

Write the following information in the first page of Answer Script before starting answer

ODD SEMESTER EXAMINATION: 2020-21

Exam ID Number _____

Course _____ Semester _____

Paper Code _____ Paper Title _____

Type of Exam: _____ (Regular/Back/Improvement)

Important Instruction for students:

1. Student should write objective and descriptive answer on plain white paper.
2. Give page number in each page starting from 1st page.
3. After completion of examination, Scan all pages, convert into a single PDF and upload to the Google classroom as attachment.
4. Exam timing from 10am – 1pm (for morning shift).
5. Question Paper will be uploaded before 10 mins from the schedule time.
6. Additional 20 mins time will be given for scanning and uploading the single PDF file.
7. Student will be marked as ABSENT if failed to upload the PDF answer script due to any reason.

MBT / MMB
THIRD SEMESTER
PHARMACOLOGY
MBT / MMB – 306 MDC

Duration : 3 hrs.

Full Marks : 70

(PART-A: Objective)

Time : 20 min.

Marks : 20

Choose the correct answer from the following:

1×20=20

1. Mechanism of drug action is explored by:
 - a. pharmacokinetics
 - b. pharmacogenetics
 - c. pharmacoeconomics
 - d. pharmacodynamics
2. Dosage forms comprise of
 - a. active ingredients
 - b. inactive ingredients
 - c. Both a) and b)
 - d. Only a
3. Types of dosage form based on method of administration:
 - a. Solid dosage forms
 - b. Liquid dosage forms
 - c. Topical dosage forms
 - d. Semi solid dosage forms
4. A liquid dosage forms may be
 - a. Suspensions
 - b. Gels
 - c. Aerosols
 - d. Nebulizer
5. Branch of Pharmacology deals with absorption, distribution, metabolism and excretion of drugs is
 - a. Pharmacodynamics
 - b. Pharmacokinetics
 - c. Pharmacy
 - d. Pharmacogenetics
6. "Pharmakos" meaning
 - a. Pharmacy
 - b. Pharmacokinetics
 - c. Medicine or drug
 - d. None of the above
7. According to Beer Lambert's law, light absorbed is
 - a. Directly proportional to Concentration of the solution
 - b. Inversely proportional to the concentration of the solution
 - c. Directly proportional to both the Concentration and Path length
 - d. Directly proportional to Path length
8. A colorimeter is used for the study of
 - a. Concentration of a solution
 - b. Determining the rates of reaction
 - c. Determining the growth of bacterial cultures
 - d. All of the above
9. Who constructed the first mass spectrometer?
 - a. Leeuwenhoek
 - b. J.J. Thompson
 - c. Alexander Flamming
 - d. Robert Hook

10. Screening of newborns for metabolic disorders can be examined through
- Mass spectroscopy
 - UV Vis spectroscopy
 - Chromatography
 - Colorimeter
11. The PCR technique was developed by _____
- Kohler
 - Altman
 - Milstein
 - Kary Mullis
12. *Thermus aquaticus* is the source of _____
- Vent polymerase
 - Primase enzyme
 - Taq polymerase
 - Both a and c
13. Western blotting technique is used for
- To detect specific DNA in a sample
 - To detect specific RNA in a sample
 - To detect specific Protein in a sample
 - All of the above
14. Percolation is
- Slow passage of a liquid through a filtering medium
 - The process of extracting the soluble constituents of a powdered drug by passage of a liquid through it
 - Used in isolation of compounds from herbal sources
 - All of the above
15. In maceration
- Plant species is immersed in water
 - Plant needs to be cut into small pieces
 - Only a)
 - Both a) and b)
16. NSAID stands for
- Non-steroidal anti-inflammatory drugs
 - Non-sterile anti-inflammatory drugs
 - Non-sterile antigen induced drugs
 - None of the above
17. ED 50 is
- Median effective dose
 - Dose effects 50% of the population
 - Both a) and b) are true
 - Lethal dose
18. According to Lipinski's rule which of the following is correct?
- No more than 5 hydrogen bond donors
 - No more than 10 hydrogen bond acceptors
 - A molecular mass less than 500 daltons
 - All are true
19. Acute toxicity studies are conducted to determine
- Long-term adverse effects of a drug
 - Short-term adverse effects of a drug
 - Both a) and b) are correct
 - None of the above
20. To determine the effects of a substance following prolonged and repeated exposure _____ study is conducted.
- Acute toxicity
 - Sub-acute toxicity
 - Chronic toxicity
 - All of the above

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(PART-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. Define PCR. Explain the steps of PCR with suitable diagram. 2+8=10

2. Write short notes on the following: 2×5=10
 - a. Pharmacokinetics
 - b. Pharmacodynamics
 - c. Pharmacogenomics
 - d. Pharmacognosy
 - e. Toxicology

3. Define dosage forms? Discuss briefly the types of dosage forms. 2+8=10

4. a. Define Beer-Lambert's law. Write the principle of UV-Vis Spectroscopy. 2+5+3=10
b. Write applications of UV vis spectroscopy.

5. Explain briefly the Northern, Southern and Western blotting techniques. 10

6. Explain briefly the drug screening methods involved in the evaluation of 5+5=10
 - a. Anti-ulcer drugs
 - b. Anti-cancer drugs

7. Describe briefly the methods involved in the development of new drugs 10

8. Describe the following methods used in isolation of compounds from herbal sources 5+5=10
 - a. Percolation
 - b. Maceration

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