Roll No.:....

341555(41)

B. Pharmacy (Fifth Semester) Examination, Nov.-Dec. 2021

(PCI Scheme)

(Pharmacy Branch)

PHARMACEUTICAL JURISPRUDENCE

(Theory) (BP505T)

Time Allowed: Three hours

Maximum Marks: 75

Note: Questions paper has three parts (A, B & C).

Part-A 20 MCQs each of 1 mark (20×1=20)

Part-B has three questions, out of which attempt any two questions. Each question carries 10 marks. (2×10=20) Part-C has nine questions, out of which attempt any seven questions. Each question carries 5 marks. (7×5=35)

Part-A

(Multiple Choice Questions) 20×1=20

Note: Answer all the questions from MCQs. Each question carries I mark.

1. Choose the correct options:

- (i) Good manufacturing practices for Ayurvedic, sidda and all Unani medicines comes under:
 - (a) Schedule T
 - (b) Schedule S
 - (c) Schedule U
 - (d) Schedule M
- (ii) Requirements and guidelines for permission to import and/or manufacture of New Drug for sale or to undertake clinical trials comes under:
 - (a) Schedule Y
 - (b) Schedule W
 - (c) Schedule A
 - (d) Schedule T

341555(41)

[3]

- (iii) The members of DTAB under Drugs and Cosmetics Act, 1940 and its rules 1945 hold the office for a period of:
 - (a) 1 year
 - (b) 5 years
 - (c) 3 years
 - (d) 7 years
- (iv) Pharmacy Council of India was constituted in:

ar ou welfel our la doube seture proposit 🚬

- (a) 1951
- (b) 1950
- (c) 1955
- (d) 1949
- (v) Offences of Pharmacy Act include:
 - (a) Falsely claiming to be a registered

 Pharmacist
 - (b) Failure to surrender certificate of registration
 - (c) Dispensed by unregistered person
 - (d) All of the above

- (vi) Central register of Pharmacist is maintained by :
 - (a) Central Government
 - (b) AICTE
 - (c) State Government
 - (d) PCI
- (vii) The use of Indian hemp plant requires specific license under which of the following act:
 - (a) Medicinal & Toilet Preparations Act
 - (b) Poisons Act
 - (c) Drugs and Cosmetic Act
 - (d) Pharmacy Act
- (viii) What is penalty for offence of "Disclosing any information by excise officer"?
 - (a) Fine upto ₹ 100
 - (b) Fine upto ₹ 1000
 - (c) 6 months imprisonment
 - (d) 6 months imprisonment with fine

- (ix) Prevention of illicit traffic in narcotic and psychotropic drug act was come in:
 - (a) 1986
 - (b) 1987
 - (c) 1988
 - (d) 1990
- (x) Which of the following disease in not listed in the schedule of Drugs & Magic Remedies Act 1954?
- (a) Deafness
 - (b) Goitre
 - (c) Glaucoma
 - (d) Diarrhoea
- (xi) Prevention of Cruelty to Animal Act was passed in:
- (a) 1960 consume administration of elicit
 - (b) 1985
 - (c) at 1945 at set that each value ray of
 - (d) 1956

- (xii) What is/are the objectives of DPCO 2013:
 - (a) To increase the number of drugs from 74 to 652, whose prices are controlled by DPCO.
 - (b) To permit the firms to sell their new drugs, at or below the prices fixed by the Government
 - (c) Both (a) and (b)
 - (d) None of the above
- (xiii) Government of India appointed a Drug Enquiry Committee under the Chairmanship of:
 - (a) Col. Ramnatha N. Chopra
 - (b) Dr. A. L. Mudaliar
 - (c) Jaysukhlal Hathi
 - (d) M. L. Schroff
- (xiv) Any person who willfully contravenes or willfully fails to comply with the requirements of any regulation under Medical Termination of Pregnancy Act shall be liable to be punished:

