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18BT72

## Seventh Semester B.E. Degree Examination, Dec.2023/Jan.2024 Clinical and Pharmaceutical Biotechnology

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Inventory drug molecule from scratch until it reaches market. Elucidate the process. (10 Marks)
- b. Illustrate the process of formulation in tablet manufacturing and add a note on its stability. (10 Marks)

**OR**

- 2 a. Enumerate the formulation in parenteral preparation and add a note on its stability. (10 Marks)
- b. Formulate API with excipients in Ointment manufacturing and add a note on its stability. (10 Marks)

### Module-2

- 3 a. "CYP family enzymes have a vital role in drug metabolism". Justify. (10 Marks)
- b. Drugs are made polar during the metabolism. Illustrate the process. (10 Marks)

**OR**

- 4 a. Outline the disease target identification and Selection – An approach. (10 Marks)
- b. Comment on LADME concept in drug metabolism. (10 Marks)

### Module-3

- 5 a. Outline the therapeutic aspect of laxatives and contrast its action with purgatives. (10 Marks)
- b. "Substance produced by one micro organism that selectively inhibits the growth of another" outline the drug. (10 Marks)

**OR**

- 6 a. Cells divide uncontrollably and spread into surrounding tissues – Elaborate the pharmacotherapy and cure. (10 Marks)
- b. DOTS therapy and various combination therapy are used. Outline the disease and its concept for the mentioned therapy. (10 Marks)

### Module-4

- 7 a. Enumerate the therapeutic use of hormones and growth factors highlighting the challenges faced it as biotherapeutics. (10 Marks)
- b. "Chronic renal failure associated Anemia can be treated by a hormones/growth factors". Comment. (10 Marks)

**OR**

- 8 a. Illustrate the principle and steps involved in component separation during blood transfusion. (10 Marks)
- b. Enumerate the advancement in drug delivery system owing to sustainability, biodegradability and target identification. (10 Marks)

**Module-5**

- 9 a. A legal procedure in clinical trials to ensure that a patient or client knows all of the risks in a treatment. Elaborate. (10 Marks)
- b. "The power of the mind to influence the body overpowers the therapeutic effect". Uphold the statement. (10 Marks)

**OR**

- 10 a. Comprehend the statement "Safety testing of drugs is a need of an hour". (10 Marks)
- b. Illustrate the Invitro and Invivo testing of new compounds in preclinical studies. (10 Marks)

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