

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION MAY 2017**  
(Sixth Semester)

Branch - **BIOTECHNOLOGY**  
**BIOPHARMACEUTICALS**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10x2 = 20)

- 1 What is meant by secondary metabolites?
- 2- Essential oil.
- 3 Define pharmacodynamics.
- 4 Define nanoparticle.
- 5 Name the drug reservoirs.
- 6 Define bioavailability.
- 7 Cell line. \*
- 8 Drug validation.
- 9 Vaccine.
- 10 Name the oils used in aromatherapy.

**SECTION - B (25 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

- II a How the drugs are extracted by steam distillation?  
OR  
b Give a short account on sources of drugs from animals. .
- 12 a Write a short note on the types of receptors.  
OR  
b Give brief note on the role of nanoshells and nanocapsules in delivering a drug.
- 13 a Comment on the factors affecting drug absorption.  
OR  
b Give a short note on pharmacokinetics.
- 14 a What are the good manufacturing practices followed in Pharma industries?  
OR  
b Comprehend the role of rDNA technology in drug manufacturing process.
- 15 a How the hormones are produced by rDNA techniques?  
OR  
b' Give a short note on the production and importance of blood clotting factors.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Elaborate the sources of essential oils and its biological importance.
- 17 Give an overview on the mechanism of drug action.
- 18 Write a detailed note on drug metabolism.
- 19 Elaborate the role of biopharmaceuticals in the treatment of diseases.
- 20 Discuss in detail about the clinical trials followed in Pharma industries.'