

THE WEST AFRICAN EXAMINATIONS COUNCIL THE LABOUR SHE **NIGERIA**

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Senior School Certificate Examination

June 1994

BIOLOGY 2

2 hours 5 minutes

Do not open this booklet until you are told to do so. While you are waiting, read the following instructions carefully. This paper consists of two sections. Answer Section A on your Objective Test answer sheet, and Section B in your answer book. Section A will last for 50 minutes after which the answer sheets will be collected. Do not start Section B until you are told to do so. Section B will last for $1\frac{1}{4}$ hours.

SECTION A

50 minutes

OBJECTIVE TEST

[60 marks]

921 1. Use HB pencil throughout. The Last same same savent all shows now stained all lots saud.

Samples - 1 1

- 2. If you have got a blank answer sheet, complete the top section of it as follows.
 - (a) In the space marked *Name*, write in capital letters your **surname** followed by your **other names**.
- (b) In the spaces marked Examination, Year, Subject and Paper, write 'S.S.C.E.', '1994 June', 'BIOLOGY' and '2', respectively.
- (c) In the box marked *Index Number*, write down your **index number** vertically in the spaces on the left-hand side. There are numbered spaces in line with each digit, Shade carefully the space with the same number as each digit.
- (d) In the box marked Subject Code, write down the digits 451014 in the spaces on the lefthand side. Shade the corresponding numbered spaces in the same way as for your index number.
 - (e) In the box marked Sex, shade the space marked M if you are male, or F if you are female.
- 3. If you have got a pre-printed answer sheet, check that the details are correctly printed, as described in 2 above. In the boxes marked *Index Number*, Subject Code and Sex, reshade each of the shaded spaces.
- 4. An example is given below. This is for a female candidate, whose name is Chidera Nkiruka OBI, whose index number is 41230068 and who is offering *Biology* 2.

THE WEST AFRICAN EXAMINATIONS COUNCIL

PRINT IN	BLOCK LETTERS	S		7.40	The Three of the same
Name:	OBI C		NKIRUKA	_ Examination: S.S.C	· E. Year: 1994 Sune
Subject:	in long	LOLOG	Litai berioya s	sec zorą i sonydą tus:	Paper: 2

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1	c 0 3		-	12) [33	c43	c 5 :		12	E 7	73	C 8	32	C	9:
2	c 0 3	c 1	בו	-	3 [31	c43	c 5	E 6	כו	E 7	73		30	C	9:
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0	-	c 1	כן	c 2	3 0	33	£43	c 5	c 6	3	E 7	73	c 8	30	C !	9:
6	c O 3	c 1	כן	c 2	ם כ	3:	[4]	55	-	-	E 7	7 7	E 8	33	C	9:
8	c O 3	c 1	כן	c 2	3 C	33	c 4 =	□ 5	c 6	;	c 7	73	-	•	C	9:

shade this space:

SUBJECT CODE c00 c10 c20 c30 cc50 c60 c70 c80 c90 (0) (1) (2) (3) (4) (6) (7) (8) (9) c13 c23 c33 c43 c53 c63 c73 c83 c93 c 0 1 + c 2 1 c 3 2 c 4 2 c 5 2 c 6 2 c 7 3 c 8 3 c 9 3 c02 c13 c23 c33 - c53 c63 c73 c83 c9

Indicate your sex by shading the space marked M (for Male) or F (for Female) in this

INSTRUCTIONS TO CANDIDATES

Use grade HB pencil throughout.

Answer each question by choosing one letter and shading it CA3 CB3 CC3 - CE3

Erase completely any answers you wish to change.

Leave extra spaces blank if the answer spaces provided are more than you need. Do not make any markings across the heavy black marks at the right hand edge of your answer sheet.

Answer all the questions.

Each question is followed by five options lettered A to E. Find out the correct option for each question and shade in pencil on your answer sheet the answer space which bears the same letter as the option you have chosen. Give only one answer to each question. An example is given below.

