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Instructions – (1

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Marks

### 1. Attempt any SIX of the following:

30

- a) Which route of drug administration have 100% bio-availability and used in emergency conditions? State its any four advantages and disadvantages.
- b) Explain pharmacological actions of the Acetylcholine. Why Acetylcholine is not used clinically?
- c) How cancer is treated in different ways?
- d) Explain Tolerance with its types and examples.
- e) Enlist and explain the factors affecting absorption of drugs.
- f) Classify Antihypertensive drugs with examples of drugs.
- g) How synergism, cumulation and sex modify the actions of drugs.

## 2. Attempt any TEN of the following:

- a) Classify Antiasthmatic drugs with examples.
- b) What is preanaesthetic medication? Discuss its importance with drugs.
- c) Define Haematinics and Anticoagulants along with its examples.
- d) Explain oral contraceptives with its types or methods.
- e) Define Miotics and Cycloplegics with examples of drugs.
- f) Define and classify Diuretic drugs.
- g) Explain Emetics and skeletal muscle relaxants with examples.
- h) Why morphine is contraindicated in head injury and Aspirin in peptic ulcer.
- i) Define Nootropics and Biologicals with one example each.
- j) Why Adrenaline is used in emergency kit of physician?
- k) Explain Antihistaminic drugs with examples.

## 3. Attempt ALL of the following:

<ul><li>a) Define pharmacokinetics.</li><li>b) Enlist four routes under parenteral route of a</li><li>c) Placebos therapy produces.</li></ul>	administration.  Psychological relief.
c) Placebos therapy produces.	
AND SHORE SHOULD	Developaical relief
1935 (HEALTH IN 194 194 194 194 194 194 194 194 194 194	Development relief
i) Effect on the disease. ii)	i sychological Tener.
iii) Physical relief. iv)	None of these.
d) Digitalis acts as a drug.	
i) Cardiotonic ii)	Antianginal
iii) Antihypertensive iv)	All of these.
e) Following are the Gastric Antacids except	
i) Sodium Bicarbonate ii)	Magnesium trisilicate
iii) Castor oil iv)	Aluminium hydroxide
f) is used in treatment of Hyperth	yrodism.
g) Codeine clinically is used as	
h) Define Mucolytic agents.	
i) Pilocarpine is used in treatment of	••••• s <sub>7</sub> ss/
j) Penicillin shows as adverse effe	ect.
k) Tetracycline is the drug of choice in treatme	ent of which disease?
1) Name one Antifungal drug.	
m) To avoid adverse effect, Isoniazide is taken	with -
i) Haematinics ii)	Purgatives
iii) Lactobacillus iv)	Pyridoxine.
n) Following drugs are avoided in Pregnancy e	except
	Ergot
iii) Purgatives iv)	Folic acid
o) Which drug shows ototoxicity as a side effect	ect?
p) What is cotrimoxazole?	
q) Name the antidote for organophosphorus cor	mpound poisoning
r) Levodopa is always given in combination w	vith
s) What is Lithium carbonate used as	
t) Define Analeptic drug	



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Marks

### 1. Attempt any SIX of the following:

30

- a) Define dispensing and write about the dispensing process.
- b) Explain the types of Barriers of patient counselling. Describe the strategies to overcome the barriers.
- c) What is OTC product? Describe the role of pharmacist on OTC product dispensing.
- d) Write about following minor ailments with its symptoms and advice for self care. (Any two)
  - i) Diarrhoea
  - ii) Fever
  - iii) Vomiting.
- e) Describe the legal requirements to set up a community pharmacy.
- f) Write about pharmacy layout and interior design. Draw an Ideal pharmacy layout design.
- g) Explain digital health. What are its benefits? Give the advantages of online pharmacies.

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

- a) Discuss the role of community pharmacist.
- b) Define SOP. State the contents in SOP. Give the benefits of SOP.
- c) Define Auxiliary label and pictogram. Give the auxiliary label for eye preparations and dispersible tablets.
- d) Write about body language as a type of communication.
- e) Describe communication over the telephone.
- f) Define patient counselling. State the patient counselling tips for diabetes.
- g) Enlist the factors influencing medication non-adherence. State the strategies to overcome medication non-adherence.
- h) Give the importance of various health screening services.
- i) What are the advices given by the pharmacist to the patients in cough and cold.
- j) Explain the types of cash book.
- k) Write about VED Analysis.

3.



