4	Paper / Subject Code: 66112 / J	Industrial Pharmacy-	T Eller Eller
É	The Charles Children	Ship State	Soft Till
STATE OF THE STATE	3 Hours	By By	[Total Marks : 75]
N.B.:	the the state of the state.	Best Stay	Sib. Sept.
N.B.:	1. All question are compulsory		
	<ul><li>2. Draw diagram whether necessary</li><li>3. Figure to right indicate full marks</li></ul>		Ship, Par
Sy. Sy.	Still By They	Blak, Italy	
Q.1 M	CQ: All questions are compulsory	Eller Black	20M
1	For a tablet weighing 75 mg, the limit of weight a. 5%	variation as per IP is <u>+</u>	w/w
	b. 10%	ALT STIP	RAPA CO
CART.	c.7.5%		Flor FBA STA
	d. 2.5%	Sept Sept	Elle Elle
2	d. 2.5% Binder is used in	STON STONE	A STATE OF THE STA
2,0	a. shampoo		The second second
So St	b. lipstick		Sight Sati
	c. toothpaste	The Shirt	By Still By
SA SA	d. cold cream  is an example of glidant.  a. Microcrystalline cellulose  b. Sorbitol  c. Avicel  d. Aerosil  Analytical method for characterization of solid of	Crystalline forms	SE SEST
3,0	is an example of glidant.	Party. School	Lega Stay, To
Ship	a. Microcrystalline cellulose	SER AND A	Cx Per Bry
3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	b. Sorbitol	iller sylphi	A A A A A A A A A A A A A A A A A A A
	d Agracia	The state of the s	ALA CAS
4	Analytical method for characterization of solid	crystalline forms	St. CB/SK KIND
	a. separating funnel	STYSTERING STATE	
	b. Differential scanning calorimetry		ART SERVER
Che	c. sieving	b, Sold High	Sept. St.
Pr. W.	d. sedimentation	Ship Ship	Story Star
A A A A A A A A A A A A A A A A A A A	Analytical method for characterization of solid of a. separating funnel  b. Differential scanning calorimetry  c. sieving  d. sedimentation  Page 1 of C460CB4B35C9E0A88A44	The College of	State of the State
10381	A State State State State	, Che Barr	
10381	Page 1 o	f 5 ( )	SEX
P. Co.	C460CB4B35C9E0A88A4A	Sandan and a	×

	Paper / Subject Code: 66112 / Industrial Pharmacy-I
	Aper / Subject Code, 00112/ industrial inatinacy i
The state of the s	THE PRINT WITH CHECK CHIRT STEPS SELLE SEL
5	Water based systems of Aerosols consist of phases.
Sept 1978	a. Two life gift gift gift gift gift gift gift gift
Sp. Sp.	b. One
	C. Four To the things of the second of the s
Che Chin	d. Three
A 5 6 6	Tamper resistant packaging provides
Seller Solve	a. visible evidence if tampered
JOER RALLY	b. no visible evidence if tampered c. easy tampering
	d. child resitant packaging
TO THE REAL PROPERTY.	Distillation is one of the methods of preparation of
Berry Wash	a. Water for Injection
S. O. S. S. V.	b. Emulsion
	c. Eye drop
	d. Ear drops  Tap density apparatus is used to determine
AND	Tap density apparatus is used to determine
Che Carry	a. Partition coefficient
E CHE SE	b. Flow property
BKILL TONG	c. organoleptic property d. Intrinsic dissolution
A TARREST OF THE STANDARD OF T	LAL stands for
CHEED ONE	a. Limulus Amebocyte Lysate
THE STATE OF THE S	b. Limulus Amebocyte Liquid
By AND	c. Limulus Amebocyte Litre
September 1 Septem	d. Limulus Aqueous Liquid
ST SUPERIOR	String St
by Sp.	c. Eye drop d. Ear drops  Tap density apparatus is used to determine a. Partition coefficient b. Flow property c. organoleptic property d. Intrinsic dissolution  LAL stands for a. Limulus Amebocyte Lysate b. Limulus Amebocyte Liquid c. Limulus Amebocyte Liquid d. Limulus Aqueous Liquid
10381	c. Eye drop d. Ear drops Tap density apparatus is used to determine a. Partition coefficient b. Flow property c. organoleptic property d. Intrinsic dissolution LAL stands for a. Limulus Amebocyte Lysate b. Limulus Amebocyte Liquid c. Limulus Amebocyte Liquid d. Limulus Aqueous Liquid Page 2 of 5
10381	c. Eye drop d. Ear drops Tap density apparatus is used to determine a. Partition coefficient b. Flow property c. organoleptic property d. Intrinsic dissolution LAL stands for a. Limulus Amebocyte Lysate b. Limulus Amebocyte Liquid c. Limulus Amebocyte Litre d. Limulus Aqueous Liquid

