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Paper Code: BP-601T

A

(SVSU:2023-24/R)

Enrollment No.

B. PHARM**IIIrd YEAR VI SEMESTER EXAMINATION****MEDICINAL CHEMISTRY – III****[Time : 3:00 Hours]****[Max. Marks : 75]****I Long Question: Answer Any Two****[10×2=20]**

1. Give parameters of QSAR with suitable examples.
2. Degradation of cephalosporins in different medium.
3. Classify penicillins.

II. Short Question: Answer any Seven**[5×7=35]**

1. Give MOA and uses of Dapsone.
2. Write uses of Streptomycin.
3. Explain various approaches used in drug design
4. Discuss Hammett's electronic parameter.
5. Write structure and uses of Acyclovir
6. Discuss Prodrug.
7. Write structure and uses of Griseofulvin
8. Discuss partition coefficient.
9. Write structure and uses of Tolnaftate

III. Objectives Question: Answer All Question**[20×1=20]**

1. LBDD stands for
A.) ligand-based drug design B.) structure-based drug design
C.) ligand-based diode design D.) None
2. Method used in lead optimization is used to improve drug characteristics like
A.) Potency B.) selectivity C.) toxicity D.) All of these
3. Sir Alexander Fleming discovered
A.) cephalosporins B.) penicillin C.) Aniline D.) All
4. Cephalosporin is
A.) steroid B.) Hormone C.) Antibiotic D.) None
5. Beta lactam is
A.) 2-membered ring B.) 3-membered ring
C.) 4-membered ring D.) 5-membered ring
6. Antibiotic penicillin is obtained from
a.) fungus b.) bacteria c.) plant d.) None
7. What is bactericidal antibiotics?
a.) To kill Bacteria b.) Inhibit the growth c.) Both d.) None

8. Chemdraw & Chems sketch used in drug design is a
 - A). In vitro techniques
 - B) in vivo techniques
 - C) A software
 - D) none of these
9. How many phases of clinical trial used in drug development?
 - A). 4 phases
 - B) 3 phases
 - C) 2 phases
 - D) 5 phases
10. Which one antiprotozoal agents
 - A) Tinidazole
 - B) Aspirin
 - C) Penicillin
 - D) All of these
11. Structural classification of macrolide erythromycin is
 - A.)13 membered ring
 - B.)14 membered ring
 - C.) 15 membered ring
 - D.)16 membered ring
12. Azithromycin is
 - A.) Biguanide
 - B.) Antimalarial
 - C.) Macrolide
 - D.) All of these
13. Chloramphenicol inhibit
 - A.) protein synthesis
 - B.) nucleic acid synthesis
 - C.) cell wall synthesis
 - D.) none
14. Antitubercular agents are
 - A.) Isoniazid
 - B.) Ethambutol
 - C.) PAS
 - D.) All
15. Folate reductase inhibitors are
 - A.) Penicillin
 - B.) Trimethoprim
 - C.) clindamycin
 - D.) erythromycin
16. Macrolide is the type of
 - A.) antiviral drug
 - B.) antifungal drug
 - C.) antibacterial drug
 - D.) none
17. Chloramphenicol is contained
 - A.) 1 chiral center
 - B.) 3 chiral center
 - C.) 4 chiral center
 - D.) 2 chiral center
18. Quinine obtained from cinchona bark is used as
 - A.) Antitubercular agent
 - B.) Anti-protozoal agent
 - C.) Anti-malarial agent
 - D.) Anti-fungal agent
19. Which one of the chloramphenicol prodrug example?
 - A.) chloramphenicol nitrate
 - B.) chloramphenicol sulphide
 - C.) chloramphenicol succinate
 - D.) none
20. Cycloguanil pamoate is useful
 - A.) Protozoal therapy
 - B.) Viral therapy
 - C.) Malarial therapy
 - D.) None of these

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B. Pharm VI Semester / III Year

Subject Name: Pharmacology III Subject Code: BP602

[Time : 03:00 Hours]

[Max. Marks : 75]

Note: Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×20=20]