	Attempt ALL questions of the following:					
a)	The two year professional course Chemist and Druggist diploma was started in Madras Medical College for the first time in the year					
b)	A good pharmacy practice manual in India was developed by with help of and CDSCO.					
c)	FIP stands for					
d)	What is subscription?					
e)	Non medication measures for controlling hypertension includes following except -					
	i) Weight reduction ii) Regular exercise					
	iii) Dietary changes iv) Amlodipine.					
f)	Drug of choice in Asthama –					
	i) Lisinopril ii) Sitagliptin					
	iii) Montelukast iv) Ethambutol.					
g)	What are the modes of transmission of T.B.?					
h)	Define medication non adherence.					
i)	Define health.					
j)	Minor ailments include:					
	i) Cancer ii) Cough					
	iii) COPD iv) Diabetes.					
k)	Drug of choice in pain and fever:					
	i) Acetaminophen ii) Cetirizine					
	iii) Bisacodyl iv) Zintac.					
1)	Define self medication.					
m)	Aspirin is used in the treatment of –					
	i) Pain ii) Inflammation					
	iii) Prevention of heart attack iv) All of the above.					
n)	Minimum requirement of area to start a pharmacy is					
o)	Give formula for EOQ. Analysis.					
p)	Enlist the types of Petty Cash Book.					
q)	E-prescription in pharmacy stands for:					
	i) Electronic prescription ii) Essential prescription					
	그렇게 가는 이 바로 가는 어느 가는 가는 것이 되었다. 그는					
r)	State any two advantages of opening a pharmacy in an urban location.					
s)	Give any two benefits of customer relation management.					
t)	Define procurement.					



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Instructions -

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Marks

### 1. Attempt any SIX of the following:

30

- a) Define and classify carbohydrates with example. Draw the structure of Glucose and Galactose.
- b) Discuss in brief the steps involved in Glycolysis and give its energetic.
- c) Define the term 'Enzyme'. Enlist the factors affecting enzyme activity. Explain effect of substrate concentration and temperature on rate of enzyme catalysed reaction.
- d) Define proteins. Enlist different types of structure of proteins. Describe secondary structure of proteins.
- e) Explain beta-oxidation of unsaturated fatty acid with energetic of palmitic acid.
- f) Describe lipid profile tests with its clinical significance.
- g) What is biological oxidation? Explain electron transport chain in details.

## 2. Attempt any TEN of the following:

30

- a) Give types and functions of lipoproteins.
- b) Give the schematic representation of overall view of TCA cycle.
- c) Explain Watson and Crick model of DNA.
- d) State the causes of
  - i) Phenyl ketonuria

ii) Alkaptonuria

- iii) Ketoacidosis
- e) Define dehydration. Give causes and treatment of dehydration.
- f) Explain different liver function tests.
- g) What are minerals? Give its classification and functions.
- h) Name normal and abnormal constituents of urine. Write significance of abnormal constituents in disease.
- i) What are fatty acids? Classify it based on chemical structure and nutritional requirements with example.
- Define and classify vitamins. Give deficiency diseases of vitamin D.
- k) Define anaemia. Explain megaloblastic and sickel cell anaemia.



3.	Attempt Al	LL of the fol	lowing	:		2		
a)	Full form o	f DNA is						
b)	Define Bioc	hemistry.						
c)	True of fals	True of false: The prokaryote cell has a nucleus.						
d)	is su	lfur containin	g essei	ntial amino	acid.			
e)	Lock and k	Lock and key model of enzyme action is proposed by						
	i) Emil F							
	iii) Crick		12	iv)	Watson			
f)	Match the	following:						
	1. Vit	amin D	a.	Beri-Beri				
	2. Vit	amin C	b.	Pernicious	anemia			
	3. Vit	amin B <sub>12</sub>	c.	Scurvy				
	4. Vit	tamin B <sub>1</sub>	d.	Ricket	2000-000 - 100 0000 - 100 000 000 000 000			
g) h)	i) Pyridox iii) Thiami Define endo	E 12. 12		ii) iv)	Tetrahydrofolate Nicotinamide a	denine dinucleotide		
i)								
j)		icture of Lac		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
k)				nsible for the	e regulation of o	electrolyte balance.		
1)	33	yme of Ribof	lavin.					
m)								
n)					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		
0)		a, then it ger		ii)	3 GTP	ansport chain reaction in		
	iii) 4 ATP			iv)	3 ATP			
p)		ge of creatini			<u> </u>			
q)	Two amino	acids are joi	ned to	gether by	bond.			
	i) Glycos			ii)	Peptide			
	iii) Covale				Pi			
r			nitroge	nous base is	not the compo	nent of RNA.		
	i) Adenin			ii)	Guanine			
	iii) Cytosii			(250)	Thymine			
s)		ge of leucocy			•			
t)		chnology was	coined		2012			
	i) 1954			ii)	1919			
	iii) 1857			iv)	1820			



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Instructions -

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Marks

### 1. Attempt any SIX of the following:

30

- Write clinical manifestations and pharmacological management of congestive heart failure.
- b) What is peptic ulcer? Write about it's pharmacological management.
- c) What are essential medicines? Explain objectives of pharmacotherapeutics.
- d) Explain treatment of hypothyroidism and hyperthyroidism.
- e) Write pharmacological and non-pharmacological treatment of epilepsy.
- f) Discuss Etiopathogenesis and pharmacological treatment of Urinary tract infections.
- g) Explain the pathophysiology and clinical manifestations of HIV.

