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AIKTC/KRRC/SoP/ACKN/QUES/2022-23/ Date: 01/05/2023

School: SoP-PCI Branch: DP SEM: I

To,
Exam Controller,
AIKTC, New Panvel.

Dear Sir/Madam,

Received with thanks the following **Semester/Periodic** question papers from your exam cell:

Sr. No.	Subject Name	Subject Code	Format		No. of Copies
			SC	HC	
1	Pharmaceutics	ER20-11T		✓	
2	Pharmaceutical Chemistry	ER20-12T		✓	
3	Pharmacognosy	ER20-13T		✓	
4	Human Anatomy & Physiology	ER20-14T		✓	
5	Social Pharmacy	ER20-15T		✓	
6					

Note: SC – Softcopy, HC - Hardcopy

(Shaheen Momin)
Librarian, AIKTC

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R-2022
ME-CIVIL- CM
SEM-II

8/01/24

[Time: 3 Hours] [Total Marks: 80]

N.B: Answer any four of the following.
Each main question carries equal marks.

Q.1	A)	Define contract and main features of the valid contract under Indian Contract Act 1872.	10
	B)	What are the clauses and conditions of as per Ministry of statistics and program Implementation.	10
Q.2	A)	Which are the general and special types of contract along with their suitability in construction practices? Explain	10
	B)	Give the stages involved in calling the suitable form of tender of construction of Highway of Rs.1000 crore from approval till its acceptance. Specify the type of tender with reason you will select for execution of work.	10
Q.3	A)	What is role of dispute resolution board in construction industry and explain it function and procedure.	10
	B)	Explain the FIDIC contract	10
Q.4	A)	Explain the arbitration and conciliation. Act-1996 and its application in construction industry.	10
	B)	Explain claims, disputes, and standard methods of resolving disputes.	10
Q.5	A)	What are the functions of the Trade Union Act and how the trade unions are formed and registered?	10
	B)	What is bailment? Explain the role of Bailee and bailor.	10
Q.6	A)	What are the objectives of Payment of wages Act-1936 and Workmen's compensation Act-1923?	10
	B)	Write a short note on i) Indemnity and Guarantee ii) Professional ethics	10

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IR@AIKTC-KRRC Pharmaceutics -I

Summer '2023

22223

20111

3 Hours / 80 Marks

Seat No. 2 9 0 4 2 9

Instructions – (1) All Questions are Compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
(5) In case student has attempted sub-question of Que. No. 3 more than once, only first attempt should be considered for assessment.

Marks

1. Attempt any SIX of the following: **30**

a) Write short note on history of pharmacy profession related to pharmacy education and pharmacy practice in India.

b) Explain the principle, construction and working of cyclone separator with neat labeled diagram.

c) Enumerate the various tests for quality control of tablets. Describe the disintegration or friability test.

d) Define capsule. Describe the process of involved in manufacturing of hard gelatin capsule.

e) Write short note on:
i) Elixirs
ii) Suspensions.

f) Write the formulation parameters for parental in detail.

g) What are toxoids? Discuss the general method for preparation toxoids.

2. Attempt any TEN of the following: **30**

a) Write advantages and disadvantages of plastics as a packaging material.

b) Give classification of powders as per I.P.

c) Write down the advantage and disadvantage of tablets.

d) Differentiate between lotions and liniments.

e) Enlist the various bases used for formulation of ointments.

f) Classify the method of preparation of effervescent granules.

g) Write any six characteristics of ophthalmic formulation.

h) Define the term calibration and validation in brief.

i) Define cGMP and explain its importance.

j) Define drug delivery system. Classify various drug delivery systems.

k) What are the future applications of NDDS ?

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Marks 20

3. **Attempt the following:**

a) Who is known as father of pharmacy profession in India ?

b) Pharmacopoeia contains of

i) Monograph of drug and substance ii) Standard test

iii) Description formulae iv) All of the above

c) The first edition of pharmacopoeia was published in _____.

d) Name materials used to prepare pharmaceutical containers

e) _____ glass is glass of highest pharmaceutical grade.

f) Saccharin is used as a _____ _____ agent.

g) Name two antimicrobial preservatives.

h) To increase viscosity of liquid which of following agents are used.

i) PVP ii) Sodium Carboxy Methyl Cellulose

iii) Methyl Cellulose iv) All of above

i) Define sieve number.

j) Which type of mixture are easily formed

i) Positive ii) Neutral

iii) Negative iv) Ampholytic

k) Write the name of one equation which describes theory of filtration.

l) Define maceration.

m) Which of the following is not used as diluent?

i) Lactose ii) Microcrystalline cellulose

iii) Calcium Carbonate iv) Poly Vinyl Pyrolidon

n) Which type of coating is done to disintegrate tablet in intestine _____.

o) HLB value of SLS is

i) 10 ii) 12

iii) 40 iv) None of above

p) Define suppository is not vegetable oil ?

q) Write at least two differences between pastes and ointments.

r) Name two vehicles used in the formulation of ear drops.

s) Nasal drops should be isotonic with _____% sodium chloride.

t) Name vaccine used for prevention of tuberculosis.

