



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**

**Paper –I (Pharmaceutics-II (Dosage Forms Science))  
2<sup>nd</sup> Professional Annual Examinations 2022**

**Section-A**

Name: \_\_\_\_\_

Roll No: \_\_\_\_\_

**Note Please:**

1. This is Section A. You have to return this sheet to the examiner within **30** minutes.
2. Copying, cutting, talking is strictly prohibited, and lead to the cancellation of your paper.

**Time Allowed: 30 Minutes**

**Maximum Marks: 40**

**Q 1. Choose the correct answer**

**30**

1. Every dosage form is a combination of drug and different kind of non drug components called .....  
a. New chemical entity    b. Additives    c. Non additives    d. All of these
2. Powders used for external use are .....  
a. Divided powders    b Bulk powders    c. dusting powders    d. Effervescent powders
3. Throat paints are ..... liquid preparations.  
a. Solid    b. Viscous    c. Non viscous    d. None
4. Liniments must not be applied on .....surface.  
a. Swelled    b Broken .    c. Painful    d. Normal
5. Suspending agents imparts .....  
a. Solubility    b. Viscosity    c. Absorption    d. Wetting
6. Posology is the branch of pharmacy which deals with ,.....  
a. Study of dosage form    b. Study of doses    c. Study of drug interaction    d. All
7. Metalluc stearates are generally used as ..... in tablet formulation.  
a. Anti-adherent    b. Glidants    c. Lubricants    d. Binders
8. Rectal suppositories possess the following properties  
a. Weigh about 3-5gm and are molded in globular or oviform shape  
b. For male weigh 4gm and are pencil shape.  
c. Weigh about 2gm for adults ,1gm for children ,torpedo shape.  
d. Weigh about 1gm and length 9-10 cm
9. The main difference between the composition of hard and soft gelatine is .....  
a. Water    b. Sugar    c. plasticizer    d Gelatine

P.T.O.....

10. Oleaginous ointment base possesses the following properties Except

- |                      |                        |
|----------------------|------------------------|
| a. Anhydrous         | b. Insoluble in water  |
| c. Will absorb water | d. Not water removable |

**Q.2 Write (T) for true and (F) for false statement.**

**10**

1. An aerosol required to be labelled 'Non Inflammable'
2. Water for Injection USP , should be used within 24 hr after collection.
3. Simple syrup can tolerate 10% alcohol without crystallization
4. Starch can be used as Diluent ,binder, and disintegrant.
5. Hippocrates is the father of medicine..
6. The solidification point of cocoa butter lies between 5-10°C.
7. Vaginal suppositories are also called as bougies. .
8. Paste contains high percentage of insoluble solids..
9. Spirits can be used for inhalation therapy. .
10. 16 ounces =2 pounds..



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**

**Paper –I (Pharmaceutics-II (Dosage Forms Science))**

**2<sup>nd</sup> Professional Annual Examinations 2022**

**Section-B**

**Time Allowed: 2:30 Hours**

**Maximum Marks: 60**

**General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination is strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.**

**Paper Instructions: Attempt any three questions. All questions carry equal marks.**

- Q.3    a. Discuss Various types of Tablets. 10
- b. Discuss Wet granulation in detail. 10
- Q.4    a. What is the difference between ointment and cream? Give Examples. 10
- b. How many millimeter of liquid medicine would provide a patient with 2 table spoonful? Twice a day for 8 days? 10
- Q.5    What are parenteral preparations? Discuss different types of vehicles used in its preparation. 20
- Q.6    Define Aerosol? Discuss in detail three phase system for preparation of Aerosols. 20
- Q.7    Discuss Any Two of the following 10 +10
1. Elixers
  2. Syrups
  3. Soft gelatin Capsule



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**

**PAPER –II (PHARMACOLOGY AND THERAPEUTICS-I)**

**2<sup>nd</sup> Professional Annual Examinations 2022**

**Section-A**

**Note Please:**

1. This is Section A. You have to return this sheet to the examiner within **30** minutes.
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**Time Allowed: 30 Minutes**

**Maximum Marks: 40**

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Q.1 Select the appropriate Choice with four options. (20)

