23242

3 Hours / 80 Marks



		20) [1	1
Seat	No.				

Instructions -

- (1) All Questions are Compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
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Marks

1. Attempt any SIX of the following:

30

- a) Discuss development of pharmacy profession in India.
- b) What are different types of containers commonly used in pharmacy? Write in brief about glass containers.
- c) Define preservatives. Write it types with examples and uses.
- d) Define size reduction. Write in detail about ball mill.
- e) Enlist excipients in tablet. Define sustain release tablet, Extended release tablet, fast dissolving tablet multi layered tablet.
- f) Draw a layout design of pharmaceutical manufacturing plant. Write its sections and activities.
- g) Define Noval drug delivery system. How will you classify it? Write in brief about examples and challenges in Noval drug delivery system.

2. Attempt any <u>TEN</u> of the following:

- a) Define quality control, quality assurance and CGMP.
- b) Give in brief the method of preparation of smallpox vaccine.
- c) Describe the method of preparation of effervescent granules.
- d) Define ointment. Write classification of ointment bases.
- e) How will you differentiate between a hard gelatin capsule and soft gelatin capsule?
- f) Define extraction. Write classification of extraction.
- g) Draw a well labelled diagramme of F.B.D. write its principle.
- h) Draw a well labelled diagramme of Tripple roller mill. Write its advantages and disadvantages.
- i) Define pharmaceutical aid-write role of colouring, flavoring and sweetening agents.
- j) Write about career opportunities in pharmacy.
- k) Write short note on Indian pharmacopeia.

3.



Attempt ALL of the following: Define extended-release tablet. Define elixir b) Write full form of USP (U.S.P.) c) Define container The disintegration time for coated tablet is _____ minutes. e) What is use of Non-staining Iodine ointment. f) Which is the most commonly used vehicle in eye drops? g) h) Define Pessaries. i) Name any two preservatives. j) The rate of filtration is _____ proportional to the surface area of filter media. k) Hammer mill work on principle of _____ In cyclone separator the powder is separated depending on its Particle size ii) Density of particle i) iii) Shape of powder iv) Particle size and density Sublimation of water from ice phase to gas phase is known as _ m) The _____ drugs cannot be filled in hard gelatin capsule. n) Dusting powder is dispensed in _____ container. Gum acacia is used as _____ in emulsion. Solvent ii) Solute iv) Colourant iii) Emulsifying agent Solution is stored in Wide mouth bottle ii) Narrow mouth bottle iii) Both i) and ii) None of above iv) r) Name two identification test for emulsion. Solutions are which type of liquids? Bi-phasic Monophasic i) ii) iii) Suspension iv) Other than these What is the use of glycerin in elixir? Preservative Vehicle ii) iii) Colouring agent Flavouring agent



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Seat	No.					

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Marks

30

1. Attempt any SIX of the following:

Draw the structure of chlorpromazine hydrochloride give its IUPAC name, therapeutic uses, formulations and brand names.

- b) Draw the structure, IUPAC name, uses, formulations, and brand names of propranolol.
- c) Enlist various sources of impurities in pharmaceuticals. Write any 4 effects of impurities.
- d) Write uses of the following drugs:
 - i) Ketoconazole

ii) Chloroquine

iii) Norfloxacin

iv) Remdesivir

- v) Pretomanid
- e) Enlist two examples and uses for each of the following
 - i) Medicinal gases
- ii) Dental Products
- f) Define Antibiotics. Classify antibiotics based on chemical structure.
- g) Explain complexometric titrations and Acid-base titrations.

2. Attempt any TEN of the following:

30

- a) Enlist any 3 α-adrenergic blockers and any 3 β-adrenergic blockers.
- b) Classify Anti-arrhythmic agents with examples.
- c) Explain the principle and procedure involved in the limit test for sulphates.
- d) Classify Non-steroidal anti-inflammatory agents with suitable examples.
- e) Explain principle and reactions in the Assay of Ferrous sulfate.
- f) Draw the structure of Metformin, write its uses and enlist brand names.
- g) Classify Anti-depressants with examples. Draw the structure of Imipramine.
- h) Draw the structure of Isoniazid, write its IUPAC name and enlist any 2 brand names.
- i) Write uses of
 - i) Chloramphenicol

ii) Streptomycin

- iii) Azithromycin.
- j) Draw the structure of 5-Fluorouracil and enlist its uses and write its storage condition.
- k) Draw the structure of Frusemide and give its storage condition and uses.

