



UNIVERSITY OF THE PUNJAB

Doctor of Pharmacy (Pharm.D.) 2nd Prof: Annual Exam-2022

Subject: Pharmaceutics-II (Dosage Forms Science) (New Course)

Paper: 1 Part - I (Compulsory)

Time: 30 Min. Marks: 20

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.

This Paper will be collected back after expiry of time limit mentioned above, then Subjective paper shall be attempted.

ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.

(20x1=20)

Q.1. Encircle the correct option.

- The rate of solution may be increased by
 - Decreasing the particle size of solute
 - Decreasing the temperature of solvent
 - Increasing the concentration of solute
 - Increasing the concentration of solvent
- Glycerin, benzoic acid, sodium benzoate, methyl paraben, or alcohol in the formulation are examples of
 - Solvents
 - Buffering Agents
 - Preservatives
 - Stabilizers
- _____ is used to make required bulk of the tablet when the drug dosage itself is inadequate to produce the bulk.
 - Diluent
 - Lubricant
 - Disintegrant
 - Binder
- The _____ difference between the internal and external phases should be minimal to make a stable emulsion.
 - Density
 - Viscosity
 - Particle size
 - Solubility
- Which of the following is TRUE to make 5% (w/v) solution of dextrose (Mol. Wt. 180.16 g/mol) isotonic solutions have same _____
 - 180.16 gram of dextrose in 100 ml water
 - 5 gram of dextrose in 100 ml water (q/s)
 - 5 gram of dextrose in 95 ml water
 - 900.8 gram of dextrose in 100 ml water (q/s)
- A tincture or fluidextract, is an example of:
 - Hydroalcoholic Vehicle
 - Medicated Liquid
 - Preservative
 - Organic Mixture
- For dosage form preparation, Excipients are selected to alter/ enhance the following properties of drug EXCEPT.
 - Stability
 - Bioavailability
 - Pharmacological action
 - Palatability
- Alcohol, glycerin, propylene glycol, and other hygroscopic liquids are employed as _____ when an aqueous vehicle is to be used as the dispersion phase.
 - Solvents
 - Flocculating agents
 - Anti-flocculating agents
 - Wetting agents
- Which ingredient has the effect of laxative in Glycerogelatin suppositories?
 - Glycerol
 - Gelatin
 - PEG
 - Codeine
- Suspensions may be defined as preparations containing finely divided drug particles (the suspensoid) distributed somewhat uniformly throughout a vehicle in which the drug exhibits
 - Maximum degree of Affinity
 - Minimum degree of resistance
 - Minimum degree of solubility
 - Minimum degree of stability

11. Because of the nature of the active constituents or the solvents, many topical solutions and tinctures are _____
- Very potent
 - Self-preserved
 - Toxic in nature
 - Therapeutically active
12. Hydrogen peroxide solution is categorized as a local _____ for use topically on the skin and mucous membranes.
- Astringent
 - Anesthetic
 - Anti-infective
 - Antipruritic
13. If PEG suppositories don't contain at least of water they can cause irritation to mucous membrane after insertion
- 10 %
 - 20 %
 - 30 %
 - 40 %
14. Displacement value is calculated b/cof the medicament may vary considerably from the base
- Mol. weight
 - Mass
 - Specific gravity
 - Density
15. Magmas and gels are _____
- Coarse solutions
 - Coarse dispersions
 - Colloidal dispersions
 - Fine dispersions
16. Non aqueous vehicles are used to prevent
- Polymerization
 - Oxidation
 - Hydrolysis
 - Isomerization
17. _____ is a clear or slightly opalescent viscous liquid prepared by dissolving pyroxylin (4% w/v) in a 3:1 mixture of ether and alcohol.
- Cataplasm
 - Collodion
 - Poultice
 - Elixir
18. Which statement is incorrect?
- Applied electric current is used to facilitate drug diffusion through the skin in Sonophoresis
 - The low-frequency ultrasound is used to facilitate drug diffusion through the skin in Phonophoresis
 - Generally the skin is the rate-controlling membrane for drug diffusion in Transdermal Matrix Patch
 - Transdermal Membrane Patch contains a drug reservoir entrapped between backing and adhesive layers and a drug diffusion controlling membrane.
19. What is the percentage of gelatin in Glycerogelatin suppositories?
- 70%
 - 14%
 - 16%
 - 20%
20. Electrolytes can act as in a suspension.
- Buffers
 - Flocculating agents
 - Stabilizers
 - Antioxidants



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Roll No.

