

**MONAD UNIVERSITY HAPUR (UP)**  
**(SCHOOL OF AGRICULTURE & APPLIED SCIENCES)**  
**DEPARTMENT OF BIOTECHNOLOGY**

Course: B. Sc. Biotechnology

Subject Name: Genetic Engineering

Semester: V

Sub. Code:

Assignment No: 2

**Due date of submission: 10.11.2016**

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1.

- (a) How to construct a genomic DNA library.
- (b) What is procedure for isolation of RNA?

Q.2.

- (a) What are applications of reverse transcriptase?
- (b) What are application of si RNA?



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Course: B. Sc. Biotechnology

Subject Name: Immunology

Semester: V

Sub. Code:

Assignment No: 2

**Due date of submission: 10.11.2016**

Instruction

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Q.1.

- (a) Describe briefly mechanism of innate immunity.
- (b) What are the main differences between humoral and cell mediated immune responses?

Q.2

- (a) Explain the role of antigen presenting cells.
- (b) What are difference between antigenicity and immunogenicity?



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**DEPARTMENT OF BIOTECHNOLOGY**

Course: B. Sc. Biotechnology

Subject Name: Plant Biotech

Semester: V

Sub. Code:

Assignment No: 2

**Due date of submission: 10.11.2016**

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Q.1

- (a) What do you understand by hybridization? Explain the techniques by which we can produce the somatic hybridization.
- (b) Explain the significant features of haploid plant. Explain the technique for haploid production.

Q.2.

(a) Describe the term:

- i. Cybrids
- ii. Transgenic
- iii. R-DNA
- iv. Synthetic seeds

(c) Write an essay on genetic eng in plants with suitable examples of techniques.



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**DEPARTMENT OF BIOTECHNOLOGY**

Course: B. Sc. Biotechnology

Subject Name: Industrial Biotech

Semester: V

Sub. Code:

Assignment No: 2

**Due date of submission: 10.11.2016**

Instruction

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Q.1

- (a) Explain the production of single cell protein with suitable diagram.
- (b) What do you mean by commercial production of microorganisms?

Q.2.

- (a) Describe the microbial growth kinetics in brief.
- (b) Explain various types of microbial cultures in brief.



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**DEPARTMENT OF BIOTECHNOLOGY**

Course: B. Sc. Biotechnology

Subject Name: Animal Biotech

Semester: V

Sub. Code:

Assignment No: 2

**Due date of submission: 10.11.2016**

Instruction

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Q.1

- (a) How can we isolate animal cell from given animal tissue. Explain the technique.
- (b) Explain contamination in brief. Also explain about the relationship between conta-4 sterilization.

Q.2.

- (a) Write about the vesicles designed for scale up of animal cell line.
- (b) Write an essay on animal cell cloning with suitable diagram.

