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ZOOLOGY

(Major)

Paper : 2·1

(Animal Diversity—II)

Full Marks : 60

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following as directed : 1×7=7

(a) Name an amphibian which carries its young on its back.

(b) *The Fall of a Sparrow*—Who wrote this book?

(c) In singing birds, sound is produced by
(i) air sac, (ii) syrinx, (iii) larynx.

(Choose the correct answer)

(d) Fangs of poisonous snake are modified maxillary teeth. Is it true?

(e) Hemichordates are also called ____.

(Fill in the blank)

(f) New world monkeys have prehensile tail but prehensile tail is absent in old world monkeys.

(Write True or False)

(g) Electric organs are modified muscles.

(Write Yes or No)

2. Answer the following questions : $2 \times 4 = 8$

(a) All vertebrates are chordates but all chordates are not vertebrates. Why? 2

(b) What are cartilaginous fishes? Give one example. $1 + 1 = 2$

(c) Define autotomy. What is its significance? $1 + 1 = 2$

(d) Write a note on weberian ossicles. 2

3. Answer any *three* of the following questions :

$5 \times 3 = 15$

(a) What is missing link? Seymouria is a connecting link between amphibians and reptiles. Discuss it. $1 + 4 = 5$

(b) "Birds are glorified reptiles". Justify it. 5

(c) Why are birds and mammals called homeothermal animals? 5

(d) Distinguish between aestivation and hibernation. $2\frac{1}{2} + 2\frac{1}{2} = 5$

(e) Discuss the structure and evolutionary significance of ammocoete larva. $2\frac{1}{2} + 2\frac{1}{2} = 5$

4. Answer any *three* questions of the following :

10×3=30

- (a) Why is *Balanoglossus* considered to be very close to echinoderms? Write the chordate affinities of *Balanoglossus*.
5+5=10
- (b) What is retrogressive metamorphosis? How does it differ from progressive metamorphosis? Discuss the phenomena by giving an account. 1+3+6=10
- (c) What are the different types of swim bladder? Describe the modifications of swim bladder in different fishes. 3+7=10
- (d) How can you distinguish a poisonous snake from a non-poisonous one? Discuss about poison apparatus and biting mechanism of a poisonous snake.
2+2+6=10
- (e) What is an air sac? How many air sacs are found in birds? Mention the benefits obtained by a bird from the air sacs.
2+5+3=10
- (f) What is dentition? Discuss the dentition patterns with mammalian reference. Mention its significance. 2+6+2=10

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