

# GUJCET 2024 Question Paper Mar 31 (Biology)

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**Ques 1. Which of the following sexually transmitted infections are spread by other means besides sexual intercourse?**

**Ans.** Hepatitis - B

**Ques 2. What does the pointed 'X' in the figure below represent?**

**Ans.** Tumbaika

**Ques 3. On which chromosome of each parent is the gene controlling  $\beta$  - thalassemia located?**

**Ans.** 11<sup>th</sup>

**Ques 4. In in vitro fertilization, the process in which more than 8-celled embryos are transferred to the uterus to complete further development is called what?**

**Ans.** IUT

**Ques 5. If mother's blood group is 'A' and father's blood group is 'O', then what can be the blood group of their child?**

**Ans.** A or O

**Ques 6. "The fetus never passes through the adult stages of other animals" said? Who said this statement?**

**Ans.** Carl Ernst von Bayer

**Ques 7. Which of the following is an example of function membership?**

**Ans.** Sweet potatoes and potatoes

**Ques 8. Which of the following does not affect the Hardy-Weinberg equilibrium?**

**Ans.** Adaptive diffusion

**Ques 9. How many types of receptors are present in a cell?**

**Ans.** 61

**Ques 10. If a double-stranded DNA contains 30% adenine, state the percentage of cytosine in the same DNA.**

**Ans.** 20%

**Ques 11. Based on which of the following symptoms, doctor 'X' will diagnose the patient with pneumonia.**

**Ans.** Lips and fingernails have turned gray and blue.

**Ques 12. Which of the following groups is included in the secondary lymphatic organs?**

**Ans.** Segments of duodenum, tonsils, small intestine pairs

**Ques 13. What is cirrhosis?**

**Ans.** Liver disease caused by excessive alcohol addiction.

**Ques 14.** Which of the following statements is correct?

- (i) Baculoviruses are considered best members for species-specific, short-spectrum insecticide applications.
- (ii) Bacillus thuringiensis is used to control butterfly caterpillars.
- (iii) Use of ladybirds is very beneficial in getting rid of mosquitoes.
- (iv) Trichoderma fungi are used in the treatment of diseased animals under biocontrol.

**Ans.** Both (i) and (ii)

**Ques 15.** DNA polymerase isolated from which of the following bacteria is used in PCR method.

**Ans.** Thermos aquaticus

**Ques 16.** ELISA method works on which of the following principles?

**Ans.** Antigen-antibody interactions

**Ques 17.**  $\alpha$  - 1 antitrypsin is used to treat which disease?

**Ans.** emphysema

**Ques 18.** In which mechanism specific mRNA is inactivated after binding to complementary dsRNA?

**Ans.** RNAi

**Ques 19.** Which naturalist gives an explanation of species-territory relationships?

**Ans.** Alexander von Humboldt

**Ques 20. What interaction occurs between oceanic and cloven fish?**

**Ans.** Cohabitation

## GUJCET 2024 Answer Key Mar 31 (Biology)

Question No.	Answer Key
1	Hepatitis - B
2	Tumbaika
3	11 <sup>th</sup>
4	IUT
5	A or O
6	Carl Ernst von Bayer
7	Sweet potatoes and potatoes
8	Adaptive diffusion
9	61
10	20%
11	Lips and fingernails have turned gray and blue.
12	Segments of duodenum, tonsils, small intestine pairs
13	Liver disease caused by excessive alcohol addiction.
14	Both (i) and (ii)
15	Thermos aquaticus

16	Antigen-antibody interactions
17	emphysema
18	RNAi
19	Alexander von Humboldt
20	Cohabitation