P.T.O.

i)

Pyridostigmine

iii) Acetyl Choline



Physostigmine

iv) Parathion

ii)



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Seat No			

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Marks

30

1. Attempt any SIX of the following:

and

- a) Explain pharmacological system of classification of crude drug with merits and demerits.
- b) Define drug evaluation. Enlist different microscopical evaluation parameters. Explain any three leaf constants used for evaluation of leaf.
- c) Write biological source, chemical constituents and uses of Black pepper and Rauwolfia.
- d) Define oxytocic drug. Give synonym B.S. chemical constituent and uses of Ergot.
- e) Enlist different traditional system of medicine and describe in brief Ayurveda system of medicine.
- f) Define and classify Netraceuticals with examples. Give any four therapeutic applications of neutraceuticals.
- g) Give biological source, chemical constituent, commercial preparation, therapeutic and cosmetic use of Sandalwood oil.

2. Attempt any TEN of the following:

30

- a) Define pharmacognosy, who, when coined the term pharmacognosy?
- b) Define drug adulteration. Describe any two methods of drug adulteration with example.
- c) Define volatile oil. Describe any two isolation methods of volatile oil.
- d) Define antidiabetic drug. Write biological source, chemical constituent of gymnema.
- e) Write names of drug having following chemical constituents.
 - i) Fenchone

ii) Emetine

iii) Quinine

iv) Caffeine

v) Catechine

- vi) Papain
- f) Name the drug which gives following test positive
 - i) Match stick test

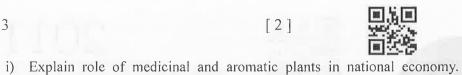
ii) Modified borntrager test

- iii) Killer-Killani-test
- g) Write chemical constituents and uses of
 - i) Isapghula

ii) Vinca

- iii) Vasaka
- h) Give ideal properties of surgical dressing.

P.T.O.



Marks

	j)	Define and classify herbal formulations with suitable examples.							
	k)) Define phytoconstituents and describe general (any two)	test for identification of alkaloids.						
3,		Attempt ALL of the following:	2						
	a)) The reasons for drug adulteration includes							
		i) Scarcity of drug ii)	High price of drug						
		iii) Drugs sold illegally iv)	All of the above						
	b)) Define 'Ash Value'.							
	c)) Goldbeater's skin test is performed for identification	ification of						
		i) Tannin ii)	Resin						
		iii) Fixed oil iv)	Alkaloid						
	d)	Name chemical test for identification of cardiac glycosides.							
	e)) The substance which increase evacuation of	The substance which increase evacuation of bowel is called as						
	f)) Which part of the plant is used as drug for	Ephedra and Belladona?						
	g)	Jesuits bark is synonym of drug.							
	h)	family.							
	i)) Cinchona is used as							
	j)	Give name of drugs belongs to the families of umbelliferae and zingiberaceae.							
	k)	Which drug having synonym 'Indian Saffron'							
		i) Coca ii)	Benzoin						
		iii) Vinca iv)	Turmeric						
	1)) Define diuretic with example.							
	m)	Neem belonging to family.							
		i) Rubiaceae ii)	Meliaceae						
		iii) Liliaceae iv)	Zingiberaceae						
	n)) In the preparation of silk, the cocoons are h	eated at						
	o)) Define Bhasma.							
	p)) Sodhana and Marana are the steps involved	in manufacturing of						
		i) Churna ii)	Taila						
		iii) Bhasma iv)	Leha						
	q)) Define dietary fiber with example.							
	r)) Define prebiotic with one example.							
	s)	Write main chemical constituents of Aloevera.							

Write two cosmetic uses of Lavender oil.



