

Model Question of HSC Examination 2020

Biology Second Paper

Subject Code :

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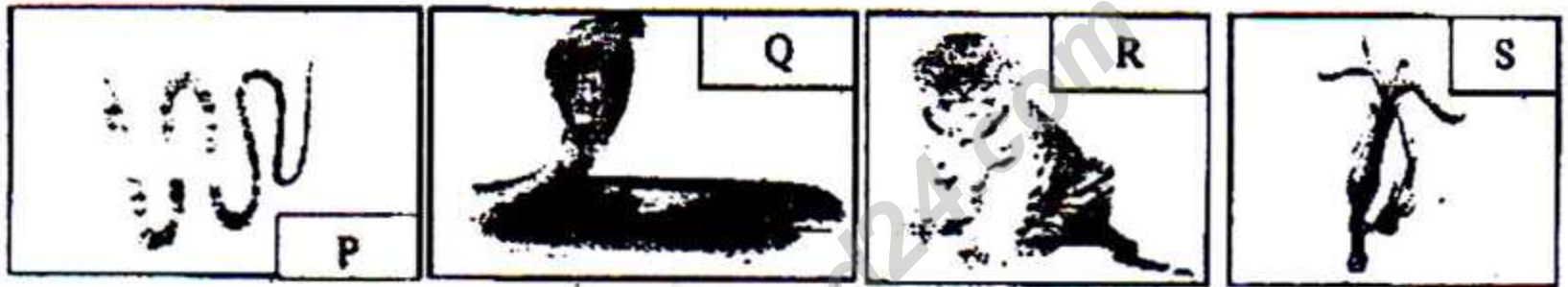
Time — 2 hours 35 minutes

Creative Essay Type

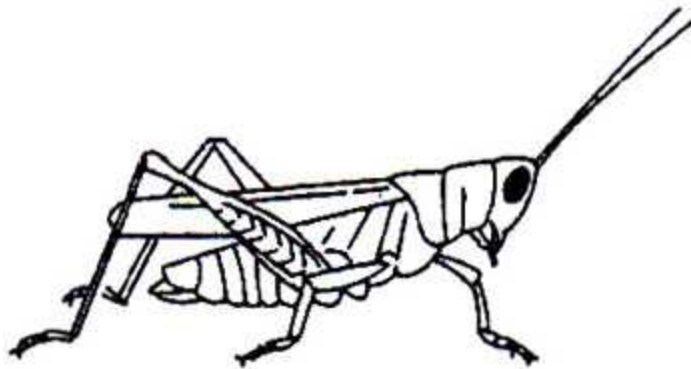
Full Marks — 50

[N.B. -The figures in the right margin indicate full marks. Read the stems carefully and answer the associated questions. Answer any five questions.]

1. ►



- What is symmetry? 1
- What do you mean by pseudocoelomate animal? 2
- Write two characteristics and one scientific name of mentioned P, Q and R animal. 3
- Describe the locomotion process of the animal mentioned in the picture "S". 4



L

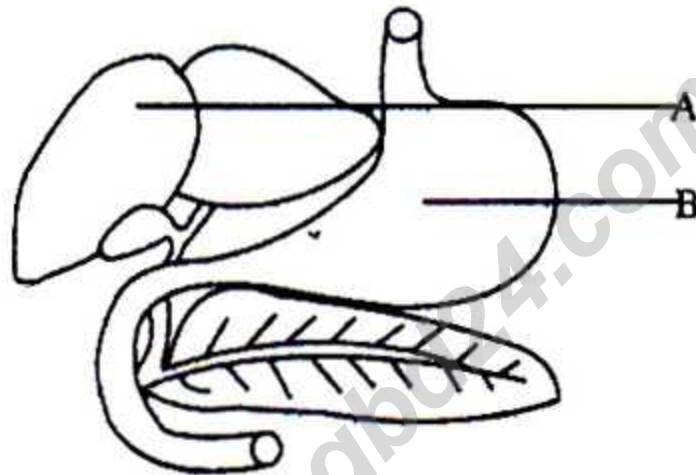


M

2. ★

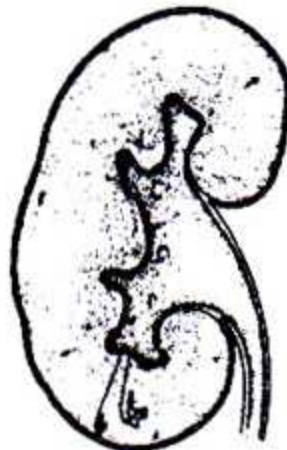
- a. What is spiracle? 1
- b. What do mean by coelom and coelenterons? 2
- c. Describe the structure of the mouth parts of L. 3
- d. Why the heart of the picture "M" animal is called venous heart? 4

3. ►



- a. What is obesity? 1
- b. What are the enzymes secreted to the duodenum? 2
- c. Describe the protein digestion process at the mentioned 'B'. 3
- d. Stems organ 'A' has the role for Metabolism and storage—analyze it. 4