The cells that surround the stoma are called

- stomatal cells. A.
- leaf parenchyma. B.
- epidermal cells. C.
- substomatal cells. D.
- guard cells. E.

The correct answer is guard cells, which is lettered E, and therefore answer space E would be shaded.

> [D] [A]

Think carefully before you shade the answer spaces; erase completely any answers you wish to change.

Do all rough work on this question paper.

Now answer the following questions.

- 1. All animals are dependent on green plants because, plants
 - shelter them from excessive heat from the sun.
 - give them protection from enemies.
 - C. are used for building houses and furniture.
 - D. beautify their surroundings.
 - manufacture food for animals. E.
- 2. The scientist who discovered the cell while examining a thin slice of cork under the microscope was
 - Robert Hooke.
 - B. Anton van Leeuwenhoek.
 - Matthias Schleiden. C.
 - Theodor Schwann.
 - Alexander Fleming.
- 3. The two important physical processes involved in the absorption and transport of materials in plants are

vine enegisted Production of Standarding

- diffusion and plasmolysis.
- B. cohesion and diffusion.
- C. flacidity and turgidity.
- osmosis and diffusion. D.
- plasmolysis and capillarity. E.

- 4. The process by which plants manufacture food from carbon dioxide and water, using energy from the sun is termed
 - A. chemosynthesis.
 - B. photosynthesis.
 - C. autotrophism.
 - D. heterotrophism.
 - E. transpiration.
- 5. The process in which insects undergo conspicuous changes in form and appearance during development is known as
 - A. ecdysis.
 - B. metamorphosis.
 - C. aestivation.
 - D. migration.
 - E. hibernation. and assemble for the common provided additional assets.

Diagrams I, II and III below illustrate the feet of birds adapted to various modes of feeding and movement. Use them to answer Questions 6 to 8.



- 6. What is the foot labelled I adapted to?
 - A. Feeding on flesh
 - B. Eating grains
 - C. Swimming in water
 - D. Perching on trees
 - E. Catching insects in flighted be ended simmly and started by the second of the second started by the second
- 7. The foot labelled III is strong and has blunt claws on its digits. This implies that the bird
 - A. is a scavenger.
 - B. is a bird of prey.
 - C. is a marine bird.
 - D. uses the foot to scratch the soil.
 - E. uses the foot to supplement wing action in flight.

8.	The	long and sharp claws in the foot labelled II sh	now that the bird uses them to		, E-
	A.	hold onto its prey.	e summer variables		
	В.	paddle in water.			
	C.	glide in the air.	plione si securi si ni se immeri		
	D.	scratch the earth for worms.			
	E.	burrow into the soil.	mzidna numitna		
9.	Con	ventional method of sewage disposal involve	s all the following except defaeca	ting	
	Α.	into pit latrines.	e pro es la vinca nascas anger relegamenta a la es		
	В.	in open fields.	audyws.		
	C.	into cesspit.	algod mometcus		
	D.	into bucket latrine.	and the value of		
	E.	into water borne sewage system.	TORSTON		
		ch of the following actions is not an example		.3	
10.	Α.		reams I, II and all hell we illustrate		
5-14-3	В.		vernent Uso there to answer Ones	0.1	
	C.	Withdrawal of hand from hot object			
	D.	Reading a book			
	E.	Contraction of the iris		1 6	
11			nresent?	3	
11.		which of the following is a cellulose cell wall	present:		
	A.	Amoeba	The American		(Const
-3	В.	Mammalian white blood corpuscle			
	C.	Spirogyra aniding houses of furner			
-	D.	Paramecium	27		
	E.	Parasitic worms	3		
12.	Wh	ich of the following organisms exists as a fila	ment?		
	A.	Euglena	alis the foor instruction on the	aM	Ø
	B.	Amoeba	Feeding on desh		
	C.	Volvox	Econg grains	B,	
	D.	Paramecium	sal unug in water	C.	
	E.	Spirogyra	Ferthing on nees	(
13.	All	the following can illustrate the dynamic natu			
	A.	nitrogen cycle	Son Brit Minora at III box met a ?	Ting	Variagio
	B.	carbon cycle.	2010 02:15 6 71		
	C.	water cycle.	ngl brida.	FI	
	D.	nutrient cycle.	the training that the	С.	
	E.	locomotion in organisms.	uses and a stratch mulsoit	.C	
		action is supple	uses the least us supplement wing		