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Instructions – (1) Al

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Marks

1. Attempt any SIX of the following:

30

- a) Describe Internal structure of the heart with a diagram.
- b) Define joint and classify. Name the bones of axial skeleton.
- c) Define blood. Describe it's composition and function.
- d) Give composition and function of saliva and write any six functions of liver.
- e) Describe the physiology of urine formation. Draw a well labelled diagram of nephron.
- f) Draw a saggital section of eye and explain it's parts.
- g) Describe the structure of spinal cord with neat and labelled diagram.

2. Attempt any TEN of the following:

- a) Explain nervous tissue.
- b) Which part of the cell is called as power house of cell? Why?
- c) Define anemia. Explain it's types.
- d) Define the term
 - i) Cardiac output
- ii) Blood pressure
- iii) Stroke volume
- e) Explain structure and function of lymph node.
- f) Write composition and function of pancreatic juice.
- g) Define the term
 - i) Tidal volume
- ii) Residual volume
- iii) Vital capacity

- h) Describe menstrual cycle.
- i) Which gland is called as endocrine and exocrine? Why?
- j) Define hormone. Enlist all the endocrine glands with their hormones in the body.
- k) Write the effect of parasympathetic stimulation on
 - i) Eye

- ii) Salivary gland
- iii) Urinary bladder

20

t) Write any two functions of 'CSF'.



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Marks

1. Attempt any SIX of the following:

30

- a) Describe the stages of demographic cycle and state objectives of family planning.
- b) Define health. Enlist various determinants of health and explain any three with examples.
- c) i) Write causes and ill effects of water pollution.
 - ii) What is social impact of drug addiction?
- d) Write causative agents, clinical presentation, and role of pharmacists in educating the public in the following communicable disease. (any two)
 - i) Acute diarrhoeal diseases
- ii) AIDS

- iii) Dengue
- e) Enlist all ongoing National Health Programme in India and explain any one focussed on vector borne diseases.
- f) Define the following:
 - i) Microbiology
- ii) Morbidity
- iii) Quarantine

- iv) Endemic
- v) Pandemic
- g) Define epidemiology. Explain different types of epidemiological methods.

2. Attempt any TEN of the following:

30

- a) Write causes and prevention of food poisoning.
- b) State advantages and disadvantages of bottle feeding in infants.
- c) What is pharmacoeconomics? Write it's importance.
- d) Enlist various respiratory infections and write causative agent for any one respiratory infection.
- e) Write about
 - i) Artificial ripening
- ii) Balanced diet
- f) Write the causative agent, mode of transmission and types of leprosy.
- g) Write note on sources, functions of proteins.
- h) Define social pharmacy. Give any two examples of FIP development goals.
- i) Write causative agent and mode of transmission of
 - i) Tetanus

- ii) COVID-19
- iii) Filariasis
- j) Discuss role of pharmacist in national health programmes.
- k) Name various methods of solid waste disposal. Explain any one.

P.T.O.



3. Attempt ALL of the following:

20

- a) Name the program launched by the Government of India to address the issue of prevalence of orodental disease.
- b) Match the followings:

Tyl	Type of Bacteria		Shapes
1.	Cocci	a.	Rod
2.	Bacilli	b.	Comma
3.	Vibrios	c.	Spiral
4.	Spirilla	d.	Spherical

- i) 1-d, 2-a, 3-b, 4-c
- ii) 1-d, 2-c, 3-b, 4-a
- iii) 1-c, 2-b, 3-a, 4-d
- iv) 1-a, 2-b, 3-c, 4-d
- c) HMO stands for _____.
- d) Name the disease characterized by the deficiency of iron.
- e) Name the protozoan that causes amebiasis.
- f) ____ is the immunity induced by vaccines which are the preparations of live or killed microorganisms or their products.
 - i) Artificial active immunity
- ii) Natural active immunity
- iii) Natural passive immunity
- iv) Artificial passive immunity
- g) Name one national health programme focussed on nutrition.
- h) Define noise.
- i) BCG stands for
- j) What is sewage?
- k) Write full form of NHP.
- 1) Which one of the following diseases is transmitted easily through droplet infection?
 - i) Plague

