Bachelor of Science Examination: June-2022

Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 01-06-2022	(Fresh/ Repeater)	English - I	10:30 AM To 11:45 AM	400101	35

Instruction: Attempt all the questions.

Q.1 Read the following passage and answer the following questions:

Of all the green things which make up what Goethe called "the living garment of god," grass one of the humblest, the most nearly omnipresent, and the most stupidly taken for granted-a miracle so common that we no longer regard it as miraculous.

To some (peor things) it is merely what you try to keep the dandelions out of, or what you strike a golf ball across. But even such are paying some tribute to it. To those of us a little more aware of the great mystery of which we are a part, its going and its coming, it's flourishing and its withering, are a sort of soft ostinato accompaniment in the great symphony of the seasons.

Even in the arid Southwest it springs up bravely for a few short weeks. In California the brown hills turn to emerald almost over night. And in the gentler, more circumspect East, one hardly knows when the great awakening took place. So imperceptible, but ineluctable is its progress that those of us who watch for it never quite catch the very moment when the transformation occurs. While our backs are turned it is alive again, and no other phenomenon of spring is at once so quiet and so all-enveloping. If there are astronomers on Mars peering at us as our astronomers are peering at their planet, they must see, much more dramatically, what is usually observed there by earthly astronomers. Martian vegetation is perhaps only dry lichen much like what we see clinging on the bare rocks near the summers of our highest mountains. But ours is a green carpet soft to the feet, restructed to the eyes, and annothering to all living things that spring is here again.

What is this thing called grass? "Why," say the botanist," that is a question easy to answer. Grass properly so-called, is any one of the numerous genera and species which compose that family of monocotyledonous flowering plants long known as the Gramineae. Unfortunately, its early evolutionary history (like that of all the flowering plants) is obscure since the fossil record is scanty. But at least we can say with reasonable certainty that no grass carpeted the earth in that long ago when the first air-breaking animals crawled out of the water. Also that it was not until the cool weather of the Miocene (say a more forty million or so years ago) that it became a dominant plant and thus made possible the

Page 1 of 2



flourishing of the herbivorous marnmals over a more peaceful earth where the bellowing of the dinosaurs had given way to the lowing of herds. Then, only yesterday as world history goes, green conferred upon our own species. only yesterday as world history goes, grass conferred upon our own species that tremedidous blessing called wheat?

For a less dusty question and answer we must turn to the poets, many of whom have had their say, though only Walt Whitman put grass at the

Qu	estion:
Je (1/2)	Why does the author say that grass is "a miracle so common that we
. (2)	no longer regard it as iniraculous? What is Gramineae
3)	What kind of solicis on ideas?
\$ 4)	Attempt a description of two miracles of nature namely, rain and the
5)	Give one word from the passage for each of the following.
5)	b) Flowerless small plants of different shades that grow like a many
	skin on stones and tree trunks. c) An elaborate musical composition for an orchestra.
6)	Use the following word in the sentences of the sentences

Vegetation Tremendous

Yesterday d)

Omnipresent

Common

Write the instruction manual for any one of the technological product mentioned below:

Camera

Television

Watch

Describe the scientific process of any one of the experiment conducted by you in the science laboratory: A Managaria Charles of the Charles o you in the science laboratory: 10

An Electric bulb a)

Concave lens b)

microscope

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Day & Date	Semester	Subject Name	Time	Code	Marks
Friday 25-11-2022	IV (Repeater)	English – I	02:00 PM To 03:00 PM	400101	35

Instructions: All questions are compulsory.

Q.1

Read the following passage and answer the following questions:

Of all the green things which make up what Goethe called "the living garment of god," grass is one of the humblest, the most nearly omnipresent, and the most stupidly taken for granted - a miracle so common that we no longer regard it as miraculous.

To some (poor things) it is merely what you try to keep the dandelions out of, or what you strike a golf ball across. But even such are paying some tribute to it. To those of us a little more aware of the great mystery of which we are a part, its going and its coming, its flourishing and its withering, are a sort of soft ostinato accompaniment in the great symphony of the seasons.

