Suggested questions

Q1. Put a line under correct answer (multiple choice)?

Q2. Give Greek (Gr.) or Latin (L.) meaning for the following taxa or terms?

Notochord (Greek, noton = back; in Latin, chorde = cord).
Taxonomy (Gr., tasso= arrange, classify, and nomos= usage law).
Hemichordata (Gr. Hemi=half, L. chord=cord).
Enteropneusta (Gr., Entero = gut, pneusta = breathing, i.e. gut brething).
Balanoglossus (Gr. balanos= an 'acorn' i.e.fruit of oak, glossus= tongue).
Urochordata (Gr., oura = tail; L. chorda= cord).
Cephalochordata (Gr., kephale = head; L, chorda = cord).
Amphioxus (Gr., amphi= double; oxys= sharp).
Agnatha (Gr. A= without, gnathos= jaws).
Craniates (Gr., kranion=skull).
Ostracoderms (Gr., ostracon= shell, derma = skin).
Gnathostomata (Gr., gnathos= jaws, stome= mouth).
Placoderms (Gr., Plakos= plate, derma= skin).
Pisces (L. Piscis= fish, pisces= fishes).
Chondrichthyes (Gr.,chondros = cartilage, ichthyes = fish).
Elasmobranchii (Gr., Elasma = plate, branchii = gills. i.e. plate like gilled fishes).
Selachi (Gr., selakhe = a shark).
Pluerotremata (Gr., pleuro = side, trema = opening).
Hypotremata (Gr.,hypo=below, trema= opening).
Holocephali (holos = whole, cephalos = head).
Osteichthyes (Gr., Osteon = bone, ichthys = a fish).
Actinopterygii (Gr., actis = ray, Pteryx = fin).
Chondrostei (Gr., chondros = cartilage, osteon = bone).
Holostei (Gr., holos = entire, osteon = bone).
Teleostei (Gr., teleos = complete, Osteon = bone).
Sarcopterygii (Gr., sarcos = fleshy, pterygium = fin).
Crossopterygii or Coelacanth (Gr., crossoi = fringe, pterygx = fin).
Dipnoi (Greek, di = double, pnoe = breathing).
Amphibia (Gr., amphi = double, bios = life).
Lissamphibia (Gr., lissos = smooth, Amphibia, amphi=double, bios= life).
Apoda (Gr., A = without, podos = foot).
Gymnophiona (Gr., gymnos = naked, ophioneos = serpent-like).
Urodela (Gr.,oura = tail, delos = visible).
Caudata (L., cauda = tail, ata= bearing).
Salientia (L., saliens = leaping).
Anura(Gr. an = without, oura = tail).
Reptilia(L., repere or reptum = to creep or crawel).
Herpetology (Gr. herpien= creep, herpeton = reptile).
Chelonia (Gr.,chelone = turtle).
Testudinata (L., testudo = turtle).
Rhynchocephalia (L.rhynchos = snout, Gr., kephale = head).