ii) Tetanus

iii) Syphilis

- iv) Chickenpox
- m) Vitamin A is also known as
- n) Give example of health programme for maternal health.
- o) Name any two dimensions of health.
- p) Write a full form of SDG.
- q) Which of the following is not an example of a mechanical contraceptive?
 - i) Condoms

ii) Diaphragms

iii) IUCD

- iv) Rhythm method
- r) WHO stands for _____
- s) Name any one national health program for mental health.
- t) Tuberculosis is spread by
 - i) Droplets spread while coughing
 - ii) Shaking someone's hand
 - iii) Touching bed linens or toilet seats.
 - iv) Sharing toothbrushes

23242

3 Hours / 80 Marks



	2022	1
Seat No.		

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Marks

1. Attempt any SIX of the following:

30

- a) Define drug absorption and drug distribution. Explain two mechanisms of drug absorption with examples.
- b) Classify parasympathomimetics with examples. Why is acetylcholine not used in clinical practice?
- c) Classify general anesthetics with examples. Describe various stages of general anesthesia.
- d) Classify antihypertensive agent with examples. Give mechanism of action of ACE inhibitors.
- e) Classify antiulcer agents. Why is aluminium hydroxide combined with magnesium hydroxide in antacid formulations nowadays?
- f) Differentiate between sulfonylureas and biguanides. Why insulin is not administered orally to diabetic patient?
- g) Explain broad-spectrum antibiotics with examples. Why is amoxicillin given in combination with lactobacillus in pediatrics?

2. Attempt any TEN of the following:

- a) Explain sublingual route with example of drugs. Give its advantages.
- b) Classify NSAIDs with examples of drugs.
- c) Define tranquilizers. Why is chlorpromazine marketed under the brand name Largactil?
- d) What is atherosclerosis? Explain the drugs used in treatment of atherosclerosis.
- e) Define hematinic. Why are vitamin B12 injections given in pernicious anaemia?
- f) Define bronchodilators. Explain management of status asthmaticus.
- g) Give classification and therapeutics uses of diuretics.
- h) Define oral contraceptives. Explain mechanism of action of hormone based oral contraceptives for females.
- i) Define autocoids. Explain triple response of histamine.
- i) Classify anticancer agents with examples of drugs.
- k) Explain DOTS therapy. Why is pyridoxine supplementation given in combination with isoniazid?



Marks

3.		Attempt ALL of the following:		X X
	a)	Define placebo effect.		
	b)	Write two drugs used in treatment of sho	ock.	
	c)	Streptokinase is used as?		
		i) Antimalarial agent	ii)	Antimicrobial agent
		iii) Fibrinolytic agent	iv)	Antidepressant agent
	d)	Corticosteroids are used in treatment of_		
		i) Bronchial asthma	ii)	Allergic diseases
		iii) Rheumatoid arthritis	iv)	All of the above
	e)	ORS stands for		
		i) Oral Retention Salt	ii)	Osmotic Rehydration Salt
		iii) Oral Rehydration Salt	iv)	Osmotic Retention Salt
	f)	Diazepam is		- 1 / 10
		i) Antianxiety drug	ii)	Muscle relaxant
		iii) Antiepileptic drug	iv)	All of the above
	g)	Which of the following drugs is a carbon	nic a	anhydrase inhibitor?
		i) Furosemide	ii)	Amiloride
		iii) Spironolactone	iv)	Acetazolamide
	h)	Give two therapeutic uses of Propranolol.		
	i)	Give one example of neuromuscular bloc	king	agents and local anaesthetic.
	j)	Define nootropics.		
	k)	Write side effects of atropine and aspirin	· ku	
	1)	Give two drug used in treatment of glaud	coma	a. // п
	m)	Write therapeutic use of ondansetron.		
	n)	Define biological product.		ACTUAL VALUE OF THE PARTY OF
	0)	Write therapeutic use of Metronidazole.		
	p)	drug is contraindicated in anaphyla	actic	shock.
	q)	and are two examples of b	iolog	gical products.
	r)	is a mydriatic.		
	s)	TCA drugs stands for		
	t)	Theraneutic use of propylthiogracil is		

23242

3 Hours / 80 Marks



	20)222
Seat No.		