14.	Whi	ich of the following measure	es does not ensure	conservation?		100	
	A.	Establishing forest and gan					
	B.	Encouraging people to plan	र गोर्स				
	C.	Founding societies that pro	.5				
	D.	Enacting conservation laws					
	E.	Enclosing fishes in ponds v					
15.	Whi	ich of the following is not re	equired for primar	v production to oc	cur in plants?		
	A.	Chlorophyll	ui rebro covrtop si	li stre-sidet de -	Halada ee e	H , ζ	
	В.	Sugar	Cont 2				
	C.	Water Makib	man	- ::50::1-1177 +	. (-1		
	D.	Carbon dioxide	rrustacea			.)	
	E.	Solar energy	- dañ ←	foulth to		(1)	
16		C10 11 3	fish	- () (da(t)			
10.		ich of the following blood gr	roup(s) is/are the u	iniversal donor(s)	: osidi ədi — dar	W	
	A.			dirv gnolf gris a			
	B. C.	A		razing on a si			
		B until to bin		eding lichens in a			
	D. E.	AB and O	of replaced by wh				
		quiews and a second	rords amadera	ze in hos admiss	, zasti tasto i	T	
17.	The vari	branch of science which of ations is called		olances, origin an		of biological	
	A.	embryology.	N 4 2				
	B.	ecology.					
	C.	entomology.		A Comment			
	D.	genetics.					
	E.	taxonomy.	NAME OF THE PARTY				
18.	Whi	ch of the following can caus	se desert encroach	ment?			
	A.	Afforestation					
	В.	Irrigation					
	C.	Planting of trees					
	D.	Establishment of game rese	erve	ing agents is res		(1) pr	
	E.	Overgrazing	2 31 2 21 1 30G	sar si smage giri -	911-7 (Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
19.	The	morphological, physiologic	al and behavioura	l characteristics w	hich enable an	organism to)
	A.	heredity.	100		pti M		
	В.	ecology.		v sair	F. plusive me		
	C.	competition.			LECTION /	1	
	D.	adaptation.					
	E.	variation.					
	L .	· unution.					

20	Which of the following performs the same	function as the contractile vacuole of a unicellular
20.	organism?	and the compared finds

- Kidney A.
- Alimentary canal B.
- C. Liver
- **Pancreas** D.
- Bladder E.

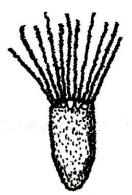
of nontamboria one and a Companion on significant 21. Which of the following represents the correct order in a possible food chain?

- Crustacea — \rightarrow diatom — \rightarrow fish — \rightarrow man A.
- Fish — \rightarrow crustacea \rightarrow man \rightarrow diatom B.
- $Man - \rightarrow fish - \rightarrow crustacea - \rightarrow diatom$ C.
- Diatom — \rightarrow crustacea — \rightarrow fish — \rightarrow man D.
- $Man - \rightarrow diatom - \rightarrow fish - \rightarrow crustacea$ E.

22. Which of the following relationships illustrates competition?

- Cattle egret moving along with cattle A.
- Goats and cows grazing on a small grass lawn B.
- Mosses succeeding lichens in a rocky terrain C.
- Red mangrove swamp dying and replaced by white mangrove D.
- Forest trees, shrubs and grasses replacing white mangrove in a swamp E.

Use the diagram below to answer Question 23.



