GREENLAWNS HIGH SCHOOL
TERMINAL EXAMINATION YEAR 2019-20

SUBJECT : BIOLOGY **CLASS : X**
TIME : 2 HOURS **MARKS : 80**

Answers to this paper must be written on the paper provided separately.
You will not be allowed to write for the first 10 minutes. This time is to be spent in reading the question paper.
Section I is compulsory section.
Section II has 6 questions. Solve any 4.

SECTION - I
(Compulsory Section)

Question 1.

A) Name the following. [10]

i) Substances that reduce the rate of transpiration
ii) Vitamin required for clotting of blood.
iii) Chemicals which can be used to keep cut flowers fresh for a long time.
iv) Site of fertilization.
v) The only gaseous plant hormone.
vi) Process by which WBC's squeeze out of the capillary to kill germs.
vii) Deficiency disease in infants due to insufficient thyroxin.
viii) Type of tropism in growing leaves.
ix) Hormone responsible for apical dominance
x) Theory of evolution by Lamarck

B) Give reasons for the following. [5]

i) Plants generally wilt at midday.
ii) Gametes are haploid (having half number of chromosomes)
iii) Transpiration does not occur at night.
iv) Renal cortex appears as dotted.
v) Deficiency of ADH cause, diabetes insipidis

C) The diagram below is a simplified representation of the circulatory system in mammals. [5]

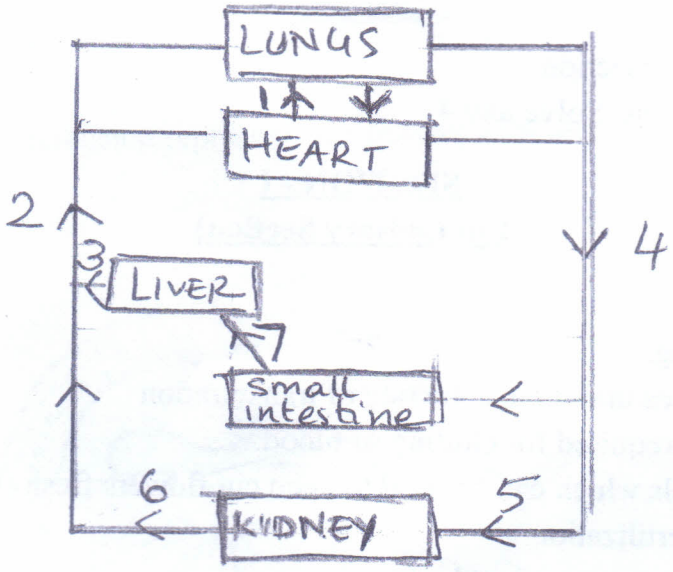
i) Label 1,2,3,4

ii) Give 1 structural and 1 function difference between 5 and 6.

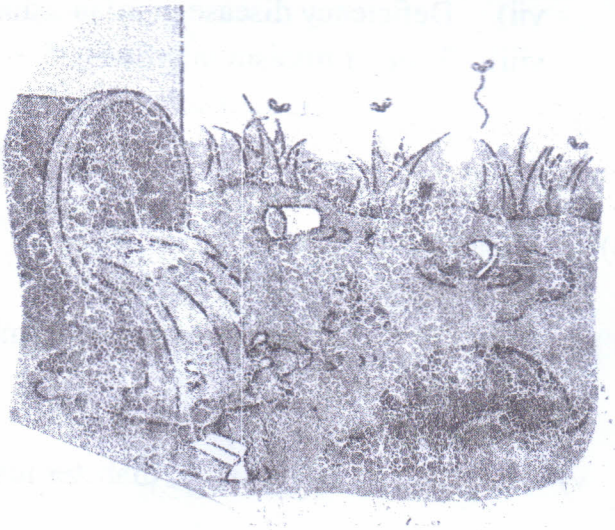
iii) What is the importance of 7.

iv) Which blood vessel has maximum amino acid content? (Name)

v) Which blood vessel has maximum urea content? (Name)



D) Study the diagram drawn above and answer the questions that follow. [5]



i) Name the kind of pollution

ii) Name 3 sources of this pollution.

iii) Mention 3 harmful effects of this pollution.

iv) Define pollutant

v) Name 2 soil pollutants.