Subject: Pharmaceutics-II (Dosage Forms Science) (New Course)

Paper: 1 Part - II

Time: 2 Hrs. 30 Min. Marks: 80

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any *FOUR* questions. Each question carries equal marks.

- Q. 2. (a) Define Suspensions and what are different reasons for preparation of Suspensions? (10)
(b) Define Gels, discuss composition, types and preparation of Gels? (10)
- Q. 3. (a) Define aerosol preparations. Give a brief description of aerosol components. (10)
(b) What are ophthalmic preparations? Give a brief description of formulation requirements for ophthalmic preparations. (10)
- Q.4. (a) Define syrups with examples, what are official syrups, Discuss its methods of preparation, uses, advantages and disadvantages. (10)
(b) Discuss in detail characteristics of cocoa butter and its crystalline forms. How it's unstable crystalline forms can be prevented. (10)
- Q.5. (a) what is difference between Creams and Ointments? (10)
(b) Describe Liniments, their types, uses and labelling instructions for them. (10)
- Q.6.(a) Define galenic preparations and give their importance in pharmacy. Differentiate between infusion and decoction. (10)
(b) Calculate the amount of 95 % alcohol (ethanol) require preparing 400ml of 45% alcohol. (05)
(c) How many grams of sodium chloride should be used in compounding the following prescription? (05)
R/x Pilocarpine nitrate 0.3 g
Sodium chloride q.s.
Purified water 30 ml
Make isoton. Sol.
Sig. for the eye
- Q.7. Write notes on the followings. (05 Each)
- Uses of Alcohol, USP in pharmaceutical preparations
 - Advantages and disadvantages of Transdermal Drug Delivery Systems
 - Oral Rehydration Solution (ORS)
 - Water for injection USP



UNIVERSITY OF THE PUNJAB

Doctor of Pharmacy (Pharm.D.) 2nd Prof: Annual Exam-2022

Subject: Pharmacology & Therapeutics-I (New Course)

Paper: 2 Part - I (Compulsory)

Time: 30 Min. Marks: 20

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Roll No. in Words.

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Q.1. Encircle the right answer cutting and overwriting is not allowed. (20x1=20)

1. Which of the following drugs is suggested for the treatment of enlarged prostate and does not affect blood pressure?

- A) Prazosin
B) Phentolamine
C) Tamsulosin
D) Terazosin

2. All of the following are cardioselective beta-B1 Blockers, Except:

- A) Nebivolol
B) Propranolol
C) Esmolol
D) Metoprolol

3. Atropine blocks muscarinic activity in the eye resulting in:

- A) Mydriasis
B) Cycloplegia
C) Miosis
D) Both A and B

4. Non-Depolarizing competitive action can be overcome by the administration of:

- A) Adrenaline
B) Acetylcholine
C) Neostigmine
D) None of Above

5. Ipratropium and tiotropium are:

- A) Primary derivatives of atropine
B) Secondary derivatives of atropine
C) Quaternary derivatives of atropine
D) Tertiary derivatives of atropine

6. Sympathomimetic that acts almost exclusively by releasing noradrenaline from the nerve endings is:

- A) Ephedrine
B) Isoprenaline
C) Dopamine
D) Tyramine

7. The science which deals with the study of drugs and their action on human body is:

- A) Physiology
B) Pathology
C) Pharmacology
D) Microbiology

8. The study of mechanism of action of drug and pharmacological effects on human body is:

- A) Posology
B) Oncology
C) Pharmacokinetics
D) Pharmacodynamics

9. Drugs are excreted from the body through which of the following route?

- A) Kidney & Intestine
B) Sweat & Saliva
C) Breast Milk & Bile
D) All of the above