Even in the arid Southwest it springs up bravely for a few short weeks. In California the brown hills turn to emerald almost over night. And in the gentler, more circumspect East, one hardly knows when the great awakening took place. So imperceptible, but ineluctable, is its progress that those of us who watch for it never quite catch the very moment when the transformation occurs. While our backs are turned it is alive again, and no other phenomenon of spring is at once so quiet and so all-enveloping. If there are astronomers on Mars peering at us as our astronomers are peering at their planet, they must see, much more dramatically, what is usually observed there by earthly astronomers. Martian vegetation is perhaps only a dry lichen much like what we see clinging on the bare rocks near the summits of our highest mountains. But ours is a green carpet, soft to the feet, restful to the eyes, and announcing to all living things that spring is here again.

What is this thing called grass? "Why," say the botanist," that is a question easy to answer. Grass, properly so-called, is any one of the numerous genera and species which compose that family of monocotyledonous flowering plants long known as the Gramineae. Unfortunately, its early evolutionary history (like that of all the flowering plants) is obscure since the fossil record is scanty. But at least we can say with reasonable certainty that no grass carpeted the earth in that long ago when the first air-breathing animals crawled out of the water. Also that it was not until the cool weather of the Miocene (say a mere forty million or so years ago) that it became a dominant plant and thus made possible the flourishing of the herbivorous mammals over a more peaceful earth where the bellowing of the dinosaurs had given way to the lowing of herds. Then, only yesterday as world history goes, grass conferred upon our own species that tremendous blessing called wheat".

For a less dusty question and answer we must turn to the poets, many of whom have had their say, though only Walt Whitman put grass at the centre of a magnum opus.

15

	Questions:	
	1) Why does the author say that grass is "a miracle so common that we no longer regard it as miraculous"?2) What is Gramineae?	01
	3) What kind of soil is on Mars?	01
	4) Attempt a description of two mirroles of anti-	01
	 Attempt a description of two miracles of nature, namely, rain and the rainbow. 	04
-	5) Give one word from the passage for each of the following:a) a German writer	03
-	b) large but now extinct reptiles c) yellow flowered wild plant	
-	c) yellow flowered wild plant6) Use the following words in the sentences of your own:	0.5
1	a) planet	05
7.00	b) highest	
,	c) yesterday	
	d) history	
	e) common	10
Q.	Write the instruction manual for any one of the technological product mentioned	10
	below: a) Camera	
	b) Sandwich maker	
	c) Television	
Q	.3 Describe the scientific process of any one of the experiment conducted by you	10
	in the science laboratory:	
	a) An Electric bulb	
	b) Concave lens c) Centrifuge	11
	c) Gentinge	
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Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 30-11-2022	(Repeater)	Clinical Microbiology	02:30 PM To 05:00 PM	407102	75

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	Instru	ction	, , , , , , , , , , , , , , , , , , , ,	
(9		4	3) All questions carry equal marks.	-
CA CANALIST OF THE PARTY OF THE	Q.1	a) b)	Explain microbial diversity in soils and their activities. Write about significance of fecal indicator organism	10
, Q	₹Q.2	a)	Discuss water purification processes and explain composition o sewage.	₹
35		b)	Write about domestic waste water treatment processes.	10
2,4	Q.3	a)	Describe air composition, distribution and sources of microorga in air.	nisms 10
		b)	Write about the bacteriological examination for water potability	🗗 10
	Q.4	a) b)	Discuss Municipal sewage treatment process. Write in brief Carbon, Nitrogen, Sulphur, Phosphorus cycles.	10 10
	Q.5	Writ	te short notes for the following: (any 3) Soil, plants and nutrients	15
	NOW OF	Sb) c) d)	Membrane Filter technique Microbiological examination of soil IMVIC test.	01/202
			ON 120 CO CO COM	S. C.
		LAMP.	St. Citiene S. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co	
7,20,20,20	20 PM 32 1	Ŏ L	Microbiological examination of soil IMVIC test. Report of the source of	Page 1 of 1

Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 07-12-2022	(Repeater)	Applied Zoology	02:30 PM To 05:00 PM	40510Å	75