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~~Pharmacology~~ Pharmaceutical chemistry.

22223

20112

3 Hours / 80 Marks

Seat No. 2 9 0 4 2 9

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
(6) Incase student has attempted sub-question of Question No. 3 more than once, only first attempt should be considered for assessment.

Marks

1. **Attempt any SIX of the following:** **30**

a) Name any 2 of the following:
i) Hematinics ii) Antacids
iii) Dental Products iv) Cathartics
v) Antiseptics / Disinfectants

b) Define - "Volumetric analysis". List the apparatus needed in volumetric analysis. mention the types of volumetric analysis.

c) Define the term "epilepsy". Classify Anti-epileptic agents with suitable examples.

d) Draw chemical structure of Dapsone. Give it chemical name, uses, formulations and storage conditions.

e) Explain reaction and principle involved in Limit Test of Arsenic and draw neat and labelled sketch of Gutzeit's apparatus.

f) What are adrenergic drugs? Classify with examples. Draw the structure of Norepinephrine.

g) Define and classify anti-neoplastic agents. Draw structure of 5 Fluorouracil.

2. **Attempt any TEN of the following:** **30**

a) Discuss any three different sources of impurities in pharmaceuticals.

b) Classify Antimalarials. Draw structure of chloroquine phosphate.

c) Give storage-stability, uses and brand name of drug Penicillin G.

d) What are para sympathomimetic agents? Draw structure of drug Acetylcholine. Give its storage and stability conditions.

e) Define and classify sedatives and Hypnotics with examples. Draw the structure of Phenobarbitone.

f) Give the structure, chemical name and uses of Frusemide.

g) Define diabetes mellitus. Draw structure of metformin and give its popular brand names.

h) What are narcotic analgesics? Give its classification with examples.

i) Give uses for
i) Chlorpromazine ii) Chloramphenicol
iii) Propranolol

j) Classify Antihypertensive agents with suitable examples.

k) Draw structure for:
i) β-Lactum antibiotic ii) Sulfa Drug

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Marks

3. **Attempt the following:** 20

a) Define antibiotics.

b) Write any 2 uses of Azithromycin.

c) Draw structure of acetyl group and chloro group.

d) Draw structure of Pyridine and give its method of numbering.

e) Chemical formula for bleaching powder is _____.

i) Ca(clo)2 ii) Ca(c1o)4

iii) CaCo3 iv) Ca2Co3

f) Prazosin drug is used for _____.

i) Hypertension ii) Brain tumor

iii) Diarrhoea iv) Cancer

g) Name any 2 indicators used in Acid-base titration.

h) The synonym of Calcium Carbonate is _____.

i) The precipitating agent used in Limit Test for chloride is _____.

j) Define "Redox Titration".

k) Draw structure of Atropine sulfate.

l) Doxycycline belongs to the structural class of Antibiotics.

i) Penicillins ii) Macrolides

iii) Tetracyclines iv) None of these

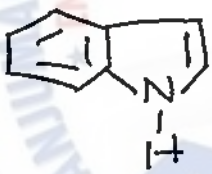
m) IUPAC name of Paracetamol is _____.

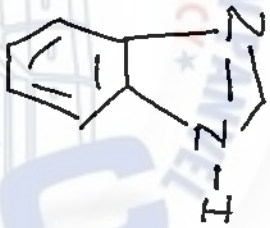
i) N - (2, 2- diethyl hydroxy) acetamide ii) N - (4 - hydroxy phenyl) anilide

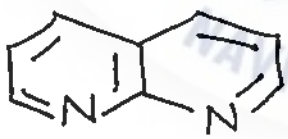
iii) 4 - hydroxy - Acetanilide iv) None of the above.

n) Full form of NSAID is _____.

o) Structure of Indole ring is _____

i) 

ii) 

iii) 

iv)

p) State whether true or false for Antacids are meant for constipation and hypoacidity.

q) Define "non-aqueous titration".

r) Gravimetric Analysis is a Semi-quantitative method. True or False.

s) Give 2 uses of Atenolol.

t) Name any 2 Anti-depressant drugs.