	Paper / Subject Code: 66112 / Industrial Pharmacy-I
	Paper / Subject Code: 66112 / Industrial Pharmacy-I
Trans	State State 1120 State State 32 State Stat
10	Which of the following process is used to fill powdered dry solid into soft gelatin capsules
	a. Accorded to the second seco
	b. Rotofil
S. S. S. S.	c. Rotoweigh
Che Calib	d.Rotosort
11	Ophthalmic dosage forms administered adjacent to the eye are called?
S STAN STAN	a. Topical
SERVE SALTE	b. Intraocular company of the state of the s
Sign of the same o	d. Interocular
1368	d. Interocular  Which of the following capsule size number has the maximum capacity?
12	
b, Age W	b. 1 A BAN AND AND AND AND AND AND AND AND AND A
Still Agel	
	d. 5  Ethylon Ovida is most commonly used for
13, S. 14, S. 14	c. 2 d. 5  Ethylene Oxide is most commonly used for a. Membrane sterilisation b. Moist heat sterilisation c. Dry heat sterilisation d.Gaseous sterilisation Sealing of soft gelatin capsules is achieved at a. 77°C-80°C b. 57°C-60°C c. 37°C-40°C
THE STATE	a. Membrane sterilisation
A Che E	b. Moist heat sterilisation
SKIPST CHEE	c. Dry heat sterilisation
SEPARE SALIFA	d.Gaseous sterilisation
September 14	Sealing of soft gelatin capsules is achieved at
The state of the s	a. 77°C-80°C
Str. Milk	0.57°C -60°C
Age Are	d 97°C-100°C
Still Bath	
STATE OF STA	ALT STATE ST
10381	c. 2 d. 5  Ethylene Oxide is most commonly used for a. Membrane sterilisation b. Moist heat sterilisation c. Dry heat sterilisation d.Gaseous sterilisation Sealing of soft gelatin capsules is achieved at a. 77°C-80°C b. 57°C-60°C c. 37°C-40°C d. 97°C-100°C  Page 3 of 5
We Big.	ST COCH ADSCRIPTION OF ANY STREET AND ANY
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	15	Large volume parenteral is administered by using
OF ST	o <sup>r</sup>	a. IV route
	(OF 85)	b. IM route
S. S. S.	300	c. SC route
		d. SM route
- Yeo	16	Bulk characterization test include
AP) A		a. partition coefficient
S. Clay	C. D.	b. polymorphism
B	VE	c. pKa determination
E B	96	d. Dissolution
7 210	17	Tablet coating defect related to inadequate spreading of coating solution before drying is
Maria	£10£7	called as
2807	XY Y	a. Marbling
Dr. 381	X	b. Blistering
	P. Sol.	c. Orange Peel Effect
Right Co		d. Lamination
	18	Oil and water phase are mixed at 70 °C in the manufacturing of
1000	OKE,	a. vanishing cream
50 18		b. shampoo  c. toothpaste  d. lipstick
V S	160	c. toothpaste
PURPLE STATE	V E	b. shampoo c. toothpaste d. lipstick In a multi station tablet press guides the movement of punches.
OFT BY	19	In a multi station tablet press guides the movement of punches.
E GE	200	a. Recompression Roller
Z.F.	E OF	b. Cam track
Sol Art	?	c. Capacity Control
COT SOL	A.A.	d. Feed frame
	5F	The State State of State
SAN STATE OF SAN		c. toothpaste d. lipstick In a multi station tablet press guides the movement of punches. a. Recompression Roller b. Cam track c. Capacity Control d. Feed frame  Page 4 of 5  C460CB4B35C9E0A88A4A3F70FB4847A2
R. Color	10381	Page 4 of 5
No S	Sp.	FOL TOLE STATE THE STATE STATE OF THE STATE
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Ś	With a most bed in used to most foot to the control of the control
E.	The state of the s
20	Wet gum method is used to manufacture
of a	Ja. syrup All All All All All All All All All Al
	b. suspension
	c. aromatic waters
B	d. emulsion
Si Si	
B	The state of the s
Q.2 Aı	nswer <b>any two</b> questions 20M
1	What are the advantages of granulation? Elaborate on wet granulation technique with examples of equipment used in each step.
V.	
2	Discuss formulation of parenterals and add a note on importance of isotonicty 10
3	Discuss the compatibility studies and solid state stability studies done during preformulation stage of drug development 10
	stage of drug development
N. C.	The state of the s
Q.	.3 Answer any seven questions 35 M
1	Give an account of polymers used for film coating of tablets.
2	Explain pressure filling method of propellant in Aerosols.
3	Write a short note on different types of plastics used as a packaging material for
8, 5	pharmaceuticals. 5
4	Explain pyrogen testing for parenteral preparation 5
5	Write a note on labelling and packaging of Ophthalmic products  5
6	Write a note on labelling and packaging of Ophthalmic products  5  Explain quality control test for soft gelatin capsules  5
7	Explain various studies done to determine solubility profile of a drug
8	
9	
SER 9	Discuss extrusion spheronization process
	ER ST. SE ER ER ER ER ER
A A C	Flat Stalling Stalling Change Stalling Stalling Stalling Stalling Stalling Stalling Stalling Stalling Stalling
	ELD REPORT OF BUT AND SERVICE SERVICES
Ag,	Septiminary of the property of
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BAY	C460CB4B35C9E0A88A4A3F70FB4847A2
2	