- (a) With find which may extend to one thousand rupees
- (b) Imprisonment of 6 months
- (c) Fine of ₹ 10000
- (d) Both (b) and (c)
- (xv) RTI Act 2005 mandates Public Information Officer (PIO) must provide information as asked by applicant:
 - (a) With 7 days of receipt of RTI application
 - (b) With 30 days of receipt of RTI application
 - (c) With 10 days of receipt of RTI application
 - (d) With 90 days of receipt of RTI application
- (xvi) An exclusive right granted to the applicant for an invention, which is a product or a process or a new way of doing something or offers a new technical solution to a problem is know as:
 - (a) Geographical indications
 - (b) Trade mark
 - (c) Patent
 - (d) Copyright

- (xvii) Drug sample taken by drug inspector for analysis are sent to:
 - (a) Drug controller
 - (b) Government analyst
 - (c) Chemical analyst
 - (d) Testing lab
- (xviii) Which among the following is not the common member of PCI and DTAB?
 - (a) Director general of Health Services
 - (b) Director of CDL, Kolkata
 - (c) Drug controller of India
 - (d) Director of CDRI, Lucknow
- (xix) Government opium factory is situated in:
 - (a) Ghazipur
 - (b) Kasauli
 - (c) Lucknow
 - (d) Izatnagar

- (xx) Executive committee may order that the name of a registered pharmacist shall be removed from the register if:
 - (a) His name has been entered into the register by error or on account of misrepresentation or suppression of a material fact.
 - (b) A person employed by him for the purposes of his business of pharmacy has been convicted of any such offence
 - (c) Both (a) and (b)
 - (d) None of the above

and the state of the Part-B algorithms at all

(Long Answer Type Questions) 2×10=20

Note: Answer any two questions. Each question carries 10 marks.

2. Explain the procedure of import of drugs as per Drugs and Cosmetics Act, 1940 and its Rules 1945.

4. What are offences and penalties for the voilation of Medicinal and Toilet Preparation Act, 1955?

Part-C

(Short Answer Type Questions) 7×5=35

Note: Answer any seven questions. Each question carries 5 marks.

- Discuss constitution and functions of Narcotics & Psychotropic Consultative Committee as per Narcotic Drugs and Psychotropic Substances Act 1985 and Rules.
- 6. Explain offences and penalties of Drugs and Magic Remedies Act and its rules.
- 7. Write a brief account on Institutional Animal Ethics Committee.
- Write a brief note on calculation of retail price of formulations as per Drugs Price Control Order (DPCO) 2013.

341555(41)

[11]

- 9. Write a brief account on Drugs Enquiry Committee.
- **10.** Write code of Pharmaceutical ethics of Pharmacist in relation to his job.
- 11. Explain who can perform abortion and training for abortion as per Medical Termination of Pregnancy Act 1971.
- 12. Write a brief note on Right to Information Act, 2005.
- 13. Write a brief note on Intellectual Property Rights (IPR).

Roll No.:....

341554(41)

B. Pharmacy (Fifth Semester) Examination, Nov.-Dec. 2021

(PCI Scheme)

(Pharmacy Branch)

PHARMACOGNOSY-II

(Theory: BP504T)

Time Allowed: Three hours

Maximum Marks: 75

Note: Question paper is divided in three sections.

Attempt all 20 Multiple Choice Question of Section-A. Each MCQ carries 1 mark.

Attempt any two long answer questions in Section-B out of three. Each long answer question carries 10 marks. Attempt any seven from out of nine from Section-C. Each short answer question carries 5 marks.

Section-A

٠	Multi	ple choice questions. Attempt all MCQs: 20×1=20
	(i)	Papaver somniferum is a biological source of
		(a) Opium
		(b) Vinca
		(c) None
	(ii)	Boiling of crude dry in water is used in
		(a) Decoction (**)
		(b) Infusion
		(c) Maceration Last remaining
	(iii)	Biological source of Aloe is:
		and the state of t
		(a) C. rosers (b) Aloe emacdin
		(c) Both (a) and (b)
	(iv	() Caffeine is a stimulant drug:
		(a) False