- 1) Increasing the dose adrenaline causes decrease in propranolol –ve chronotropic effect is example of
  - a) Competitive antagonism
  - b) Physiological antagonism
  - c) Non-Competitive antagonism
  - d) Un-competitive antagonism
- 2) Hyperkalemia, gynecomastia and acidosis are side effects of \_\_\_\_\_
  - a) Triameterine
  - b) Amiloride
  - c) Spironolactone
  - d) Acetazolamide
- 3) All cytochrome P<sub>450</sub> enzymes must have in common the following
  - a) Fe
  - b) Ca
  - c) Mg
  - d) All of the above
- 4) \_\_\_\_\_ is drug of choice in digoxin induced ventricular tachyarrhythmia
  - a) Quinidine
  - b) Amiodarone
  - c) Verapamil
  - d) Lignocaine
- 5) Warfarin inhibit activation of \_\_\_\_\_ clotting factors
  - a) Factors II, VII and IV
  - b) Factors II, VII and IX
  - c) Factors II, VI and XII
  - d) Factors I, II, IX

P.T.O.....

- 6) Hepatic cell extract cholesterol from \_\_\_\_\_
  - a) Chylomicron
  - b) HDL
  - c) LDL
  - d) All of the above
- 7) \_\_\_\_\_ is the example non-sedating antihistamine
  - a) Promethazine
  - b) Chlorpheniramine
  - c) Cyclizine
  - d) Cetirizine
- 8) Heparin induced thrombocytopenia involves platelet \_\_\_\_\_
  - a) Factor V
  - b) Factor II
  - c) Factor VI
  - d) Factor IV
- 9) MEC is calculated by \_\_\_\_\_
  - a) Graded dose response curve
  - b) Quantal dose response curve
  - c) Plasma concentration time curve
  - d) None of the above
- 10) \_\_\_\_\_ route by pass the first pass effect fully
  - a) Sublingual
  - b) Transdermal
  - c) Inhalation
  - d) All of the above

Q.2 Mark as True (T) or False (F)

(20)

1. Use of famotidine with Omeprazole enhance the anti-secretory effect (True/ False)
2. The drug of choice for hypotensive patients with oliguria is adrenaline (True/ False)
3. Furosemide causes marked rise in serum calcium and potassium level (True/ False)
4. Nifedipine injection causes reflex tachycardia in hypertensive patients (True/ False)
5. Norepinephrine is drug of choice for anaphylaxis reaction (True/ False)
6. Beta blockers are preferred in diabetic patient for hypertension (True/ False)
7. H1 histamine receptors stimulation are responsible for smooth muscle relaxation in bronchioles (True/ False)
8. Vitamin D promotes the hepatic biosynthesis of Factor II clotting factor (True/ False)
9. Captopril uses causes decrease in serum potassium levels (True/ False)
10. The renal clearance of Inulin is used to measure of blood pressure (True/ False)



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**

**PAPER –II (PHARMACOLOGY AND THERAPEUTICS-I)  
2<sup>nd</sup> Professional Annual Examinations 2022**

**Section-B**

**Time Allowed: 2:30 Hours**

**Maximum Marks: 60**

**General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination is strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.**

**Paper Instructions: Attempt any three questions. All questions carry equal marks.**

- Q.3. a. Describe bioavailability and various factors affecting it? Describe various methods to determine it? (10)
- b. Classify parasympathomimetics? Describe the pharmacology of cholinesterase inhibitors in detail? (10)
- Q.4. a. Classify the antihypertensive agents with at least one example for each class? Explain the pharmacology of parenteral vasodilator in the treatment of hypertension? (10)
- b. Describe the pharmacology of drugs to treat constipation in detail? (10)
- Q.5. Name the types of Diabetes Mellitus. Classify drugs used to treat Diabetes and discuss the pharmacology of oral hypoglycemic drugs. (20)
- Q.6. a. Classify the anti-secretory drugs. Discuss the pharmacology of mucosal protectants? (10)
- b. Classify angina? Describe pharmacology of organic nitrates in detail? (10)
- Q.7. a. What are Diuretics? Discuss in detail Pharmacology of potassium sparing diuretics? (10)
- b. Describe pharmacology of anti-inflammatory drugs used for asthma? (10)



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**  
**PHARMACY 2<sup>ND</sup> PROFESSIONAL ANNUAL EXAMINATIONS 2022**  
**Paper-III (Pharmacognosy-I (Basic))**

Roll No: \_\_\_\_\_

Sign: \_\_\_\_\_

**Section-A**

**Note Please:**

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**Time Allowed: 30 Minutes**