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rees of trees

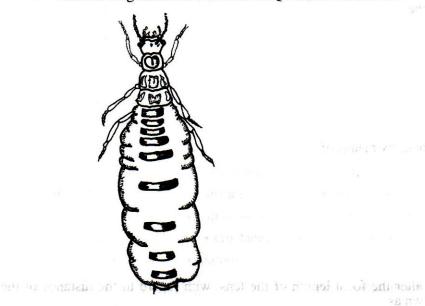
A. hered, ..

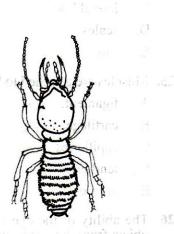
23. Which of the following agents is responsible for the dispersal of the seed shown above?

- acut whysiological and behaviouras characteristics which circleW Therein B.
 - C. Wind
 - Explosive mechanism D.
 - Animal E.

24.	The vibr	structure used by fishes to ation they produce is the	detect the presence a	nd movement of other ar	nimals by the
	A.	eye.			
	В.	nostril.		7	
	C.	lateral line.			
	D.	scales.			
	E.	fins.			
25.	Mus	scles are attached to bones by	means of		
	A.	ligament.			
	В.	cartilage.	V /	-420	
	C.	capillaries.		Mar mark	
	D.	tendons.		000	
	E.	arteries.		4 1	
26	Th.	abilitar of the area to alter the	a facal lamath of the l	lane with record to the d	istance of the
20.	obje	ability of the eye to alter the ct from the eye is known as	e focal length of the l	iens, with regard to the d	istance of the
	A.	binocular vision.			
	В.	nocturnal vision.	AND THE RESERVE OF THE PERSON		7. 54
	C.	distortion.	a group of insects kno	fingerards above represent	30.10.85
	D.	accommodation.		Emolo	
	E.	focusing.	A contact to	parasino in bien bieno e	.d
27	Wha	at is the fate of the ovary of a	flower after fertilization	n? It	
27.	A.	becomes the seed.	nower arter fortingation		
	В.	withers away.		sacida, y	
	C.	becomes the fruit.		 to git outstrains 	29. 16.18
	D.	develops more nuclei.		worker.	. A
	E.	develops into sepals.		bln.	.8
	L .	Clavicia	and the state of t)
		Vertebral con		drones	D.
		Scarala		reproductive	.3
		Personal			
	. 6		— o a contraj sed		
		a broadence of the			
	1	D. Predation			
		Vatural disaster			

Use the diagrams below to answer Questions 28 and 29.





I

H refusionid

A. hudomes the seed.

develops mise neutral.

What is the late of the oversood flower after implification

- 28. The diagrams above represent a group of insects known to be
 - A. colonial.
 - B. parasitic.
 - C. social.
 - D. carnivorous.
 - E. symbiotic.
- 29. In their system of organisation, the diagram labelled II plays the role of a
 - A. worker.
 - B. soldier.
 - C. queen.
 - D. drone.
 - E. reproductive.

The table below is a Punnett square for sex determination in man. Use it to answer Questions 30 and 31.

"to all measures there whas occurred:

and adaptability to the effection

dues not a nier adaptability to the offsprings

saints are yell and poor foot development.

ver small cavas and yellowing of leaves

sperm cide critarii.

the with Ingwall method.

poor searly leaves become orange or brown.

strong growth slender stem and yellowing of leaves.

			7
	3-	X	X
W≥	8	X X	X X
SPERM	8~	XY	XY

30. V	Which of the following determines a normal male offspring?	es marety!
-------	--	------------

- se to office our state to the same characteristics as the parents. X .A
- B. Y
- were to new individuals which differ considerably from their parentXX ... 2
- D. XY
- E. YY

31.	What is	the	theoretical	probability	that a	normal	male	child	will h	e horn	7
			mooredied	productity	uiut a	HOIMA	maic	umu	WIII U	C DOLL	

- A. $\frac{1}{2}$
- B. $\frac{1}{4}$
- C. $\frac{1}{3}$
- D. 1
- E. $\frac{2}{3}$

