
		(2) Both A and Rare true but R is not the correct explanation of A									
	(1) Both A and R are true and R is the correct explanation of A										
	Reason (R): Viruses do not replicate the host remain alive. The correct answer is:										
∠¬.											
24.	` /					I replicate when they are in the host.					
	(3) (4)	I V	III I	II II	IV IV						

II. (Cosmld		Restricti	on enzyme	Identification of §	gene			
			Restricti	on enzyme	Isolation of genes	3			
IV. Vector Gene carri				rier	Gene transfer				
Two	compon	ents ir	n above tal	ole show corr	ect combination of	their character and use:			
Ide	ntify the c	correct	pair :						
1) I	and IV		2) II and	IV	(3) I and III	4) II and III			
Wh	ich of the	follov	ving stater	nents .s corre	ct with respect .to A	Agaricus bisporus?			
(1)	It contain	s toxin	s hence n	ot suitable for	consumption				
(2)	It does no	ot conta	ain essenti	al amino acid	ls				
(3)	It is a goo	od sour	ce of B-vi	itamin					
(4) Its cultivation on agro wastes is impossible									
a .	1 1 61		. 11	. 1 .1	CT				
Stuc List	-	lowing	g table to r	natch the enz	ymes of List I with	the reactions given in			
	i – I			List –II					
	Oxidored	luctase	S		c acid → Glutamine				
	somerase				uccinic acid → Arg				
C. I	Lyases			_	ic acid \rightarrow Glyoxyli				
	Hydrolase	es		•	, ,	Rlbulose-5- Phosphate			
	<i>J</i>				•	→ Fructose 6-phosphate			
The	correct n	natch i	s:		, · · · · · · · · · · · · · · · · · ·	, constant o Franck-			
	A	В	C	D					
(1)	IV	III	II	V					
(2)	III	IV	II	V					
(3)	IV	III	I	V					
(4)	I	IV	II	III					
Ass	ertion (A)	: Lett	uce seeds	are positively	photoblastic.				
Rea	son (R):	Gibbe	rellin appl	lication effect	ively works as a su	bstitute in darkness, for germination.			
The	correct a	nswer	is:						
(1)	Both A aı	nd R a	re true and	l R is the corr	ect explanation of	A			
(2)	Both A aı	nd R a	re true but	R is not the	correct explanation	A			
(3)	A is true	but R i	s false						
(4)	A is false	but R	is true						
					n cycle are directly	dependent on the availability of one or both			
				ry power?					
I. Formation of glyceraldehyde-3- phosphate									
	II. Formation of Fructose-6- phosphate								
	III. Regeneration of RUBP reaction								
	•		combinat	ion:	(2) 0 1 7 7				
(1) Only I and II are correct					(2) Only I and III are correct				
(3)	Only II a	nd III a	are correct	•	(4) Only I, II and	III are correct			

31.

32.

33.

34.

35. Study the following table:

Substrate End product

I. Phosphoenol pyruvate \rightarrow Oxaloacetic acid

II. Malic acid → Pyruvic acid

III. Ribulose bisphosphate → Phosphoglyceric acid

IV. Oxaloacetic aid → Malic acid

In which of the above reactions, the end products are formed as a result of carboxylation reaction. Identify the correct combination.

(1) I and IV only

(2) I and III only

(3) II and III only

(4) II and IV only

- 36. The phytohormone which increases the concentration of potassium in guard cells is also responsible for the induction of :
 - (1) Apical dominance

(2) Triple response growth

(3) Cell division

(4) Abscission

- 37. The phyto hormone that induces cell elongation is known to be produced by a fungus. The asexual stage of this fugus is called:
 - (1) Rhizopus sexualis

(2) Fusarium moniliformae

(3) Gibberella fujikuroi

- (4) Fusarium oxysporum
- 38. Which one of the following expressions is associated with a "mangrove plant'?
 - (1) Capable of absorbing water rapidly and retaining it.
 - (2) Capable of minimizing water loss and facilitating aeration to underground parts
 - (3) Capable of reducing transpiration and able to store absorbed water
 - (4) Presence of 'well organized leaves that are adopted to absorb nitrogenous matter
- 39. Assertion (A): Epidermis in the dicot root is composed of cutinized cells.

Reason (B): The exodermis in the root offers protection to the inner parts in the absence of epidermis.

The correct answer is:

- (1) Both A and R are true and R is the correct explanation of A
- (2) Both A and R are true but R is not the correct explanation of A
- (3) A is true but R is false
- (4) A is false but R is true
- 40. According Bentham and Hooker, which pair of the following angiospermous taxa were not divided into cohorts
 - (1) Monochlamydae and Monocotyledonae
 - (2) Inferae and Heteromerae
 - (3) Bicarpellatae and Disciflorae
 - (4) Thala:miflorae and Calyciflorae

ANSWERS

Ī	(1) 3	(2) 2	(3) 1	(4) 3	(5) 1	(6) 3	(7) 1	(8) 1	(9) 3 (10) 1	
	(11) 1	(12) 2	(13) 3	(14) 4	(15) 1	(16) 4	(17) 4	(18) 2	(19) 4 (20) 3	
	(21) 2	(22) 2	(23) 3	$(24) \ 3$	(25) 1	(26) 2	(27) 4	(28) 1	(29) 1 (30) 1	
	(31) 3	(32) 2	(33) 1	(34) 2	(35) 2	(36) 3	(37) 2	(38) 2	(39) 4 (40) 1	