

Printing Pages :2

Paper Code: BP-501 T

C (SVSU:2023-24/R)

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B. PHARM
MEDICINAL CHEMISTRY – II
(BP501T)

[Time: 3:00 Hours]

[Max. Marks: 75]

I Long Question: Answer Any Two

[10×2=20]

1. Classify Diuretics with Mechanism of Action and Give the synthesis of Chlorthalidone.
2. Classify Antidiabetic agents with Mechanism of action and uses of Pioglitazone.
3. Discuss the SAR of Local anaesthetics.

II. Short Question: Answer any Seven

[5×7=35]

1. Write structure and uses of Diphenhydramine hydrochloride.
2. Write down the synthesis and uses of Disopyramide phosphate.
3. Explain about the chemistry of drugs used in Congestive Heart Failure.
4. Write structure and uses of Meclizine.
5. Write a note on Oral contraceptives.
6. Explain Insulin and its preparations.
7. Write structure and uses of Acetazolamide.
8. Write down the synthesis and uses of Benzocaine.
9. Write Synthesis and uses of Tolbutamide.

III. Objectives Question: Answer All Question

[20×1=20]

1. Which is not an example of H-1 antagonists.
 a.) Zolamine b.) Tripelemine
 c.) Doxylamine d.) Cimetidine
2. H-2 antihistamines are used to treat.
 a.) Motion sickness b.) Nausea c.) Gastritis d.) All of these
3. H1 receptor is located in.
 a.) Heart b.) smooth muscles c.) None d.) Both
4. Which of the following histamine receptor increase the release of gastric acid?
 a.) H1 receptor b.) H2 receptor
 c.) H3 receptor d.) H4 receptor
5. Digoxin is:
 a.) Glycoside. b.) Alkaloid. c.) Protein. d.) Terpene
6. Which of the following antianginal agent is a calcium channel blocker?
 a.) Nitroglycerine b.) Quinidine c.) Verapamil. d.) Quinidine

7. Main clinical use of calcium channel blocker.
a.) anginalpactoris b.) Hypertension c.) Both a and b d.) None of these
8. Which one is oral coagulant?
a.) Heparin b.) Warfarin c.) Both d.) None of These
9. This drug is an effective bronchodilator.
a) Verapamil b) Nimodipine c) both d)None of these
10. Omeprazole is used to treat.
a.) GERD b.) Heartburn c.) Both d.) None
11. Diphenhydramine hydrochloride is a generation antihistamine.
a.) First b.) Second c.) Third d.) Fourth
12. Which one is the H1 antagonist?
a.)Loratadine b.)Cetirizine
c.) DiphenhydramineHCL d.) All
13. Which one is calcium channel blockers?
a.) Nicardipne b.) Trimeprazine
c.) Dithiadene d) All
14. Which one has Coumarin ring?
a.) Acetazolamide b.) ACE- Inhibitor c.) Diuretic d.) All
15. Commonly used as first-line therapy for C.H.F to reduce fluid retention and symptoms?
A) Beta-blockers B) ACE inhibitors
C) Diuretics D) Calcium channel blockers
16. Which of the following is carbonic anhydrase inhibitors?
a.) Acetazolamide b.) Methazolamide
c.)Dichlorphenamide d.) All
17. Anti-arrhythmic drugs are primarily used to.
a.) Lower blood pressure b.) Prevent or treat abnormal heart rhythms
c.) Reduce cholesterol levels d.) Improve cardiac output
18. The core structure of many steroids, including cortisol and testosterone, is composed of which type of ring structure?
a.) Pyrazole Ring b.) Quinoline Ring
c.) Tetracyclic ring d.)Imidazole Ring
19. Which of the drug is used as anti-histamine?
a.) Promethazine b.) Pilocarpine c.) Prednisolone
d.) Cyclocerine
20. Which class of drugs primarily inhibits the enzyme HMG-CoA reductase, a key enzyme in cholesterol synthesis?
a.) Fibric acid derivatives b.) Statins
c.) Bile acid sequestrants d.) Omega-3 fatty acids