#### Paper / Subject Code: 66111 / Medicinal Chemistry- II

	Paper / Subject Code: 66111 / Medicinal Chemistry- II
	Time: 3 hours Total marks:75
	1. All questions are compulsory 2. Figures to right indicate full marks
ELITED TO TO I	Choose appropriate option for following multiple choice based questions.  The piperazine nucleus is present in all of the following drugs except  a. Cetirizine b. Chlorocyclizine c. Meclizine d. Phenindamine
50 B B B B B B B B B B B B B B B B B B B	The gauche conformer of histamine has a preferred affinity forreceptor/s  a. H1  b. H2  c. H3  d. H1 and H2
Erble Gerson State	The active intermediate of proton pump inhibitors that is responsible for inhibiting the H+/K+ ATPase pump is  a. Sulphonamide  b. Sulphonyl  c. Sulphacetamide  d. Sulfenamide
Della Delli (1890)	Anticancer drug metabolized by Xanthine Oxidase is a. Allopurinol b. Methotrexate c. Vincristine d. 6-Mercaptopurine
Retirien of	C. Vincristine d. 6-Mercaptopurine  Identify the correct pair from the following. a. Thiotepa: Mesna b. Busulfan: Aziridinium ion c. Chlorambucil: L-isomer d. 5-Flurouracil: False substrate
SCHARLE BER	Choose the correct non-dihydropyridine calcium channel blocker  a. Nifedipine b. Felodipine c. Bepridil d. Nicardipine
THE ENTRE ENTRE SET	Chlorthiazide inhibits  a. Carbonic anhydrase  b. Na <sup>+</sup> /K <sup>+</sup> /2Cl <sup>-</sup> cotransporter  c. Na <sup>+</sup> /Cl <sup>-</sup> symporter  d. Ca <sup>+2</sup> transporter
10640	Page 1 of 5 7401764DDC72ECF7978CE1522C1B1E11

#### Paper / Subject Code: 66111 / Medicinal Chemistry- II

- 8 Isoquinoline ring is present in \_\_\_\_\_
  - a. Enalapril
  - b. Captopril
  - c. Lisinopril
  - d. Quinapril
- 9 Amyl nitrite is an ester of &
  - a. Amyl alcohol & nitrous acid
  - b. Isoamyl alcohol & nitrous acid
  - c. Amyl alcohol & nitric acid
  - d. Isoamyl alcohol & nitric acid
- 10 Identify the following drug

- a. Nesiritide
- b. Tozesentan
- c. Bosentan
- d. Disopyramide
- 11 Select the incorrect statement. Sotalol acts by
  - cet the incorrect statement. Sociator acts by
  - a. Potassium channel blockage
  - b. Increasing repolarization phase
  - c. Shortening repolarization phase
  - d. Inhibition of  $\beta$  stimulation
- 12 Clopidogrel acts by
  - a. Inhibiting platelet aggregation
  - b. Antagonizes Vitamin K
  - c. Inhibits carboxylation of precursor protein
  - d. Stimulating coagulation
- Antihyperlipoproteinemics like statins mimic ----
  - a. Mevalonic acid
  - b. Tetrahedral intermediate in Mevalonic acid pathway
  - c. HMG CoA
  - d. Mevastatin

#### 14 Identify the drug

- a. Dexamethasone
- b. Prednisolone
- c. Betamethasone
- d. Hydrocortisone
- 15 Hydrocortisone is a reduced form of cortisone. Reduction takes place at
  - a. 3-one
  - b. 11-one
  - c. Double bond between C3 and C4
  - d. 20-one
- 16 To which chemical class does Tolbutamide belong to
  - a. Sulphonyl ureas
  - b. Meglitinides
  - c. Thiazolidinediones
  - d. Biguanides
- 17 The starting material for the synthesis of Benzocaine
  - a. p-amino benzoie acid
  - b. p-amino benzoate
  - c. m-nitro benzoic acid
  - d. o-nitro benzoic acid
- 18 Sildenafil contains ring.
  - a. Pyrazolopyridoindole
  - b. Pyrazolopyrimidine
  - c. Pyrazinopyridine
  - d. Imidazoindole
- 19 Synthetic thyroxine is available in form.
  - a. Levo
  - b. dextro
  - c. meso
  - d. racemic
- 20 The primary mechanism of action of local anasthetic is
  - a. Activation of ligand-gated potassium channels
  - b. Blockade of voltage-gated sodium channels
  - c. Stimulation of voltage-gated N-type calcium channels
  - d. Blockade the GABA-gated chloride channels