**Maximum Marks: 40**

**Q.1 Choose the correct answer. (30)**

- 1) .....are the natural sources of drugs.  
a) Plants      b) animals      c) Microbes      d) All
- 2) Drug is not under the class of organized drug:  
a) Leaves      b) flowers      c) Fruits      d) Gums
- 3) Asafoetida belongs to the family:  
a) Apocynaceae      b) Leguminosae      c) Umbelliferae      d) Fabaceae
- 4) Foam test is used for the detection of:  
a) Saponins      b) Alkaloids      c) Amino acids      d) Carbohydrates
- 5) Anaphylaxis is.....type of hypersensitivity reaction.  
a) Type-I      b) Type-II      c) Type-III      d) Type-IV
- 6) Moisture content is ..... property.  
a) Biological      b) Physical      c) Chemical      d) Microscopic
- 7) The bark of.....is used as drug.  
a) Cinnamon      b) Digitalis      c) Aconitum      d) Glyceriza
- 8) On the basis of mouth parts morphology arthropods are divided into:  
a) 2 groups      b) 3 groups      c) 4 groups      d) 5 groups

P.T.O.....

- 9) .....is scraped from the bark of the trees secreted by female lac bug.  
 a) Shellac                      b) Gelatin                      c) Resin                      d) Gum
- 10) ..... causes the coagulation of milk.  
 a) Pepsin      b) Trypsin                      c) Papain      d) Chymotripsin
- 11) *Permethrin* is used as:  
 a) Insecticide    b) Rodenticide                      c) Herbicide    d) Non
- 12) Cytokinins play role in:  
 a) Cell division                      b) Cell elongation    c) Both                      d) Non
- 13) Organ size and stomatal closure is controlled by:  
 a) Absciscic acid                      b) Cytokinins                      c) Auxins                      d) Gibberellins
- 14) The active enzyme including cofactor is called-----:  
 a) Apoenzyme                      b) Holoenzyme                      c) Proenzyme                      d) Co-enzyme
- 15) Among the honey bees, the worker bees are:  
 a) Adult male                      b) Adult female                      c) Both                      d) Non

**Q.2. Write (T) for True and (F) for False Statement**

**(10)**

1. Crop rotation is environmental method of pest control.
2. Sacroties is known as father of medicine.
3. Rhubarb contains anthraquinone glycoside and astringent principle.
4. Colchicine is approved for the treatment of gout.
5. A vaccine provides passive acquired immunity to a particular disease.
6. Cellulose is the most abundant organic polymer on Earth.
7. Ambergris, a solid waxy substance originates in sperm whale intestine.
8. Auxin is mainly involved in cell division.
9. Fennel contains 1 to 3 % volatile oil.
10. Main constituent of catharanthus is vincristine.





**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**  
**PHARMACY 2<sup>ND</sup> PROFESSIONAL ANNUAL EXAMINATIONS 2022**  
**Paper-III (Pharmacognosy-I (Basic))**  
**Section-B**

**Time Allowed: 2: 30 Minutes**

**Maximum Marks: 60**

- 
- Q.3.** Define Pest. Explain natural contact insecticides in detail? **(20)**
- Q.4.** Write the synonyms, botanical origin. Family, part used, constituents and uses of: **(20)**
- I) Colchicum
  - II) Aloe
  - III) Ginger
  - IV) Digitalis
  - V) Opium
- Q.5.** Write notes on **(20)**
- i. Auxin
  - ii. Write down TWO tests for allergy detection.
- Q.6.** What is surgical dressing? Classify surgical fibers. Discuss cotton as a surgical dressing material. **(20)**
- Q.7. Attempt any TWO** **(10+10)**
- a. Define Phytoenzymes. Discuss Papain in detail.
  - b. What is Gelatin? Discuss preparation and uses of Gelatin.
  - c. Discuss Drying and Garbling briefly.



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**  
**Paper-IV Pharmaceutics-III (Pharmaceutical Microbiology & Immunology)**

**Pharm-D 2<sup>nd</sup> Professional Annual Examinations 2022**

Roll No: \_\_\_\_\_

Sign: \_\_\_\_\_

**Note Please:**

1. This is Section A. You have to return this sheet to the examiner within **30** minutes.
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**Time Allowed: 30 Minutes**