10. Nitroglycerine is administered by which route?

- A) Sublingual
B) Parenteral
C) Inhalation
D) Oral

11. Which of the following route is used for penicillin test dose?

- A) Intravenous
B) Intradermal
C) Subcutaneous
D) Oral

12. Which of the following is main disadvantage of Parenteral route of administration?
- A) Slow Absorption
 B) Delayed Onset of Action
 C) Delayed Elimination
 D) Risk of Hypersensitivity
13. The condition in which rapid decrease in response occurs due to repeated doses over a short time period of time is:
- A) Tolerance
 B) Tachyphylaxis
 C) Habituation
 D) Addiction
14. EC₅₀ is used to determine:
- A) Potency of a drug
 B) Efficacy of a drug
 C) Affinity of a drug
 D) Safety of a drug
15. As an Antiepileptic drug, Phenytoin is most similar in action to which of the following drugs?
- A) Digoxin
 B) Propafenone
 C) Lidocaine
 D) Sotalol
16. How does Clonidine, An Antihypertensive drug, Work?
- A) Blocks Alpha 1 Adrenergic Receptors
 B) Stimulates Alpha 2 Adrenergic Receptors in brain
 C) Increases heart rate due to stimulation of SA Node
 D) Blocks Beta Adrenoceptors
17. Phentolamine is a (an):
- A) Alpha 1 adrenergic antagonist
 B) Beta 2 adrenergic antagonist
 C) Alpha 1 & 2 adrenergic antagonist
 D) Beta 1 & 2 adrenergic antagonist
18. The following drug(s), when combined with ACE inhibitors, may produce troublesome problems EXCEPT:
- A) Theophylline
 B) Potassium supplements
 C) Spironolactone
 D) Lithium
19. Which of the following calcium channel blockers is excreted predominantly in the feces?
- A) Nifedipine
 B) Felodipine
 C) Diltiazem
 D) Nimodipine
20. Which of the following increases the risk of digoxin-induced arrhythmias?
- A) Hyperkalemia
 B) Hypercalcemia
 C) Hypermagnesemia
 D) Hyperuricemia



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Roll No.

Subject: Pharmacology & Therapeutics-I (New Course)

Paper: 2 Part - II

Time: 2 Hrs. 30 Min. Marks: 80

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any *FOUR* questions. Each question carries equal marks.

- Q.2. a: Classify Beta receptor Blockers. Discuss the mechanism of action, therapeutic uses and adverse effects of PROPRANOLOL. (10)
b: Explain Diuretics with special emphasis on Loop Diuretics. (10)
- Q.3. a: Describe synthesis, storage and release of Acetylcholine. Discuss the types of Cholinesterases (ChE). (10)
b: What is Diabetes mellitus? Classify oral hypoglycemic drugs. (10)
- Q.4. a: Explain Anti-Ulcer drugs. Discuss the Pharmacology of Cimetidine. (10)
b: Write a detailed note on Bioavailability and factors affecting the Bioavailability of drugs. (10)
- Q.5. What is Heart Failure? Explain the major signs & symptoms of heart failure. Discuss various drugs used in the treatment of heart failure. (20)
- Q.6. Explain Hyperlipidemia. Discuss the role of Lipoproteins. Explain in detail various classes of Anti-Hyperlipidemics. (20)
- Q.7. Give classification of drugs used for the treatment of Bronchial Asthma. Discuss the mechanism of action and toxicity of Aminophylline. (20)



UNIVERSITY OF THE PUNJAB

Doctor of Pharmacy (Pharm.D.) 2nd Prof: Annual Exam-2022

Subject: Pharmacognosy-I (Basic) (New Course)

Paper: 3 Part - I (Compulsory)

Time: 30 Min. Marks: 20

Roll No. in Fig.

Roll No. in Words.

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Q.1. Encircle the right answer cutting and overwriting is not allowed. (20x1=20)