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22223

20114

3 Hours / 80 Marks

Seat No. 2 9 0 4 2 9

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) In case student has attempted sub-question of question no. 3 more than once, only first attempt should be considered for assessment.

Marks

1. Attempt any SIX of the following: **30**
   a) Describe the process of blood clotting.
   b) Explain conducting system of the heart with neat diagram.
   c) Write the composition and functions of gastric juice. Name the three phases of gastric juice secretion.
   d) Explain the functions of cerebrum. Name the functional areas of cerebrum with diagram.
   e) Describe the process of urine formation.
   f) Write the functions of skin.
   g) Classify bones. Explain anatomical features of synovial joint with diagram.

2. Attempt any TEN of the following: **30**
   a) Write anatomy and functions of the mitochondria.
   b) Give an account of simple epithelium.
   c) Describe the functions of lymphatic system.
   d) Name the parts of respiratory system. Write applications of a peak flow meter.
   e) Create a flow diagram that describes the sequence of events that causes contraction of ventricles and ejection of blood flow from heart.
   f) Write physiology of carbohydrate digestion.
   g) Differentiate between sympathetic and parasympathetic nervous system.
   h) Name the three layers of eye. Draw a well labelled vertical section of an eye-ball.
   i) Name the hormones secreted by pancreas. Explain physiological role of insulin.
   j) Describe phases of menstrual cycle.
   k) Enlist the endocrine glands with their location in the body.

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Marks

3. Attempt ALL of the following: 20

a) State the meaning coronal plane.
b) Mention the tissue that lines blood vessels.
c) List the bones forming ankle joint.
d) Define cardiac output.
e) State meaning of myopathy.
f) Write two functions of CSF.
g) Classify tissues.
h) Define Tidal Volume.
i) List indications of blood transfusion.
j) Write normal values of RBC count.
k) Which statement is correct?
   i) The knee is proximal to hip
   ii) The hip is proximal to knee
   iii) The shoulder is distal to elbow
   iv) The knee is distal to ankle
l) Sperm maturation occurs in the :
   i) Seminiferous tubule
   ii) Epididymis
   iii) Vas deference
   iv) Urethra
m) The hormone responsible for puberty in females is :
   i) Prolactin
   ii) Follicle stimulating hormone
   iii) Oxytocin
   iv) All of the above
n) The largest bone in the body is :
   i) Humerous
   ii) Femur
   iii) Tibia
   iv) Sternum
o) Classify WBC into its two types.
p) The largest blood vessel of body is _____.
q) The part of respiratory system mostly affected by COVID-19 is :
   i) Nasal cavity
   ii) Alveoli
   iii) Pharynx
   iv) Trachea
r) What does liver do to help digestion?
s) Coughing and sneezing are controlled by which part of brain?
t) Name the functional unit of kidney.

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Pharmacognosy

22223

20113

3 Hours / 80 Marks

Seat No. 2 9 0 4 2 9

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.
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(6) Incase student has attempted sub-question of question no. 3 more than once, only first attempt should be considered for assessment.

Marks

1. Attempt any SIX of the following: **30**

a) Why crude drugs are classified? Enlist different methods of classification of crude drugs and discuss morphological method with their merits and demerits.

b) State the meaning of adultration. Explain different methods of adultration with examples.

c) Define laxative with examples and give biological source, chemical constituents and therapeutic uses of aloe.

d) What are the pharmaceutical aids? Give biological source and chemical constituents of
i) Bees wax ii) Tragacanth

e) Enlist different traditional systems of medicine and explain any one.

f) Define and give therapeutic applications of
i) Probiotics ii) Antioxidants

g) Mention commercial preparations and cosmetic uses of
i) Olive oil ii) Sandalwood oil

2. Attempt any TEN of the following: **30**

a) Differentiate between organized and unorganized drugs.

b) Enumerates various limitations in manufacturing of herbal formulations.

c) Discuss the role of medicinal and aromatic plants in national economy.

d) Define surgical dressings. State the ideal requirements of surgical dressings.

e) State the uses of following drugs.
i) Vinca ii) Gokhru
iii) Ipecachunha

f) Write the method of preparation of Avaleha and Bhasma.

g) State biological sources, chemical constituents and uses of Neem.

h) What are antihypertensives? Give biological source and chemical constituents of Rauwolfia.

i) Define glycosides. Explain chemical tests for cardiac glycosides.

j) State the role of moisture content and extractive value in evaluation of crude drug.

k) Give contribution of
i) Seydler ii) Galen
iii) Dioscoride in pharmacognosy

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Marks

3. Attempt ALL of the following: 20

a) Name the drug which consist of 'Quinine' as a chemical constituents.
   i) Cinchona
   ii) Tolu balsam
   iii) Castor oil
   iv) Arjuna

b) Balsams consist of _____ and _____ acids.

