PRESIDENT'S OFFICE-

REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

FORM SIX PRE-NECTA EXAMINATION - 2024

NJOMBE REGION AND MBALALI DISTRICT.

BIOLOGY 3A

MARKING SCHEME.

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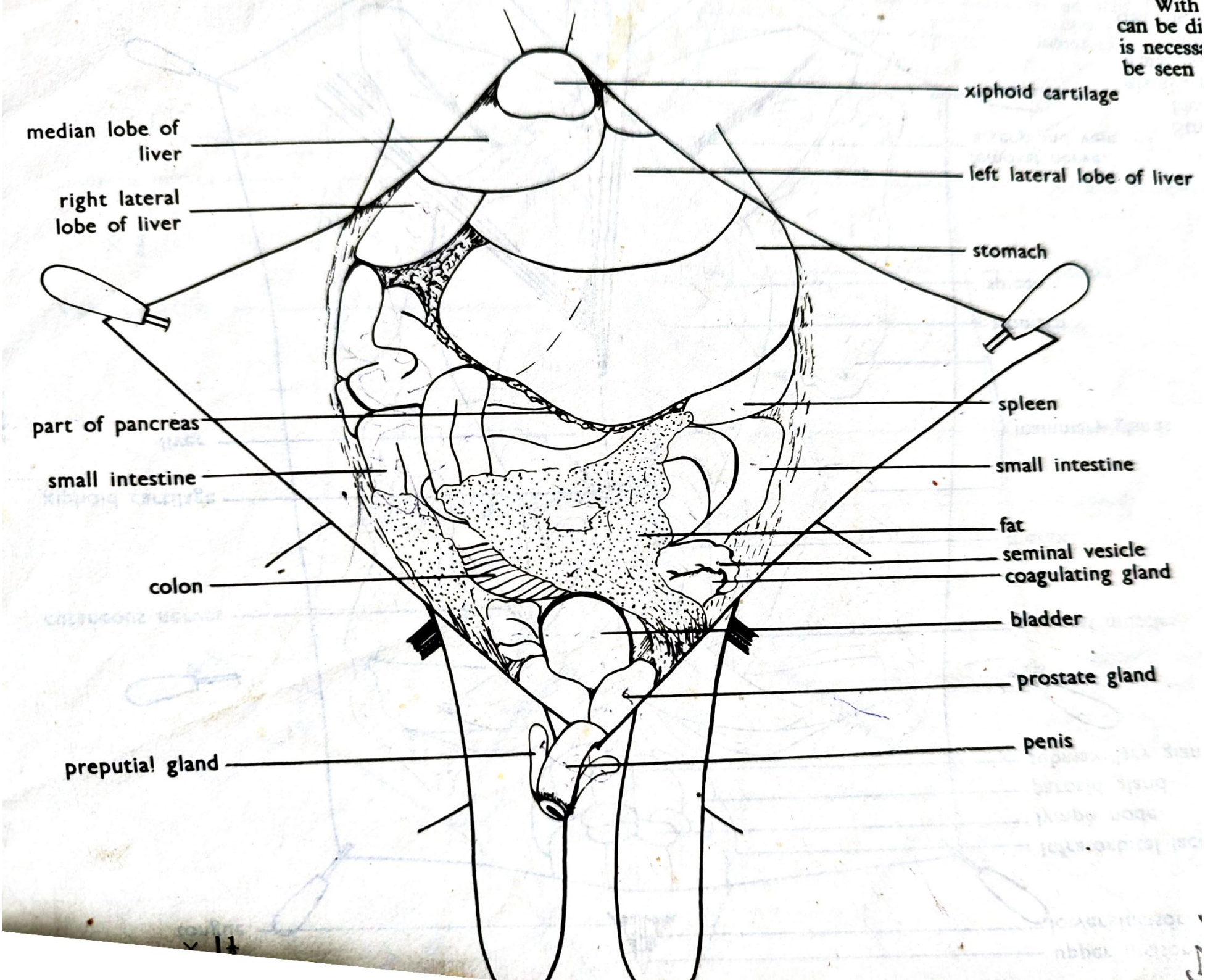
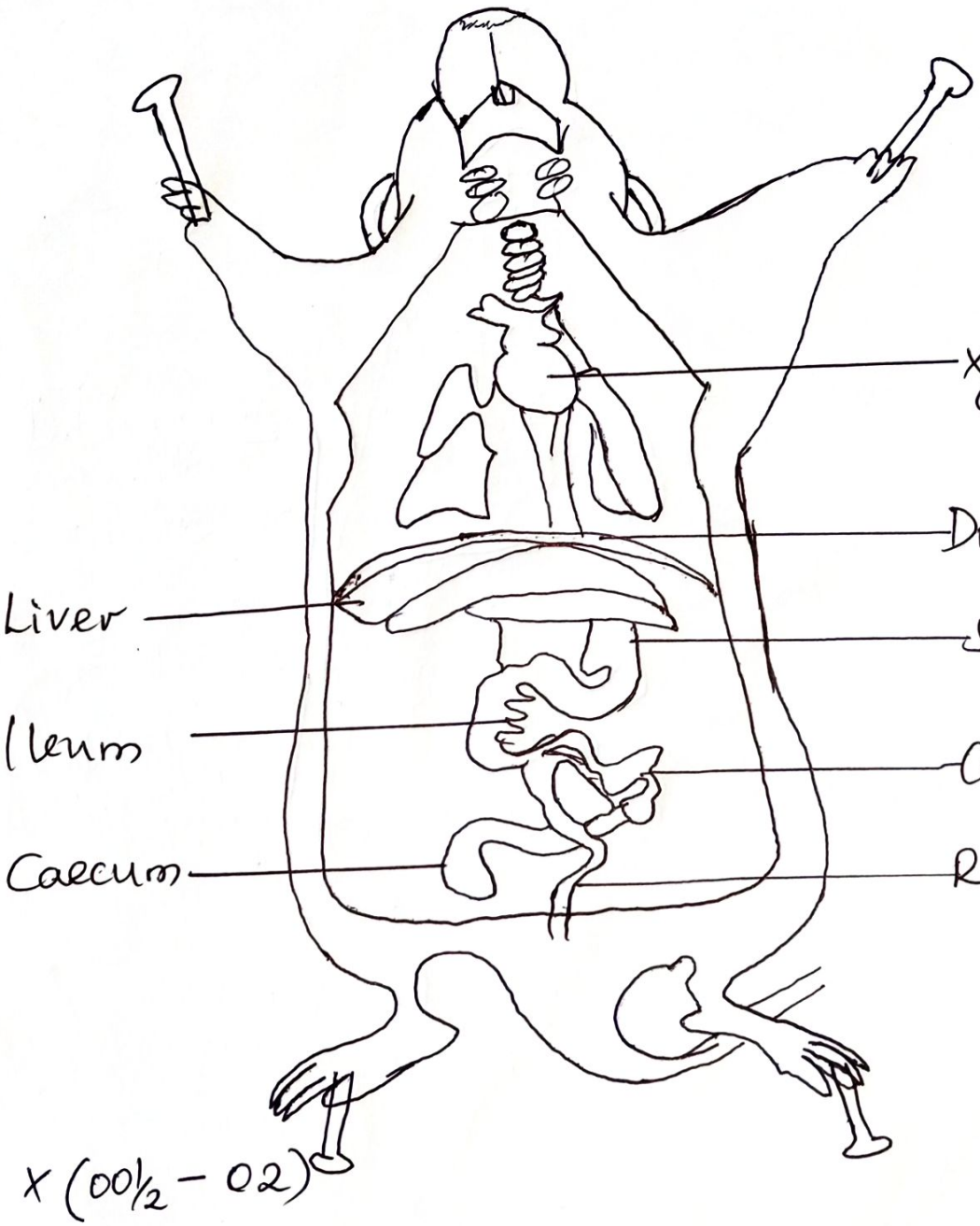