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B.PHARM

IIIRD YEAR, VTH SEMESTER EXAMINATION
INDUSTRIAL PHARMACY-I (CODE-BP502T)

[Time : 3:00 Hours]

[Max. Marks : 75]

Q1. Long Questions : Answer Any Two

[10×2=20]

- Draw a neat labeled diagram of single punch tablet compression machine and describe its construction and working. Explain Tablet tooling.
- Explain in detail about formulation considerations for liquid dosage forms. Write a note on Elixirs.
- Define preformulation studies. Write a note on solubility analysis in preformulation studies.

Q2. Short Questions: Answer any Seven

[5×7=35]

- Explain cold filling method of pharmaceutical aerosols with a neat diagram.
- Formulation and evaluation of dentifrices.
- Write a note on tablet coating pan.
- Describe Spheronization techniques used in the formulation of pellets.
- Quality control of pharmaceutical aerosols.
- Explain base adsorption of solids and minim per gram factor for soft gelatin capsules.
- Define and classify ophthalmic products. Write formulation of eye drops
- Describe hand operated capsule filling machine with its labeled diagram..
- Classify packaging material used in pharmacy. Explain various materials used as containers.

Q3. Multiple choice question.(Answer all)

[1×20=20]

- Zinc stearate is used as -----in face powders.
a. Adhesive b. Absorbent c. Bleaching agent d. colorant.
- is a tablet defect.
a. Blistering b. Roughness c. Hazing d. Capping
- Carr's index is related to
a. Flow property b. Solubility c. Partition coefficient d. All of above
- Principle of Freeze drying is -
a. Evaporation b. Sublimation
c. Crystallization d. None of above
- is not a pharmaceutical sugar-
a. Sugartab b. Emdex c. Dipac d. Nutab

- vi. Calamine lotion is an example of -----
a. Emulsion b. Suspension c. Syrup d. None
- vii. Which one is not an example of oil soluble antioxidant ?
a. Tocopherol b. BHA c. BHT d. Phosphorus
- viii. Which among the following is not a super- disintegrating agent?
a. Cross-povidone b. Ac-dil-sol
c. Sodium starch glychollate d) Explotab
- ix. Type B gelatin has isoelectric pH of—
a. 4.7 b. 7 c. 9 d.8
- x. Chlorobutanol belongs to -----class of preservative?
a. Class-I b. Class-II c. Class-III d Class-IV
- xi. Sachharine is ----- times sweeter than sucrose..
a. 100 b. 50 c. 250-500 d. 100-200
- xii. In sugar coating of tablets subcoating process is done
a. To prevent moisture deposition
b. To round the edge and build tablet size
c. To smoothen the surface d. None of above.
- xiii. Largest size of capsule is for human use is-
a. 1 b. 000 d. 5 d. 00
- xiv. Moisture content of hard capsule shell must be ?
a.10% b. 12-16% d. <5% d. 25%
- xv. When a parenteral solution has an osmolarity equal to blood, it is called-----
a. Hypertonic b. Hypotonic
c. Isotonic d. All of the above
- xvi. In nail polish, following polymer is used as film former-
a. Nitrocellulose b. Polylactic acid
d. HPMC d. Lactose
- xvii. SLS is used in which type of cosmetic products-
a. Lipstick b. Nail polishes
d. Face powder. d. Shampoos
- xviii. Nomenclature of dichloro-tetrafluoroethane as aerosol propellant is-
a. 11 b. 114 d. A-17 d. A-108
- xix. Polyethylene Tetraphthalate is also called as-----
a. Polyester b. Nylon d. Polyethylene d. None
- xx. What is used as vulcanizing agent in rubber?
a. Thiazoles b. Sulphur d. Iron d. None

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B (SVSU:2023-24/R)

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BPHARM
3rd YEAR V SEMESTER EXAMINATION
Pharmacology-II
Subject Code: BP-503T

