**SLR-DL-54**

| Seat No. | |
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**Set P**

# B.Sc. (Semester - VI) (Old) (CGPA) Examination Oct/Nov-2019
## Biotechnology
## APPLICATION

Day & Date: Wednesday, 09-10-2019 Max. Marks: 70
Time: 08:00 AM To 10:30 AM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat and labeled diagrams.

**Q.1 Fill in the blanks by choosing correct alternatives given below.** **14**

1) Xenobiotic compounds are chemicals which are _____ to the biosphere.
   a) foreign b) known
   c) transgenic d) familiar

2) A _____ population growing on one compound may transform a contaminating chemical that cannot be used as a 'C' source, process is known as co-metabolism.
   a) Human b) Microbial
   c) Plant d) Forest

3) _____ are synthesized in cells that have been exposed Viruses.
   a) Carbohydrates b) Lipids
   c) Interferon d) Nucleic Acid

4) _____ engineering is the second generation of rDNA technology.
   a) RNA b) DNA
   c) t RNA d) Protein

5) Antisense RNA must bind to a specified mRNA & prevent _____ of the protein.
   a) Translation b) Binding
   c) Dissolving d) Modification

6) The addition of _____ To animal cell reduces the expression of the gene from which double stranded RNA sequence is derived.
   a) Ds DNA b) Ds RNA
   c) Ss DNA d) Ss RNA

7) _____ vaccine for cholera is prepared by Cholera toxin B subunitepitope.
   a) DNA b) RNA
   c) Subunit d) Protein

8) Genetically engineered _____ was grow on whey due toInsertion of *E.coli* lac *ZY* gene.
   a) *Bacillus* b) *Pseudomonas*
   c) *Fungus* d) X. *Campestris*

9) Crystal shape of is Bipyradimal.
   a) CRY I A(a) b) TRY I A(a)
   c) FLY I A(a) d) DNA

10) Monellin Portion is 3000 times _____ than sucrose.
   a) Larger b) Sweeter
   c) Smaller d) Sour

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11) Compounds which are foreign to _____ exhibiting unnatural structural features are known as Xenobiotics.
a) Earth b) Soil
c) Life d) Water

12) _____ family is coded by 13number of genes.
a) Interferon ? b) Interferon β
c) Interferon μ d) Interferon α

13) Malignant gliomais an example of disease which may be cured by _____ as therapeutic agent.
a) Antisense RNA b) DS DNA
c) DS RNA d) Antisense oligonucleotide

14) _____ is a infectious agent from HSV1 which elicit the antibodies that react against intact form of infectious agent.
a) Envelope glycoprotein B b) Envelope glycoprotein D
c) Envelope glycoprotein A d) Envelope glycoprotein C

**Q.2 A) Answer the following questions. (Any Four)** **08**
1) Define antisense RNA.
2) Define attenuated vaccine.
3) Explain in brief vaccines against bacteria.
4) Define Interfering RNA.
5) Enlist the applications of transgenic animals.

**B) Write Notes on (Any Two)** **06**
1) Write note on Xenobiotics.
2) Write a note on increase in enzyme activity.
3) Write a short note on biosynthesis of rubber.

**Q.3 A) Answer the following questions. (Any Two)** **08**
1) Discuss synthesis of human growth hormone.
2) Explain genetic engineering to increase enzyme stability.
3) Describe cloning livestock by nuclear transfer.

**B) Answer the following questions. (Any One)** **06**
1) Write a short note on edible vaccine.
2) Describe synthesis of Human interferon.

**Q.4 A) Answer the following questions. (Any Two)** **10**
1) Discuss the method which develops herbicide resistant plants.
2) Explain in details of transgenic mice.
3) How will you develop senescence tolerant plants?

**B) Answer the following question. (Any One)** **04**
1) How will you increase the sweetness by genetic engineering?
2) How will you produce genetically modified interferon?

**Q.5 Answer the following questions. (Any Two)** **14**
**a)** Explain vector vaccines directed against viruses.
**b)** How will you Xenobiotics by using microbes.
**c)** Give detail of subunit vaccines against FMD.

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