a) THE DIAGRAM OF DISSECTED SPECIMEN S1 DISPLAYING THE BODY CAVITY UNDISTURBED (INSITU).



X (00½ - 02)

Caption 1 Mark
Diagram 05 Mark (0-Accuracy)
Labeling any 5, 10 - 5 Marks
Magnification 1 Mark.

1.

b)(i) Kingdom - Animalia
Phylum - Chordata
Class - Mammalia.

1@ - 3 Marks

c) (i) A male.
- Presence of two openings and anus and urethra
- Presence of scrotal sacs (scrotum).

any 2 @ ½ → 1 Mark

(ii) A female.
- Presence of three openings, an anus, vaginal orifice and urethra
- Presence of nipples.
- Genital area is Y-shaped.

any 2 @ ½ - 1 Mark

d)(i)- Liver
- Pancrease
- Salivary glands.

any 2 @ 1 - 2 Marks

(ii) Secretes insulin that converts excess sugar (glucose) to glycogen and glucagon that converts glycogen to glucose. 1 Mark

2 a)

TEST FOR	PROCEDURE	OBSERVATION	INFERENCE
STARCH	$2cm^3$ of sample solution S_2 was taken into clean and dry test tube, two drops of Iodine solution was added and the solution was shaken gently.	The food sample turned into blue black	STARCH PRESENT.
REDUCING SUGAR	$2cm^3$ of food sample solution S_2 was taken into clean test tube, then $2cm^3$ of Benedict's solution was added and the mixture was boiled.	The sample solution retained blue colour of Benedict's solution.	REDUCING SUGAR ABSENT.
NON-REDUCING SUGAR	$2cm^3$ of food sample S_2 was taken into a test tube, $2cm^3$ of Dil. Hcl was added, then the mixture was boiled and then cooled, after cooling. $2cm^3$ of Sodium hydroxide was added followed by $2cm^3$ of Benedict's solution and boiled again.	The blue colour of benedict's solution was observed.	REDUCING SUGAR ABSENT.
PROTEIN	$2cm^3$ of food sample solution S_2 was added into a test tube then $2cm^3$ of Sodium hydroxide was added followed by 2drops of 1% $CuSO_4$ drop by drop while shaking.	The solution changed to purple colour	PROTEIN PRESENT.

THE USE OF CHEMICAL SYMBOLS AND FORMULAS IS NOT ADVICED/ALLOWES IN FOOD TEST EXPERIMENTS, STUDENTS MUST USE WORD NAMING FOR REAGENTS

$4/4 \times 2 = 8$ Marks

2 b) STARCH and PROTEIN 1 Mark @ - 2 Marks.

c) (i) STARCH
- Mouth - Salivary amylase
- Duodenum - Pancreatic amylase ½@ - 1 Mark

(ii) PROTEIN
- STOMach - Pepsin
- Duodenum - Trypsin. ½@ - 1 Mark

d) (i) STARCH
(ii) Glycogen and fats 1 Mark @ → 3 Marks
(iii) Glycogen stored in liver and Muscles
Fats stored as fat deposits around vital organs and under the skin.

3. a) A - Yeast
B - Moss plant ½@ - 0½ Mark
C - House fly.

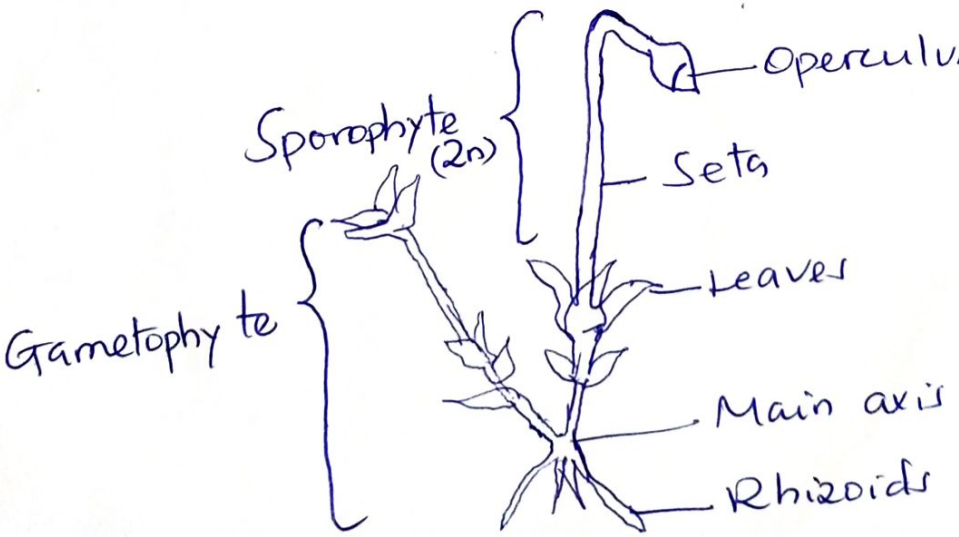
b)

	KINGDOM	DIVISION/PHYLUM	CLASS
A	Fungi	Ascomycota.	—
B	Plantae	Bryophyta.	—
C	Animalia	Arthropoda	Insecta.

½@ - 3½ Mark

c) - Some fungi produce toxins that affect plant and animals eg. Amanita.
- Some fungi cause disease eg. ringworm.
- Destruction of food such as grains, tubers and fruits eg Mucor.
- Saprophitic fungi deteriorate organic materials such as leather. eg. mildew
- When accidentally consumed in food some fungi can affect the nervous system and may cause hallucination. eg. ~~Cryto~~ cryptococcus.
- Some fungi which are used in pharmaceutical and cheese industry cause allergic conditions to some people. any 5 @ 1 - 5 Marks

d). STRUCTURE OF MOSS PLANT.



C - 01 Mark
D - 0½ Mark
L - @½ = 3½
Total 5 Marks