Instructions -

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Marks

1. Attempt any SIX of the following:

30

- a) Give the characteristics of ideal pharmacy interior design.
- b) Mention the causes of dispensing errors. Give strategies to minimize dispensing errors.
- c) Define patient counselling. Discuss the patient counselling points for hypertensive patients.
- d) Explain the role of pharmacist in OTC medication dispensing.
- e) What factors need to be considered while selecting a site for setting up a community pharmacy?
- f) Define Diarrhea. Describe the causes, symptoms and self-care advice for management of Diarrhea.
- g) Enlist various inventory control techniques useful for community pharmacy. Explain any two techniques in detail.

2. Attempt any TEN of the following:

30

- a) What are the factors to be considered while selecting the vendors to supply the medication material in community pharmacy?
- b) Define communication skills. Enlist the points to make telephonic conversation effective.
- c) Explain the procedure of measuring capillary blood glucose level by using glucometer.
- d) Define community pharmacy. Explain the current scenario of community pharmacy in India.
- e) What are the advantages and disadvantages of self-medication.
- f) What are the professional responsibilities of community pharmacist?
- g) What documents are required to open a new retail drug store?
- h) Write a note on handling of prescription.
- i) Explain the importance of body language with respect to posture and eye contact.
- j) What are the benefits of patient counselling?
- k) What are the patient related factors for medication non-adherence?

P.T.O.



Marks 20

Attement All of the following		EL XVIVE
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	e nai	ient
· · · · · · · · · · · · · · · · · · ·		
	d in	which year and who headed the
The minimum floor space specified for	opera	ting a retail pharmacy is
Define SOP.		
What is the full form of DOTS?		
Lead time is		
i) Time to get the supply after ordering	ıg.	
ii) Ideal time to order supply.		
iii) Time to order economic order quan	tity.	
iv) None of the above.		
GPP for community pharmacy setting is	deve	eloped by
i) WHO and FIP	ii)	WHO and UNICEF
iii) FIP and UNICEF	iv)	WHO
Cash memo is the testimony of		
i) Purchase record	ii)	Sales record
iii) Counselling record	iv)	None of the above
A patient is considered adherent if he ta as prescribed.	akes	% of their medications
Household remedies are listed in schedu	le _	of drugs and cosmetics rules.
Which of the following health screening	serv	rices in non-invasive?
i) Blood glucose level	ii)	Blood pressure level
iii) Blood haemoglobin level	iv)	Blood lipid level
Medicines like Ibuprofen, Naproxen are		
i) OTC in India	ii)	Schedule H in India
iii) Schedule X in India	iv)	Schedule G in India
Define digital health.		
Storage at cold condition indicates		
i) Keeping below 0°C	ii)	Keeping at 0°C
iii) Keeping at 0°C to -18°C	iv)	Keeping at 2°C to 8°C
	Define pharmaceutical pictogram. Define daybook. Define patient package insert. The drugs enquiry committee was forme committee? The minimum floor space specified for Define SOP. What is the full form of DOTS? Lead time is	Define finance. Define self-medication. COPD stands for Stadiometer measures the of the path Define pharmaceutical pictogram. Define daybook. Define patient package insert. The drugs enquiry committee was formed in committee? The minimum floor space specified for operation Define SOP. What is the full form of DOTS? Lead time is i) Time to get the supply after ordering. ii) Ideal time to order supply. iii) Time to order economic order quantity. iv) None of the above. GPP for community pharmacy setting is deventially with the devential of the supply after ordering. ii) FIP and UNICEF iv) Cash memo is the testimony of ii) Purchase record ii) iii) Counselling record iv) A patient is considered adherent if he takes as prescribed. Household remedies are listed in schedule Which of the following health screening serventially blood glucose level ii) iii) Blood haemoglobin level iv) Medicines like Ibuprofen, Naproxen are ii) OTC in India iii) iii) Schedule X in India iv) Define digital health. Storage at cold condition indicates iii) Keeping below 0°C iii)





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Marks

1. Attempt any SIX of the following:

30

- a) Define carbohydrate and write classification with examples.
- b) What are Proteins? Briefly explain their biological role. Explain secondary structure of proteins.
- c) Discuss different factors affecting enzyme activity.
- d) What is kreb cycle? Mention steps in kreb cycle.
- e) Explain biological oxidation with ETC and oxidative phosphorylation.
- f) Discuss urea cycle and decarboxylation.
- g) Discuss the functions of liver. Explain liver function test.