4. ★



- a. What is dialysis? 1
- b. What are the components of urine? 2
- c. Describe the causes of above organs failure. 3
- d. How the urea format through above organ? 4

5. ►



(X)



(Y)



(Z)



(P)

- a. What is periostium? 1
- b. What do you mean by haversian system? 2
- c. Explain the action of skeletal system as per stem (X), (Y) and (Z). 3
- d. Describe the symptoms and treatment of the problem in the picture (P). 4

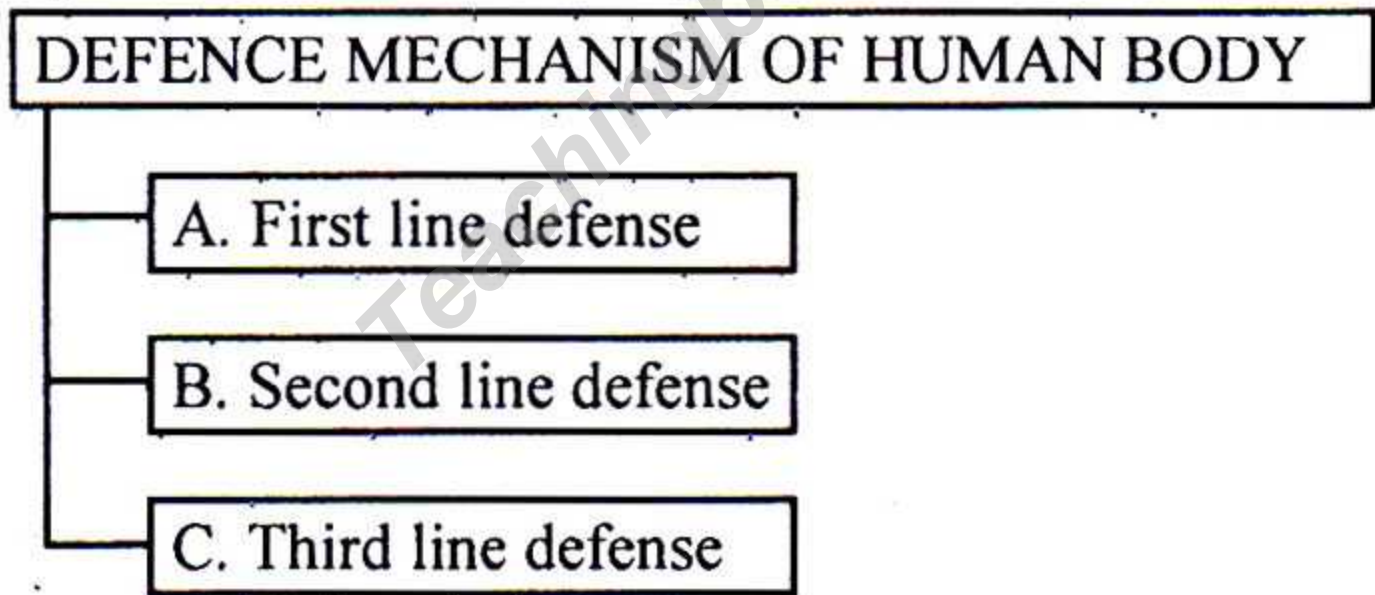
6. ★ Sonia became surprised at seen a blind man begging. He asked his father, how the blind man can walk. Father said-although the vision organ was damaged but his hearing organ was active.

- a. What is blind spot? 1
- b. What do you mean by neurotransmitters? 2
- c. Draw a labeled diagram of the first organ mentioned in the stem. 3
- d. Analyze the functional process of second organ mentioned in the above stem. 4

7. ►

3 : 1	13:3
Fig-P	Fig-Q

- a. What is gene? 1
- b. What do you mean by Lethal gene? 2
- c. Explain the genetic ratio of Fig-P. 3
- d. Explain the deviation of Fig-Q? 4



8. ►

- a. What is B-cell? 1
- b. What do you mean by inflammation? 2
- c. Explain the characteristics of "C" of stem. 3
- d. Describe all the defense mechanisms of "A" of the stem. 4

Biology Second Paper

Creative Multiple Choice Questions

Marks — 25

Time — 25 minutes

[N.B.— Answer all the questions. Each question carries one mark. Block fully, with a ball-point pen, the circle of the letter that stands for the correct/best answer in the "Answer Sheet" for Multiple Choice Questions Examination. use a ball point pen. Each question carries 1 mark.]

1. **★** Which one is the example of pseudocoelomate animal?