32. Which of these is not part of the appendicular skeleton?

- A. Clavicle
- B. Vertebral column
- C. Scapula
- D. Femur
- E. Humerus

33. Which of the following factors does not control population growth?

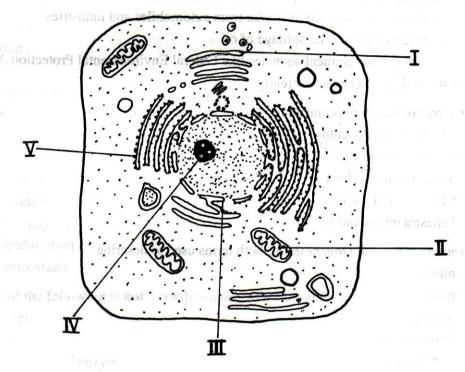
- A. Food shortage
- B. Emigration
- C. Abundance of food
- D. Predation
- E. Natural disaster

	1110	c following conditions form the basis of competition in a habitat except	
	A.	food.	
	B.	space.	
	C.	reproductive mate.	
	D.	light.	
	E.	body structure.	
35.	The	part of the ear which equalises air pressure on either side of the eardrum is the	;
	A.	auditory meatus.	
	В.	malleus.	
	C.	Eustachian tube.	
	D.	oval window.	
	E.	stapes.	
36.	Mut	tation leads to evolution in that it	400
	A.	gives rise to offspring which have the same characteristics as the parents.	1
	В.	kills all organisms where it has occurred.	21
	C.	gives rise to new individuals which differ considerably from their parents.	
	D.	always confers adaptability to the offspring.	
	E.	does not confer adaptability to the offspring.	
27			_
3/.		process whereby poisonous compounds are made harmless in the liver is calle	d 🕖
31.	A.	deamination.	t-
31.	A. B.	deamination. glycolysis.	.ed // . ./- ./
31.	A. B. C.	deamination. glycolysis. dehydration.	t-
31.	A. B. C. D.	deamination. glycolysis. dehydration. detoxification.	t-
	A. B. C. D.	deamination. glycolysis. dehydration. detoxification. denitrification.	t-
	A. B. C. D.	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in	t-
	A. B. C. D. E. The	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development.	t-
	A. B. C. D. E. The A. B.	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown.	A
	A. B. C. D. E. The	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves.	6. A A A A A A A A A A A A A A A A A A A
	A. B. C. D. E. The A. B. C. D.	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves. very small leaves and yellowing of leaves.	A . A
	A. B. C. D. E. The A. B. C.	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves.	A . A
38.	A. B. C. D. E. The A. B. C. D. E.	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves. very small leaves and yellowing of leaves.	A. A
38.	A. B. C. D. E. The A. B. C. D. E.	deamination. glycolysis. dehydration. detoxification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves. very small leaves and yellowing of leaves. tall weedy and reddish leaves.	
38.	A. B. C. D. E. The A. B. C. D. E. Whi	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves. very small leaves and yellowing of leaves. tall weedy and reddish leaves. ich of the following is the least safe method of birth control? Using spermicide creams.	A . A . A . A . A . A . A . A . A . A .
38.	A. B. C. D. E. The A. B. C. D. E. Whin	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves. very small leaves and yellowing of leaves. tall weedy and reddish leaves. ch of the following is the least safe method of birth control? Using spermicide creams. contraceptive pills. barriers such as condoms.	A B. B. C. C. B. C. C. B. C. C.
38.	A. B. C. D. E. The A. B. C. D. E. Whi A. B.	deamination. glycolysis. dehydration. detoxification. denitrification. deficiency of calcium in a plant may result in stunted growth and poor root development. poor growth, leaves become orange or brown. stunted growth, slender stem and yellowing of leaves. very small leaves and yellowing of leaves. tall weedy and reddish leaves. ch of the following is the least safe method of birth control? Using spermicide creams.	A B. B. C. C. B. C. C. B. C. C.