2. Attempt any TEN of the following:

- a) Draw the structure and enlist any two functions of cholesterol in the body.
- b) Explain the following
 - i) Triglycerides
 - ii) Fatty liver
 - iii) Emulsification test
- c) Explain the structure of DNA.
- d) Describe Vitamin A. Its chemical nature and deficiency diseases.
- e) Give an account of metabolism of fats with reference of β -oxidation.
- f) What are ketone bodies? Discuss formation of Ketone bodies.
- g) Give the functions of following
 - i) Sodium
 - ii) Chloride
 - iii) Cobalt
- h) What is dehydration? Discuss its causes and ORT.
- i) Write in detail about renal function test.
- j) Discuss about abnormal constituents of urine and their significance.
- k) Write about abnormal RBCs and related diseases.

3.



Marks

	Attempt ALL of the following:			
a)	Which one is the largest organelle in	the cyt	oplasm?	
	i) Lysosomes	ii)	Mitochondria	
	iii) Golgi apparatus	iv)	Endoplasmic reticulum	
b)	The cellular organells called sucidal b	ags are		
	i) Lysosome	ii)	Ribosome	
	iii) Nucleolus	iv)	Golgi complex	
c)	Draw the structure of glucose.			
d)	Name one optically inactive aminoacio	d. /		
e)	Name any two sulfur containing amin	oacids.		
f)	Define Vitamins.			
g)	Write any two functions of RNA.			
h)	What is holoenzyme?			
i)	Enlist any two functions of lipids.			
j)	Write any two functions of Vitamin C	· ·		
k)	The deficiency of Vitamin B ₁ causes			
	i) Xeropthalemia	ii)	Beri-Beri	
	iii) Pellegra	iv)	Scurvy	
1)	Name the coenzymes of Vitamin B ₆ a	and Vita	amin B ₂ .	
m)	What is Glycogenolysis?			
n)	Body water is regulated by the hormo	one	- Annual Control of the Control	
	i) ADH	ii)	ACTH	
	iii) FSH	iv)	Epinephrine	
0)	Enlist any two functions of water.			
p)	Explain the terms ECF and ICF.			
q)	q) The term biotechnology was coined in 1919 by			
	i) Karl Ereky	ii)	Alexander flemming	
	iii) James Waston	iv)	Francis Cricks	
r)	Define "biotechnology".			
s)	ALT is also known as			
	i) Alanine amino transferase	ii)	Amino leucine transferase	
	iii) Aspartate amino transferase	iv)	None of these	
f)	What is Rothera's test?			



	2022	4
Seat No.		

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Marks

1. Attempt any SIX of the following:

30

- a) Write the pharmacological and non-pharmacological management of diabetes mellitus.
- b) Explain the clinical manifestation and non pharmacological management of hypertension.
- c) Give the definition of pharmacotherapeutics and mention the objectives of pharmacotherapeutics.
- d) Write about clinical manifestation of Parkinson's disease. Explain pharmacological treatment of Parkinson's disease.
- e) Give the etiopathogenesis of tuberculosis. Explain the pharmacological management of tuberculosis.
- f) What is alcoholic liver disease? Write about its clinical manifestation and Non pharmacological management.
- g) What is SARS-COV-2? Give the clinical manifestation and Non pharmacological management of SARS-COV-2.