10640 Page 3 of 5

- II. Long Answer Questions (Answer any 2 out of 3)
  Q1 A) Indicate the mechanistic class of cyclophosphamide. Illustrate the chemistry behind its mechanism of action and depict its activation pathway in detail.
  B) Outline the mechanism of action of Doxorubicin and Vincristine. (structure not required)
  C) 5-Fluorouracil is a prodrug. State true or false. Justify
  Q2 A) Discuss rationale development of ACE inhibitor containing thiol group.
  B) Outline the synthesis of furosemide mentioning the reagents, intermediates and the reaction conditions.
  C) Identify the structure given below & depict its bioactivation.
  Q2 A) Discuss rationale development of ACE inhibitor containing thiol group.
  A 4 A Discuss rationale development of ACE inhibitor containing thiol group.
  B) Outline the synthesis of furosemide mentioning the reagents, intermediates and the reaction conditions.
  C) Identify the structure given below & depict its bioactivation.
  C) Identify the structure given below & depict its bioactivation.
- Q3 A) Classify local anaesthetic chemically with one structure of each class and describe its mechanism of action.

  P) Discuss 4 structural modifications in cortice staroids to anhance always are always as a structural modification of the structural modifications in cortice staroids.
  - B) Discuss 4 structural modifications in corticosteroids to enhance glucocorticoid activity. Support your answer with relevant structures.

    C) Give an example of hypoglycemic containing sugar mojety. Name the mechanistic 2
  - C) Give an example of hypoglycemic containing sugar moiety. Name the mechanistic class to which it belongs.
- III. Short Answer Questions (Answer 7 out of 9)
- Write target enzyme of Pantoprazole and highlight the advantage of proton pump inhibitors over other drugs used in hyperacidity. Depict the activation of Pantoprazole.
- **Q2** i) Match the following:

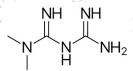
		Name		Nucleus	_	Mechanistic class	
Ī	1	1 Diltiazem		Steroid Lactones	i	Calcium channel	
	0					blocker	
S	2	Spironolactone A	Ъ	Benzothiazepine derivative	ii	Carbonic	
						anhydrase inhibitor	
Ī	3	Dichlorphenamide	c	1,3-disulfonamide derivative	iii	Aldosterone	
		10	<			antagonist	
		Y	$-\Delta - \lambda$		( \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		

- ii) Give schematic representation of binding interactions between ACE inhibitors/substrate and angiotensin converting enzyme
- Q3 Explain mode by which the following drugs exert their action. Mention the clinical condition in which they are used.
  - a. Nesiritide
  - b. Menadione
- Q4 Draw the structure of estradiol and give its IUPAC nomenclature. What is the effect of the following:
  - i) Addition of hydroxyl group at 6,7 and 11 position
  - ii) Substitution of 17α position with ethynyl group
  - iii) Removal of-OH group at C3

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#### Paper / Subject Code: 66111 / Medicinal Chemistry- II

Q5 Answer the following questions with resepect to given structure.



- i) Identify the drug.
- ii) Which class this drug belongs to?
- iii) Comment on mechanism of action of the drug
- iv) Write its therapeutic use
- v) Write the prominent adverse effect.
- Q6 Classify antiarrhythmic drugs based on mechanism of action. Give one example and structure of each class.
- Q7 Outline the synthesis of Tolbutamide with reaction conditions and necessary reagents and write its mechanism of action and use.
- Q8 i) Outline synthesis of Warfarin mentioning the reagents and reaction conditions.

  ii) Outline the mechanism of fibrates and give an example and structure of drug belonging to this class.
- Q9 i) What is the advantage of 2<sup>nd</sup> generation H1 antagonist over 1<sup>st</sup> generation. Which structural characteristics contribute to these advantages. Draw the structure of any one 2<sup>nd</sup> generation H1 antagonist.
  - ii) Why o,o-dichloro substitution is necessary in clonidine? Justify.

I.B.	Duration: 3 hrs  1. All questions are compulsory. 2. Figures to right indicate full marks.
Q.1	Choose the appropriate option for following multiple choice based questions. (Write the correct option and the correct answer.)
1	What is adulterated drug  a) Whole or in part of any filthy, putrid or decomposed substance b) Misbranded drug
Sp	c) Drug in Phase I trial d) Drug in Phase II trial
2	Condition to be fulfilled for import of Schedule X drugs (Narcotics & Psychotropic substances) by the importer is-
Desp	<ul> <li>a) The licence granted even before should not be suspended or cancelled</li> <li>b) Must have good source of income</li> <li>c) Must have good relationship with drug inspector</li> <li>d) Only patented products are sanctioned to import</li> </ul>
35	Requirements and guidelines of factory premises, plants, and equipment are found in of Drug and Cosmetic Act'1940.  a) Schedule P b) Schedule Q c) Schedule L d) Schedule M
4	A person (applicant) who does not have his own arrangement (factory) for manufacture but who wish to use manufacturing facilities own by another licences is called as-
ST.	a) Manufacturing licence b) Repackaging licence c) Loan licence d) Proprietary licence
5	For the wholesale of drug specified in schedule C & CI licence is issued in form?
	a) 20 A b) 20 B c) 21 B d) 21 C