- **40.** Which of the following does **not** imply attempt at conservation?
 - Limit on the size of nets used in fishing
 - B. Limit on the size of vessels to be used in fishing
 - C. Prohibition of hunting or fishing at a certain season
 - D. Prudent management of natural resources
 - E. Refraining from the use of the natural resource
- 41. The gradual, cumulative, adaptive and heritable changes in an organism over a long period of time resulting in emergence of new species is known as
 - A. adaptation.
 - B. survival.
 - C. regeneration.
 - D. variation.
 - organic evolution. E.

The diagram below illustrates the structure of a cell. Use it to answer Questions 42 and 43.

e di con control measure



- **42.** The structure that produces the energy required by the cell is labelled
 - A. I.
 - B. L. H. of the tollow
 - C. III.
 - D. IV.ng root with glassarias and
 - E. V.lub shaped glandula his

same floret mildA

43.	The	structure labelled V is the second appearangement and scale μ and μ and μ		1,1
	A.	mitochondrion.		
	B.	ribosome.		
	C.	nucleus.		
	D.	centriole.		
	E.	nucleolus.	E.	
44.	In w	which of the following organisms is the siphon found?	The	11
	A.	Tadpole and an average went to eart agreement guidessen	5811	
	В.	Pupa of mosquito		
	C.	Tilapia		
	D.	Crayfish		
	E.	Butterfly		
15	Wh	ich of the following is not a pollution control measure?		
43.	A.	Penalising those who dump refuse on water or land	1116	
	В.	Controlling the emission of smoke from automobiles and industries		
	C.	Ensuring that there is no spillage of oil		
	D.	Establishing government agencies like Federal Environmental Protection A	genc	y (FEPA)
	E.	Channelling sewage into streams		
	A. B. C. D.	ich pair of structures contributes to balance in mammals? Utriculus and Sacculus Malleus and Stapes Sacculus and cochlea Utriculus and pinna Fenestra ovalis and sacculus		
47.	. Spe	rmatogenesis and Oogenesis are both terms used to describe		
	A.	mitosis.		
	В.	meiosis.		
	C.	mating.		
	D.	implantation.		
	E.	gametogenesis.	Pi	n el
48	. Wh	nich of the following is not a continuous variation?	s en	.24
	A.	Height of plants		
	B.	Skin colour 1		
	C.	Ability to roll tongue		
	D.	Length of fingers		
	E.	Leaf size		3

		1.	
49	. Wh	ich of the following is not a conservable	natural resource?
	A.	Water	
	В.	Sunlight	
	C.	Forest	
	D.	Soil	
	E.	Minerals	supreme is the
50.	Wh	ich of the following plant diseases is ir s of spores?	dicated when grains of cereals are covered with a
	A.	Smut	
	B.	Mosaic	
	C.	Maize streak	
	D.	Fungal blast	
	E.	Rust	1 .3
51.	Wh	ch of the following structural featur	es in animals does not affect control of body
	A.	Scales	
	B.	Skin	P. Alveriasia
	C.	Fur	TOUD TO Propose of
	D.	Сиртинез	Lyspome
	E.	Feathers	es. Which of these segments is agree on the
52.	The envi	control of water and salt requirements ronment is known as	of the body in order to maintain a stable internal
	A.	osmosis.	B endamina entB
	B.	excretion.	
	C.	plasmolysis.	 O has antigene A and I.
	D.	ultrafiltration.	E. A and B are both recession
	E.	homeostasis.	es. In man, about a revision is found in the
53.	Whi	ch of the following is not a condition ne	cessary for germination to occur in most seeds?
	A.	Water	B. ned bless apparedes.
	В.	Air	C. lyrrchun - essel
	C.	Activation of enzymes	D. electionals of the leng.
	D.	Temperature	E. who have sell
	E.	8	at Wideh of the Juliawing conclures does ru
54.	Whi		lapts Drosera (Sundew) to its carnivorous mode of
	Α.	Long root with glandular hairs	Cartillage in mainthails
	B.	Club-shaped glandular hairs on leaves	D. Body reside surfly ocus
	C.	Prominent lenticels on the stem	E. Bones in vertebrates
	D.	Broad leaves with long spines	
	E.	Wide stomata under the leaves	

