

P- I (1+1+1)H/14

2014

ZOOLOGY (Honours)

First Paper

Full Marks : 90

Time : Four Hours

The figures in the margin indicate full marks.

Group - A

1. Answer any *four* questions : 2×4=8

- (a) Write two distinguishing characters of class Insecta.
- (b) Mention two nematode parasites causing diseases to humans.
- (c) What do you mean by deuterostomia ?
- (d) What do you mean by hemimetabola and holometabola ?
- (e) What do you mean by nuclear dimorphism ?
- (f) Differentiate between circumfluence and circumvallence.

2. Answer any *four* questions : 4×4=16

- (a) Draw and describe a labelled diagram of bryozoan larva. 2+2=4

P.T.O.

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- (b) Write a note on hematocysts in *Hydra* sp.
- (c) Distinguish between Pollian Vesicle and Tidemann's body.
- (d) Briefly describe 'Sol-Gel' theory of locomotion of *Amoeba*.
- (e) Draw a labelled diagram of mature proglottid in *Taenia solium*.
- (f) Write a note on syconoid type of canal system with suitable diagram. $2+2=4$
3. Answer any two questions : $10\frac{1}{2}\times 2=21$
- (a) Classify phylum Mollusca upto living subclasses with characters and examples.
- (b) Enumerate parasitic adaptations of *Fasciola hepatica* and *Taenia solium*. Suggest control measures against their infection to humans. $(4+4)+2\frac{1}{2}$
- (c) Give an account of conjugation in *paramoecium caudatum* with suitable diagrams. Write the significance of conjugation. $7+3\frac{1}{2}=10\frac{1}{2}$
- (d) What is polymorphism? Describe the phenomenon of polymorphism among siphonophorans. $2+8\frac{1}{2}=10\frac{1}{2}$

(3)

Group - B

4. Answer any four questions : $2\times 4=8$
- (a) Mention two distinguishing characters of order Gymnophiona.
- (b) What is clasper? State its significance.
- (c) Differentiate between foramen ovale and foramen of Monro.
- (d) What is Mermaid's purse? Where it is found?
- (e) Distinguish between Wolffian duct and Mullerian duct. 2
- (f) How could you differentiate a Salamander from a lizard?
5. Answer any four questions : $4\times 4=16$
- (a) Write short note on Ammocoete larva.
- (b) Give a brief account of endostyle in Branchiostoma.
- (c) Distinguish between Perissodactyla and Artiodactyla.
- (d) What is the zoological importance of tadpole larva in *Ascidia*?
- (e) Mention the modifications in birds to lessen body weight for aerial mode of life.

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(4)

(f) Mention the scientific names of living dipnoans with their geographical distribution. $2+2=4$

6. Answer any *two* questions : $10\frac{1}{2}\times 2=21$

(a) Characterize different exoskeletal structures in Pigeon. Draw and describe the structure of a flight feather. $4\frac{1}{2}+6=10\frac{1}{2}$

(b) Define parental care. Describe briefly different modes of parental care in Amphibia with diagrams. Write the significance of parental care. $1+7+2\frac{1}{2}=10\frac{1}{2}$

(c) Give a comparative account of heart in Amphibia, Reptilia and Aves with suitable diagrams. $10\frac{1}{2}$

(d) Classify class Amphibia upto living orders with characters and Indian examples. $10\frac{1}{2}$