- I** Indicate the expectorant with the reflex mechanism:
a) Sodium benzoate b) Derivatives of Ipecacucnha and Thermopsis
c) Trypsin d) Ambroxol
- II** Tick the antitussive agent with a peripheral effect:
a) Codeine b) Tusuprex c) Libexine d) Glaucine hydrochloride
- III** Chymotrypsin is an agent containing free sulfhydryl groups. It's:
a) True b) False
- IV** All of these drugs contain free sulfhydryl groups EXCEPT:
a) Acetylcysteine b) Ambroxol c) Bromhexin d) Trypsin
- V** Which of the following drugs is an agent of substitution therapy?
a) Gastrin b) Hydrochloric acid c) Hystamine d) Carbonate mineral waters
- VI** Choose the drug which is a H₂-receptor antagonist:
a) Omeprazole b) Pirenzepine c) Carbenoxolone d) Ranitidine
- VII** All of the following drugs are proton pump inhibitors EXCEPT:
a) Pantoprazole b) Omeprazole c) Famotidine d) Rabeprazole
- VIII** Indicate the drug belonging to M₁-cholinoblockers:
a) Cimetidine b) Ranitidine c) Pirenzepin d) Omeprazole
- IX** Mechanisms of bacterial resistance to anti-microbial agents are the following, EXCEPT:
a) Active transport out of a microorganism or/and hydrolysis of an agent via enzymes produced by a microorganism
b) Enlarged uptake of the drug by a microorganism
c) Modification of a drug's target d) Reduced uptake by a microorganism
- X** The statement, that some microorganisms can develop alternative metabolic pathways for rendering reactions inhibited by the drug, is: a) True b) False
- XI** All of the following drugs are antibiotics, EXCEPT:
a) Streptomycin b) Penicillin c) Co-trimoxazole d) Chloramphenicol
- XII** Bactericidal effect is:
a) Inhibition of bacterial cell division
b) Inhibition of young bacterial cell growth
c) Destroying of bacterial cells d) Formation of bacterial L-form
- XIII** Sulfonamides are effective against:
a) Bacteria and Chlamidia b) Actinomyces c) Protozoa d) All of the above
- XIV** Mechanism of sulfonamides' antibacterial effect is:
a) Inhibition of dihydropteroatereductase
b) Inhibition of dihydropteroate synthase
c) Inhibition of cyclooxygenase
d) Activation of DNA gyrase

- XV** Combination of sulfonamides with trimethoprim:
 a) Decreases the unwanted effects of sulfonamides
 b) Increases the antimicrobial activity
 c) Decreases the antimicrobial activity
 d) Increases the elimination of sulfonamides
- XVI** Sulfonamide potency is decreased in case of co-administration with:
 a) Oral hypoglycemic agents
 b) Local anesthetics – derivatives of paraaminobenzoic acid
 c) Local anesthetics – derivatives of benzoic acid
 d) Non-narcotic analgesics
- XVII** Tick the antimalarial drug belonging to 8-aminoquinoline derivatives:
 a) Doxycycline b) Quinidine c) Primaquine d) Chloroquine
- XVIII** Tick the antimalarial drug having a gametocidal effect:
 a) Mefloquine b) Primaquine c) Doxycycline d) Sulfonamides
- XIX** All of the following effects are disadvantages of anticancer drugs, EXCEPT:
 a) Low selectivity to cancer cells b) Depression of bone marrow
 c) Depression of angiogenesis d) Depression of immune system
- XX** Rational combination of anticancer drugs is used to:
 a) Provide synergism resulting from the use of anticancer drugs with different mechanisms combination
 b) Provide synergism resulting from the use of anticancer drugs with the same mechanisms combination
 c) Provide stimulation of immune system
 d) Provide stimulation of cell proliferation

2. Answer in long (any two)

[2×10=20]

- I** Classify anti-asthmatic drugs. Describe role of sympathomimetics in the treatment of asthma.
- II** What is DOTS? Discuss the management of tuberculosis with special emphasis on Isoniazid.
- III** Classify semi-synthetic penicillins. Write antibacterial spectrum and use of amoxycilline.

