Practical No. -1,2-

Meristic and Morphometric characters

-Examine the specimen provided and carries out the morphological study required count, measurements, weights and calculations.
-Then compares and contrasts the finding and draws your conclusions:

1. Morphological study:

-Examine the external features and correlate their with the environment where the fish live.

a. Colour of fish: that's meant it live in coastal region.
b. Strong teeth: eat hard materials, scales, and shells.
c. Soft fin: it has no protection for itself.
d. Hard fin and spines in fins may used for protection and defense.
e. Tail: help in movement, large or short.
f. Eyes: large eyes mean that the fish live in the deep.

2. Counts:

a. The spines and rays on each of the fins.
b. The scales on the lateral line (LLS) if present.
c. The scales along the perpendicular line above the lateral line (LLSU) if present.
d. The scales along the perpendicular line below the lateral line (LLSB) if present.
e. Teeth on the upper jaw (UJT)
f. Teeth on the lower jaw (LJT).

3. Measurements:

a. Total and standard length, (TL, SL).
b. Body Depth (BD).
c. Snout length (NL).
d. Eye Diameter (ED).
e. Interorbital Length (IO).
f. Peduncle Length (PL).
g. Peduncle Depth (PD).

4. Weight:

a. Total weight of the fish (TW).
b. Weight of the head (HW).
c. Weight of the alimentary canal (GW) Gastrointestinal tract.
d. Weight of the skin (SW).

e. Weight of the filleted flesh (FW).

5. Calculation of the Ratios:

a. TL/BD
b. ED/IO
c. PL/PBD
d. HW/TW
e. SW/TW
f. GW/TW
g. FW/TW

Conclusion:

1. Working with SL is better than TL because, the tail may be dry or broken.
2. TL/BD gives the shape of fishes.
3. ED/IO gives how much the fish depends on its vision eye and where the fish lives.
4. PL/PD gives how much the fish moves (depending upon movement).
5. HW/TW gives how much the fish depends on its head as in protection.
6. SW/TW, the thickness of skin means the less of scales.
7. GW/TW gives the kinds of food; the fish depends on (Herbivorous, Carnivorous).
8. FW/TW gives the weight of filleted flesh (meat) as a nutritive value.

Table 1.

No.	Type of fish	TL / BD	ED / IO	PL / PD	LLSU / LLSB	HW / TW	SW / TW	GW / TW	FW / TW
1									
2									
3									
4									
5									

TL Total Length

SL Standard Length

Interorbital Width **Eye Diameter**