1. _____ are the basic nitrogenous compounds of natural origin which have some definite pharmacological /physiological activity.
 - a. Glycosides
 - b. Tannins
 - c. Balsams
 - d. Alkaloids
2. Plants are said to be _____ when they grow in a foreign land or in a locality other than their native homes.
 - a. Indigenous
 - b. Naturalized
 - c. Cultivated
 - d. Harmonized
3. Natural drugs have following set of five sources,
 - a. Plants, animals, microorganisms, minerals and synthetic/semic synthetic drugs having pharmacophore in nature
 - b. Plants, animals, bacteria, minerals and synthetic/semic synthetic drugs having pharmacophore in nature
 - c. Plants, animals, microorganisms, minerals and marine
 - d. Plants, animals, microorganisms, minerals and fungi
4. *Nicotiana tabaccum* leaves are used as,
 - a. Fungicide
 - b. Herbicide
 - c. Insectides
 - d. Rodenticide
5. *Derris elliptica* contains which of the following compounds which acts as insecticide and fish poison.
 - a. Pyrethrin
 - b. Rotenone
 - c. Scilliroside
 - d. Strychnine
6. Norbormide causes _____
 - a. Kidney failure
 - b. Heart failure
 - c. Respiratory failure
 - d. Neurotoxicity
7. Warfarin toxic dose is _____
 - a. 1mg/kg of the body weight
 - b. 50mg/kg of the body weight
 - c. 0.5mg/kg of the bodyweight
 - d. .005mg/kg of the body weight
8. Synthetic contact insecticides are _____
 - a. In-organophosphorus derivatives
 - b. Non-chlorinated hydrocarbon
 - c. Inorganic Sulphur compounds
 - d. Organic Sulphur compounds
9. Citronella oil is used as _____
 - a. Repellent
 - b. CNS stimulant
 - c. Cardioactive agent
 - d. neurotoxic
10. Interfering with the life cycle and food supply of the pest is the _____method of pest control
 - a. Mechanical
 - b. Chemical
 - c. Agricultural
 - d. Environmental
11. Agricultural method of pest control includes _____
 - a. Crop rotation
 - b. Development of new crop
 - c. Chemical sprays
 - d. Hand picking

12. _____ catalyze interconversion of optic geometric or positional isomers
- a. Ligases
b. Isomerases
c. Lyases
d. Hydrolases
13. Which one of the following is organized crude drug?
- a. Gums
b. Resins
c. Aloe
d. Ginger
14. _____ are tissues in a woody stem outside the inner cambium
- a. Bark
b. Underground structures
c. Leaves
d. Flowers
15. Synthetic plant hormones are also known as _____
- a. Native hormones
b. Endogenous plant growth regulators
c. Exogenous plant hormone
d. Stress generated hormones
16. Process by which a plant drops one or more of its parts, such as a leaf, fruit, flower or seed
- a. Abscission
b. Ripening
c. Dormancy
d. Latent period
17. _____ is a thread which is used to stitch together the edges of various tissues with the help of needle i.e. skin, muscle
- a. Ligature
b. Suture
c. Surgical dressing
d. cotton fibers
18. Which one of the following plants belongs to Labiatae family?
- a. Garlic
b. Rauwolfia
c. Belladonna
d. Thyme
19. *Salvia officinalis* is also known as _____ as its common name
- a. Garden sage
b. Graveyard plant
c. Plant of thorns
d. Plant of fragrance
20. *Atropa belladonna* contains _____
- a. Atropengine
b. Atropogenine
c. L-Hyoscyamine
d. Hyocsyangenine



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Roll No.

Subject: Pharmacognosy-I (Basic) (New Course)

Paper: 3 Part – II

Time: 2 Hrs. 30 Min. Marks: 80

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any *FOUR* questions. Each question carries equal marks.

- Q 2. Discuss four medicinal plants of leguminosae 20
- Q 3. a. Define allergen and discuss mechanism of immediate allergic reaction. 10
b. Discuss different method of treatment of allergy. 10
- Q 4. What are phyto-enzymes? Explain any three phyto-enzymes in detail. 20
- Q. 5 a. Define crude drug adulteration? Discuss different types of adulteration. 10
b. Give the details about the drying of crude drugs while preparing them for commercial market? 10
- Q. 6 What are plant growth regulators? Explain in detail Auxins and Jibberellins. 20
- Q. 7 What are pest and pesticides? Discuss in detail Different methods of pest control 20



UNIVERSITY OF THE PUNJAB

Doctor of Pharmacy (Pharm.D.) 2nd Prof: Annual Exam-2022

Subject: Pharmaceutics-III (Pharmaceutical Microbiology & Immunology)

Paper: 4 Part - I (Compulsory) (New Course)

Time: 30 Min. Marks: 20

Roll No. in Fig.