3. Answer in short (any seven)

[7x5=35]

- I** Write a note on causes and prevention of antimicrobial resistance.
- II** Classify anticancer agents. Discuss antimetabolites in details.
- III** Classify immunosuppressants. Describe pharmacology of ciclosporin.
- IV** Write in details about systemic antifungal agents.
- V** Define following terms: Chronobiology, Sub acute toxicity, Drug resistance, Teratogenicity, Antibiotics.
- VI** Classify anti-viral drugs. Describe the pharmacology of Acyclovir.
- VII** Write mode of action, adverse drug reactions and uses of Dapsone & Clofazimine.
- VIII** Explain the treatment and management of Barbiturates and Arsenic poisoning.
- IX** Illustrate the treatment of Urinary tract infection.

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A (SVSU:2023-24/C)

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B.PHARM

IIIrd YEAR [(6th sem.) (Carry over)

Herbal Drug Technology (BP-603T)

[Time : 3:00 Hours]

[Max. Marks : 75]

Long question: Answer Any Two

[2x10=20]

Q1. Define herbal medicinal. Write a note on herbal drug preparation and Good agricultural practices in cultivation of medicinal plants.

Q2. Give Introduction to Herbal Industry. Write a brief account of plant based industries involved in work on medicinal and aromatic plants in India

Q3. Define herbal Nutraceuticals. Write a note on Health benefits and role of Nutraceuticals in ailments like Diabetes and CVS diseases.

Short question: Answer Any Seven

[7x5=35]

Q1. Write a short note on Good agricultural practices in cultivation of medicinal plants.

Q2. Write health benefits and role of Nutraceuticals in Diabetes.

Q3. Write a short note on garlic and amla as health food.

Q4. Give general introduction to herbal-drug and herb-food interactions.

Q5. Give the definition of: Patent, IPR and Biopiracy

Q6. Give a brief account of plant based industries.

Q7. Write the preparation of ayurvedic formulation Aristas and Asawas

Q8. Write a short note on Pest and Pest management in medicinal plants.

Q9. Write the components of GMP (Schedule – T) and its objectives.

Objective Questions : Answer all question: [20x1=20]

Q1. Is Known as father of medicine?

- a. Aristotle b. Dioscorides c. Hippocrates d. Galen

Q2. Cryopreservation is a technique used for

- a. Crystallization of food c. Food packing
b. Seed saving d. Preservation of production of vegetables

Q3. Which statement is true about synthetic drug

- a. They can be patented
b. They are difficult to synthesize
c. They are usually more expensive to produce than natural sources
d. All of these

Q4. How much of the world's population depends on herbal medicines?

- a. 80% b. 60% c. 40% d. 20%

Q5. The pH in soils can be raised by adding

- a. Sand b. Sulphur c. Lime d. Nitrogen

Q6. Where is National Institute of Siddha located?

- a. New Delhi b. Chennai c. Calicut d. Hyderabad

- Q7. Who introduced the Unani system of medicine to India?
 a. Chinese b. Arabs c. Japanese d. Portuguese
- Q8. Name an ancient book which describes difficult surgical operations like opening of a brain etc.
 a. Celsus b. Bhela Samhita c. Chivaravastu d. Agnivesa Samhita
- Q9. All of the following are the components of foods except____
 a. Carbohydrates b. Proteins c. Vitamins d. Fiber
- Q10. Which of the following are the micronutrients?
 a. Vitamins and Minerals c. Proteins and Vitamins
 b. Carbohydrates and Fats d. Proteins and Minerals
- Q11. What is the formula for glucose?
 a. $C_6H_{12}O_6$ b. $C_6H_6O_{12}$ c. $C_6H_6O_6$ d. $C_{12}H_6O_{11}$
- Q12. In which form body stores glucose?
 a. Cellulose b. Starch c. Glycogen d. Carbon
- Q13. Full form of FMHG
 a. Fast Moving Horticulture Goods
 b. Fast Moving Healthcare Gazed
 c. Fast Moving Healthcare Goods
 d. Flow Moving Healthcare Goods
- Q14. Full form of DSHEA is
 a. Daily Supplement Health and Education Act
 b. Dietary Supplement Health and Education Act
 c. Dietary supervision Health and Education Act
 d. Dietary Supplement home and Education Act
- Q15. Is defined as a food or part of a food that provides medical or health benefits, including the prevention and /or treatment of a disease.
 a. Herbal Drug c. Nutraceutical
 b. Herb Food d. Herbal Cosmetics
- Q16. This can help on the diagnosis of the genetic basis of a disorder
 a. ELISA b. PCR c. ABO blood group d. NMR
- Q17. Which part of ginger is used in cooking or medicine?
 a. Rhizome b. Leaf c. Flower d. Buds
- Q18. Zinc pyrithine in shampoo is used as
 a. Conditioner b. Cleansing c. Antidandruff agent d. Detergent
- Q19. The following surfactant are used in the preparation of dental preparation
 a. Tween80 b. Certitude c. Span 80 d. Sodium lauryl sulphate
- Q20. Depilatories are substance which
 a. Removes hair c. Imparts colour to the hair
 b. Moisturizers skin d. Remove dirt from skin

