

16/12/24

Printing Pages :2

Paper Code: BP-501T

C (SVSU:2024-25/R)

Enrollment No.														
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B. PHARM
3Year 5th SEM. Examination
MEDICINAL CHEMISTRY – II
(BP501T)

[Time: 3:00 Hours]

[Max. Marks: 75]

I Long Question: Answer Any Two

[10×2=20]

1. Give the classification of antineoplastic agents and explain how the mechanism of action of alkylating agents contributes to their therapeutic use.
2. Critically assess the SAR of diuretics, evaluating the advantages and potential drawbacks of Acetazolamide based on its synthesis and pharmacological uses.
3. Classify Anti-hypertensive agents with four drugs structure and uses.

II. Short Question: Answer any Seven

[5×7=35]

1. Compare and contrast the structures and mechanisms of action of Cimetidine and Omeprazole.
2. Analyze the preparation methods of various insulin types and evaluate their differences in terms of onset and duration of action.
3. Examine the synthesis process of mast cell stabilizers and Benzocaine and assess their pharmacological relevance.
4. Investigate the recent advancements in antidiabetic drugs and classify them based on their mechanism of action.
5. Break down the synthesis method of Chlorothiazide and assess its function in diuretic treatment.
6. Depict the chemical structure of Warfarin and explain its role in anticoagulant therapy.
7. Explain and classify Local anesthetics.
8. Give the synthesis and uses of tolbutamide.
9. Write the preparation of methotrexate.

III. Objectives Question: Answer All Question

[20×1=20]

1. Phenol reacts with zinc dust to form
a.) Benzene b.) Alcohol c.) Dimethyl Benzene d.) None of these
2. Propranolol
a.) Inhibits the stimulation of renin production by catecholamines
b.) Causes prominent postural hypotension
c.) Is a B1 specific blocker d.) none
3. which one is Loop diuretics?
a.) Furosemide b.) Bumetanide c.) omeprazole d.) None

4. Aniline is
a.) Acidic in nature b.) Basic in nature c.) Both d.) None
5. Captopril is not
a.) Inhibits the stimulation of renin production by catecholamines
b.) Causes prominent postural hypotension
c.) a B1 specific blocker d.) none
6. Mast cell stabilizer is.
a.) Cetirizine b.) omeprazole c.) None d.) All
7. Which of the following antianginal agent is not a calcium channel blocker?
a.) Nitroglycerine b.) Quinidine c.) Verapamil. d.) none
8. Which of the following histamine receptor increase the release of gastric acid?
a.) H1 receptor b.) H2 receptor c.) H3 receptor d.) H4 receptor
9. Which is not an example of H3 antagonists.
a.) Zolamine b.) Tripeleminamine c.) Doxylamine d.) none of these
10. H4 receptor is located in.
a.) Heart b.) smooth muscles c.) None d.) Both
11. Which is an example of Anti-arrhythmic Drug
a.) Disopyramide phosphate b.) Warfarin c.) Digoxin d.) None
12. Which is an example of Potassium sparing Diuretics
a.) Spironolactone b.) Ethacrynic acid c.) Both d.) None
13. Which is not an example of Corticosteroids
a.) Prednisolone b.) L-Thyronine c.) all of these d.) None
14. Mechlorethamine is a
a.) Alkylating agents b.) H2-antagonist c.) H1-antagonists d.) None
15. What is the full form of SAR?
a.) Structure Activity analysis b.) Structure Activity Relationship
c.) Both d.) None
16. Which is an example of Antibiotic use in antineoplastic agent.
a.) Dactinomycin b.) Doxorubicin c.) Daunorubicin d.) All
17. Which is not an example of H2 antagonists
a.) Cimetidine b.) Omeprazole c.) Mechlorethamine d.) None of these
18. Osmotic Diuretics are pharmacologicalagent.
a.) Benzoic acid b.) Phenol c.) Chlorobenzoic acid d.) Antineoplastic
19. Which of the following carbonic anhydrase inhibitors?
a.) Acetazolamide b.) Methazolamide c.) Dichlorophenamide d.) All
20. Phenanthrene is not isomer of
a.) Anthracene b.) Benzene c.) Phenol d.) None of these