	(c) None	f		
		FERRICA TO THE		
(v)	Taxol is used as anticar	ncer drug:		
	(a) None	diserting.		
	(b) True			
	(c) False	nal 20 cm upu ju		
(vi)	¹⁴ C & ¹¹ C are used as	tracer isotopes:		
	(a) False	1		
	(b) None			
	(c) True			
	Some S	ander production		
(vii)	The biological source of corriander is:			
	(a) C. Sativum	Weight		
	(b) F. Vulgene	100 T		
	(c) D. Durpurid	n lane – luorgotora		
(viii)	Caffein is isolated from camellia sinensis;			
	(a) True	(B) (2) (2) (4)		
	(b) False	$\mathcal{H}(\mathcal{H}'\setminus\{0\})$		
	(c) None			

(b) True

(ix)	Cassia Angustifolia is a biological source of				
	(a) Cinnamon				
	(b) Senna				
	(c) Digitalis				
(x)	x) Glycyrrhiza glabra is a scientific name of				
	(a) Fennel				
	(b) Almond				
	(c) Liquorice				
(xi)	(xi) Chromatography is used for Quantitative				
	Qualitative analysis:				
	(a) True True to the second se				
	(b) False				
	(c) None				
(xii)	Biological source of Ginger is:				
	(a) Z. afficinallis				
	(b) C. Sativum				
	(c) None				

341554(41)

914

xiii)	Biological source of digitalis is		
	(a) F. Vulgore		
	(b) C. Zeyllanicum		
	(c) D. Purpurea		
(xiv)	Syzygium aromaticum is a scientific name of:		
	(a) Guggul		
	(b) Cordamum		
	(c) Clove		
(xv)	The full form of TLC is		
(xvi)	Liebermann burchard test is used for detection of:		
	(a) Steroid		
	(b) Tanin		
	(c) None		
(xvii)	Amphebolic pathway is showed by:		
	(a) Citric acid cycle		
	(b) Glycolysis		

(c) Glyoxylate

(d) Lipid metabolism

(xviii) Vincristine are obtained from:

- (a) Senna
- (b) Vinca
- (c) Clove
- (xix) Hexane is less polar than ethanol insolvents polarity:
 - (a) False
 - (b) True
 - (c) None
- (xx) Which is the more polar solvent in polarity:
 - (a) Chlroform
 - (b) Hexane
 - (c) Water

Section-B

- 2. Long answer type question : (attempt any two) $2 \times 10 = 20$
 - (i) Write a detail note on metabolic pathways.
 - (ii) Write a detail note on extrusion techniques & its application.
 - (iii) Discuss the industrial production & utilization of Taxol & Caffeine.

Section-C

- 3. Short answer type question : (attempt any seven) $7 \times 5 = 35$
 - (i) Give the method of isolation of caffeine.
 - (ii) Give the chemical test for Alkaloides.
 - (iii) Give the chemical test for flavonoides.
 - (iv) Write a short note on Biogenetic studies.
 - (v) Write a short note on Shikimic acid pathway.

[8]

- (vi) Write the uses & commercial application of Fennel& Digitalis.
- (vii) Write the short note on radioactive isotopes & its uses.
- (viii) What is chromatography? Classify it & give the applications.
- (ix) Give the general method of extraction of Alkaloides.

Roll No.

341553(41) el mazaura A

B. Pharmacy (Fifth Semester) Examination, Nov.-Dec. 2021

(PCI Scheme)

(Pharmacy Branch)

PHARMACOLOGY-II

(Theory) (BP503T)

Time Allowed: Three hours

Maximum Marks: 75

Note: Answer all questions from section-A. Attempt any two questions from section-B and seven question from section-C.

Section-A

20×1=20

(Objective Type Questions)

- 1. Choose the correct answer:
 - (i) The non-glucoside positive inotropic drug is:
 - (a) Digoxin

	(b)	Strophantin K
	(c)	Dobutamine
	(d)	Digitoxin
(ii)	Aglu	cone is essential for
1200	(a)	Plasma protein binding
	(b)	Half-life Additional Control of the
	(c)	Cardiotonic action (Strates of the Property of the Cardiotonic action)
	(d)	Metabolism (G)/ (r) A (1)
(iii)	B-1 a	gonist drug is the state of the
	(a)	Amrinone Will has the Cart
	(b)	Dopamine "n!! www.is.w!!
		Digoxine " " " " " " " " " " " " " " " " " " "
والمراكا والو	(d)	Dobutamine Dobutamine
		IA antiarrhythmic drug is:
	(a)	Sotalol (come act 13 de automoral)
	(b)	Verapamil
	(c)	Quinidine
	(d) :::	Propranolol de angalile equipment sail