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Paper Code: BP-605 T

C (SVSU:2023-24/C)

Enrollment No.

B.Pharm

IIIrd YEAR, VIth SEMESTER

Subject Name- Pharmaceutical Biotechnology, BP-605T

[Time : 3:00 Hours]

[Max. Marks : 75]

I. Multiple Choice Questions (MCQ)

[20×1=20]

1. Which of the following product is biotechnologically derived?
(a) Beer (b) Bread (c) Cheese (d) All
2. Which type of loading is present in Enzyme immobilization 'Adsorption'?
(a) High (b) Medium (c) Low (d) None
3. The element in Biosensor which increases the quality of signal is-
(a) Sensor (b) Display Unit (c) Amplifier (d) All
4. The carrier Calcium Alginate is used in which method?
(a) Adsorption (b) Covalent Binding
(c) Membrane Confinement (d) Entrapment
5. Protein Engineering involves the modification of-
(a) Fats (b) Carbohydrates (c) Proteins (d) All
6. The gross structure & physical characteristics of an organism is governed by-
(a) Genes (b) Phenotype (c) RNA (d) None
7. Selection of a cloning vector is which step in rDNA technology?
(a) First (b) Second (c) Third (d) Fourth
8. The genes & the genetic code is present in-
(a) RNA (b) DNA (c) Mitochondria (d) Ribosomes
9. Production of 'Golden Rice' was possible with the technique of-
(a) PCR (b) Protein Engineering
(c) Genetic Engineering (d) None
10. Which enzymes are also known as Molecular Scissors?
(a) DNA Gyrase (b) DNA Ligase
(c) DNA Isomerases (d) Restriction Endonuclease
11. The term ligase comes from a Latin verb "Ligare" which means-
(a) To cut (b) To join (c) Both (d) None
12. Which are used to diagnose Cancer and in AIDS research?
(a) Antigens (b) Monoclonal Antibodies (c) Both (d) None
13. The immunity in which antibodies are gained from outside is known as-
(a) Natural (b) Passive (c) Both (d) None
14. Recombivax HB is the available marketed drug of-
(a) Polio (b) Flu (c) Typhoid (d) Hepatitis B

15. Which kind of animal is used for production of Monoclonal Antibodies?
(a) Dog (b) Rabbit (c) Cat (d) Mice
16. Which of the following are common Genetic Disorders-
(a) Cystic Fibrosis (b) Down's Syndrome (c) SCID (d) All
17. The prokaryotic genome is also referred as-
(a) Golgi Body (b) Germ Line (c) Nucleoid (d) None
18. The optimum pH for Penicillin growth is-
(a) 4.5 (b) 5.5 (c) 6.5 (d) 9.5
19. The full form of MHC is-
(a) Major Histamine Complex (b) Major Histocompatibility complex
(c) Major Hemoglobin Complex (d) None
20. Which of the following is an important example of Plasma Substitute-
(a) Lactose (b) Dextran (c) Starch (d) Glucose

II. Long Answers (Answer 2 out of 3)

[2×10=20]

1. Give a brief account of Hypersensitivity reactions & its different types.
2. What are the different uses of microbes in Industry? Write about Amylase and its production.
3. Give a brief introduction of Biotechnology with reference to Pharmaceutical field.