- (a) *Loa Loa*
- (b) *Hydra viridis*
- (c) *Fasciola hepatica*
- (d) *Tenulosa ilisha*



2. Where we may get the above cell?

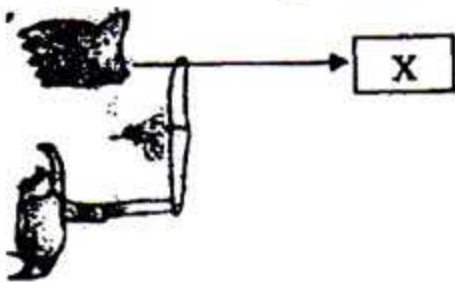
- (a) *Taenia solium*
- (b) *Hydra vulgaris*
- (c) *Pila globosa*
- (d) *Capsychus saularis*

3. How many auricles are there in Rui fish?

- (a) One
- (b) Two
- (c) Three
- (d) Four

4. What is the ratio of lethal gene?

- (a) 1:1:1
- (b) 1:2:2
- (c) 1:2:1
- (d) 2:2:1



5. What is the name of the marked "X" mouth parts of above picture?

- (a) Maxilla
- (b) Labium
- (c) Mandible
- (d) Labrum

Tithi learnt from her teacher that, Rh factor is very much important in human

life. We received all of our characteristics from our previous generations.

6. For mentioned Rh factor—

- i. If the male is Rh⁺ and female Rh,
- First child will be Rh⁺
- ii. Rh⁺ is dominant
- iii. Cause of erythroblastosis foetalis

Which one is correct?

- (a) i & ii
- (b) ii & iii
- (c) i & iii
- (d) i, ii & iii

7. Which genotype is for colourblind?

- (a) X⁺Y
- (b) X⁺X⁺
- (c) X⁺X^c
- (d) X^cY

8. Which is the function of interstitial cell?

- (a) It may convert in any cell
- (b) It stimulates the sense
- (c) Helps for locomotion
- (d) Helps for sexual reproduction

9. For what type of epistasis the ratio becomes 13:3?

- (a) Recessive
- (b) Dominant
- (c) Duplicate recessive
- (d) Duplicate

10. **★** What is spiracle?

- (a) Respiratory opening
- (b) Part of blood
- (c) Part of bone
- (d) Mouth opening

11. Haemocoel is divided into how many chambers in grasshopper/cockroach?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

12. What is the function of gizzard?

- (a) Grinding the hard food
- (b) Circulate the blood
- (c) Helps in movement
- (d) Excretion

13. ★ How many types of angioplasty are there?

- (a) 2 (b) 3
(c) 4 (d) 5

14. The vision mechanism of Grasshopper is —?

- i. Superposition
ii. Apposition
iii. Bio-position

Which one is correct?

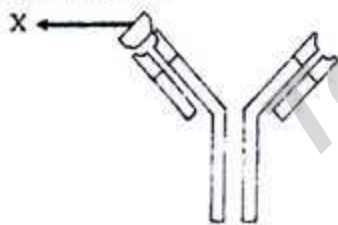
- (a) i & ii (b) ii & iii
(c) i & iii (d) i, ii & iii

15. Which is the scale of *Labeo rohita*?

- (a) Tenoid
(b) Ganoid
(c) Cosmoid
(d) Cycloid

16. What is dialysis?

- (a) To separate the enzyme
(b) To separate the hormone
(c) To separate colloidal materials of a solution
(d) To separate the nutrient materials of a solution



17. What is the name of the marked place of X?

- (a) Chain (b) Hinge region
(c) Disulfide Bond (d) Antigen

18. Which one produces from the mesodermal layer?

- (a) Enamel of teeth
(b) Larynx
(c) Dentine of teeth
(d) Lung

19. How many factors are present in human body for blood clotting?

- (a) 7 (b) 10
(c) 11 (d) 13

20. What is chylomicron?

- (a) One kind of carbohydrate
(b) One kind of protein
(c) One kind of lipoprotein
(d) One kind of fat

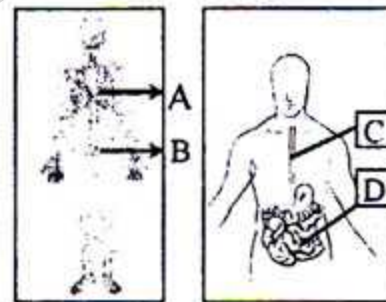
21. What is the meaning of lacteal?

- (a) Fatty
(b) Milky
(c) Rooty
(d) Doty

The body weight of Kaniz is 52 kg and height is 1.47 meter.

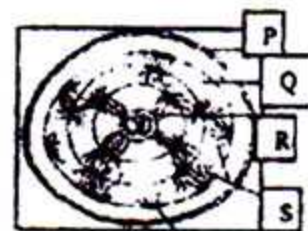
22. What will be the BMI of Kaniz?

- (a) 27.07 (b) 26.07
(c) 25.07 (d) 24.07



23. ★ Where remains the illum?

- (a) A (b) B
(c) C (d) D



24. Which is Lacuna?

- (a) P (b) Q
(c) R (d) S

25. What is the name of the first menstrual cycle?

- (a) Menarche
(b) Dearchi
(c) Womenarche
(d) Femenarchi

Ans.	1	(a)	2	(b)	3	(a)	4	*	5	(c)	6	(d)	7	(d)	8	(a)	9	(b)	10	(a)	11	(b)	12	(a)	13	(c)
	14	(a)	15	(d)	16	(c)	17	(d)	18	(c)	19	(d)	20	(c)	21	(b)	22	(d)	23	(d)	24	(d)	25	(a)		