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Q.1. Encircle the right answer cutting and overwriting is not allowed. (20x1=20)

- 1- In dry heat sterilization ----- damage occur to the microbes
 - a) Oxidative
 - b) Reductive
 - c) Hydrolytic
 - d) Nuclear damage
- 2- Which of the following is true for the internal surfaces, floor and fittings of aseptic area?
 - a) Internal fittings should be minimum
 - b) False Ceilings should be adequately sealed
 - c) Equipment must be designed so as can be cleaned and sterilized easily
 - d) All of these
- 3- Sutures, ointments and syringes are usually sterilized by
 - a) Dry heat
 - b) Moist heat
 - c) Radiation
 - d) Gaseous method
- 4- If the Dilution ratio for Test Disinfectant is 1:500 and that of Phenol is 1:105 then?
 - a) Test disinfectant has equal power to phenol
 - b) Phenol is more powerful than Test disinfectant
 - c) Test disinfectant is more powerful than phenol
 - d) Test Disinfectant is poor at controlling germs
- 5- In sterilization, D-value represents the
 - a) Temperature at which 90% of viable cells are killed
 - b) Increase in temperature at which 90% of viable cells are killed
 - c) Time taken to kill 90% of viable cells
 - d) Radiation exposure to kill 90% of viable cells
- 6- Eukaryotic cells have following cell organelles EXCEPT:
 - a) Chloroplast
 - b) Mitochondria
 - c) Plasmid
 - d) Rough endoplasmic reticulum
- 7- ----- are the filamentous bacteria having the resemblance to the radiating rays of sun.
 - a) Spirochetes
 - b) Sarcina
 - c) Treponema
 - d) Actinomycetes
- 8- ----- are principal sites of respiratory enzymes in bacteria and are analogous to the mitochondria of eukaryotes.
 - a) Lysosome
 - b) Slime layers
 - c) Mesosomes
 - d) Rough endoplasmic reticulum
- 9- Warning signs of dengue fever are:
 - a) Worsening of abdominal pain
 - b) High hematocrit
 - c) Low platelets count
 - d) All of the above
- 10- Salmonella typhi has ----- flagellar arrangement.
 - a) Amphitrichous
 - b) Monotrichous
 - c) Peritrichous
 - d) Lophotrichous

- 11- **Widal test is the diagnostic test of:**
a) Tuberculosis
b) Pneumonia
c) Typhoid
d) Cholera
- 12- **Which scientist first disproved Spontaneous generation theory**
a) Francesco Redi
b) Louis Pasteur
c) Robert Hooke
d) Robert Koch
- 13- **Another name for non-specific immunity is**
a) Specific immunity
b) Explicit immunity
c) Auto immunity
d) Innate immunity
- 14- **Immunity acquired after an infection is**
a) Active Immunity
b) Passive Immunity
c) Innate Immunity
d) Both B And C
- 15- **_____ proposed the first vaccine to prevent people from getting cow pox.**
a) Edward Jenner
b) Robert Koch
c) Paul Ehrlich
d) Fleming
- 16- **Fungi grow better in pH**
a) About 5
b) About 7
c) About 10
d) About 2
- 17- **Antibodies that protects the fetus and new born is**
a) Ig M
b) Ig D
c) Ig G
d) Ig A
- 18- **Rejection of transplanted tissue is an example of hypersensitivity of**
a) Type-I
b) Type-II
c) Type-III
d) Type-IV
- 19- **Antibodies are produced by**
a) B lymphocytes
b) T lymphocytes
c) Macrophages
d) Complement
- 20- **The viral DNA replicates in**
a) Cytoplasm
b) Vacuole
c) Nucleus
d) Mitochondria



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Roll No.

Subject: Pharmaceutics-III (Pharmaceutical Microbiology & Immunology)
PAPER: 4 Part - II (New Course)

Time: 2 Hrs. 30 Min. Marks: 80

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any *FOUR* questions. Each question carries equal marks.