ee Whi	h of the following terms is not associated w	ith finger prints?	
	Arch		
	Loop	ighte.	
В. С.	Suture		
D.	Whorl		
D. E.	Compound	grang Mit in	
the named skin colour is dominant. Therefore			
56. In human beings the albino trait is recessive and the normal skin colour is contained the probability of parents that are heterozygous for albinism, having an albino child is the probability of parents that are heterozygous for albinism, having an albino child is			
Α.	1	Mosak	
В.	$\frac{1}{2}$.	Vinize streat	
C.	$\frac{1}{3}$.	Fungal blast	
D.	$\frac{2}{3}$.	A DESCRIPTION OF THE PROPERTY	
E.	1		
57. Which of the following is the carrier of hereditary material?			
A.	Centriole	, less.	
В.	Cytoplasm		
C.	Nucleolus		
D.	Chromosome	() Contained	
E.		a manamahili zmith, ri -1	
58. Which of these statements is correct in the human ABO blood grouping system? A. B is recessive			
Α.	B is recessive	Harinbar upe mo.	
В.	A is dominant over B	A. osmosi	
C.	O is recessive	В. ехстеп	
D.	O has antigene A and B	C. plasmer	
E.	A and B are both recessive	D. ultrange	
50 In	man, adult Schistosoma is found in the	F. homeoss	
A. blood vessels of the bladder.			
В	Will Ht 10030	'- Water	
C		B Air	
D	1 1 -fabolung	C. Artivation or every	
E	11	D. Temperature Carolina	
	The following structures does not fu	nction as support in animals?	
60. Which of the following structures does not function as support in animals? A. Cuticle in arthropods			
lo shom A	Cuttee in artifopous	nontrium	
В	Cartilogo in mammals	A. Long root with a way a way	
C		B. Club-shaped glauder or a very leav	
I	. Body hate in the	C. Prominent lenticely a see form	
F	Dolles in vertebrates	D. Broad leaves with lone	

Wide stomata under il ... 100 !!

DO NOT TURN OVER THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

Lone in the Diagram, habe a stating one characteristic feat

security suddened to the habitat.

coe exer de la lice et al company de la comp

the first formation of an entering of an entering the seasonal changes in terrestrial habit or

YOU WILL BE PENALIZED SEVERELY IF YOU ARE FOUND LOOKING AT THE NEXT PAGE BEFORE YOU ARE TOLD TO DO SO.

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SECTION B

ESSAY

[60 marks]

1 hour 15 minutes

Answer three questions only from this section.

Write your answers in ink in your answer book.

Large labelled diagrams should be used where they make an answer clearer. The names given for chosen species must be English or Scientific and **not** vernacular.

All questions carry equal marks.

- 1. (a) List three major zones in the marine habitat stating one characteristic feature of each zone.
 - (b) (i) Give one example each of plants and animals in the marine habitat.
 - (ii) Explain how each of the plant and animal is adapted to the habitat.
 - (c) State three behavioural adaptations of animals to seasonal changes in terrestrial habitat.
 - (d) State three characteristics each of the plant community in the tropical rain forest and savanna.
- 2. (a) Describe the general arrangement of the viscera of a named mammal.
 - (b) Describe the process of feeding in:
 - (i) Hydra;
 - (ii) Amoeba.
- 3. (a) Describe an experiment to demonstrate the effect of auxin on growth of a plant shoot.
 - (b) List three uses of auxin in agriculture.
 - (c) Describe the mechanism of transmission of impulses through a nerve fibre.
- **4.** (a) (i) Explain the term courtship behaviour in animals.
 - (ii) How does courtship aid reproduction in animals?
 - (b) Describe the process of fertilization in flowering plants.