- vi. ----- is an example of hydrophilic lubricant.
a. Talc b. Magnesium silicate
c. Aerosil d. Polyethylene glycol
- vii. Mannitol and sorbitol are used in -chewable tablets.
a. TRUE b. FALSE
- viii. Cetrimide belongs to -----class of preservative?
a. Class-I b. Class-II
c. Class-III d. Class-IV
- ix. USP disintegration test apparatus revolution cycle is:-
a. 10 b. 100 c. 28-32 d. 50
- x. Gelatin pharماغel-A has isoelectric pH of—
a. 4.7 b. 7 c. 9 d. 8
- xi. ----- is a preservative used in ophthalmic solutions :-
a. Phenyl mercuric nitrate b. Cresol
c. Ethylcellulose d. Benzoic acid
- xii. ----- is used to decrease the frictional force between tablet wall and die wall.
a. Lubricant b. Glidant
c. Anti-adherent d. None of above.
- xiii. Identify the inorganic diluents used in tablet-
a. Sodium starch glycollate b. Ac-Di-Sol
c. Dicalcium phosphate d. Lactose
- xiv. Enteric coated tablets are designed to release drug in----
a. Stomach b. Intestine
c. Liver d. Mouth
- xv. Air velocity in laminar air flow via HEPA filter must be -----
ft/min
a. 100 b. 100 ± 20 c. 150 ± 20 d. 50
- xvi. Intramuscular injections are given at ----- angles.
a. 45 degree b. 90 degree
c. 15 degree d. 30 degree
- xvii. Carnuba wax in Lipstick is used as-
a. Abrasive b. Hardening agents
c. Flavouring agents. d. Sweeteners
- xviii. The ratio of the ultimate volume of sediment to the actual volume of sediment before settling is called
a. Sedimentation volume b. Degree of flocculation
c. Emulsification volume d. All of the above
- xix. Polyamide is also called as-----
a. Polyester b. Nylon
c. Polyethylene d. None
- xx. Slippery agents are used in-----?
a. Face powders b. Creams
c. Nailpolishes d. Rouge

Enrollment No.														
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BPHARM
3rd YEAR EXAMINATION

Pharmacology-II

Subject Code: BP-503T

[Time: 3:00 Hours]

[Max. Marks: 75]

- I Objectives Question: Answer All [20×1=20]**
- ACTH is a single –chain polypeptide with ----- amino acid.
a.49 b. 139 c. 39 d. 29
 - Estimation of amount of biological activity in unit quantity known as
a. Biological equivalence b. Bioassay
c. Bioactivity d. Biosynthesis
 - Aspirin at lower doses used as
a. Analgesic b. Antipyretic c. Antiplatelet d. Antidiuretic
 - Which drugs used in treatment of rheumatoid arthritis
a.Immunostimulants b. Immunosuppressants
c. Both A and B d. None of these
 - Drug is belonging to anticoagulants of direct action:
a.Aspirin b. Heparin c. Dicumarol d. Preprohormone
 - Which of the following is a hormone produced from serotonin?
a. Growth hormones b. Melatonin c. Vasopressin d. Testosterone
 - Prostaglandins are synthesized from _____.
a. Lignoceric acid b. Nervonic acid
c. Arachidonic acid d. Butyric acid
 - This G protein-coupled receptor acts to decrease cAMP concentration intracellularly.
a. Gs b. Gi c. Gq d. Gh
 - Severe cases of bleeding due to fibrinolytic agents are treated with
a.Aspirin b. Heparin
c. Epsilon Amino Caproic Acid d. Vitamin K
 - Which one of the following is specific DPP-4 inhibitor?
a.Vildagliptin b. Sitagliptin c. Both d. Levodopa
 -is the selective HMG-CoA reductase inhibitors
a. Ezetimibe b. Colistipol c. Nicotinic acid d. Lovastatin
 -is blood maturation factor.
a. Vitamin B12 b. Folic acid c. Both a & b d. None
 - is xanthine oxidase inhibitor.
a.Allopurinol b. Xanthine c. colchicine d. Clomipramine
 -is an uterine relaxant (Tocolytics).
a. Misoprostol b. Oxytocin c. Ritodrine d. Ergometrine

15. is a potassium sparing diuretic?
a. Furosemide b. Spironolactone c. Indapamide d. Captopril
16. Duration start from the end of QRS complex to the beginning of T wave indicates.
a. QR interval b. PR interval c. ST segment d. QT interval
17. Drug which belongs to selective AT₁ receptor antagonist category?
a. Losartan b. Captopril c. Amlodipine d. None
18. T waves in electrocardiogram represents.
a. Atrial repolarization b. Atrial depolarization
19. c. Ventricular repolarization d. Ventricular depolarization
- is the drug which increases the absorption of iron from intestine:
a. Cyanocobalamin b. ascorbic acid
20. c. folic acid d. erythropoietin
- Drugs having both α and β adrenergic blocking activity
a. Carvedilol b. Labetalol
c. Both a and b d. Propranolol

II. Short Question: Answer any seven

[7×5=35]

1. Describe the androgens and anabolic steroids.
2. Discuss the classification of NSAIDs, and discuss pharmacology of aspirin.
3. Write down the treatment of congestive heart failure (CHF).
4. Elaborate the role of thyroid inhibitors. Give the pharmacology of radioactive iodine.
5. Define rheumatoid arthritis and give the therapeutic classification of anti-rheumatics.
6. Give an explanation on plasma volume expander.
7. Discuss biosynthesis of autocoids (prostaglandin and leukotrienes).
8. Make a brief note about insulin and oral hypoglycemic agents.
9. Give the flow chart of eicosanoids biosynthesis (prostaglandin, thromboxane and leukotrienes).

