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Register no :

Date :18-03-2021

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27**

**B.Sc. BIOTECHNOLOGY- I SEM**

**SEMESTER EXAMINATION: October 2021**

(Exams conducted March 2022)

**BT OE1: Biotechnology for Human Welfare**

**Time: 2 Hrs Max Marks: 60**

**Note:The question paper has three parts and one printed page**

**PART A**

1. **Answer any Ten of the following 10x2=20**
2. What is a vector?
3. What is complementary to AGGGTTTCG.
4. What is rennet?
5. State an example of a transgenic animal with an introduced trait.
6. State an example of a clone by name and species.
7. What are restriction endonucleases?
8. Name any example of single cell proteins.
9. What is Human genome project?
10. What are the first basic step involved in strain improvement?
11. Name any two enzymes that are important for a food industry?
12. Name any two industrially important microorganisms and where are they used?
13. What is a live vaccine?

**Part B**

1. **Answer any FOUR of the following 4x5=20**
2. Explain how yogurt is manufactured.
3. What are antibiotics? Introduce it as a product that can be marketable.
4. Discuss biodegradable plastics.
5. Validate points as to how gene therapy can be the treatment of the future.
6. What are ethical concerns that come up when we discuss transgenic organisms.

**Part C**

1. **Answer any TWO of the following 2x10=20**
2. Taking an example explain how DNA based evidence can be used in forensics.
3. Discuss a waste management strategy that uses biotechnology as a practical base.
4. Indicate through a flow chart the process of cloning a animal.

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