[Time: 3:00 Hours]**[Max. Marks: 75]****I Objectives Question: Answer All Question [20×1=20]**

1. Juxtaglomerular cells (JG cells) are mainly located in?
 - a. PCTb. Efferent arterioles c. DCT d. Afferent arterioles
2. Select ionic movement is mainly responsible for ventricular depolarization.
 - a. Na ions b. K ions c. Ca ions d. Cl ions
3. Which one of the following is a potassium channel opener?
 - a. Dipyridamole b. Nicorandil c. Nitroglycerine d. Trimetazidine
4. Select coumarin derivatives anticoagulant?
 - a. Dalteparin b. Warfarin c. Enoxaparin d. Heparin
5. Select prostaglandins analogue?
 - a. Dopamine b. Pantoprazole c. Propanthiline d. Misoprostol
6. All of these drugs are antiplatelet agent EXCEPT:
 - a. Aspirin b. Urokinase c. Ticlopidine d. Clopidogrel
7. Which one of the following is a plasma kinin?
 - a. Rennin b. Kallidin c. Serotonin d. Histamine
8. Digitalis mainly acts by inhibiting myocardial
 - a. Ca^{+2} channel b. $Na^{+}K^{+}$ ATPase pump
 - c. $H^{+}K^{+}$ ATPase pump d. Ca^{+2} ATPase pump
9. Drug which increases the absorption of iron from intestine.
 - a. Cyanocobalamin b. ascorbic acid
 - c. folic acid d. erythropoietin
10. Select 5HT3 antagonist.
 - a. Omeprazole b. Mosapride
 - c. Dexamethasone d. Ondansetron
11. Select the most common adverse effect of ACE inhibitors.
 - a. Persistent brassy cough b. Hyperkalaemia
 - c. Both a and b d. Cinconism
12. Drug which belongs to disease modifying anti-rheumatic category?
 - a. Leflunomide b. Sulfasalazine
 - c. Both a & b d. None of these

13. Select selective high ceiling diuretic?
a. Furosemide b. Thiazide c. Metolazone d. Mannitol
14. Select central sympatholytic.
a. Clonidine b. Methyldopa c. Both a & b d. None
15. Aglycone in cardiac glycoside is essential for:
a. Plasma protein binding b. Half- life
c. Cardiotonic action d. Metabolism
16. Which one of the following is specific DPP-4 inhibitor?
a. Vidagliptine b. Sitagliptine c. Both d. Levodopa
17. Tick the selective HMG-CoA reductase inhibitors.
a. Ezetimibe b. Colistipol c. Nicotinic acid d. Lovastatin
18. Select blood maturation factors.
a. Vitamin B12 b. Folic acid c. Both a & b d. None
19. Select, which one is xanthine oxidase inhibitor.
a. Allopurinol b. Xanthine c. colchicine d. Clomipramine
20. Tick the correct uterine relaxant (Tocolytics).
a. Misoprostol b. Oxytocin c. Ritodrine d. Ergometrine

II. Short Question: Answer any seven

[7×5=35]

1. Give a short note on shock therapy.
2. Define diabetes and classify oral hypoglycemic agents.
3. Write Vaughan-Williams classification of antiarrhythmic drugs and explain the pharmacology of quinidine.
4. Describe the treatment of congestive heart failure.
5. Discuss biosynthesis of autacoids (prostaglandin and leukotrienes).
6. Give the classification of NSAIDs, and discuss the pharmacology of aspirin.
7. Briefly describe the plasma volume expander using appropriate examples.
8. Give a brief note on biosynthesis and pharmacological actions of angiotensin and bradykinin.
9. Discuss calcitonin and parathormone and provide a flow chart depicting the modulation of plasma calcium levels.

III. Long Question: Answer Any Two

[10×2=20]

1. Classify antihypertensive drugs. Explain the mechanism of action and adverse effects of ACE inhibitors in detail.
2. What are hypolipidaemics and how are they classified? Give the pharmacology of HMG-CoA reductase inhibitors in detail
3. Classify thyroid inhibitors. Give a detailed note on thyroid hormone production, storage, and release.