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

- a) Discuss in brief about treatment of Parkinson's disease.
- b) Explain any three classes of drugs used in the treatment of pneumonia.
  - c) Define COPD. Explain it's aetiopathogenesis.
  - d) Discuss any three classes of drugs used in the treatment of hypertension.
  - e) Define GERD? Explain it's aetiopathogenesis.
  - f) What is premenstrual syndrome? Write about it's clinical manifestations.
  - g) Discuss any three classes of drugs used in the treatment of psychosis.
- h) What is antimicrobial resistance? How it can be prevented?
- i) Define glaucoma and explain it's aetiopathogenesis.
- j) Explain the aetiopathogenesis of osteoarthritis.
- k) What is megaloblastic anaemia? Explain it's treatment in brief.

3.



Marks

	Attempt ALL of the following:	20					
a)	5 (B) 2 (C) 4 (B) 5 (C) 4 (B) 5 (C)						
b)							
c)	c) The medical term of chest pain is						
	i) Angina ii)	Flutter					
	iii) Arrhythmia iv	) Hypertension					
d)	d) hormone is playing importan	t role in development of diabetes mellitus.					
e)							
f)	f) Name any 2 bronchodilators used in trea	tment of Asthma.					
g)	g) Which is mast cell stabilizer drug used i	n the treatment of asthma?					
	i) Monterlukast ii)						
	iii) Sodium chromoglycate iv)	Salbutamol					
h)	Define dysmenorrhea.						
i)	i) What is full form of SSRI.						
j)	is a skin disease that causes commonly on knees, elbows, trunk and s	a rash with itchy, scaly patches, most calp.					
k)	) Which skin infestation is caused by the f	uman itch mites.					
1)	) Give 2 symptoms of Iron deficiency Aner	mia.					
m)	) Malaria is disease transmitted from infects of	ed person to healthy person through the bite					
n)	) Name the causative agent of Tuberculosis						
o)	) What is Atopic Triade.						
p)	) Degeneration of dopaminergic neurons cau	ses,					
	i) Alzheimer's disease ii)	Depression					
	iii) Stroke iv)	Parkinson's disease					
q)	) Which disorder is caused by heavy use o	f alcohol?					
r)	The condition involves inflammation and intestine (colon) and rectum is known as	sores (ulcers) along the lining of your large					
	i) GERD ii)	Ulcerative colitis					
	iii) Crohn's Disease iv)	Peptic ulcers					
s)	The excessive fear and worry which is mand counting is known as	anifested as repetative activity of checking					
	i) Post traumatic stress order ii)	Panic attack					
	iii) Obsessive compulsive disorder iv)	Generalized Anxiety disorder					
t)	a page 10 10 10 10 10 10 10 10 10 10 10 10 10						



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Marks

#### 1. Attempt any SIX of the following:

30

- a), Define hospital pharmacy and write scopes of it.
- b) Define inventory control and enlist method to control it and describe EOQ.
- c) Enlist the drug distribution systems for inpatients. Explain non-charge floor stock drug distribution systems with its methods.
- d) Define the ward round participation of pharmacists along with goal and procedure.
- e) Write the principles and procedure to provide quality Pharmaceutical care.
- f) Write normal value and clinical interpretation of any 5 CBC tests.
- g) Define poisoning. Give the general principles for the treatment of poisoning.

#### 2. Attempt any TEN of the following:

30

- a) Explain in short Robotic automated drug dispensing systems.
- b) Define GPP. Write the role of pharmacist in satisfying GPP requirements.
- c) Define I.V. admixture. Write its advantages.
- d) Write in your own words, the actions required to be taken by the pharmacists to prevent antimicrobial resistance.
- e) Explain how to dispense radiopharmaceuticals.
- f) Explain any 3 cold storage devices.
- g) Explain the electronic health record along with its advantages and disadvantages.
- h) If drug interaction is caused due to pharmacodynamic interaction, then write the probable mechanism by which interaction could take place.
- i) Define hospital formulary and write the uses of HF.
- j) Explain the disposal of antineoplastic wastes.
- k) Emphasize which strategies are best to minimize medication errors.

#### 3. Attempt ALL of the following:

- a). Write long form of NABH.
- b) List the warning given for schedule H1 drugs. (Any two)
- c). should be used as "last resort options".
  - i) NDPS drugs
  - ii) Reserved antibiotics
  - iii) OTC drugs
  - iv) Emergency drugs
- d) Define in-patients.



