

**KRP MATRIC HIGHER SECONDARY SCHOOL, SANKARI WEST**  
**HALF YEARLY EXAM - 2022**

12th Standard

Biology

Date : 30 Dec 22

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**PART - II. BIO ZOOLOGY**

Exam Time : 01:30:00 Hrs

Total Marks : 35

CHOOSE THE BEST ANSWER

8 x 1 = 8

- 1) The male homologue of the female clitoris is  
 (a) Scrotum (b) Penis (c) Urethra (d) Testis
- 2) Which of the following is correct regarding HIV, hepatitis B, gonorrhoea and trichomoniasis?  
 (a) Gonorrhoea is a STD whereas others are not. (b) Trichomoniasis is a viral disease whereas others are bacterial.  
 (c) HIV is a pathogen whereas others are diseases. (d) Hepatitis B is eradicated completely whereas others are not.
- 3) Three children of a family have blood groups A, AB and B. What could be the genotypes of their parents?  
 (a)  $I^A I^B$  and  $I^O I^O$  (b)  $I^A I^O$  and  $I^B I^O$  (c)  $I^B I^B$  and  $I^A I^A$  (d)  $I^A I^A$  and  $I^O I^O$
- 4) Females with Turner's syndrome have  
 (a) Small uterus (b) Rudimentary ovaries (c) Under developed breasts (d) All of these
- 5) E. coli cell grown on  $^{15}\text{N}$  medium are transferred to  $^{14}\text{N}$  medium and allowed to grow for two generations. DNA extracted from these cells is ultracentrifuged in cesium chloride density gradient. What density distribution of DNA would you expect in this experiment?  
 (a) One high and one low density band (b) One intermediate density band. (c) One intermediate density band.  
 (d) One low and one intermediate density band
- 6) In which mode of reproduction variations are seen  
 (a) Asexual (b) Parthenogenesis (c) Sexual (d) Both a and b
- 7) The Athlete's foot disease in human is caused by \_\_\_\_  
 (a) Bacteria (b) Fungi (c) Virus (d) Protozoa
- 8) The wings of birds and butterflies are an example of  
 (a) Adaptive radiation (b) convergent evolution (c) divergent evolution (d) variation

WRITE ANY 4 QUESTIONS

4 x 2 = 8

- 9) Differentiate foeticide and infanticide
- 10) How is juvenile phase different from reproductive phase?
- 11) What is inhibin? State its functions
- 12) Mention the symptoms of Down's syndrome.
- 13) Mention the main objections to Darwinism.
- 14) HGP is the window for treatment of various genetic disorders. Justify the statement.

WRITE ANY 3 QUESTIONS. Q.NO 18 IS COMPULSORY

3 x 3 = 9

- 15) Amniocentesis, the foetal sex determination test, is banned in our country, Is it necessary? Comment.
- 16) A low level of expression of lac operon occurs at all the windows for treatment of various genetic disorders. Justify the statement

17) What are the applications of Karyotyping?

18) List the causative agent, mode of transmission and symptoms for Diphtheria and Typhoid.

19) Differentiate between divergent evolution and convergent evolution with one example for each.

WRITE ALL THE QUESTIONS

2 x 5 = 10

20) a) Explain the role PCR clinical diagnosis.

(OR)

b) Describe the steps involved in DNA finger printing.

21) a) (a) Briefly explain the events of fertilization and implantation in an adult human female

(b) Comment on the role of placenta as an endocrine gland.

(OR)

b) List any five viral diseases, their causative agents, site of infection, mode of transmission and symptoms

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