**Maximum Marks: 40**

**Section-A**

**Q.I Select the Appropriate Choice in the four options (20 Marks)**

1. Which of the following are composed of tubulin, except:  
A. actin                      B. cilia                      C. flagella                      D. microtubules  
E. more than one of these
2. Which of the following stains is used to detect Mycobacterium species?  
A. Acid-fast stain      B. Capsule stain      C. Endospore stain      D. Gram stain  
E. Simple stain
3. In prokaryotes, lipid bilayers are associated with the
  1. Gram-positive cell wall.
  2. Gram-negative cell wall.
  3. Cytoplasmic membrane.
  4. Capsule.
  5. Nuclear membrane.A. 1,2                      B. 2,3                      C. 3,4                      D. 4,5                      E. 1,5
4. Protein synthesis is associated with
  1. Lysosomes.
  2. The cytoplasmic membrane.
  3. The Golgi apparatus.
  4. Rough endoplasmic reticulum.
  5. Ribosomes.A. 1,2                      B. 2,3                      C. 3,4                      D. 4,5                      E. 1,5
5. Endocytosis is associated with
  1. Mitochondria.
  2. Prokaryotic cells.
  3. Eukaryotic cells.
  4. Clathrin.
  5. Ribosomes.A. 1,2                      B. 2,3                      C. 3,4                      D. 4,5                      E. 1,5

P.T.O.....

6. *E. coli* is present in a liquid sample at a concentration of between  $10^4$  and  $10^6$  bacteria per ml. To determine the precise number of living bacteria in the sample, it would be best to...
- Use a counting chamber.
  - Plate out an appropriate dilution of the sample on nutrient agar.
  - Determine cell number by using a spectrophotometer.
  - Any of these three methods would be satisfactory.
  - None of these three methods would be satisfactory.
7. Nutrient broth is an example of a...
- Synthetic medium.
  - Complex medium.
  - Selective medium.
  - Indicator medium.
  - Defined medium.
8. Cells are most sensitive to penicillin during which phase of the growth curve?
- Lag
  - Log
  - Stationary
  - Death
  - More than one of these.
9. .... proteins of membranes are easily removed, soluble in water and make 20-30% of total proteins.
- Integral
  - Peripheral
  - Both A & B
  - None of the given
10. Serum IgA have ..... valency
- 4
  - 6
  - 6
  - 2

**Q.II Mark True or False**

**(20 Marks)**

- Hard measles and red measles are also known as Rubeola.
- Vibrio cholera* attaches to epithelial cell of small intestine
- Incubation period of schistosomiasis is 3-4 days
- Antigenic drift is a minor change in the surface antigen of influenza virus.
- E. coli* exit the body with feces
- Normal flora is also known as Microbiota.
- Street virus and wild virus is also called rabies virus.
- Antigens and haptens are same in molecular weight.
- Alternative complement Pathway is activated by antigen-antibody complex.
- The molecular weight of IgG is 100,000 daltons



**SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL**

**Paper-IV Pharmaceutics-III (Pharmaceutical Microbiology & Immunology)**

**Pharm-D 2<sup>nd</sup> Professional Annual Examinations 2022**

**Section-B**

**Time Allowed: 2:30 Hours**

**Maximum Marks: 60**

**General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination is strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.**

**Paper Instructions: Attempt any three questions. All questions carry equal marks.**

**Q.III.** Discuss the followings:

- a. Classification of microbial world.
- b. Bacterial Growth curve.

**Q.IV.** Write down detail note on the specific immune response of body.

**Q.V.** Discuss Human Immune Virus (HIV) in detail.

**Q.VI.** Discuss the clinical importance of *S. Aureus* and *E.coli*.

**Q.VII.** Write note on any three.

- a. Malaria
- b. Influenza virus
- c. *H. Pylori*
- d. *Vibrio Cholera*



# SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL

Pharmacy 2<sup>nd</sup> Professional Examination 2022

Paper-V (Pakistan Studies and Islamic Studies)

Time Allowed: 03 Hours

Max. Marks: 100

General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination are strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.

## SECTION-A

Time Allowed: 30 minutes

Marks: 40

Roll No: \_\_\_\_\_

Sign: \_\_\_\_\_

**Note:** Attempt all the question of Section 'A' and return to the Superintendent after 30 minutes even

if you have not attempted any question. Overwriting / Defacing / Cutting etc is prohibited to

section (A) and no credit shall be given to such answer.