- Q-2 Define Hypersensitivity and discuss its types in detail. (20)
- Q-3 a) Define Immunization and its types. (05)
b) Define Vaccine and discuss its various types in detail. (15)
- Q-4 a) Differentiate between sterilization and disinfection, describe moist heat sterilization in detail? (10)
b) Define nosocomial infection. How such infections can be prevented in the hospitals? (10)
- Q-5 a) Briefly discuss the types, pathogenesis, diagnosis, and prophylaxis of Tuberculosis. (15)
b) Discuss the Critical and Recovery phases of Dengue fever. (05)
- Q-6 a) Briefly discuss the structure and function of bacterial Cell wall, Mesosomes and Flagella in detail. (10)
b) Discuss classification of bacteria based on Flagella? (05)
c) Write a note on Fermentation? (05)
- Q-7 Write brief answers of the following: $4 \times 5 =$
(20)
- Classification of clean room
 - D-value and Z-value
 - Routes of transmission of nosocomial infections
 - Phenol coefficient test for disinfectants



USE SEPARATE ANSWER BOOK FOR EACH PART (PAPER)

Paper A – Pakistan Studies

For this portion Time Allowed is 1 Hr. and Max. Marks 40.
Attempt any TWO questions. All questions carry equal marks.

نوٹ: کوئی سے دو سوال حل کریں۔ سب کے نمبر برابر ہیں۔

Q1: Discuss Congress Ministries (1937-1939) policies against Muslims of India?

سوال نمبر 1- کانگریس وزارتوں کی 1937-1939 میں مسلمانوں کے خلاف ہونے والی پالیسیوں کی وضاحت کریں۔

Q2: What are the main cause of overpopulation in Pakistan?

سوال نمبر 2- پاکستان میں آبادی کی اکثریت کی وجوہات بیان کریں۔

Q3: What was the role of Muslim League towards the making of Pakistan, its formation causes?

سوال نمبر 3- پاکستان کے قیام میں مسلم لیگ کا کردار بیان کریں۔ اور اس کی وجوہات بیان کریں۔

Q4: Write SHORT ANSWERS to the following:

- There had been 2 deputy prime minister of Pakistan? Name them?
- Under which plan India was partitioned?
- Who was Lord Mountbatten?
- Mention the years of 3 Constitution?
- When Jinnah had joined Muslim league?
- Who gave Jinnah the title of Quaid e Azam in written form?
- What 2 amendment was made in 23 March 1940?
- Who was the president when Pervaiz Musharraf came to power?
- Who presented first constitution?
- When India was partitioned into two individual state?

Paper B – Islamiyat

For this portion Time Allowed is 2 Hrs. and Max. Marks 60.
Attempt the following questions. Q. No. 5 is compulsory.

سوال نمبر 1: درج ذیل قرآنی آیات میں سے دو کا ترجمہ و تشریح کریں۔

Q.1. Translate and explain any two following Quranic Verses.

(الف) أَلَيْسَ أُولَىٰ بِالْمُؤْمِنِينَ مِن أَنفُسِهِمْ وَأَزْوَاجُهُ أُمَّهَاتُهُمْ (ب) لَقَدْ كَانَ لَكُمْ فِي رَسُولِ اللَّهِ أُسْوَةٌ حَسَنَةٌ۔

(ج) لِلَّهِ مَا فِي السَّمٰوٰتِ وَمَا فِي الْاَرْضِ وَاِنْ تُبَدَّلُوْا مَا فِيْ اَنْفُسِكُمْ اَوْ تُخَفَوْنَ بِحٰسِبِكُمْ بِهٖ اللّٰهُ

سوال نمبر 2: درج ذیل سے کسی ایک حدیث کا ترجمہ و تشریح کریں۔

Q2. Translate and explain any one of the following Hadith.

(الف) لا فضل لعربي على عجمي ، ولا لعجمي على عربي ، ولا لأبيض على أسود ، ولا لأسود على أبيض ، إلا بالتقوى

(ب) عَنْ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَآلِهِ وَسَلَّمَ. قَالَ: خَيْرُكُمْ مَنْ تَعَلَّمَ الْقُرْآنَ وَعَلَّقَهُ

سوال نمبر 3: درج ذیل میں کسی ایک پر نوٹ لکھیں۔

Q3: Write a note any one of the following

یا
بیانات مدینہ کے اہم نکات

Contemporary importance of Seerah study

OR

مطالعہ سیرت کی عصری اہمیت

Features of the treaty of Medina

سوال نمبر 4: درج ذیل میں کسی ایک پر نوٹ لکھیں۔

Q4: Write a note any one of the following

یا
خطبہ حجۃ الوداع اور بنیادی انسانی حقوق

Write the impacts of western civilization OR Last sermon of the Holy Prophet and Basic Human Rights

(۲۰۰۸)

مغربی تہذیب کے اثرات

سوال نمبر 5: درج ذیل میں سے پانچ کے مختصر جوابات دیں۔

Q5: Give answers for the following Question

i. Write the definition of Hadith Taqriri?