c) Mention any one oil used as source of vitamins.

d) Gym nema is used as _____
   i) Antimalerial
   ii) Antitumour
   iii) Antidiabetics
   iv) Antitussive

e) Family of colchicum seed is _____
   i) Loganaceae
   ii) Liliaceae
   iii) Lauraceae
   iv) Leguminosae

f) Mention the synonym of
   i) Ephedra
   ii) Vasaka

g) In case of Clove and Black pepper which part of plant used as drug.

h) State the volatile oil content of fennel fruit.

i) Determination of stomatal index is _____ type of evaluation.

j) Name the drug which belongs to following synonym.
   i) Puncture vine
   ii) Indian saffron

k) Give major chemical constituents present in
   i) Turmeric
   ii) Vinca

l) Mayer's reagent consist of _____ solution.

m) What you mean by Asava?

n) Define the term 'Gutika'.

o) Lycopodium spore method is a _____ method of evaluation of crude drug.
   i) Morphological
   ii) Microscopic
   iii) Physical
   iv) Chemical

p) Extraction method used for preparation of delicate perfumes.
   i) Steam distillation
   ii) Enflurage
   iii) Eculle
   iv) Liquid carbon

q) The pungent principle of ginger is _____.

r) The Greek physician _____ known as 'Father of Medicine'.

s) What are herbal cosmetics?

t) Mention two drugs having family Solanaceae.

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IR@AIKTC-KRRC Social Pharmacy

22223

20115

3 Hours / 80 Marks

Seat No. 2 9 0 4 2 9

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.
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(6) In case student has attempted sub-question of Question No. 3 more than once, only first attempt should be considered for assessment.

Marks

1. Attempt any SIX of the following: **30**

a) Give the definition and Scope of Social Pharmacy. What is the role of pharmacist in public health?

b) Define family planning. Write in brief about various types of contraceptive methods.

c) Define the term Epidemiology. Enlist and explain different types of Epidemiology.

d) i) Discuss various solid waste disposal methods.
ii) What is Sewage?

e) i) Describe any one National Health Programme for mother and child.
ii) What is Pradhan Mantri Jan Arogya Yojna (PM-JAY)?

f) Describe causative agent, clinical presentation and role of pharmacist in prevention of Tuberculosis.

g) Give causative agent and clinical presentation for following infections (any two).
i) Dengue
ii) COVID-19
iii) Typhoid

2. Attempt any TEN of the following: **30**

a) Differentiate between Prokaryotic and Eukaryotic Microorganisms.

b) What are FIP Development Goals? When was it launched?

c) Define Noise. Write about ill effects of Noise pollution on health.

d) Write various causes of Pharmaceutical pollution.

e) Discuss types and importance of fibres in diet.

f) State what is Food Safety. What are neutceraceuticals?

g) State objectives of National Health Programme for prevention and control of cancer, Cardiovascular diseases, Diabetes and stroke.

h) Write note on Gram Staining of Bacteria.

i) Write note on Pharmacoeconomics

j) State the causative agent and mode of transmission of
i) Malaria
ii) Cholera

k) Define: Epidemic, Pandemic and Endemic

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Marks

3. **Attempt the following questions** 20

a) The International Pharmaceutical Federation (FIP) was founded in year _____.

b) Write full form of MDG.

c) Health is a state of complete _____, mental and social well being and not merely the absence of disease.

d) The National Health Mission was launched in year _____

e) Define the term Demography.

f). Breastfeeding awareness week is celebrated in month of
i) September ii) August
iii) January iv) May

g) Give two examples of psychotropic substances.

h) Write one common cause of air pollution.

i) Kwashiorkor develops due to deficiency of _____.

j) The practise of adding vitamins and minerals to foods during processing to increase it's nutritional value is known as:
i) Fortification of food ii) Food Adulteration
iii) Artificial ripening iv) Food Security

k) Filariasis is caused by _____ _____.

l) Following are examples of Respiratory tract infections, except
i) Small pox ii) Amocobiasis
iii) Mumps iv) Whooping Cough

m) The causative organism for plague is:
i) Salmonella typhi ii) Vibrio cholerae
iii) Yersinia pestis iv) M. Tuberculosis

n) Write full form of MERS

o) What do you mean by mortality?

p) Write full form of WHO.

q) Give one example of any one national health programme focussed on Nutrition.

r) First National Health Policy was launched by Government of India in year
i) 2013 ii) 2002
iii) 1983 iv) 1985

s) In which year National Health programme on Mental Health was launched ?

t) What is the measure of quality of life in different disease states?

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