E) i) Identify the given picture of ancestors of modern man [2]

ii) Give 3 characteristics of this ancestor.

iii) List 3 observable facts responsible for Darwin's theory of natural selection.

F) Draw a neat well labeled diagram of [3]

i) T.S of sperm (6 labellings)

ii) Stomatal apparatus (4 labellings)

G) Give 1 difference between the following pairs. [5]

i) Hill Reaction/ Calvin Cycle (products)

ii) Natality/Mortality (Definition)

iii) Diabetes mellitus/ Diabetes insipidus (cause)

iv) Diastole/systole (Definition)

v) Aqueous Humour/Vitreous Humour (position)

H) Complete the following table. [5]

	Disease	Cause	Effect symptom
i)	Diabetes mellitus	i)	ii)
ii)	Gigantism	iii)	iv)
iii)	Cretinism	v)	vi)
iv)	Exophthalmic goiter	vii)	viii)
v)	Cushing syndrome	ix)	x)

...4/-

SECTION – II

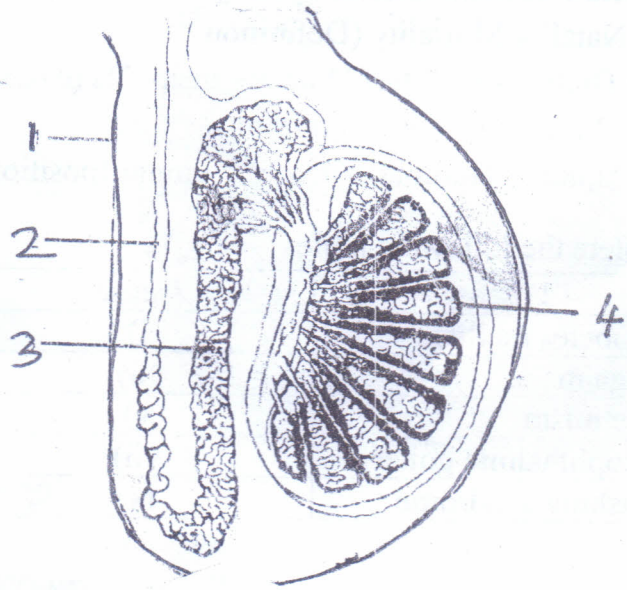
Solves any 4 from the given 6 questions.

Question 2. [5]

a) Study the picture drawn above and answer the questions that follow.

i) Name the above ancestor of humans.
ii) List 4 features of the above mentioned ancestors
iii) List 2 specific cultural aspects about them
iv) Give Scientific term for modern man.

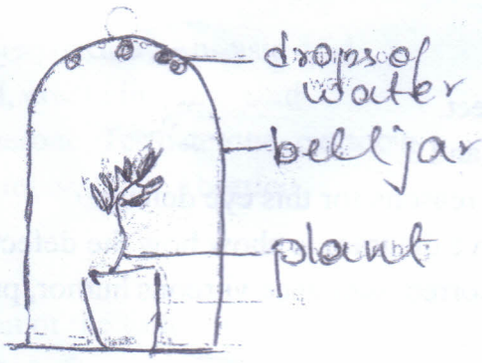
b) The diagram below shows a longitudinal section of a testis of man. Study it and answer the questions that follow. [5]



i) Name the parts 2 and 4.
ii) Give function of parts 1 and 3.
iii) Name the structure through which the testis descend.
iv) Give the main function of each accessory gland..
v) Why do the scrotal sacs lie outside the body?