(الف) حدیث تقریری کی تعریف لکھیں۔

ii. Write the definition of Holy Quran?

(ب) قرآن کی تعریف لکھیں؟

iii. Where did the descent the first revelation?

(ج) پہلی وحی کہاں نازل ہوئی؟

iv. Explain briefly "انما الاعمال بالنیات"

(د) "انما الاعمال بالنیات" کی وضاحت کریں۔

v. Write two name of books from Sahah e Sitta?

(ه) صحاح میں سے دو کتابوں کے نام لکھیں؟

Ethics (for non Muslim Candidates)

Note: Please Attempt any THREE questions. All questions carry equal marks. (60)

Q 1: Define the Ethics. And explain the problems and Scope of ethics.

Q2: Define the Good and evil in ethics?

Q3: Highlight the need and value of responsibility in ethics?

Q5: Critically examine the reformatory theories of punishment.

Q4: Write the importance of family, educational institutes and religious places in promotion of moral values?



UNIVERSITY OF THE PUNJAB

Doctor of Pharmacy (Pharm.D.) 2nd Prof: Annual Exam-2022

Subject: Pharmacy Practice-I
(Pharmaceutical Mathematics and Biostatistics)

Paper: 6 Part - I (Compulsory) (New Course)

Time: 30 Min. Marks: 20

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.

This Paper will be collected back after expiry of time limit mentioned above, then Subjective paper shall be attempted.

ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.

Q.1. Encircle the right answer cutting and overwriting is not allowed. (20x1=20)

- i. A type - I error is committed when a
 - a) False H_0 is accepted
 - b) True H_0 is rejected
 - c) True H_A is rejected
 - d) False H_A is accepted
- ii. Another term for Type - II error is
 - a) β error
 - b) α error
 - c) D error
 - d) γ error
- iii. If Sample size is 20 in T-Test then its degree of freedom is
 - a) 18
 - b) 19
 - c) 20
 - d) 21
- iv. A coin is Tossed then possible outcome is
 - a) 1
 - b) 2
 - c) 3
 - d) 4
- v. If the curve skewed to in right direction the distribution is said to be
 - a) Positive
 - b) Negative
 - c) Zero
 - d) Infinity
- vi. T - distribution is asymptotic to
 - a) y - axis
 - b) x - axis
 - c) z - axis
 - d) Both a & b
- vii. For small sample size we use
 - a) χ^2 - Test
 - b) F - Test
 - c) T - Test
 - d) z - Test
- viii. To test the goodness of fit, we apply
 - a) z - Test
 - b) T - Test
 - c) F - Test
 - d) χ^2 - Test
- ix. The Chi - Square validity when
 - a) $n > 50$
 - b) $n < 50$
 - c) $n > 10$
 - d) $n < 10$
- x. When both variable move in same direction the correlation is said to be
 - a) zero
 - b) negative
 - c) positive
 - d) None
- xi. LSD Test apply when
 - a) H_0 is false
 - b) H_A is false
 - c) H_A is true
 - d) H_0 is true
- xii. To test several population means, we apply
 - a) F - Test
 - b) T - Test
 - c) z - Test
 - d) χ^2 - Test

xiii. The Solution set of the equation $2^{2x+3} + 2^{2-x} - 33 = 0$ is

- a) $\{2, 3\}$
- b) $\{3, -2\}$
- c) $\{2, -3\}$
- d) $\{-2, -3\}$

xiv. The general term a_n A.P. having $a_1 = 2$, $d = -3$ is

- a) $-2 + 3n$
- b) $5 - 3n$
- c) $5 + 3n$
- d) $-1 - 3n$

xv. The number of triangles that can be formed by joining the vertices of 5 sided polygon is