Squamata (L., squama = scale or squamatus = scaly).
Lacertilia (L., Lacerta = a lizard).
Crocodilia (Gr., Krokodeilos = crocodile).
Aves (L. avis = bird).
Ornithology (Gr., ornis = bird, logos = science).
Plumage (L., pluma = feather).
Archaeornithes (Gr., archios = ancient, ornithos = bird).
Neornithes (Gr., neos = modern, ornithos = birds).
Odontognathae (Gr., odontos = teeth, gnathos = jaw).
Palaeognathae (Gr., Palaios = old, gnathos = jaw).
Ratitae (L., ratis = raft, flat sternum or no keel, i.e. birds without keel).
Neognathae (Gr., neo = modern, gnathos = jaw).
Carinatae (L., carina = a keel, i.e. birds with keel).
Struthioniformes (Gr., struthio = ostrich; formes = form).
Apterygiformes (Gr., a = not, pteryx = wing, i.e. birds with highly reduced wings as in kiwi).
Micropodiformes (L., micropus or micropod = very short legs, forms = form).
Anseriformes (L., anser = goose, formes = form).
Pelicaniformes (L., pelicanus = pelican, formes = form).
Ciconiformes (L., ciconia = a stork, formes = form).
Charadriformes (L., charadrius = genus of plover, formes = form).
Gruiformes (L., grus = crane, formes = form).
Piciformes (L., picus = wood pecker, forms = form).
Strigiformes (Gr. Strix= owl, forms = form)
Falconiformes (L., Falco= Falcon, forms = form).
Cuculiformes (L., cuculus = cuckoo, forms = form).
Columbiformes (L., Columba = dove or pigeon, forms = form).
Galliformes (L., gallus = a cock, or chicken-like birds).
Passeriformes (L., passer = sparrow, forms = form).
Mammalia (Latin mamma=breast).
Prototheria (Gr., protos = first, therion = beast).
Monotremata (Gr., monos = single, trema = opening).
Metatheria (Gr., Meta = next to, therion = beast, i.e. Metatheria next to Prototheria).
Marsupialia (L., marsupium = sac, i.e. pouched mammals).
Insectivora (L., insect = insects, voro = to eat).
Dermoptera (L., derma = skin, pteron = wing).
Chiroptera (L., cheir = hand, pteron = wing, i.e. hand-winged mammals, bats).
Edentata (L., edentates = toothless).
Tubulidentata (L., tubulus = small tube, dens = tooth).
Pholidota (Gr., Pholis = horny scales).
Rodentia (L., rodere = to gnow).
Lagomorpha (L., lagos = hare, i.e. wild rabbit).
Hyracoidea (Gr., hyrax = shrew, eides = form).
Cetacea (L., cetas = Whale).
Sirenia (Gr., siren = sea nymph).
Proboscidea (L., Proboskis = trunk).

Carnivora (L., carno = flesh, voro or vorous = to eat).
Fissipedia (L., fissipēs = cleft-footed).
Pinnipedia (L., pinna = fin, pes = foot , i.e. fin-footed).
Perissodactyla (Gr., Perissos = odd, daktylos = finger).
Artiodactyla (Gr., artios = even, daktylos = finger).
Primates (L., primus = first, primate first in rank).

Q3. Give one common name for animals belong to the following taxa?

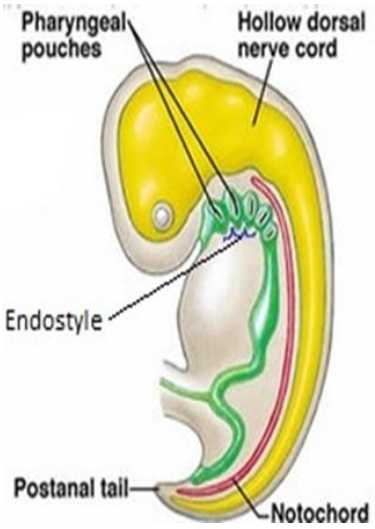
Class. Ascidacea: Sea squirts.
Class. Thaliacea: Salps.
Subphylum. Cephalochordata: Lancelets or amphioxuses.
Class. Myxini: Hagfishes.
Class. Cephalaspidomorphi: Lampreys.
Subclass. Holocephali: Chimaeras.
Order. Dipnoi: Lung fishes.
Order. Apoda or **Gymnophiona** or **Caecilia**: Caecilians.
Order. Urodela or Caudata: Salamanders.
Order. Salientia or Anura: Frogs.
Order. Chelonia or Testudinata: Turtles.
Order. Rhynchocephalia: Tuatara.
Suborder. Lacertilia: Lizards.
Suborder. Ophidia: Snakes.
Order. Crocodilia: Crocodiles.
Order. Struthioniformes: Ostriches.
Order. Rheiformes: Rheas.
Order. Apterygiformes: Kiwis.
Order. Tinamiformes: Tinamous.
Order. Sphenisciformes: Penguins.
Order. Strigiformes: Owls.
Order. Columbiformes: Pigeons.
Order. Dermoptera: Colugo.
Order. Chiroptera: Bats.
Order. Tubulidentata: Aardvarks.
Order. Pholidota: Pangolins.
Order. Lagomorpha: Rabbits.
Order. Hyracoidea: Hyraxes.
Order. Proboscidea: Elephants.
Suborder II. Pinnipedia: Seals and walruses.
Family. Tapiridae: Tapirs.
Family. Rhinocerotidae: Rhinoceroses.
Family. Hippopotamidae: Hippopotamuses.
Suborder. Tylopodidae. Family Camelidae: Camels and lamas (unhumpped American camels).
Family. Tragulidae: Mouse deer.
Family. Cervidae: Deers.
Subfamily. Antilopinae: Antelopes.