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#### Paper / Subject Code: 66115 / Pharmaceutical Jurisprudence

	Children and the state of the s
6	The Schedule H on the label denotes
200	a) Biologicals
39'	b) Ophthalmic
) ′	c) To be sold by retail on the prescription of registered medical
	practitioner only
5	d) Good manufacturing Practices
0/1	d) Good mandracturing Fractices
7	Which of the following is the advisory administrative body appointed by the
	Central government for execution of Drug and cosmetic act 1940?
	a) Drug Consultative committee
20	b) Central drug laboratory
9	c) licensing authority
Ç*	d) drug analyst
	14 80 18 10 18 18 18 18 18 18 18 18 18 18 18 18 18
8	The functions of the CDL in respect of Homoeopathy medicines carried out
200	at we see the second of the se
	a) Homoeopathic pharmacopoeia laboratory Ghaziabad
	b) Homoeopathic pharmacopoeia laboratory Noida
<u> </u>	c) National institute of virology
	d) Central drug laboratory at kolkata
9	As per Pharmacy Act, First register of state for Pharmacist was prepared by?
, ,	a) Drugs controller of India
	b) central government
, C	c) local FDA
0	d) Dr. B. Mukerjee
,	a) Di. Bilitakerjee
<b>10</b>	Find the odd one out with reference to the MTP (ED) Act 1955?
,	a) Azithromycin Tablets
30	b) Deodorants and perfumes
30	c) Skin products
,	d) Hair products
	St. St. St. W. St. Ch. R. St. St.
11	Medicinal cannabis is also known as
30	a) Opium
)	b) Hemp
	c) Heroin
1	d) Charas
12	The Drugs and magic remedy (OA) Act was passed in
	a) 1954
,	b) 1948

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c) 1985 d) 1972

Page 2 of 4

- 13 Animal welfare board is established by
  - a) Central council
  - b) State council
  - c) PCI
  - d) Central government
- 14 NLEM stands for —-
  - a) National laboratory of essential medicines
  - b) National list of essential medicines
  - c) New list of essential medicines
  - d) New laboratory of essential medicines
- 15 R. N. Chopra was the chairperson of
  - a) DEC
  - b) Hathi Committee
  - c) Mudaliar Committee
  - d) Study of drugs enquiry committee
- 16 Pharmacy ethics provide a framework for
  - a) Pharmacist, pharmacy technician
  - b) IT
  - c) Deputy commissioner
  - d) Registar
- 17 What is MTP an abbreviation for
  - a) Medical Termination of Pregnancy
  - b) Menstrual Termination of pregnancy
  - c) Medical Term of Pregnancy
  - d) Medical testing of pregnancy
- act focuses on building better informed citizens
  - a) Right to information
  - b) Indian penal code
  - c) Drug and cosmetic act 1940
  - d) National list of laboratory testing
- 19 Patent protects
  - a) New Invention
  - b) Discovery
  - c) Experiment
  - d) Invention
- 20 Which of the following is the geographical indication property right
  - a) Bandhani print
  - b) Textile printing
  - c) Tatoo making
  - d) Research publication