2. Attempt any TEN of the following:

- a) Define Hyperlipidaemia. Discuss pharmacological treatment of Hyperlipidaemia.
- b) Write about the causes and symptoms of Megaloblastic Anaemia.
- c) Define Epilepsy. Discuss classification of Epilepsy.
- d) What do you mean by COPD? Explain its Etiopathogenesis.
- e) Define osteoarthritis. Give the Etiopathogenesis of Osteoarthritis.
- f) Discuss any three classes of drugs used in the treatment of peptic ulcer.
- g) Discuss etiopathogenesis and of anxiety.
- h) Define standard treatment guideline as per W.H.O. Mention any four advantages of standard treatment guidelines.
- i) Define Glaucoma. Explain its clinical manifestation.
- j) What is Dysmenorrhea? Write about its clinical manifestation.
- k) What are the strategies for overcoming antibacterial resistance?



Marks 20

a)	Write full form of GERD.			
b)) Name the drug of choice for the treatment of Hyperlipidemia.			
c)	Which of the following drug as diuretic given in the patient with Hypertension. i) Minoxidil ii) Montelukast iii) Chlorothalidone iv) Verapamil			
d)	Name any two types of Asthama.			
e)	Define polycystic ovary syndrome.			
f)	Give two examples of drugs which are used in Dysmenorrhea.			
g)	is the life threatening medical condition caused by the rupture of blood vessels in the brain.			
h)	Deficiency of which two vitamins that causes the megaloblastic anemia.			
i)	Name any two gastrointestinal disorder diseases.			
j)	In human, scabies is caused by a tiny itch mite			
k)	Define Psoriasis.			
1)	Syphillis is caused by the bacterium			
m)	The thyroid gland is responsible for production of and thyroid hormones.			
n)	Which drug is used in Parkinson's disease as dopamine precursor?			
0)	Name the two bronchodilator drugs used to treat Asthama.			
p)	Ibuprofen is used for the treatment of			
	i) Psoriasis ii) Diabetes			
*1	iii) Migraine iv) Anemia			
q)	i) HDL ii) LDL			
	iii) VLDL iv) Triglycerides			
r)	Define rational use of medicines as per WHO.			
s)	What are the symptoms of bacterial conjuctivitis?			
t)	is defined as a burst of electrical activity in the brain's neurons			
	i) Depression ii) Arthritis			
	iii) COPD iv) Seizures			



Instructions - (1) All Questions are Compulsory.

- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
- (7) Incase students has attempted sub-question of Q3 more than once, only first attempt should be consider for assessment.

Marks

1. Attempt any SIX of the following:

30

- a) What is inventory control? Enlist different techniques of inventory control. Explain economic order quantity method.
- b) Write down mission, requirements and elements of GPP (Good Pharmacy Practices).
- Define medication error. Write the consequences and strategies to minimize medication errors.
- d) Enlist daily activities of clinical pharmacist and comment on 'Pharmacist as a patient counselor'.
- e) Define and classify poison with suitable examples.
- f) Classify liver function tests. Give normal values of
 - i) Total serum bilirubin
- ii) Serum albumin

iii) Serum globulin

- iv) Albumin / globumin ratio
- g) Enlist methods of drug distribution. Explain complete floor stock system with it's advantages and disadvantages.

2. Attempt any <u>TEN</u> of the following:

- a) Define radiopharmaceuticals. Give various methods of disposal of radiopharmaceuticals.
- b) Explain FEFO and FIFO methods with it's advantages and disadvantages.
- c) Write about NABH accredetation including its benefits to patient and hospital.
- d) Explain unit dose dispensing system with its advantages and disadvantages.
- e) Comment on total parenteral nutrition include definition, content and indications for use.
- f) Enlist different disposal methods of drugs. Explain any two methods in detail.
- g) What is the meaning of LASA drugs? Give the measures to avoid LASA errors.
- h) Write the composition and functions of PTC.
- i) Enlist applications of computers in hospital pharmacy practice. Give benefits of EHR's.
- j) Define and write scope of clinical pharmacy.
- k) Explain the role of pharmacist in preventing antimicrobial resistance.