Subfamily. Ovinae: Sheep.
Family. Antilocapridae: Pronghorns (North American antelopes).

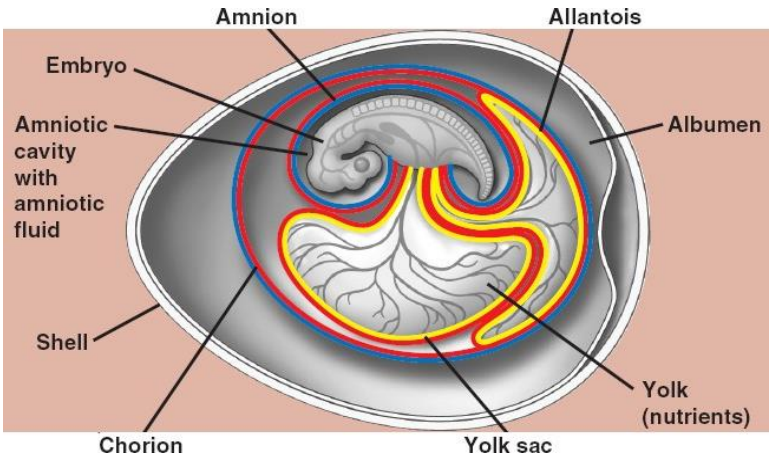
Q4. Write only the characteristic from which each of the following order name is derived after you knew the Greek or Latin meaning of these mammalian orders?
1. Monotremata
2. Marsupialia
3. Dermoptera
4. Chioroptera
5. Edentata
6. Pholidota
7. Tubulidentata
8. Rodentia
9. Proboscidea
10. Perissodactyla
11. Artiodactyla

Q5. Write the scheme for classification?
1. Brief classification of chordates from Domain dawn to classes.
2. Cartilaginous fishes.
3. Bony fishes.
4. Cartilaginous fishes and Bony fishes together.
5. Amphibia.
6. Artiodactyla.

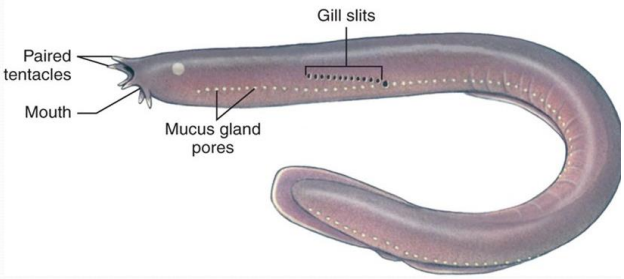
Q6. Draw and label?
1. Five main characteristics of the chordates.