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B.PHARM

IIIrd YEAR [(5th Sem.), Regular EXAMINATION, 2023-24

PHARMACOGNOSY AND PHYTOCHEMISTRY II (BP-504T)

[Time : 3:00 Hours]

[Max. Marks : 75]

Long question: Answer Any Two

[10x2=20]

Q1. Explain principle and working of Super critical fluid extraction with the help of diagram.

Q2. Classify alkaloids. Write the Pharmacognosy of Any Two.

a)) Belladonna b) Coriander, c) Ginger, d) Clove e) Fennel

Q3. What do you understand by Tracer Technique? Elaborate.

Short question: Answer Any Seven

[7x5=35]

Q1. Write Industrial production, Identification and Analysis of drug belongs to alkaloids

Q2. Write a short note on modern method of extraction.

Q3. Write Isolation, Identification and Analysis of Caffeine OR Menthol

Q4. Discuss Mevalonic acetate pathway

Q5. Write biosources, chemistry & chemical classes and therapeutic uses of Any Two.

a) Vinca b) Tea c) Senna d) Mentha

Q6. Classify Glycosides. Write the Pharmacognosy of Aloe/Senna

Q7. Explain Shikimic acid pathway.

Q8. Write Isolation, Identification and Analysis of Curcumine

Q9. Write the Pharmacognosy of drug belongs to Resins

Objective Questions :Answer all question:

[20x1=20]

Q1. Full form of HPLC is?

- a) High-performance liter chromatography
- b) Heavy-performance liquid chromatography
- c) High-performance liquid chromatography
- d) High-peractice liquid chromatography

Q2 Seena is.....

- a) Alkaloids
- b) Tannins
- c) Glycosides
- d) None of the above .

Q3. Chromatography on normal-phase silica gel is based on which of the following physicochemical processes?

- a) Distribution
- b) Adsorption
- c) Antigen-antibody interaction
- d) Ion exchange

Q4. IPP stands for

- a) Isopentyl pyrophosphate
- b) Isopropane pyrophosphate
- c) Isopentyl pyperidinephosphate
- d) Isopropane pyperidinephosphate

- Q5. Which of the following is the definition of chromatographic R_f (retention factor) value?
- The distance that a particular compound moves from the start
 - The distance between the start and the solvent front
 - The distance travel by solute divided by distance travel by solvent
 - The distance solvent divided by distance travel by solute
- Q6. The distance solvent divided by distance travel by solute Curcumin belongs to
- Resins
 - Tannins
 - Alkaloid
 - All the above
- Q7. Caffeine belongs to
- Glycosides
 - Tannins
 - Alkaloid
 - All the above
- Q8. Quinine is
- Alkaloid
 - Tannins
 - Flavonoids
 - all of the above
- Q9. Artemisin is used as
- Anticancer
 - Antimalarial
 - Antiulcer
 - None of the above
- Q10. Alkaloids are obtained from amino acids and they share a nitrogen-containing heterocyclic ring are known as.....
- Only Alkaloids
 - Proto Alkaloids
 - True Alkaloids
 - Pseudo Alkaloids
- Q11. Principle of IR
- Absorption
 - Bombartment
 - Spinning
 - None of the above
- Q12. Scientific name of Menthol
- Curcuma longa
 - Mentha piperita
 - Zanzibar officinale
 - None of the0
- Q13. Caffeine is a
- Secondary metabolites
 - Phytoconstituent
 - Alkaloid
 - All the above
- Q14. Atropine contains..... nucleus
- Purine
 - Tropane
 - Pyrimidine
 - None of the above
- Q15. In SCF extraction the critical temperature & pressure of CO_2 is
- $74^\circ C$ & 31 Bar
 - $31^\circ C$ & 74 Bar
 - $34^\circ C$ & 74 Bar
 - $74^\circ C$ & 34 Bar
- Q16. Another name of Farnesyl pyrophosphate is
- Monoterpenes
 - Triterpenes
 - Diterpenes
 - None of the above
- Q17. There are total Amino acids are synthesized in amino acid pathway
- 16
 - 18
 - 20
 - 22
- Q18. Which factors are affecting electrophoresis mobility?
- Molecule size
 - Shape of protine
 - a and b
 - None of the above
- Q19. Main ingredients of fermentation extraction is
- Water & Jaggery
 - Yeast, Water & Jaggery
 - Sugar & Jaggery
 - Jaggery & Yeast
- Q20. Principle of Chromatography is
- Absorption
 - A & b both
 - Seperation
 - None of the above