3.	a)	Attempt ALL of the following: FIP stands for
	b)	Give the meaning of following Latin terms - i) Unguentum ii) Mistura
	c)	Decreased value of creatinine clearance indicates
	d)	Requirement of pharmacist for hospital with bed strength upto 500 is
	e)	Define polypharmacy
	0	ICCU stands for -
	g)	Higher TSH value indicates Hypothyrodism. i) True ii) False
	h)	Define bulk compounding.
	i)	Schedule was introduced for restricting the sale of antibiotics through OTC sales.
	j)	Give the following Latin abbrevations: i) b.i.d. ii) SOS
	k)	Give the composition of universal antidote.
	1)	Write significance of increased ESR.
	m)	Pharmacovigilance continue througout - i) Post marketing surveillance ii) Pre marketing surveillance iii) Pre marketing surveillance iv) None of the above
	n)	numbers of copies of purchase order prepared.
•		i) 5
		iii) 3 iv) 4
	0)	::) EDTA
		i) Atropine ii) EDIA iii) BAL iv) Physostigmine
	p)	
	q)	
	v	i) Linezotide ii) Colistin
		iii) Tetracycline iv) Polymyxin-B
	r)	
		i) Pulmonary scan ii) Live scan iii) All of the phase
		iii) Brain scan iv) All of the above
	s)	
	t)	Define pharmacovigilance.



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Instructions - (1) All

- (1) All Questions are Compulsory.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any SIX of the following:

30

- a) Define education regulation. Describe it in detail and define 'Central Register'.
- b) Give the constitution and functions of Drugs Technical Advisory Board.
- c) Discuss the ethics of pharmacists in relation to his job as per the code of pharmaceutical ethics.
- d) Give the functions of Central Drug Laboratory (CDL).
- e) Give the formula for calculation of retail price of drug formulation and explain the terms involved in it as per DPCO, 1995 and define 'Ceilling Price'.
- f) What is clinical trial and explain various phases of clinical trials.
- g) Define government analyst. State qualifications for appointment of government analyst as per D and C Act,1940.

2. Attempt any TEN of the following:

- a) Write the classes of drugs and cosmetics prohibited for manufacture as per D and C Act and Rules.
- b) Give any three bonafide reasons for termination of pregnancy under Medical Termination of Pregnancies Act, 1971.
- Describe documentation, licenses and renewals of pharma manufacturing as per good regulators practices.
- d) Write recommendation of 'Drug Enquiry Committee'.
- e) State the classes of prohibited advertisements as per DMR Act, 1954. (any three)
- f) What are the labelling particulars required to appear on label of 'Ophthalmic preparations'.
- g) Define 'Poison' as per Poison Act, 1919 and name any two poisons specified in list 'A' and list 'B' each.
- h) Write penalties for punishment for contravention in relation to coca plant under NDPS Act and the rules.
- i) Define 'Repacking of drugs' and state any four conditions for grant of repacking licence.
- j) Differentiate Brand name and Generic name of drugs.
- k) What are the functions of the National Council for clinical establishments?

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3.		Attempt ALL of the following: Define 'Chemist and Druggist'.		
	b)	Clandestine arrangements as per code of pharia) Secret agreements ii) Pharmacist may render first aid to victin iii) Link between medical profession and pul iv) All of the above	1	
	c)	CPCSEA stands for		
	d)	What does schedule G to the rules prescribes	9.7	
	e)	Give function of Food Authority.		
	f)	~		
	g)		s on small animals?	
		i) CPCSEA ii)	IAEC IECC	
	1.5	iii) IACL		
	h)		urn of on net worth is	
	i)	considered.		
		i) 10% ii)	20%	
		iii) 8% iv)	18%	
	j)			
	k)			
	1)) Mention different classes of medical devices.		
	m)		a to a second starting	
	n)	i) National Institute of Disaster Management at i) Ministry of home affairs ii) iii) Ministry of pollution iv)	Ministry of environment	
	0)	 Who is the head of the Central Authority's i) Police Inspector iii) Magistrate iv) 	Director General	
	p	p) ICMR stands for		
	q	q) Who is the head of Central Drugs Standard	s Control Organization. (CDSCO)	
	_	Human Anatomical waste is categorised in which colour bag as per Biomedical		

Waste Management Act.

Define 'Bioethics'.

s) Minimum haemoglobin require to donate blood is _____.