#### Paper / Subject Code: 66115 / Pharmaceutical Jurisprudence

	Paper / Subject Code: 66115 / Pharmaceutical Jurisprudence	39
<u> </u>	Shirt Bash State S	C. Bar
a C		
Q. 2	Answer any two questions	20
I a.		6
	the classes of drugs which are prohibited for manufacture and sale.	220
<b>b</b> .	Give composition and function of PCI.	4
76, 1J,		5
AII a.	1	5
3	control certain operations w.r.t. opium.	9.
<b>b</b> .	Elaborate on procedure to conduct experiments on animals as per	5
6	Prevention of cruelty to animals act.	Sex Sex
Still ST		30
HI a.		6
D.	duties of drug inspector as per D and C act 1940.	
87 98	Elaborate about the minimum requirements to run a Pharmacy as per	
	schedule N of D & C Act.	30° × 70°
Q. 3	Answer any seven questions.	35
Q. 3	Discuss about the conditions to be fulfilled by the importer of the drug to	500
	issue an import licence.	
S II	What do you mean by Loan licence? Describe the forms and provisions	× 5 &
	required to issue a loan licence.	×
) III		5
	magic remedy under DMR (OA) Act.	2250
IV	a) Describe the constitution and functions of the institutional animals	2.5
ED, D,	ethics committee.	(), (3)
9	b) Explain the ceiling price fixation for scheduled formulations and	2.5
3000	elaborate on the maximum retail price.	0,
V	What is DEC and discuss the recommendations given by Drug enquiry	5
67	committee.	8 2
Si VI		5
	society S S S S S S	230
VII	Discuss the provisions made for termination of pregnancy as per MTP Act.	5
STITE STATE	Define the term "Dight to Information" What are the abligations of public	W. 3
VIII	Define the term "Right to Information". What are the obligations of public authorities towards the right to information	o, <b>3</b>
IX	$O_{\alpha}^{-1}$	5.000
	per the provisions of Indian Patent Act.	36
	per the provisions of meran rate rec.	-5 R
250		<i>)</i>
3	*******	
35		
97		
5, 13,		
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35		
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0	(3 Hours) [Total Marks 75]
Q.1	1. Choose an appropriate option for the following multiple choice based questions (20M
1 9	Digitalis increases force of contraction by
a	Accumulating potassium intracellularly
b	Enhancing opening of sodium potassium ATPase pump
c	Extruding calcium
d	Inhibiting sodium potassium ATPase pump
3	
2	The agents decrease cholesterol absorption and increase its excretion
a	Bile acid binding resins
b	Statins of the second s
c	Fibrates 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
d	PPAR agonists
3	The class of drugs are the type of vasodilator
a	Calcium channel blocker
b	Sodium potassium ATPase pump
c	Vasopressin
d	Fibrates
4	Organic nitrates exert their action by
a	Phosphorylation of myosin light chain kinase
D	Phosphorylation of myosin
C	Dephosphorylation of myosin light chain kinase
d	Dephosphorylation of myosin
<b>5</b> .	is indicated in Diabetes insipidus
5 a	Thyroxine
a b	Desmopressin
c	Bromocriptine
d	Thyrotropin
40	Thylodopin C. The Company of the Com
6	The class of diuretics acts mainly on the collecting tubule
a	Potassium sparing diuretics
b	Thiazide diuretics
č	Osmotic diuretics
d	Loop diureties

Page 1 of 4 10015 47ED582E013875C8B7E6BCCE6C5289EC

## Paper / Subject Code: 66113 / Pharmacology- II

Paper / Subject Code: 66113 / Pharmacology- II	S. X.
	2
7 promotes coagulation, thus indicated in haemorrhagic states	200
a Warfarin	
b Heparing A A A A A A A A A A A A A A A A A A A	
c Menadione	É
d Lepirudin	377
	P
8 Thrombolytic therapy is contraindicated in	
a Acute myocardial infarction	3
<b>b</b> Deep vein thrombosis	30
c Pulmonary embolism	<i>)</i>
d Peptic ulcer	
9 Aspirin in low doses produces long lasting inhibition of platelet cyclooxygenase (COX) because:	
a Platelets contain low quantity of COX	
b Platelets cannot synthesize fresh COX	9
c Platelets bind aspirin with high affinity	
d Platelet COX is inducible	
10 Mechanism of action of colchicine is	20
a Inhibits gout inflammation, release of chemotactic factor and granulocyte migration	150
b Inhibit absorption of calcium	7
c Reduced preload and afterload	
d Inhibits platelet generation of thromboxane A2, resulting in an antithrombotic effect	
	3
11 Activation of H2 receptor results in	
<ul> <li>a Gastric acid secretion</li> <li>b Smooth muscles contraction</li> </ul>	5
c Platelet aggregation	S
d Constrict cranial blood vessels	, A.
The Constitute Gainar blood-vessers	
12 The class of drugs inhibit specific cytokines which play key role in	
inflammatory cascade of rheumatoid arthritis	
a Immunosuppressants	
b Immunomodulators	
c Biological TNF alpha inhibitors	
d Colchicine	
10015 Page 2 of 4	
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	S. S.	
	3	The COV 2 inhibitions avoid a satisfa
	13	The COX-2 inhibitors exert action  Gastric mucosal damage
,50	b a	Lack cardioprotective effect
36		Inhibit platelet aggregation
(1)	94 V	Inhibit thromboxane A2
13°		Third thompoxine 722
7.99	14	is the radioactive isotope of Iodine used in the treatment of Hyperthyroidism
	a	Iodine 135
TO X	b	Iodine 127
307	c	Iodine 129
	d S	Nodine 131 D D D D D D D
	15	is an insulin secretagogues
	a	Acarbose Aca
8	b	-Miglitol A A A A A A A A A A A A A A A A A A A
E.O.	C	Glimepiride
8	d	Pioglitazone St. A. St.
	5	
	16	Somatostatin and its analogues are indicated in the treatment of
250	a	Addison's disease
	<b>b b</b>	Acromegaly
	<b>c</b>	Prader-Willi syndrome
500	d	Turner syndrome
	277	The pharmacological action of oral contraceptives is mainly achieved by
		Suppression of fertility
	a b	Stimulation of fertility  Stimulation of fertility
		Increasing testosterone level
55	d	Inhibition of sperm transport
	5	
	18	Hormone replacement therapy is useful in
63	a	Vaginal atrophy S S S S S S S S S S S S S S S S S S S
2	⊗ b	Coronary heart disease
	c	Glomerulonephritis
109	d	COPD
367	30,	
	2/5	
1977	1001	Page 3 of 4
AD'	100	Tage 5 of Tolland
<i>y</i> `		47ED582E013875C8B7E6BCCE6C5289EC

