

2020

(Held in 2021)

ZOOLOGY

(Major)

Paper : 5.3

Full Marks : 42

Time : 2 hours

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

GROUP—A

(Marks : 21)

1. Answer the following questions as directed :

1×2=2

(a) Healing of wounds is

(i) opposed by cortisol

(ii) favoured by cortisol

(iii) not affected by cortisol

(iv) None of the above

(Choose the correct option)

(b) Delayed type hypersensitivity involves _____ cells.

(Fill in the blank)

2. Answer briefly the following : $2 \times 2 = 4$

(a) State the factors controlling the secretion of catecholamines from adrenal medulla.

(b) What is the difference between primary and secondary immune response?

3. Answer any *three* of the following : $5 \times 3 = 15$

(a) Draw a flowchart citing example to review the hypophysiotropic hormones in controlling hormonal secretion.

(b) Describe the mechanism of steroid hormone action.

(c) Write briefly the effect of thyroid hormones on the cardiovascular system.

(d) Enumerate briefly the structure of immunoglobulin classes.

(e) How are secondary immunodeficiency diseases developed?

(3)

GROUP—B

(Marks : 21)

4. Answer any *three* of the following (maximum word limit 300) : 7×3=21

- (a) What will happen if a B-cell does not undergo negative selection? Which spectrum of diseases are likely to develop and why?
- (b) Why do you think the body retains a small yet active population of stem cells? What do you think will happen if it loses their store by accident?
- (c) During fasting and starvation, how does metabolism shift to provide fuel to the brain?
- (d) How do low blood volume and low blood pressure stimulate ADH secretion?
- (e) A woman went to the doctor with broken bone, the doctor examining found the lady having fragile bones and low vitamin D level. Explain how these might be connected.

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