



**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: 1

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) Explain the nick translation.
- (b) What are applications of alkaline phosphatase?

Q.2.

- (a) Explain the yeast artificial chromosomes.
- (b) Explain the expression vectors.



**MONAD UNIVERSITY HAPUR (UP)
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Course: B. Sc. Biotechnology

Subject Name: Immunology

Semester: V

Sub. Code:

Assignment No: 1

Due date of submission: 10.11.2016

Instruction

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Q.1.

- (a) What are structure and function of immunoglobulins M (Ig M)?
- (b) What are advances of hinge region in immunoglobulins?

Q.2.

- (a) Explain the different class of major histocompatibility complex.
- (b) Explain in detail about complement system



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Course: B. Sc. Biotechnology

Subject Name: Plant Biotech

Semester: V

Sub. Code:

Assignment No: 1

Due date of submission: 10.11.2016

Instruction

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Q.1

(a) Explain significant of invitro culture techniques of plant tissue & cells.

(b) What do you understand by:

- i. Totipotency
- ii. Plueripotency
- iii. Differentiation
- iv. Dedifferentiation

Q.2.

(a) Explain various techniques for single cell culture.

(b) Define each & every steps for isolation & sterilization of explant & its culture.



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Course: B. Sc. Biotechnology

Subject Name: Industrial Biotech

Semester: V

Sub. Code:

Assignment No.1

Due date of submission: 10.11.2016

Instruction

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Q.1

(a) Explain the basic differences & resemblance between industrial biotechnology & microbial biotechnology.

(b) Write about the technique by which we isolate the important microbes for industries.

Q.2.

(a) Explain the basic principle of industrial biotech.

(b) Explain fermentation in brief.



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Course: B. Sc. Biotechnology

Subject Name: Animal Biotech

Semester: V

Sub. Code: Assignment

No: 1

Due date of submission: 10.11.2016

Instruction

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3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1

- (a) Explain the differences & resembles between animal & plant tissue culture technique.
- (b) What do you understand by Monolayer? Explain how it can be cultured & isolated.

Q.2.

- (a) What do you mean by cell line? Explain the properties of single cell line.
- (b) Write about the suitable culture media for animal cell.