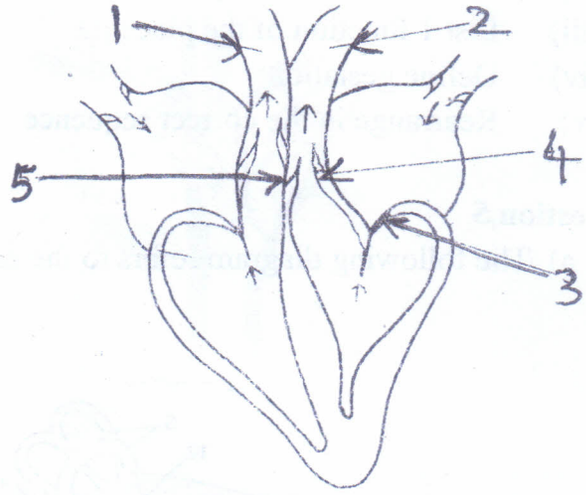
Question 3.

a) The following set-up depicts a certain phenomenon. Study it and answer the questions that follow. [5]



i) What is the aim of the experiment?
ii) How would you test the water droplets?
iii) List 2 conditions that would increase the rate of the phenomenon seen above.
iv) Name 2 methods used by plants to decrease the rate of the process.
v) How is this process useful to plants? (2 points)

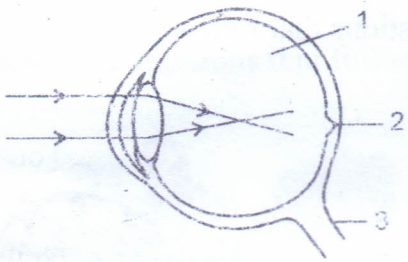
b) The diagram below represents the human heart in a particular phase. [5]



i) Identify the phase.
ii) Name the valves which are during this phase.
iii) Give the function of part 5.
iv) Explain the term 'cardiac cycle' with respect to the time it takes.
v) Give the position and function of SAN.
vi) Why is circulation of blood in mammals known as double circulation?

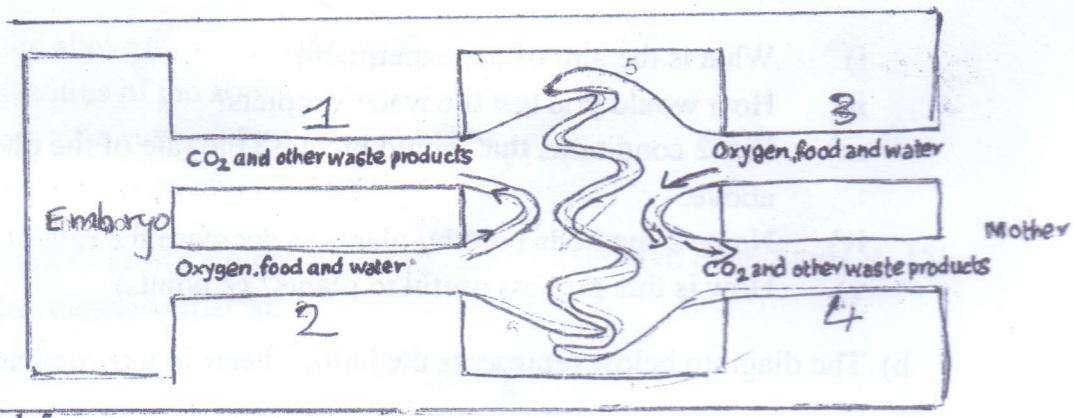
Question 4.

a) The diagram below depicts a defect of the human eye. [5]



i) Identify the defect.
ii) Name parts 1,2 and 3.
iii) Give 2 possible reasons for this eye defect.
iv) Redraw the above diagram to show how the defect can be rectified.
v) Rewrite in the correct sequence vitreous humor, pupil, lens, retina, cornea.

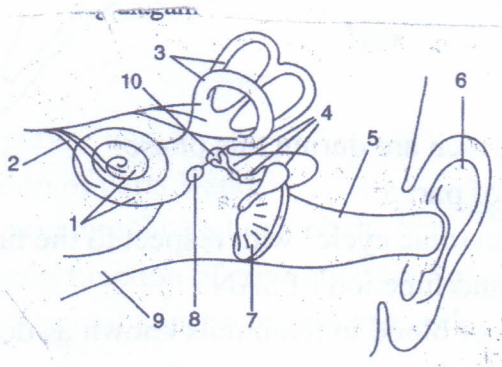
b) The diagram above is a representation of a human placenta. [5]



i) Label parts 1,5
ii) Name the hormones produced by the placenta
iii) List 1 function of the placenta
iv) Define gestation
v) Rearrange in the correct sequence ---- zygote, foetus, Morula, blastocyst, embryo