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 details
2. What is the diuretic? Give the classification of diuretics and complete pharmacology of loop-diuretics.
3. Define cardio-tonics and explain the complete pharmacology of digitalis (MOA, Pharmacological action on heart and its uses).

Printing Pages :2

Paper Code: BP-504T

A (SVSU:2024-25/R)

Enrollment No.

B.PHARM

IIIrd YEAR (5th sem.) EXAMINATION

PHARMACOGNOSY AND PHYTOCHEMISTRY II (BP-504T)

[Time : 3:00 Hours]

[Max. Marks : 75]

Long question: Answer Any Two

[2x10=20]

Q1. Define Biogenetic investigation. Discuss and elaborate Tracer Technique.
 Q2. Elaborate General introduction, chemistry & chemical classes, biosources and therapeutic uses of any four.

a) Vinca b) Rauwolfia c) Tea d) Taxus e) Liquorice f) Digitalis g) Mentha h) Aloes

i) Coriander

Q3. Briefly account modern methods of extraction and applications of latest techniques: Spectroscopy, chromatography and electrophoresis.

Short question: Answer Any Seven

[7x5=35]

Q1. Explain Shikimic acid pathway.

Q2. Discuss Pharmacognosy of Ginger/ Ruta

Q3. Enlist Isolation, Identification and Analysis of Quinine /Menthol

Q4. Define extraction. Discuss about solvents used in extraction methods. .

Q5. Differentiate between chromatography and spectroscopy.

Q6. Discuss Industrial production, estimation and utilization of Atropine/ Artemisinin.

Q7. Classify glycosides. Write the Pharmacognosy of drug belongs to glycosides.

Q8. Give principal, Instrumentation and application of any one spectroscopy.

Q9. Mention the chemical class of caffeine with isolation, identification and uses.

Objective Questions: Answer all question:

[20x1=20]

1. Dragendroff's reagent does not give a positive test with

- a) Morphine c) Caffeine
 b) Codeine d) Emetine

2. Precursor for the biosynthesis of tropane alkaloids is

- a) Ornithine c) Leucine
 b) Tyrosine d) Lysine

3. Which test is performed for the identification of purine alkaloids

- a) Vitali-Morin test c) Murexide test
 b) Van-urk's reagent d) Bortrager test

4. Mevalonic acid pathway is also known as ..

- a) HMG CoA Reductase pathway c) Isoprenoidal pathway
 b) Acetate-Mevalonate pathway d) All of the above

5. Wagner test is used to detect the presence of

- a) Steroids c) Terpenes
 b) Alkaloids d) Glycosides

6. One of the following general characteristics is not true for alkaloids.
 - a) Nitrogen in the heterocyclic nucleus
 - b) pK_as less than 7
 - c) Good solubility in organic solvents
 - d) Optically active
7. In case of Rauwolfia which part of the plant used as medicine
 - a) Stem
 - b) Roots
 - c) Leaves
 - d) Seeds
8. Synonyms of Opium is
 - a) Kas-kas
 - b) Raw opium
 - c) White poppy
 - d) all of the above
9. Lysine acts as a precursor for
 - a) Anabasine
 - b) Morphine
 - c) Papaverine
 - d) Purine
10. Flavonoids are biosynthetically derived from
 - a) Shikimic acid pathway
 - b) Mevalonic acid pathway
 - c) Acetate pathway
 - d) None of the above
11. Steroidal saponins are biosynthesized via
 - a) Shikimic acid pathway
 - b) Mevalonic acid pathway
 - c) Aceto-Acetate pathway
 - d) Calvin's cycle
12. Pyrrole and pyridine ring is present in
 - a) Aropine
 - b) Vinblastine
 - c) Digitoxine
 - d) Quinidine
13. Saponin glycoside shows one of the following property
 - a) Laxative
 - b) Astringent
 - c) Foaming
 - d) Anticonvulsant
14. Ginger contain approximate fiber
 - a) 2%
 - b) 3%
 - c) 4%
 - d) 5%
15. Glycyrrhiza is a
 - a) fruit
 - b) bark
 - c) flower
 - d) under ground stolon
16. Example for proto alkaloid
 - a) Morphine
 - b) Reserpine
 - c) Ephedrine
 - d) None of the above
17. Senna leaf belongs to the family
 - a) Aposyanaceae
 - b) Leguminosae
 - c) Rutaceae
 - d) Rubiaceae
18. Tannic acid is an antidote in poisoning
 - a) Iodine
 - b) Cyanide
 - c) Alkaloids
 - d) Arsenic
19. Test for cardiac glycosides
 - a) Legal's test
 - b) Baljet's test
 - c) Raymond's test
 - d) All of the above
20. Number of isoprene unit present in diterpenes
 - a) 2
 - b) 3
 - c) 4
 - d) 5