(v)	Cla	ss III antiarrhythmic drug is:		
	(a)	Flecainide		
T 14	(b)	Sotalol		
	(c)	Lidocaine		
	(d)	Verapamil	1.	
(11)	, ,	them, of		
(vi)	VV III	ich of the following drugs does	not	nave
	ann	platelet action:	:	A
	(a)	Paracetamol	1 - 1	
13	(b)	Aspirin		27
	(c)	Dipiridamolde size for	+{ 1	
	(d)	Thurrofen	187	
		र अवस्था अवस्थित ए और सम्बद्धा	11	
(vii)	cons	stipation is caused by all except:	0	
	(a)	Verpamil Dueds od to provi	(121)	
	(b)	Codeine		
	(c)	d Morphine grinso- muiszssor, Morphine	1481	(50)
	(d)	Magnesium sulphate		
	_	\$640firm?	(1)	
(viii)	Drug	g of choice in acute myocardial infa	rctio	n is:
	(a)	Morphine		
	(b)	I.V Henarin	()	

- (c) Nitroglycerine
- (d) Streptokinase
- (ix) Plasma expander with oxygen carring capasity is:
 - (a) Haemaccel
 - (b) Dextran-40
 - (c) Dextran-80
 - (d) Fluorocarbons
- (x) Which of the following does not contribute to thrombosis:
 - (a) Blood Flow abnormalities
 - (b) Cantact surface abnormalities
 - (c) Complement abnormalities
 - (d) None of the above
- (xi) The potassium sparing diuretics includes:
 - (a) Spironolactone
 - (b) Amiloride
 - (c) Triamterene
 - (d) All of the above

- (xii) Anuria is meant for:
 - (a) Palyuria
 - (b) Oliguria
 - (c) Enuresis
 - (d) Inability to urinate
- (xiii) Antidiuretics are the drugs which have following action:
 - (a) Increase urine output
 - (b) Decrease urine output
 - (c) Stops urine formation
 - (d) Cause drowsiness
- (xiv) Which of the following is not a first-line option for treatment of acute gout:
 - (a) NSAIOs
 - (b) Corticosteroids
 - (c) Oral Colchicines
 - (d) Aspirin
- (xv) Which of the following NSAIDs is a propionic acid derivative:

- (a) Ibuprofen
- (b) Indomethacin
- (c) Metamizole
- (d) Diclofenac

(xvi) Tamoxifen is:

- (a) Antiprogestin
- (b) Antiandrogen
- (c) Antiestrogen
- (d) Androgen

(xvii) Natural major progestin is:

- (a) Estiol
- (b) Estron
 - (c) Estradiol
 - (d) Progesterone

(xviii) Indications of vasopression are following:

- (a) Diabetes mellitus
- (b) Hypertension
- (c) pituitary diabetes insipidus
- (d) Incompleted abortion

- (xix) Biological assay are carried out for :
 - (a) Known compound
 - (b) Unknown compound
 - (c) Both (a) and (b)
 - (d) None of the above
- (xx) If an agonist can produce maximal effect and has high efficacy its called:
 - (a) Partial agonist
 - (b) Antagonist
 - (c) Agonist-antagonist
 - (d) Full agonist.

Section-B

2×10=20

Note: Attempt any two questions out of 3 questions. Each question carries 10 marks.

- 2. What is anti-hypertension drug? Classify it. Write the pharmacology of captopril.
- 3. Discuss anticogulants. Classify it. Explain the pharmacology of heparin.

4. Discuss NIAIDs drugs. Classify them. Explain their mechanism of action, uses and adverse effects of solicylates.

Section-C

 $7 \times 5 = 35$

Note: Attempt any seven questions out of nine questions. Each questions carries 5 marks.