## Paper / Subject Code: 66113 / Pharmacology- II

19	The hormone in males triggers sertoli cells to synthesize androgen beglobulin (ABG)	indin
a	Gonadotropin releasing hormone (GnRH)	150
b	Luteinizing hormone (LH)	30
ç	Oxytocin	
d	Follicle-stimulating hormone (FSH)	75
		36
20	Estrogen basic mechanism of action is	9
a	To stimulation of glucose uptake	
b	To regulate the development and function of the uterus	
c	To stimulates the production of red blood cells	ED.
d 🔏	To regulate the glucocorticoid (steroid) hormone cortisol	× \
\$\tag{\tag{\tag{Y}}}		
6		2
		4
Q.2.		20M)
10	Classify antiarrthymic. Give detailed account on sodium channel blockers as antiarrt	nymic
,	drugs.	
2	Define and classify anti-coagulants. Give mechanism of action, therapeutic uses adverse effects of Coumarin anti-coagulants.	and
3	Give any two pharmacological uses of Angiotensin, Leukotrienes, Thrombo	xane
	Substance P and Bradykinin.	وم
		75
Q.3.		5M)
10	Give detailed account on Statins in treatment of hyperlipidaemia.	
2	Give mechanism of action of Thiazide and Loop diuretics.	8
3	Give a detailed account on Prostaglandins.	John State of the
4	Discuss in detail 5-hydroxy tryptamine antagonists.	
5	Give mechanism of action and adverse effects of Biguanides.	
6		,
	Classify Corticosteroids and discuss any one class in detail.	, C
7	Write a note on growth hormone and its inhibitor.	2872)
		Posti.
	Write a note on growth hormone and its inhibitor.	2 Sept
8	Write a note on growth hormone and its inhibitor.  Discuss in detail bioassay of oxytocin.	STORY OF THE PROPERTY OF THE P
8	Write a note on growth hormone and its inhibitor.  Discuss in detail bioassay of oxytocin.	Sept.
8	Write a note on growth hormone and its inhibitor.  Discuss in detail bioassay of oxytocin.	
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8	Write a note on growth hormone and its inhibitor.  Discuss in detail bioassay of oxytocin.	
8 9 9	Write a note on growth hormone and its inhibitor.  Discuss in detail bioassay of oxytocin.  Write a short note on Anabolic steroids.	
7 8 9 1001	Write a note on growth hormone and its inhibitor.  Discuss in detail bioassay of oxytocin.  Write a short note on Anabolic steroids.	

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	A SEL TELL SOLL SEL TELL SEL TELL TELL TELL TELL TELL
SB.	
	(3 hours) [Total marks: 75]
N.B.:	1. All questions are compulsory
5	2. Figures to right indicate full marks
Q. I	Choose appropriate option for following multiple choice-based questions. 20 Which of the following is not a precursor in shikimic acid pathway.
	a Prephenic acid
(5) (10)	b Mevalonic acid
20, 30	c Chorismic acid d Quinic acid
26F	a familie acid
2	Shinoda, Alkaline reagent and Zinc HCl test are used to identify
	a Lignans
9° 55	b Alkaloids c Flavonoids
197	d Glycosides
A. C.	
3	Which of the following is the source of Rutin?
So Sot	a Ruta graveolens b Podophyllum emodi
(295)	c Camellia sinensis
	d Mentha spicata
13° 20°	Diosgenin is used as raw material for synthesis of
A 4	a Corticosteroids
TOPO STILL	c Acyclovir
Clox, 2	d Insulin
9 ,075	Which of the following is the source of fennel?  a Foeniculum vulgare
(2)	b Coriandrum sativum
	c Mentha Piperita d Cinnamomum cassia
E 2061	
6	Which of the following drug consist of phenyl propanoidal constituent in
	volatile oil?
5	a Foeniculum vulgare b Coriandrum sativum
Sp <sup>T</sup>	c Mentha spicata
Po De	d Eugenia caryophyllus
0077	Which of the following test is confirmatory test for catechu?
	a Ferric chloride test
26 (6)	b Gold beater's test
13.	c Matchstick test
	d Gelatine test
10 E. W.	
1065	Page 1 of 4
29	D6A99C70AD2773F6C66989BAC192CEF4
V7	- $        -$

