



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

Course: B. Tech. Biotechnology
Subject Name: Advance Bioinformatics
Semester: VII
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) How to assemble whole genome sequences?
- (b) Explain the nascent sequence.

Q.2.

- (a) What is procedure of quality trimming of nascent sequences?
- (b) What are differences between EST and GSS?



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Course: B. Tech. Biotechnology
Subject Name: Advance Bioinformatics
Semester: VII
Sub. Code:
Assignment No: 2

Due date of submission: 10.11.2016

Instruction

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Q.1.

- (a) Brief description of ontology.
- (b) How to designing of oligo probes for microarray?

Q. 2.

- (a) What is principle of Microarray?
- (b) How to analysis of Microarray image?



MONAD UNIVERSITY HAPUR (UP)
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DEPARTMENT OF BIOTECHNOLOGY

Course: B. Tech. Biotechnology

Subject Name: Biosafety & IPR

Semester: VII

Sub. Code:

Assignment No: 1

Due date of submission: 10.11.2016

Instruction

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Q.1.

(a) What do you mean by bio safety?

(b) Discuss in detail the biosafety guidelines and regulations for release of genetically engineered microorganisms

?

Q.2.

(a) What is Intellectual property right? Discuss in detail the different forms of its protection.

(b) What do you mean by 'patenting the biological materials'?



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Course: B. Tech. Biotechnology

Subject Name: Biosafety & IPR

Semester: VII

Sub. Code:

Assignment No: 2

Due date of submission: 10.11.2016

Instruction

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Q.1.

- (a) What are the legislations covering IPRs in India?
- (b) Who are responsible for administration of IPRs in the country?

Q. 2.

- (a) Write short notes on the following: Patents, copyrights, Trade secrets and trade marks, Plant variety protection, International status of Patents.
- (b) Describe the conditions, which need to be met, before a patent can be issued. How and to what extent, these conditions can be met for patentable living organisms?



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Course: B. Tech. Biotechnology

Subject Name: Genomics

Semester: VII

Sub. Code:

Assignment No: 1

Due date of submission: 10.11.2016

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Q.1.

- (a) Explain principle of DNA sequencing by Sanger method?
- (b) Explain high throughput DNA sequencing.

Q.2.

- (a) Explain the determination of genetic diversity by RFLP method.
- (b) Explain PCR based methods SNP.



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Course: B. Tech. Biotechnology

Subject Name: Genomics

Semester: VII

Sub. Code:

Assignment No: 2

Due date of submission: 10.11.2016

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Q.1.

- (a) Why is the human genome project important?
- (b) What are principle and application of Real - time PCR??

Q. 2.

- (a) Explain pharmacogenomics?
- (b) What are principle and application of Microarray.



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Course: B. Tech. Biotechnology

Subject Name: Proteomics

Semester: VII

Sub. Code:

Assignment No: 2

Due date of submission: 10.11.2016

Instruction

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Q.1.

- (a) What is the principle of MALDI-TOF/MS?
- (b) What are advantages and disadvantages protein microarray?

Q. 2.

- (a) Explain efficacy of drug?
- (b) What are steps of preclinical drug testing explain it.



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Semester: VII

Sub. Code:

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Q.1.

- (a) What is the difference between 1D and 2D gel electrophoresis?
- (b) What is the principle and application of 2D gel electrophoresis?

Q.2.

- (a) Explain the different types of protein modification in proteomics.
- (b) What is the role of ubiquitin in protein degradation?