		4, 1, 1, 1, 1,	⁷ O	05:00 PM	્રહો	
Instru	ıctio	n: 1) All questions are	compulsory		Ellio .	
		2) Draw neat and la	belêd diagram	wherever necess	ârv.	
05 35 S	9).	3) All questions ca	emilant manufacture	0	58 T	
20		,		of paints and polisis. The stra llari chin w hampshire rvation. on of poultry house.		
ď.	a)	Fill in the blanks:		10,		05<
0-		1) Larva of rice we'e	il is known as	. 05.		2
,S		2) is câlled r	nilk sugar.			25
7		The goat is comm	only called as	· Ser		18x
		 4)is used for 	r the preparation	of paints and polis	hes.	2
		5) Avlan slu is cause	ed by viru	is. o	4	Ĕ
			ξ. (ar.	DA.	
	b)	Match the following:	n n	b_{α}	120	04
		Indigenous breed	a) Leg	horn	Q.	
		2) Asiatic breed	b) (Bus	stra	V. D.	
		3) American breed	c) Khi	llari 	vo.	
		Mediterranean bro	eed (a) Coo	cnin	Short	
	1.	o'	b) Bus c) Khi eed d) Cod e) Nev	w hampshire		
	8	Define (Any Three)	20	ol'		06
	91	Waggle dance	41/2			
0		2) Dairy Science	Ō,	, LOT		ລົ
-OV		3) Aseptic packaging		20		2000
S.		4) Vermicompost		35		100
71,200 Q.2			lavela a	7/2		6 ¹ / ₁ -
C Q.2	Ans	swer any two of the fol	rmitos	.07		_© 15
	aj	Explain social life of te Explain different meth	nde of milk prese	rvation	150	
	b)	Give the requirement	or the construction	on of poultry house	00	
	c)	Explain how communi	cation in bees tal	ces place.	Q5	
	d)	47	,o`		38.	
Q.3	Des	scribe any three of the	following	2.0	O'	15
	a)	Composition of lac	a comment	do		
	b)	Asiatic class of fowl	and a set a mu fa	rmina solv		
	c)	Explain economic imp	oftance of end is	arring Ser		
	d)_{Q	Sindigenous milk produ	00,	110		
0.4	Mr	ite an account on any	hree of the follo	wing. o		15
Q.4	0	Uses of honey		90y.		
~ Dx.	b)		(0)	2010		
- CO	c)	Mothod of preparation	of Cheese	o'l'		
QUE	d)	Damaged caused by t	ermites	(6)		
POPULA SE	5650	⁷ O _∞	Z.	rvation. on of poultry house. ses place. arming wing.		

	.O.				Kan-uko
Day & Date	Semester	Subject Name	Time	Code	[*] Marks
Friday 09-12-2022	2 IV	Current Trends in Zoology	02:30 PM To 05:00 PM	405102	75

Day & Date	Sethester	Subject Nailie	11110	1,	
-	0, 11	Q	02:30 PM	8	7.5
Friday	, ₽ IV	Current Trends in	То	405102	75
09-12-2022	(Repeater)	Zoology	05:00 PM	405102	
10	•		03.001111	100	
·		S.V.		20	
Instruction:	1) All quest	tions are compulsory		8	
In F		e diagramใพ้herever necess	sary 🤇	.~	
87		s carry marks.	78		
- Indiana Control	J Diagram	C _v	(4)	405102	
T		જે	1		~
S			Op.		65
Qu.1 a) F	ill in the blar	ıKş.≻	Car		02
_₹ ³ 1)i	နှံ့ပိုပ်ining exon sequence by ၊	eleasing the I	ntron	76.
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9	V TI I	turned outlibroi-on a abor	fragment cal	led	^O
	3)i	s defined as the middle mas	or the centra	I value of the	ge`
3	//	S defined as the illiddle mas	. 5	2	7
	variable.	· · · · · · · · · · · · · · · · · · ·	T T	200	
	1) ŲA∛Aisth	e code for quence is identified by restrict		`٩`	
Ę	5) 🔯 se	quence is identified by restric	tion enzymes		
	2	2		O	
b) l	Match the fol	lowing:		CL Z	
ω <i>)</i> ,	1) RNA prim	ner A	a) graphical	e presentat	ion
ನಿಸ್ತ	1) KINA PIIII	requerey 2		transcription	
b)	2) Polygon 1	requency			5.00 PM
Q (Capping	E.		lacitoy	
×7.	4) Plasmid	177	d) PBR322		
8	5) Mean, m	edian and mode	e) primase		a=9
S.	-/	.*	~ C.	05	0,55°
150° -1	Define (any	5): ~ ² / ₂ ² /	e) primase		S. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co
W C)	4) Cloping		'Š_		(8)
of a	1) Cloning	an Q**	571		~
5	2) Replicati	الاستان الم	1		S.
	0) 11000.	on Enzyme		,	100
	4) Mode () 5) Transcrip	. O. M.		2	'
	5) Transcrip	otion 👏		.55	300 B
	77.7	Q [*]		S.	
	mnt and two	of the following:	5 000	3"	15
	mpt arty two	ng technique with the help of	Schematic re	presentation	า.
a)	Explain cioni	and types of Correlation	50. Total	1	
b)	Explain differ	ent types of Correlation		W.	
c)	Give properti	es of Genetic code.	ion in eukarvê	ites.	
q) -	Explain the p	es of Genetic sode. process of initiation of translat	ion in canalyc		
4)	5	05.	Sold of Sold o		15
- 25	mnt any thre	e of the following:	9r		13
Q.2 Atte			∿_		
,Oa)			√o,		
, b)	Polygon lied	in produced by gene manipul	ation) ~		
್ c)	Insulin-prote	iii produced 27 games	.01		
₩, q)	Cosmid	18"	, o		
Q.2 Atte	30e 0.24	<i>S S</i>	5,		
SV	2	T. S.			→ .
sv.	· p.,	20			

