

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LP 965]

NOVEMBER 2019

Sub. Code: 2965

M.PHARM. DEGREE EXAMINATION
(PCI New regulations 2016)
SEMESTER-II
BRANCH-IV – PHARMACEUTICAL BIOTECHNOLOGY – MPB
PAPER I – PROTEINS AND PROTEIN FORMULATION

Q.P. Code : 262965

Time : Three hours

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss the concepts in the isolation and purification of proteins. Add a note on gene shuffling.
2. Discuss the various strategies for protein and DNA formulation.

II. Write notes on:

(7 x 5 = 35)

1. Protein sequencing methods.
2. Methods of Protein degradation.
3. Rational drug design and peptide drugs.
4. Methods of Protein characterization.
5. Non peptide peptidomimetics.
6. Gel Electrophoresis.
7. Peptide mapping.

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[MPHARM 0921]

**SEPTEMBER 2021
(OCTOBER 2020 EXAM SESSION)**

Sub. Code: 2965

**M.PHARMACY DEGREE EXAMINATION
SEMESTER-II (PCI New regulations 2016)
PHARMACEUTICAL BIOTECHNOLOGY - MPB
PAPER I – PROTEINS AND PROTEIN FORMULATION
*Q.P. Code : 262965***

Time : Three hours

Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail about strategies used in the protein formulation.
2. Discuss isolation and purification of proteins.

II. Write notes on:

(7 x 5 = 35)

1. Protein sequencing.
2. Peptidomimetics.
3. Biophysical properties of proteins.
4. Identification of proteins.
5. Electrophoresis and image analysis.
6. Tryptic peptide mapping.
7. Physical considerations of proteins.

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[M.PHARM 0922]

**SEPTEMBER 2022
(APRIL 2022 EXAM SESSION)**

Sub. Code: 2965

**M.PHARMACY DEGREE EXAMINATION
SEMESTER - II (PCI New regulations 2016)
PHARMACEUTICAL BIOTECHNOLOGY - MPB
PAPER I – PROTEINS AND PROTEIN FORMULATION**

Q.P. Code : 262965

Time : Three hours

Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Different methods for Protein Engineering.
2. 2 Dimensional Gel electrophoresis -Methods, Resolution and reproducibility.

II. Write notes on:

(7 x 5= 35)

1. Edman degradation.
2. N and C -terminal tags.
3. Forced degradation studies.
4. PEGylation of proteins.
5. Isotope labelling.
6. Tryptic peptide mapping.
7. Neon-particulate system.

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[M.PHARM 0823]

**AUGUST 2023
(APRIL 2023 EXAM SESSION)**

Sub. Code: 2965

**M.PHARMACY DEGREE EXAMINATION
SEMESTER - II (PCI New Regulations 2016)
PHARMACEUTICAL BIOTECHNOLOGY - MPB
PAPER I – PROTEINS AND PROTEIN FORMULATION**

Q.P. Code: 262965

Time : Three hours

Answer ALL Questions

Maximum : 75 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Different methods of protein sequencing.
2. Isolation, purification and stability of proteins.

II. Write notes on:

(7×5=35)

1. CADD technique.
2. De Novo protein characterization.
3. Analytical and biophysical parameters of proteins in preformulation.
4. Immobilized pH gradients.
5. Classification of peptidomimetics.
6. Gene shuffling.
7. Forced degradation studies of proteins.