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B PHARM

**3rd YEAR,Vth SEMESTER REGULAR EXAMINATION
Pharmaceutical Jurisprudence (BP505T)**

[Time : 3:00 Hours]

[Max. Marks : 75]

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

1. Write a note on Drug Technical Advisory Board (DTAB).
2. Give the objectives , definitions and rules of Drugs and Cosmetics Act, 1940.
3. Discuss the Powers , Qualification ,Duties and Procedure of Inspection to be followed by Drug Inspector.

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

1. What are Restricted licence?
2. Explain the contents of Drug Price Control Order .
3. Write the Composition of joint State Pharmacy Council of India.
4. Write about a Non-bonded Manufactory
5. Give the Offences and Penalties according to pharmacy act 1948.
6. write short note on.
A) Registration of Pharmacist B) RMP
7. Write short note on following .
A) Schedule F B) Schedule P
8. Explain Schedule M
9. Explain Schedule H

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

1. The Drugs and cosmetic rules came in _____.
a. 1945 b. 1973 c. 1947 d. 1936
2. The Dangerous drugs act came in _____.
a. 1930 b. 1976 c. 1947 d. 1936
3. The drugs and cosmetic act is a improves version of drugs act
a. 1940 b. 1976 c. 1947 d. 1936
4. Sushruta and charaka are two great names in
a. Ayurveda b. samveda c. hemetics d. none of these
5. Joint state pharmacy council is formed by combination of
a. State b. village c. country d. none of these

6. A nominate or elected member should have to vacate his seat if he is absent without excuse sufficient in the opinion of the central council for consecutive meetings of the council
a. 4 b. 3 c. 5 d. none of these
7. Biological and special products are listed in
a. Schedule C b. Schedule M c. Schedule P d. Schedule K
8. The drugs and cosmetic act was passed in
a. 1940 b. 1976 c. 1947 d. 1936
9. Fees for test or analysis by the central drugs laboratory or government analyst is listed in
a. Schedule B b. Schedule M c. Schedule P d. Schedule K
10. Standards for cosmetics are listed in
a. Schedule S b. Schedule M c. Schedule P d. Schedule K
11. Which schedule contain list of periods of drugs
a. Schedule P b. Schedule M c. Schedule P d. Schedule K
12. Which schedule contain standards for disinfectant fluids
a. Schedule P b. Schedule O c. Schedule P d. Schedule K
13. Which schedule contain list of diseases and ailments which a drug may not claim to prevent or cure
a. Schedule P b. Schedule J c. Schedule P d. Schedule K
14. Which schedule contain standards for ophthalmic preparations
a. Schedule FF b. Schedule J c. Schedule P d. Schedule K
15. Drugs technical advisory board is appointed by
a. Central government b. State government
c. municipality d. panchayat
16. Cannabis is also known as
a. Hemp b. substitute c. jemp d. reliver
17. Drugs price control order was passed to regulate the _____ of drugs.
a. price b. standard c. shape d. size
18. Bringing into india from a place outside india is
a. import b. standard c. export d. load
19. A dealer carrying on the retail business of sale of drugs to customers is
a. price b. retailer c. saver d. acceptor
20. which of the following is example of narcotics
a. Morphine b. heroin c. both a and b d. none of these