of Capping and polyadenylation during eukaryotes.

Int any two of the following:

Describe the construction of PBR322 plasmid vector.

Explain the term standard deviation, give its merits and demerits

Describe the mechanism of semi-conservative replication.

Explain the technique of Southern Blotting. Give the properties of cloning vectors.

Write the merits and demerits of Mexicology

Write a note on addition to Describe the Attempt any three of the following: wing:
.oning vector amerits of Notition theorem in cess of Capping an eukaryotes.

wo of the following:
.e the construction of PBR322 platent the term standard deviation, give scribe the mechanism of semi-conservative and the technique of Southern Blotting. Q.4 Describe the process of Capping and polyadenylation during acto, erits an ve replier

Day & Date	Semester	Subject Name	Time	Code o	[™] Marks
Thursday 15-12-2022	ره IV (Repeater)	Applied Microbiology	02:30 PM To 05:00 PM	407101	75

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Instruction:	1) Q. 5 is compulsory.
6/2	2) Attempt any three from the re
~	2) All

2) Attempt any three from the remaining.
3) All questions carry equal marks.

		- 5	3) All questions carry equal marks.	
- 40/4p.	8 ^{Q:1}	a) b)	Describe the NK cells. Explain Michaelis Menten Equation and significance of K _m and V _{max}	. 210
.)	Q.2	a) b)	Differentiate between innate immunity and adapted immunity. Describe the immune system.	10 10
	Q.3	a) b)	Explain Cytosolic and Endocytic pathway. Write about the feedback and allosteric inhibition.	10 10
	Q.4	a) b)	Describe structure of enzyme. Explain the enzyme concentration and inhibitor.	10 10
	Q.5	Wri وa)	te a short note. (Any Three)	15
	. Maga	c) d)	Control of epidemics Substrate concentration	analaal
SI COVENT O			Describe the NK cells. Explain Michaelis Menten Equation and significance of K _m and V _{max} Differentiate between innate immunity and adapted immunity. Describe the immune system. Explain Cytosolic and Endocytic pathway. Write about the feedback and allosteric inhibition. Describe structure of enzyme. Explain the enzyme concentration and inhibitor. te a short note. (Any Three)s Incubation Lymphoid organ Control of epidemics Substrate concentration	(May)
	W. S.	· 40 LAS	te a short note. (Any Three) of Incubation Lymphoid organ Control of epidemics Substrate concentration Substrate concentration And the state of th	
"occocci,	d B.	ti)	orner Roll Report	Page 1 of 1

Bachelor of Science Examination: May- 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Thursday 11-05-2023	(V (Fresh/ Repeater)	Inorganic Chemistry-I	11:00 AM To 01:30 PM	402101	j.X

