

Topic: canal system in sponges

Class: B.Sc Part –I (Hons.)

Paper- 1

Group – A

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- Body Wall The thin body wall which encloses the spongocoel, consists of two cellular layers-
- the outer pinacoderm and
- inner choanoderm
- with a non-cellular mesenchyme in between.
- Pinacoderm:
- It is an outer layer of body.
- Thin and flat polygonal cells of pinacoderm is called the pinacocytes

- It protects the internal structure of body
- Each cell presents a central bulging containing a nucleus
- Margins of adjacent cells are closely cemented together
- Pinacocytes are highly contractile, so that the sponge can increase or decrease slightly in size.

- There are special, large and tubular cells, called pore cells and porocytes
- Each porocyte contains a central canal-like space , these spaces are called ostia or dermal pores or incurrent pores.
- These permit water to flow from outside into the spongocoel.
- In Syconoid sponge, porocytes connect the incurrent canals with radial canals

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- Through their intracellular channels, the prosopyles
 - The openings of incurrent canals into outside are called dermal ostia and the openings of radial canals into spongocoel are called apopyles or internal ostia.