- 5. Write notes on congestive heart failure.
- 6. What are diuretics? Classify them with suitable examples.
- 7. Write notes on antirhematic drugs.
- 8. Write notes on parathyroid hormone.
- 9. Discuss in brief Insulin.
- 10. Write notes on drug acting on the uterus.
- 11. Write notes on types of bioassay.
- 12. Describe classify & function of autocoids.
- 13. Write concepts in endocrine pharmacalogy.

Roll No. :

P

341552(41)

B. Pharmacy (Fifth Semester) Examination, Nov.-Dec. 2021

(PCI Scheme)

(Pharmacy Branch)

FORMULATIVE PHARMACY

(Theory) (BP502T)

Time Allowed: Three hours

Maximum Marks: 75

Note: Questions paper has three parts (A, B & C).

Part-A has 20 MCQs each of 1 mark. All the questions in Part-A are compulsory 1×20=20 marks.

Part-B has three questions, out of which attempt any two questions. Each question carries 10 marks. $(2 \times 10 = 20)$

Part-C has nine questions, out of which attempt any seven questions. Each question carries 5 marks. $(7 \times 5 = 35)$

Part-A

(Multiple Choice Questions) 20×1=20

Note: Answer all the questions from MCQs. Each question carries 1 mark.

1. Choose the correct options:

- (i) Raw gelatin of capsule contains:
 - (a) Iron
 - (b) Nickel
 - (c) Zinc
 - (d) None of the above
 - (ii) LAL test is used for testing:
 - (a) Microbes
 - mailton (c) but Pyrogens 111 harm and
 - (d) Foreign material
 - (iii) The water attack test is used for which type of glass:

[3]

- (a) Type I
- (b) Type II
- (c) Type III
- (d) Type IV was properly
- (iv) Dip tube of aerosol is made up of:
 - (a) Polyamide
 - (b) Poly vinyl chloride
- miera (c) ab Polypropylene/an in 1892 allemel
 - (d) Poly methyl methacrylate

rigg of at 1

43 31

211011

5. 1613 CEREST

- (v) Draize test is:
 - (a) Eye irritancy test
 - (b) Skin irritancy test
 - (c) Pyrogen test Property A
 - (d) Clarity test
- (vi) The friability should be:
 - (a) Less than 1% grider will
 - (b) Less than 0.1%

341552(41)

	[4]	
(c)	Less than 0.8%	
(d)	Between 1 to 1.5%	
Bridg	ing defect in tablets is due to	
(a)	Weight variation	
(b)	Granule size	
(c)	Poor flow	
(d)	None phooling come at All	
Ente	ric coated tablet will not be dissolv	ed in :
(a)	Intestine that yellow shall a life	
(b)	Stomach	
(c)	Both	
(d)	None	
Asp	artame is used as imagor in the	
(a)	Plasticizer	
(b)	Preservative	
(c)	Artificial sweetener	
(d)	Flavouring agent	
	(d) Bridg (a) (b) (c) (d) Ente (a) (b) (c) (d) Asp (a) (b) (c)	(c) Less than 0.8% (d) Between 1 to 1.5% Bridging defect in tablets is due to : (a) Weight variation (b) Granule size (c) Poor flow (d) None Enteric coated tablet will not be dissolv (a) Intestine in tablets will not be dissolv (b) Stomach (c) Both (d) None Aspartame is used as in the state of the state

(X)	Oran	ige peel effect is the defect t)1:	
	(a)	Tablets		
	(b)	Capsules Train grown IIA		
	(c)	Tablet coating		
	(d)	None make from		
(xi)	Direc	ct inoculation method is for:	1	
	(a)	,		
	(b)	Pyrogen testing	, .	
	(c)	Clarity testing	(= <i>i</i> -	
	(d)	Suspension testing	(B)	
(xii)	Zinc	pyrithine is used in shampoo	as	
	(a)	Conditioner	(1)	
	(b)	Cleanser		
	(c)	Antidandruff and the wide see	dou (c	
	(d)	Detergent		
(xiii)	Bipha	asic liquid dosage form with	n immisci	ble
	liquid			
	(a)	Suspension Octa Sala In 118	()	