2. Extraembryonic membranes (yolk sac, amnion, chorion, and allantois) of amniotic embryo.

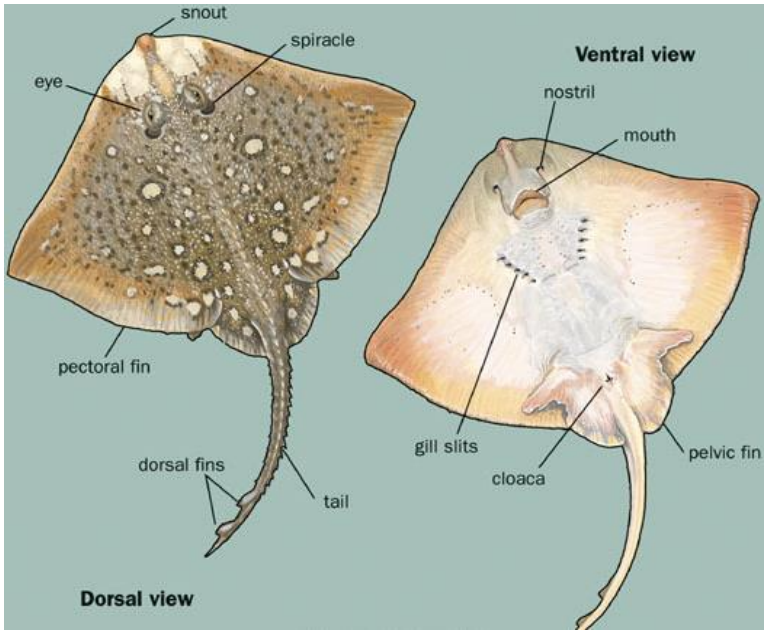


3. Myxini (*Bdelostoma*)

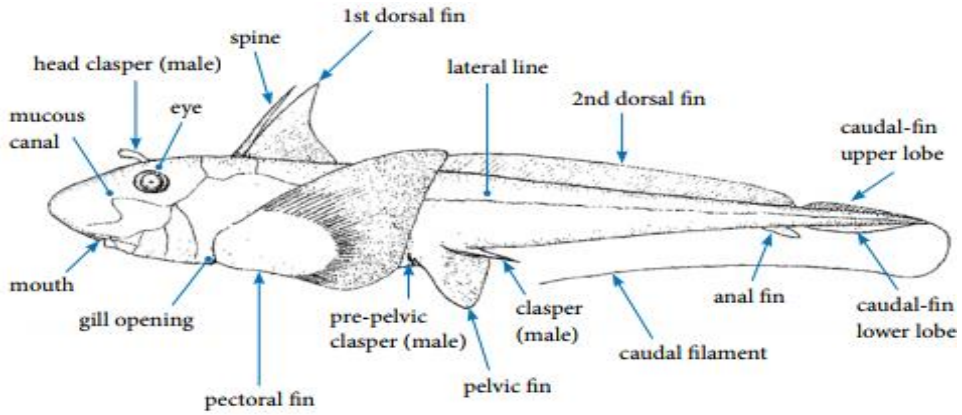


Eptatrectus* (*Bdelostoma*) *sp.

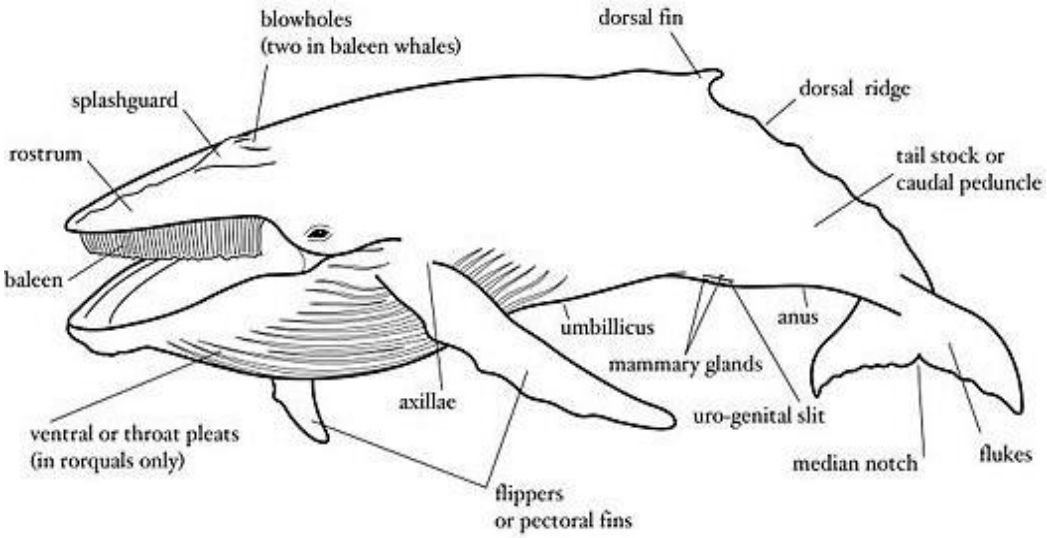
4. Dorsal and ventral view of rajiform fish, *Raja sp.*