Marks

e)	Radiopharmaceuticals are stored at	
	i) 2°C	
	ii) 2-8°C	
	iii) 25°C	
8	iv) Below 2°C	
f).	5	sment in ADR is
	i) Global introspection	
	ii) Algorithmic method	
	iii) Probabilistic method	
	iv) Algebraic method	
g),	Define HMR	
h).	Followings are composition of universal	antidote, EXCEPT.
	i) Milk of magnesia	
	ii) Powdered charcoal	
	iii) Tannic acid	
	iv) Pottasium hydroxide	
i),	Define pharmacovigilance.	
j).	Inulin clearence is used to assess:	
	i) Renal thresold	
	ii) Concentrating ability of tubules	
	iii) GFR	
	iv) Diluting ability of tubules.	
k).	no of pharmacists are require	red for 300 beded hospital
1).	What does FEFO stands for?	
n) ,	Define Bulk compounding.	
n)	is an instrument used for m	peasuring changes in volume within an
	organ or whole body.	securing changes in volume within an
o)	What is Anuria.	
p)	Write the dose of BAL.	
q)	Bilirubin in urine can be detected by wh	nich test?
r)	The PVPI, co-ordinated by the Indian ph	
1,		
s),	What will happen if Digitalis and Diuret	ics prescribe together?
t)	Write the normal value of Blood Choles	
7	Mo Monthly ratio of Diood Choles	MAMAN GEORGE AND HOTTER OF DESCRIPTION OF STREET



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Instructions -

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Marks

### 1. Attempt any SIX of the following:

30

- a) List ex-officio members and describe the functions of the Pharmacy Council of India.
- b) Give objective of D&C Act 1940 and Give constitution of DTAB.
- c) Define:
  - i) Misbranded drug and
  - ii) Adulterated drug as per D&C Act, 1940
- d) What does following schedule contains as per Drugs and cosmetic Act 1940:
  - i) Schedule A
  - ii) Schedule G
  - iii) Schedule H
  - iv) Schedule N
  - v) Schedule R
- e) Define 'Bulk drug' as per DPCO and how the retail price of a formulation is calculated?
- f) Explain the code of ethics by the PCI for the pharmacist in relation to his Job.
- g) Describe the phases of clinical trials.

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

- a) Describe the recommendations of the drug enquiry committee.
- b) State the classes of drugs prohibited to import as per D&C Act, 1940.
- c) Give functions of CDL as per D&C Act, 1940 (Any 6)
- d) Write the qualification required to appoint a government analyst as per D&C Act, 1940.
- e) Define opium. Addict and coca leaf as per NDPS Act, 1985.
- f) Define Magic Remedies? State the objectives of drugs and magic remedies Act, 1954.
- g) State the various rules prescribed by State Government for possession, possession for sale and for sale of poisonous substances under Poison Act, 1919.
- h) Write any three bonafied reasons for termination of pregnancy under MTP Act, 1971.
- i) Discuss the documentation and License required for community pharmacy as per good regulatory practices.
- j) Give difference between Brand name drug and Generic drug.
- k) Explain the constitution of the national council for clinical establishments.



Marks

20

3. Attempt ALL of the following: DTAB has Ex-officio members. Examples of schedule 'X' except -Analgin ii) Amobarbital iii) Pentobarbital iv) Cyclobarbital Indian veterinary research institute is situated at \_\_ CPCSEA stands for According to 'Prevention of cruelty to Animal Act', 'Animal' means any living creature other than State any two important things should appear on the label of Food Supplements as per FSSAI. What does schedule I prescribe as per DPCO. State any two examples of drug added to the list of NLEM 2021. Hawking of drugs is a part of ethics related to \_ Pharmacist in relation to his job ii) Pharmacist in relation to his trade iii) Pharmacist in relation to medical profession iv) Pharmacist in relation to his own profession MTP Act was passed in year \_\_\_\_\_. k) Role of CDSCO except \_\_\_\_\_ Responsible for approval of new drug ii) Conduct of clinical trials iii) Amendments of D&C Act and rules iv) Publish Indian Pharmacopoieu 1) Write the full form of CDER with respect to pharmacy profession. m) State the function of blood bank. n) Human Anatomical Waste is discarded in which category as per biomedical waste management schedule. 0) What is the long form of ICMR. p) What are the common bioethical issues? i) Eugenics ii) Euthanasia iii) Organ donation iv) All of these State the name of bioethical principle. The consumer protection act was initiated in India in year \_\_\_\_ r) National Institute of Disaster Management authority comes under \_\_\_ Ministry of Home Affairs ii) Ministry of Environment iii) Ministry of Pollution iv) Ministry of Foreign Affairs

Give two example of medical device.