78 (4) mant 20%

Following is used as test for packaging: (xvii) Drop test Shock test Vibration test (d) All of the above (xviii) Cetyl pyridinium chloride is used as Preservative Colouring agent and there are any of easy the companion of Flavouring agent (c) Sweetening agent t. Atten mercindaren gregoriakoa alberra deren eta berrarra Erythrosine is which category of colouring agent: D and C (a) FD and C (c) None All of the above (d) Gloss and hardness of lipstick is dependent on: (xx)Oil mixture

All of the above

the birth in

Aluminium

(c)

(d)

13:23

Wax mixture

(b)

[8]

- (c) Bromo mixture
- (d) Surfactants

Part-B

(Long Answer Type Questions) 2×10=20

Note: Answer any two questions. Each question carries 10 marks.

- 2. Define aerosols and discuss formulation considerations of aerosols.
- 3. What are ophthalmic preparations discuss their evaluation parameters?
- 4. Name various types of tablet coating and explain sugar coating in detail.

[9]

Part-C

(Short Answer Type Questions)

 $7 \times 5 = 35$

Note: Answer any seven questions. Each question carries 5 marks.

- 5. Explain BCS classification of drugs.
- 6. Explain theories of emulsification.
- 7. Write note on various evaluation parameters of parenteral products.
- 8. Discuss additives of formulation of shampoos.
- 9. Discuss factors influencing choice of containers.
- 10. Discuss pelletization process.
- 11. Explain wet granulation method of tablet preparation.
- **12.** Explain various steps for the production of hard gelatin capsule shells.

101

13. Define preformulation studies and explain any one type of chemical properties.

Light to more are and a fugure

Explain theorem in prodoff capon

L. Yetherese in various contests in productive of may term

Discuss middyman (consisting of plants)

to Discuss Between themen when a community.

10, Discuss pelletisation process

interpretation of the mattern medical proportion

12. desplays a consequent for the production of hard gelians causeds shells.

Roll No.

341551(41)

B. Pharmacy (Fifth Semester) Examination, Nov.-Dec. 2021

(PCI Scheme)

(Pharmacy Branch)

MEDICINAL CHEMISTRY-II

Theory (BP501T)

Time Allowed: Three hours

Maximum Marks: 75

Note: Read all the instruction carefully given in Section A, B and C.

Section-A

(Multiple Choice Questions) 20×1=20

Note: Attempt all the questions. Each question carries 1 mark.

1. Choose the correct answer:

- (i) Histamine plays an important role in initiating the body's immune response to the presence of foreign antigens and pathogens. A primary source of histamine released during inflammatory conditions are:
 - (a) B cells
 - (b) Mast cells
 - (c) T lymphocytes
 - (d) All of the above
- (ii) A person is suffering from a gun-shot wound in a mall fight. After taking a brief history and exam, you decide to rapidly reduce his severe pain by administering i.v. morphine. Shortly thereafter person complains of feeling nauseous and itchy, and you notice that the skin on his neck and chest have become severly pink, when they were previously pale white. Which of the following would best reduce all of these symptoms if administered?
 - (a) Adrenaline

- (b) Cimetidine
- (c) Diphenhydramine
- (d) Loratidine
- (iii) Chemically Histamine is:
 - (a) Beta hydroxy ethylamine
 - (b) Beta imidazolylethylamine
 - (c) Alphaimidazolylethylamine
 - (d) None of them
- (iv) Which one of the following is involved in biosynthesis of histamine:
 - (a) Asparagine
 - (b) Lysine
 - (c) Histidine
 - (d) All of them
- (v) The action of histamine can be terminated via:
 - (a) Cellular uptake manya haquable (d)
 - (b) Metabolism
 - (c) Desensitization of cells
 - (d) All of them

- (vi) Which antihistamines are characterized by the presence of a CHO connecting moiety:
 - (a) Aminoalkyl ethers
 - (b) Ethylenediamines
 - (c) Propylamines
 - (d) None of them below according a late last
- (vii) Furan ring is present in
 - (a) Cimetidine
 - (b) Famotidine
 - (c) Ranitidine
 - (d) All of them
- (viii) Which substitution pattern is present in both the first generation and second generation antihistamines and is essential for significant H1 receptor affinity:
 - (a) Di Aryl
 - (b) Nature if X atom
 - (c) Carbon chain
 - (d) Terminal Nitrogen