B.PHARM

IIIrd YEAR, Vth SEMESTER EXAMINATION

PHARMACEUTICAL JURISPRUDENCE (CODE-BP505T)

[Time: 3:00 Hrs.]

[Max. Marks: 75]

Q1. Long Question: Answer Any two

[10×2=20]

- Describe Drugs Price Control Order (DPCO)- 2013.. Mention its Objectives. Explain Sale prices of bulk drugs & Retail price of formulations
- Explain the objectives, Constitution and Functions of narcotic & Psychotropic Consultative Committee under the Narcotic Drugs and Psychotropic substances Act-1985 and Rules.
- Explain various Objectives of Pharmacy Council of India. Mention its constitution and functions.

Q2. Short Question: Answer any Seven

[5×7=35]

- Explain loan licence.
- Write a short note on calculation of retail price of drugs and formulations.
- Write short note on Drugs Technical Advisory Board..
- Mention the General labeling requirements and specimen labels for drugs and cosmetics.
- Explain the process of Registration of Pharmacists in India.
- What do you mean by Manufacture In bond and Outside bond under Medicinal and Toilet Preparation Act 1955.
- What are various duties of Government analyst.?
- CPCSEA guidelines for Performance of Experiments Transfer and maintenance of records.
- Write a note on Intellectual Property Rights (IPR)

Q3. Multiple choice questions. (Answer all)

[1×20= 20]

i. List of forms for making licence applications, license issue, and license retrieval comes under the schedule.

- a. A b. Q c. T d. D

ii. When was MTP act was enacted?

- a. 1971 b. 1985 c. 1940 d. 1955

iii. The Pharmacy council of India is required to maintain a register containing name of.-----

- a. All Registered pharmacist. b. Elected member of state.
c. Nominated member of central council. d. Offences of pharmacy

iv. 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

- v A person habitual to regular use of any narcotic drug is known as
 a. Addict b. Habituate c. Counselor d. Reliever
- vi. Central council is also known as
 a. State council b. Medical council
 c. Pharmacy council of India d. Council of state
- vii. Drugs price control order was passed to regulate the _____ of drugs.
 a. Price b. Standard c. Quality d. Availability
- viii. Drugs and magic remedies was passed on
 a. 1988 b. 1954 c. 1947 d. 1936
- ix.. It means a bulk drug specified in the first schedule.
 a. Hemp b. Substitute c. Drug d. Scheduled bulk drug
- x. Which act provides for the constitution of State Pharmacy council?
 a. Pharmacy act 1948 b. Leniency act 1976
 c. Patent act 1947 d. Drugs act 1936
- xi. Rates for analysis of drugs at central drug laboratories are laid down in which schedule?
 a. Schedule-A b. Schedule-B c. Schedule-D d. Schedule-P
- xii. A person having the care of minor or lunatic is called
 a. Minor b. Child c. Guardian d. None of these
- xiii. Objectionable advertisements act was passed to control _____ relating to drugs.
 a. Advertisement b. Substitute c. Amount d. Price
- xiv. List of substances required to be taken only under the supervision of a R.M.P come in schedule
 a. Schedule O b. Schedule G c. Schedule T d. Schedule M
- xv Schedule P represents.
 a. List of drugs of generic name b. Pack size of drugs
 c. Standards for cosmetic d. Life period/expiry Date of drugs
- xvi. Standards for mechanical contraceptives comes in schedule-----
 a. Schedule S b. Schedule N c. Schedule T d. Schedule M
- xvii. The Pharmacy council of India is required to maintain a register containing name of.
 a. All Registered pharmacist. b. Elected member of state.
 c. Nominated member of central council. d. Offences of pharmacy
- xviii. ----- is not an ex-officio member as per D& C act?
 a. Director, general of health service b. Director, Drugs controller of India
 c. Director, central drugs laboratory d. Director, state council.
- xix. Bringing drugs into India from a place outside India is called as-
 a. Import b. Standard c. Export d. Load
- xx. Biological and special products are listed in
 a. Schedule C b. Schedule M c. Schedule P d. Schedule