- a) 15
- b) 3
- c) 5
- d) 10

xvi. $\frac{3\pi}{4}$ converted into degrees is

- a) 135°
- b) 105°
- c) 150°
- d) 120°

xvii. The distance between the points $P(-2, 3)$ and $Q(4, -5)$ is

- a) 66
- b) 64
- c) 10
- d) 50

xviii. The equation of directrix of the parabola $y^2 = 4ax$ is

- a) $x = -a$
- b) $y = -a$
- c) $x = a$
- d) $y = a$

xix. The derivative of $\frac{1}{3x^3}$ w.r.t. x is

- a) $\frac{1}{x^4}$
- b) $-\frac{1}{x^4}$
- c) $3x^2$
- d) $\frac{1}{3}x^2$

xx. $\int \cot x dx$ is

- a) $\operatorname{cosec} x + c$
- b) $\operatorname{cosec}^2 x + c$
- c) $\ln \cos x + c$
- d) $\ln \sin x + c$



UNIVERSITY OF THE PUNJAB

Doctor of Pharmacy (Pharm.D.) 2nd Prof: Annual Exam-2022

Roll No.

Subject: Pharmacy Practice-I (Pharmaceutical Mathematics and Biostatistics)
Paper: 6 Part - II (New Course)

Time: 2 Hrs. 30 Min. Marks: 80

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt *FIVE* questions in all, selecting *THREE* questions from Section - I and *TWO* questions from Section - II. Use of Scientific Calculators and Statistical Tables are allowed. Graph paper may be supplied on demand.

SECTION - I

Q.2.a) Define the following: (06)

- Biostatistics.
- Descriptive Statistics.
- Inferential Statistics.

b) Eight year old girl is presented to emergency department with complaints of severe pain (10)
abdomen, fever and three episodes of vomiting for last six hours. On examination weight of girl was 18 kg, height 116 cm, fair skin, blue iris brown hairs and temperature 102 F. Categorize the following variables of the girl into nominal and ordinal; discrete and continuous.

Age, sex, weight, height, temperature, sever pain, fair skin,, iris color, vomiting episodes, hair color.

Q.3. a) Describe the principle of least squares. (06)

b) Fit a second degree parabola to the following data (x as independent variable)

X	0,	1,	2,	3,	4,	(10)
Y	1	1.8,	1.3,	2.5,	6.3,	

Q.4. a) Write down the application of chi-square distribution. (06)

b) Two tonic preparation were given trial for prevention of a disease in children. Tonic A was given to 90 children & prevented the disease in 68. At the same time Tonic B was given to 86 children and prevented the disease in 72. Which Tonic is better? (10)

Q.5. a) Write down the six properties of Normal distribution. (06)

b) A nurse supervisors has found that staff nurses, on the average, complete a certain table in 10 minutes. If the time required to complete the table are approximately normal distributed with a standard deviation of 3 minutes find. (10)

- i) The proportion of nurse required more then 5 minutes to complete the task.
- ii) The probability that a nurse who has just assigned the task will complete it within 3 minutes.

Q.6. a) When you can use ANOVA and also discuss Multiple comparison Test. (06)

b) In a Randomized complete Block Design there are three treatments and three blocks. The calculations are given (10)

Total sum of square = 158.

Between treatment sum of square = 126

Between Block sum of square = 24.7

Carry out analysis of variance Table and interpret the result at five percent level of significance.

SECTION - II

- Q.7. a) Solve the equation (05)
$$\frac{3}{x+1} + \frac{4}{x+2} = 2$$
- b) Insert two geometric means between 2 and 16. (05)
- c) Using binomial theorem expand $\left(2x - \frac{y}{x}\right)^3$ (06)
- Q.8. a) if $\cos \theta = \frac{12}{13}$ and the terminal side of the angle is not in quadrant - I, find the value of $\sin \theta$ and $\tan \theta$ (05)
- b) Find an equation of the perpendicular bisector of the segment joining the points A(-4,2) and B(-2, +6). (05)
- c) Write the equation of ellipse that has its center at the origin, focus at (0,3) and major axis equal to 8. (06)
- Q.9. a) Prove that $\lim_{x \rightarrow 0} \frac{1 - \cos x}{\sin^2 x} = \frac{1}{2}$ (05)
- b) Find $f'(x)$ if $f(x) = \tan \sqrt{x} + (\ln x^3 - 8)$ (05)
- c) Evaluate $\int \frac{x+2}{x-2} dx$ (06)