Question 5.

a) The following diagram refers to the ear of a mammal. [5]



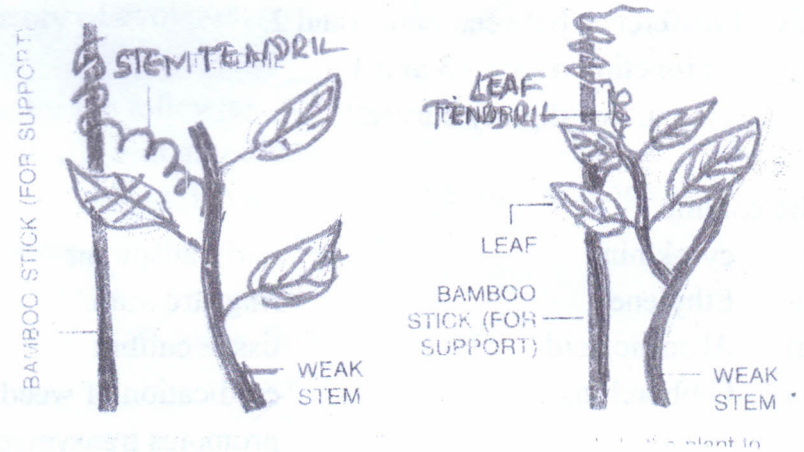
i) Label parts 1,8,9.
ii) Give function of parts 2,4,3.
iii) Name the sense cells present in the ear.

b) Choose the odd one out and give a reason for your answer. [5]
i) Cuscuta, money plant, vine, Touch me not .
ii) Auxin, cytokinin, Thyroxine , Abscisic acid
iii) Urea, carboric acid, creatinine, uric acid
iv) Oestrogen, progesterone, Testosterone, oxytocin
v) Tubectomy, Vasectomy, IUD, Abortion

Question 6.

a) Give the exact function of the following. [3]
i) Glucocorticoids
ii) Hydathode
iii) Vestibule
iv) Gland
v) Xylem
vi) Bowmans capsule

b) [5]



i) Name the phenomenon shown by plants in figures A and B.
ii) Define the process in A and B.
iii) State the reason for the plant growing round the surface of contact in fig A.
iv) Name the plant in B .
v) Give any 2 examples of the similar plants shown in Fig A.

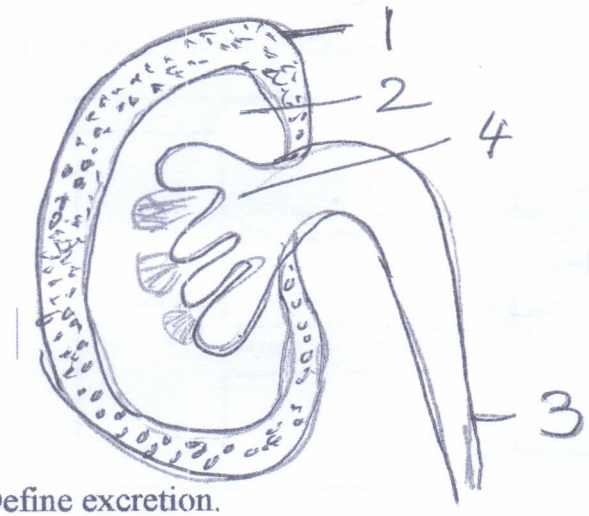
c) Draw a neat well labeled diagram to show a chloroplast. [2]

Question 7.

a) Give the location of [4]

i) Lenticels
ii) SAN
iii) Yellow spot
iv) Thyroid

b) The diagram alongside represents the longitudinal section of a kidney. [4]



i) Define excretion.
ii) Give 1 difference between parts 1and 2.
iii) Give the function of parts 3 and 4.
iv) Why is the ureter slightly curved?.

c) Match the column [2]

i)	cytokinins	anti transpirant
ii)	Ethylene	ring structure
iii)	Abscisic acid	tissue culture
iv)	Gibberellins	eradication of weeds
v)		promotes transverse growth
		apical dominance