

Lecture 9 \ Echinodermata Phylum

Star Fish or Sea Star نجم البحر

1 – Echino . = spines , Derma = skin \\ spine – bearing calcium rich plates .

2 - Radially symmetrical animals .

3 - Its larva bilateral symmetry and filter feeder .

4 – Sea stars are commonly found along the rocky coasts and sea depth \\ no in fresh water , no terrestrial .

5 – Spiny skin , Spines project from the endoskeletal plates offer some protection , the skeleton is made of Calcium carbonate .

6 – Respiration occur by gills and by vascular system exchange gases .

7 - Mostly feed on bivalve animal (Oysters) cause crack in the shell and pull its soft tissues

8 - On the oral surface each arm has a groove lined by little tube feet

9 – Radial Nervous system consists of central nerve ring , that gives off nerves in each arms .

10 - Eye \ Light sensitive eyespot at the tip of each arm .

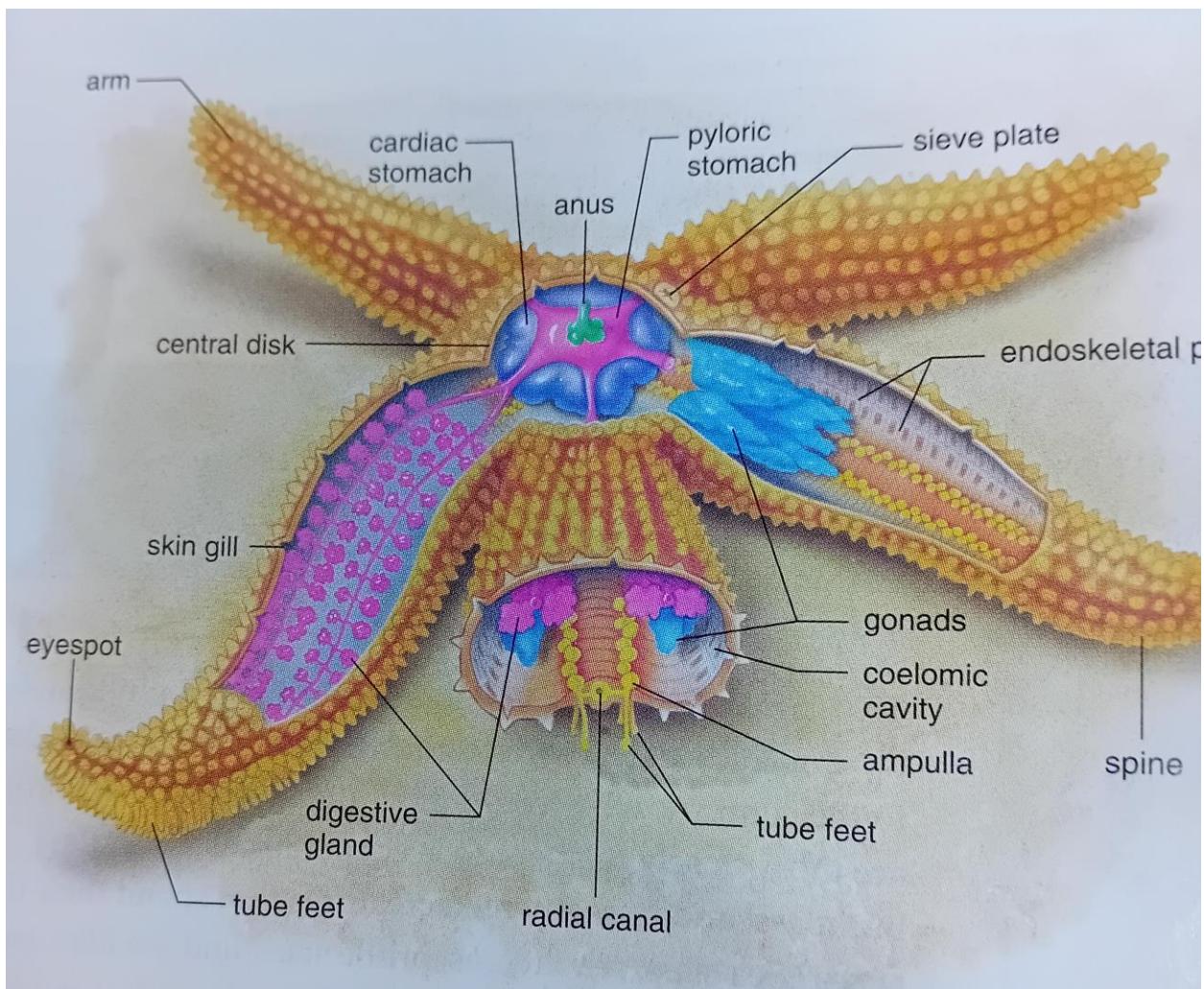
11 – Mouth on ventral side while the anus on the dorsal side .

12 - Body have central disc with 5 arms (some species have more than 5) No head .

13 - Bright coloured sea star (red , orang , blue , grey , brown) .

14 – Gonads (testis and ovary) either male or female open on the dorsal surface .

15 – Sea star reproduce sexually and asexually , sexually sea stars release sperm and eggs while asexually If the fragments , each fragment can regenerate whole animal .



16 – Stomach digest food in each arm by digestive glands and short intestine open in anus .

17 - Locomotion depend on the water vascular system which is enters through sieve plate to the radial canal in each arm .