(ix) The 3D structure of insulin was determined by:

rante e la cara

- (a) TLC
- (b) X-ray analysis
- (c) HPTLC
- (d) All of them
- (x) The A chain and the B chain in insulin consist of:
 - (a) Glycine and Phenylalanine residue
 - (b) Glycine and Cysteine residue
 - (c) Phenylalanine and serine residue
 - (d) Both (a) and (b)
- (xi) In general structure of sulfonylureas, position 1 consist of:
 - (a) Aryl sulfonyl group
 - (b) Keto group
 - (c) Aliphatic group
 - (d) None of them
- (xii) The prominent position for aliphatic group in sulfonyl urea is:
 - (a) 3rd position

- (b) 2nd position
- (c) 1st position
- (d) None of them
- (xiii) The lipophilic properties of sulfonyl ureas derivative is due to which group:
 - (a) Aliphatic group
 - (b) Aromatic group
 - (c) Alkyl group
 - (d) None of them [2] permula yould not
- (xiv) First generation sulfonylurea derivative is :
 - (a) Tolbutamide in amount language
 - (b) Glibencalmide
 - (c) Glipizide
 - (d) All of them
- (xv) Which of the following drug is CMBA derivatives:
- (a) Repaglinide manage transmitted to the control of the control o
 - (b) Rosiglitazone

- (c) Metformin
- (d) None of them
- (xvi) CMBA is:
 - (a) Carbomylmethyl benzoic acid
 - (b) Carboxymethylbutyric acid
 - (c) Carbamoylmethoxy beta hydroxy acid
 - (d) None of them
- (xvii) Which oral hypoglycemic class composed of acid head group connected to lipophilic tail through a phenoxyalkyl linker:
 - (a) Thiazolidinediones
 - (b) Metaglinides
 - (c) Bisguanidines
 - (d) Sulfonylureas
- (xviii) N, N-dimethyl imido dicarbonimidic diamide is
 - (a) Metformin
 - (b) Phenformin
 - (c) Pioglitazone in manual handy is unthurse year)
 - (d) None of them will shall was a discount of them

- (xix) Which of the following electron withdrawing group reduces local anesthetic activity:
 - (a) Nitro
 - (b) Carbonyl
 - (c) Nitrile
 - (d) All of them
- (xx) A good local anesthetic agents having pKa in the range of:
- (a) 7.5 9.5 pKa
 - (b) 7.0 10.5 pKa parlant terms of contactly
 - (c) 6.5 7.7 pKa
 - (d) 10 11 pKa

Section-B

(Long Answer Type Questions) 2×10=20

Note: Attempt any two questions. Each question carries 10 marks.

2. Give structural classification of Antidiabetic agents with SAR of each class. Write the synthesis of Tolbutamide.

[9]

- 3. Define local anesthetic agents. Write the significance of lipophilic centre, hydrophilic centre and intermediate chain in local anesthettic agents. Write the synthesis of Benzocaine and Procaine.
- 4. Define Antihistamine drugs. Give structural classification of antihistamine drugs with SAR of each class. Write the synthesis of Diphenhydramine.
- 5. Discuss chemistry of histamine under following:
 - (i) Structure
 - (ii) Nomenclature
 - (iii) Ionisation and Tautomerism
 - (iv) Stereochemistry
 - (v) Biosynthesis
 - (vi) Types of histamine receptors

Section-C

(Short Answer Type Questions) 7×5=35

Note: Attempt any seven questions. Each question carries 5 marks.

- 6. SAR of alkylating agents with examples.
- 7. Write note on vasodilators.
- 8. Structural classification of antineoplastic agents.
- 9. Structural classification of proton pump inhibitors.
- 10. Discuss the insulin.
- 11. SAR of local an anaesthetics.
- 12. Write a note on oral contraceptives.
- 13. Write a note on Anti-hypertensive agents.

Zitzimorfarurenzi (a)