



ZOOLOGY

Higher Secondary - First year

PRACTICAL MANUAL

HIGHER SECONDARY FIRST YEAR ZOOLOGY PRACTICALS

General Instruction

In order to get maximum benefit and good training it is necessary for the students to follow the following instructions.

1. The students must attend all practical classes. Each experiment in practicals has got important relevance to theory subjects.
2. Bring this practical manual to your practicals class.
3. Bring the following objects to the practicals class – Pencils (HB), Pen, Eraser, a scale and a small hand towel.
4. Record the title, date and findings of the experiment in the observation note book.
5. Carefully listen to the instructions given by your Teacher.
6. While observation slides or models draw the structure of the specimen as you see it neatly in your observation note book. Use pencil for drawing.
7. While doing experiments neither consult your neighbours nor look into their readings or observations.
8. If the object under the microscope remains without proper focusing immediately bring it to the notice of the Teacher.
9. Do not touch or lift the models or equipments kept for your identification.
10. **No need to draw diagrams from part III to VIII in the record note. Relevant photograph can be collected, pasted and notes to be written.**

MODEL QUESTION

TIME: 2½ hours

Marks: 15

- I. Identify the given animal 'A' (picture/specimen) draw and write any 2 diagnostic features. (2)
- II. Identify the given animal tissue 'B' (slide/photograph /picture) and write any 2 comments with diagram (2)
- III. Identify and comment on the given bone/joint 'C'. (1)
- IV. Identify the deficiency disease / disorder in the given picture/photograph "D". Write any three symptoms. (2)
- V. Identify the medical instrument "E" and write any three significant points. (2)
- VI. 1. Identify the given sample solution 'F' for the presence/activity of Ammonia/Urea/Salivary amylase (Any one). (3)
2. Observe and write about the given experiment 'G' - Determine Your Blind Spot / Identify the sex of cockroach (Any one) (2)
- VII. Identify the photograph / picture and write its economic importance 'H' (1)

Total (15)

MARKS ALLOTMENT

TIME: 2½ hours

MARKS 15

- I. Identification – ½; Diagram - ½ ; Diagnostic features (any 2 points) - 1 (2)
- II. Identification and Diagram– 1; Comments (any 2 points) – 1 (2)
- III. Identification – ½; Comments – ½ (any two points) (1)
- IV. Identification – ½; Symptoms – 1½ (any three points) (2)
- V. Identification - ½; Significance - 1½ (any three points) (2)
- VI. 1. Procedure – 1; Experiment- 1 ; Result - 1 (3)
2. Procedure – 1; Result – 1 / Identification – 1; Reason – 1 (2)
- VII. Identification – ½; Economic importance – ½ (any two points) (1)

Total (15)

NOTE: Any relevant points, diagnostic features and comments apart from those provided in the practical manual must also be considered for evaluation.

CONTENT

QUESTION NO-I (A)		PAGE NO
S.No	List of Specimens/Photographs	
1	Spongilla	1
2	Sea Anemone	1
3	Pleurobrachia	2
4	Tapeworm	2
5	Ascaris	3
6	Earthworm	3
7	Cockroach	4
8	Pila	4
9	Starfish	5
10	Balanoglossus	5
11	Rat	6
QUESTION NO-II (B)		
S.No	List of Slides/Pictures/Photographs	
1	Squamous Epithelium	6
2	Columnar Epithelium	6
3	RBC	7
4	WBC	7
QUESTION NO-III (C)		
S.No	List of models/pictures/Photographs (Human)	
1	Humerus	8
2	Pelvic girdle	8
3	Rib cage (True ribs, Pseudo ribs, False ribs)	8
4	Ball and Socket joint	9



QUESTION NO-IV (D)		
S.No	List of Slides/Pictures/Photographs	
1	Addison's disease	9
2	Marasmus	10
3	Exophthalmic Goitre	10
QUESTION NO-V (E)		
S.No	Medical Instruments	
1	Stethoscope	10
2	Sphygmomanometer	11
3	Glucometer	11
4	ECG	12

QUESTION NO-VI (F and G)		
S.No	List of Experiments	
1	Test for Ammonia	12
2	Test for Urea	12
3	Test for Salivary Amylase	13
4	Determine Your Blind Spot	13
5	Identify the sex of cockroach (using hand lens)	14
QUESTION NO-VII (H)		
S.No	List of Photographs/pictures	
1	Kangayam bull	14
2	Aquaponics	15
3	Honey bee	15
4	Bombyx mori	15