Thursday 11-05-2023		, I				11:00 AM		X	
			(Fresh/	Inorganic	Chemistry-I	То	402101	75	
i i				Repeater)		×	01:30 PM	1/22	
	Instructions: 1) All Questions are Compulsory.								
	monu	01.01	(P)	2) All Question	n Carry equi	uisory.		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
•		is	10	-) All Question	1.67	ii marks.		The same	
	2.2	Ý.,	3		NO. TAPA		N.S.A. O. LANDERS		
	•	M		any Five.	△,		'25g		15
	2	a)		ine the	5 0.		27.		
	100		i)	Metal	0		10		S
	S. C.		ii) _ :::\	Ligand	W.	1140	"Og.		Q.
4	Q .	b)	iii)	Co-ordination			12		Q'S'
3	Ž.	c)	Del	ine the EAN ru	on element a	nd general elect	LOUIC S		34
4		d)	Dis	cuss the doubl	e salt with su	itable evample?	•	3	Ö,
		i) Metal ii) Ligand iii) Co-ordination number b) Define the transition element and general electronic? c) Define the EAN rule with example? d) Discuss the double salt with suitable example? e) Explain the acid base Bronsted and Lowrey theory? f) Define the gravimetric analysis and their types? g) Fill in the blank i) Donation of H ⁺ called as ii) Bond order of O ₂ Molecule is iii) Primary valancy is the oxidation state of h) Explain Lewis base concept with example concept?							
		f)				and their types	?	130	
		g)	Fill	in the blank		100		V by.	
			i)	Donation of				C.	
			0.000	Bond order					
			<u>(iii)</u>			idation state of _	v _{op} ,		
		h) .	EX	plain Lewis bas	se concept w	th example cond	cept?		
		1) 4	De	nine the hard a	cid and solica	in example cond cid with suitable	example		
	0.2	200		t any Three.	3"		ale)		15
	67	a)	Ex	plain the Ioniza	tion potential	& colour proper	ty of transition	element?	15 STATE OF THE PARTY OF THE PA
	00	b)	Ex	plain the Pears	on of Hard so	oft Acid and Base	econcept?		1
	03	c)	Explain the following in account of solubility?						
	100		i)	Common ion		. 3			.5
3	,	-11	ii)	Temprature a	and Pri effect	and hydrate iso	marism with si	iitable 🤞	3
		d)	~~	amala2 N		47.		A	
		e)	Gi	ve the importar	ce of followin	g organic reage	nt in gravimetri	c analysis	?
		٠,	i)	8- Hydroxy g	uinolone	100		7/2	
			ii)	Dimethyl glyc	xime?	,o ²		37	
				10		g organic reage	×.	•	40
	Q.3	Atte		Lully Illico	200		(W)		15
	100	a)			nption of VBT	and disadvanta	ge of valance i	Jona	
		L) (She	eory?	a of Ootobyd	ral complex in d	and do syste	m?	
		D) 3	× EX	piain the spiltil	haces classif	ied according to	Lewis concept	with	
		50		table example?		ica according to	502	44-444	
	2	(b	Ex	plain electro ne	utrality and p	rincipal of back b	onding?		
	No. 1 AND STATE OF THE STATE OF	e)		plain the term		The same	Σ**		
	16	.0	i)	Magnetic pro	perty	2			
	"O',		ii)	Atomic Size		*010			
1	7		iii)	Colour		E		Pa	ge 1 of 2
3				er B.		all Edward		ra	PC 7 01 7
				67		_Q			

Attempt Any Three Give the brief account of "Treatment of Precipitate" a) b) Explain the Digestion Filtration Explain the EAN rule [Cr (Co),6] [Ni (Co) 4] [Ni (CN) 4] with these examples? c) examples? Give an account of variable oxidation state and Oxidation potential? 1.5(dig) Calculate the CFSE of do do do in low spin complexes? 15(200 P Attempt Any Three Explain the M.O diagram of O2 molecule with bond order its stability? Explain briefly molecular orbital theory & discussifie formation of B2 Molecule? Construct a labelled of molecular orbital diagram N2 moleule & comment on its stability? Explain the application of 4, 5, 6 Co-ordination complex. d) Explain the CO, NO, CN bond order and its bond length. e)