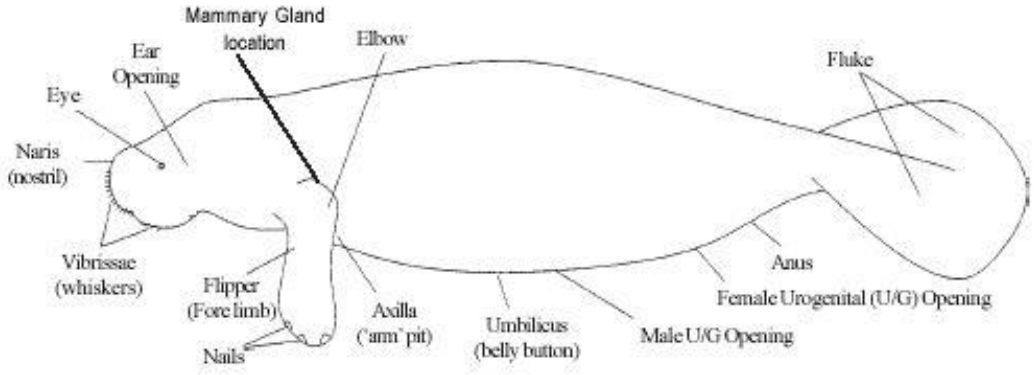
5. *Chimaera sp.*, Ratfish general form.



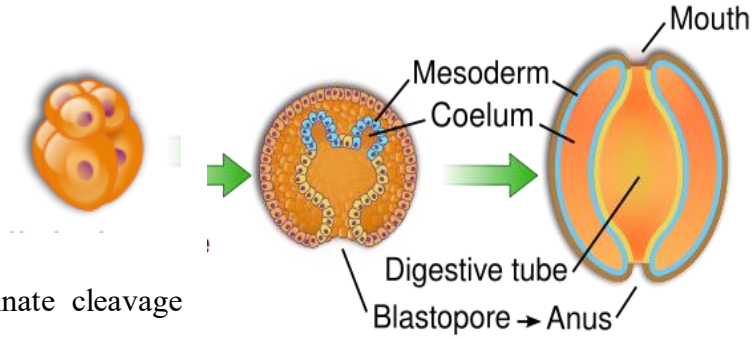
6. Morphology of typical whale.



7. Sirenian (sea cow), general form.



8. Meaning of deuterostomes.



1. Indeterminate cleavage

2. Gastrula and fate of blastopore

Q7. Count only?

1. Five criteria for traditional classification.
2. Four characteristics of deuterostomes in comparison to protostomes (don't mention characteristics of protostomes.
3. Two internal structural differences between protochordates (Acraniata) and vertebrates (craniate).
4. Five characteristic of agnathans in comparison to gnathostomes (don't mention characteristics of gnathostomes).
5. Three morphological characteristics of chimeras not present in other cartilaginous fishes.
6. Two characteristics for lung fishes which make them most advance bony fishes.
7. Four piscine or fishes' characteristics which exist in urodeles (salamanders) which make them more primitive than frogs (anurans).
8. Four characteristics help all reptiles to success in leaving water during reproduction and development.
9. Three unique characteristics of birds familiar to all peoples even they are never study biology.
10. Four characteristics share by most individuals of birds attributed to superorder Paleognathae which make them unable to fly.
11. Four unique internal (anatomical) characteristics of mammals.
12. Four unique morphological characteristics of mammals you can note them when you test a male dog and open its mouth.
13. Two unique characteristics of monotreme mammals not present in all other mammals.
14. Five locations of the teats or nipples of the mammary glands in mammals with one animal as example for each location.
15. Seven families of order Carnivora/ suborder Fissipedia.

Science

Ichthology: Science deals with the study of fishes.
Batrachology: Science deals with the study of amphibians.
Herpetology: Science deals with the study of amphibians and reptiles.
Ornithology: Science deals with the study of birds.
Mammology: Science deals with the study of mammals.