III. Short Answers (Answer 7 out of 9)

[7×5=35]

1. What do you mean by Immunity? Give its types.
2. What is mutation? Write about its different types.
3. Give a note on Fermentation & its uses.
4. What are Biosensors? What are their applications.
5. What is the use of the enzyme Lipase? How it is produced?
6. Give the functions & structure of MHC.
7. Write a note on Interferons. How they are important?
8. Explain the term "Enzyme Immobilization". Name its different techniques.
9. Write a note on "Bioreactors" and their importance in biotechnology.

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B. PHARM

6th SEMESTER, 3rd YEAR CARRYOVER EXAMINATION

Quality Assurance (BP606T)

[Time : 3:00 Hours]

[Max. Marks : 75]

I Long Question : Answer Any Two [2×10=20]

1. Explain the objectives and scope of GLP.
2. Discuss the important principles of Total Quality Management.
3. Describe the requirements for environmental control and layout of sterile manufacturing area.

II. Short Question: Answer any Seven [7×5=35]

1. Write the significance of personnel hygiene in pharmaceutical industry.
2. Describe the equipment selection and purchase procedure.
3. Explain the protocol for conduct of non-clinical laboratory study .
4. Explain the quality control tests for containers and rubber closures.
5. Discuss the handling of return goods.
6. Explain the importance and scope of validation.
7. Explain the concept of QA and QC.
8. Enlist ICH Q-series guidelines and explain any one in detail.
9. Write the significance of personnel hygiene in pharmaceutical industry.

III. Multiple Choice Question: Answer All [20x1=20]

1. Which of the following option involves material and component control?
A. Quality control B. Feedback
C. Development of specification D. Quality control
2. Which quality is measured as a foundation of requirement:
A. Software B. Programmers C. Hardware D. None
3. While setting Quality objective, _____ to be considered.
A. Material quality B. Feedback
C. Development of standards D. Customer Satisfaction.
4. Select which option is not true about SQA:
A Evaluations to be performed
B. Documents that are produced by the SQA team.
C. Audits & reviews to be performed by the team
D. None.
5. Control chart is a:
A. Process monitoring tool B. Process control tool
C. Both (a) and (b) D. None

6. Software quality assurance consists of which function of management:
 A. Reporting functions B. Auditing functions
 C. both a and b D. None
7. Which of the following is not included in prevention cost:
 A. formal technical reviews
 B. equipment calibration and maintenance
 C. test equipment reviews D. None
8. Capacity planning is concerned with:
 A. How much labour required B. How many machines required
 C. Both D. None
9. Process control is carried out:
 A. during production B. before production.
 C. after production control D. All of the above
10. Total Quality Management (TQM) focuses on
 A. Employee B. Customer C. Both (a) and (b) D. NONE
11. The Headquarter of CDSCO is located at.
 A. New Delhi B. Kolkata C. Mumbai D. Chennai
12. The objective of ISO-9000 family of Quality management is:
 A. Customer satisfaction. B. Employee satisfaction
 C. Skill enhancement D. Environmental issues
13. P-D-C-A stands for
 A. Plan-Do-check-Act B. Plan-Do-correct-Act
 C. Proceed-Do-check-Act D. Proceed-Do-correct-Act
14. Physical dimension of equipment and accessories- comes under which qualification?
 A. Design qualification (DQ) B. Installation qualification (IQ)
 C. Operational qualification D. Performance qualification (PQ)
15. TQM Stands for :
 a. Total Quality Management b. Two Quality Management
 c. Total Quality Measurable d. None of these
16. GLP Means:
 a. Good Laboratory Protocols b. Good Laboratory Practices
 c. Good Laboratory Planning d. None of these
17. What does QA and QC stand for:
 a) Quality Assurance and Queuing Control
 b) Quality Adjustment and Quality completion
 c) Quality Assurance and Quality control
 d) Quality Adjustment and Queuing control
18. Which of the following option is correct regarding QA and QC:
 a) QC is an integral part of QA b) QA is an integral part of QC
 c) QA and QC are independent to each other
 d) QC may or may not depend on QA
19. GCP Means:
 a. Good clinical practice b. Good clinical patient
 c. Good client practice d. none of these
20. Which of the following is an example of QA:
 a) Verification b) Software testing c) Validation d) Documentation