#### Paper / Subject Code: 66114 / Pharmacognosy & Phytochemistry- II

- 8 \_\_\_\_\_ plant is known as Indian Kino is use for its astringent activity
  - a Taxus brevifolia
  - b Pterocarpus marsupium
  - c Picrorhiza kurroa
  - d *Uncaria gambier*
- 9 Following are the examples of pathological resin containing drug except
  - a Benzoin
  - b Asafoetida
  - c Colophony
  - d Guggul
- Which of the following drug will give combined umbelliferon test positive?
  - a Benzoin
  - b Asafoetida
  - c Colophony
  - d Guggul
- 11 Atropine is
  - a *l*-hyoscyamine
  - b d-hyoscyamine
  - c \(dl\)-hyoscyamine
  - d d-hyoscine
- 12 \_\_\_\_ enzyme plays main role in conversion of 3 -Hydroxy-3 methylglutaric acid to mevalonic acid
  - a HMG Co-A Synthase
  - b Aceto acetyl Synthase
  - c Mevalonic acid Synthase
  - d HMG Co-A Reductase
- Which of the following drug will give positive modified Bontrager's test?
  - a Senna
  - b Aloe
  - c Bitter almond
  - d Digitalis
- is the source of Dianthrone glycosides.
  - a Senna
  - b Aloe
  - c Bitter almond
  - d Digitalis
- 15 Identify the given structure

, (	a <sup>4</sup>	Picroside
, 50	b	Forskolin
E C	c	Taxine
	d	Gentiopicrin
5	2	
OF.	16	metabolite of of A. annua shows 7-member ring structure.
2 3	a	Artemisinic acid
3, 10,	b	Artemisinic aldehyde
, C'	c	Artemisinin C S S S S S S S S S S S S S S S S S S
9	d d	Dihydroartemisinic acid
00,	9	
EAT OF	17	Carotenoids are compounds.
	a	C-10,07 (1) 46 (27 (27 (27 (27 (27 (27 (27 (27 (27 (27
	b	C-20
	c	C-30
29"	d d	C <sup>2</sup> 40 C 2 N C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C
2		
89,	18	In the extraction of Sennosides is prepared in-situ by addition of
	.0	Calcium chloride and liquor ammonia 30%.
200	a	HCI S S S S S S S S S S S S S S S S S S S
(8)	b	$CaCO_3$
(2)	c	CaOH O' A A'
£6 (6)	d	NH <sub>4</sub> Cl <sub>2</sub>
	(96)	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	19	Microwaves are electromagnetic radiations with a frequency from GHz
	a	0.3 to 300
D' ~	b b	300 to 3000
101 V	CC	0.003 to 0.3
	d	3000 to 300000
	3°,	
9	20	Which of the following is not true about SFE?
(T)	a	SCF is easily recoverable from the extract due to its volatility
	0	Low boiling components are extracted at relatively high temperatures.
3. 6/2		Non-toxic solvents leave no harmful residue Thermally labile compounds can be extracted with minimal damage as low
	d d	temperatures can be employed by the extraction
	00,	temperatures can be employed by the extraction
.07	Q. II A	Answer any TWO out of THREE 20
	Q. II A	a. Give example of an acid resin. Mention it's source, preparation & 10
T SV		Chemical tests.
	O,	b. Enlist 4 methods use in tracer techniques and explain any 1 method with
83°		suitable example.
(95)	TO (	
-6° 35°	2	Write a short note on the following
6 69		a. HPTLC in phytochemical analysis
, 6	20)	b. Electrophoresis in drug identification
E.C.	3	Write a short note on source, industrial production, estimation and uses of 10
(		following.
8	,6	a. Sennosides
Z V	76	b. Digoxin
S	1/25	
10F	\$	
<u>, (</u> )	10653	Page 3 of 4
3, 1	2,	
90,	A.	D6A99C70AD2773F6C66989BAC192CEF4
2 3	10	

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State of the state	SPE Jahr
The state of the s	Can again C
Q.II B. Answer any SEVEN out of NINE	35
1 Write a note on various methods for feeding radioactive precursors.  2 Discuss in Astril collection & absorber of Original alledeids	5 5
<ul> <li>2 Discuss in detail collection &amp; chemistry of Opium alkaloids.</li> <li>3 Illustrate pathway for biosynthesis of GPP with suitable structures.</li> <li>4 Discuss phytochemistry of Cardiac glycosides, illustrate your answer wi</li> </ul>	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
appropriate structures.  5 Discuss the following phytoconstituents with respect to their isolation ar	10 51,
identification.  a. Rutin	in Son Son Son Son Son Son Son Son Son So
b. Caffeine  6 Write a note on the analysis of following phytoconstituents	
a. Citral b. Podophyllotoxin	
7 Explain in short with suitable example the modern method of extraction Volatile oils.	for 5
<ul> <li>Write a note on drugs containing iridoids (Any two).</li> <li>Write a note on UV Spectroscopy in the identification of crude drugs.</li> </ul>	5 5
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2 France Periods Park Proposition Park 2011, 24 France Park 2011, 24 France Periods Park 2011, 24 France Park 2011	
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