I. Choose the correct option and write it in the empty box provided opposite to each part. (30)

1. غزوہ خندق ----- میں لڑی گئی۔

1- سن تین ہجری 2- سن پانچ ہجری 3- سن دو ہجری

2. ہجرت کے بعد اسلام کی پہلی مسجد ----- ہے۔

1- قبا 2- مسجد نبوی 3- مسجد الحرام

3. پہلے وحی کی ابتدائی آیات سورہ ----- کی تھی۔

1- سورہ مدثر 2- سورہ یاسین 3- سورہ العلق

4. الغرۃ کے معنی ----- ہیں۔

1- بالاخانہ 2- تہ خانہ 3- باورچی خانہ

5. مکی سورتوں کے مخاطب ----- تھے۔

1- یہود 2- مشرکین 3- نصاریٰ

6. قرآن کا مطلب ہے -----۔

1- بار بار پڑھی جانے والی کتاب 2- کبھی کبھار پڑھنے والی کتاب 3- کبھی نہ پڑھنے والی کتاب

7. سورہ فرقان کے آخری رکوع میں ----- کی صفات کا تذکرہ کیا گیا ہے۔

1- نیک بندوں کی صفات 2- مشرکوں کی 3- برے بندوں کی

8. جنگ بدر میں کفار کی فوج کا سربراہ ----- تھا۔

1- ابوسفیان 2- ابو جہل 3- ابولہب

9. The Muslims came to Sindh in 712 A.D. under the leadership of?

A. Mahmood Ghaznavi

B. Zaheer-ud-Din Baber

C. Muhammad Bin Qasim

D. Aurangzeb Alamgir

10. Who elects the President according to 1973 constitution?

A. National Assembly

B. Senate

C. Provincial Assemblies

D. All of them

E. None of them

11. According to 1973 constitution who elects Prime Minister?

- A. Senate
- B. National Assembly
- C. President
- D. Provincial Assemblies

12. In which constitution Bicameral Legislature was provided for the first time?

- A. 1949
- B. 1956
- C. 1962
- D. 1973

13. In constitution of 1973 what age is specified for a person to contest for the Election to National Assembly?

- A. 25 years
- B. 18 years
- C. 20 years
- D. 30 years

14. In constitution 1973 what number of seats in Senate was set?

- A. 120 Seats
- B. 115 Seats
- C. 110 Seats
- D. 100 Seats

15. In which of the following cities All India Muslim League was found?

- A. Delhi
- B. Lahore
- C. Dhaka
- D. Allahabad

2. Choose the correct option as true T or False F and write it in the empty box provided opposite to each part. (10)

1. حج سن 9 ہجری کو فرض ہوا۔

2. قرآن مجید میں پہلا سجدہ سورہ اعراف میں آیا ہے۔

3۔ حضرت علی نے مدینہ منورہ میں شہادت پائی تھی۔

4۔ حج میں وقوف عرفات ضروری نہیں۔

5۔ آپ ﷺ کی ازواج مطہرات میں زینب بنت خدیجہ کا لقب ام المساکین تھا۔

- 6. Allama Aiqbal died in 1948
- 7. Pakistan's first constitution was enforced in 1956
- 8. Liaquat Ali khan was assassinated in 1953
- 9. Gen. Parvez Musharraf remained prime minister of Pakistan
- 10. Z. A. Bhuttu was hanged in 1979



## SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL

Pharmacy First Professional Examination 2022

Paper-V (Pakistan Studies and Islamic Studies)

Time Allowed: 02:30 Hours

Max. Marks: 60

General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination are strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.

Attempt any TWO questions from Section B and TWO Questions from Section-C. All questions carry (15) equal marks.

### SECTION –B

سوال 3:- درج ذیل آیات کا ترجمہ اور تشریح کیجئے

قُلْ تَعَالَوْا أَتْلُ مَا حَرَّمَ رَبُّكُمْ عَلَيْكُمْ أَلَّا تُشْرِكُوا بِهِ شَيْئًا وَبِالْوَالِدَيْنِ إِحْسَانًا وَلَا تَقْتُلُوا أَوْلَادَكُمْ مِمَّنْ إِفْلَاقٍ نَحْنُ نَرْزُقُكُمْ وَإِيَّاهُمْ وَلَا تَقْرَبُوا الْفَوَاحِشَ مَا ظَهَرَ مِنْهَا وَمَا بَطَنَ وَلَا تَقْتُلُوا النَّفْسَ الَّتِي حَرَّمَ اللَّهُ إِلَّا بِالْحَقِّ ذَلِكُمْ وَصَّاكُمْ بِهِ لَعَلَّكُمْ تَعْقِلُونَ

ترجمہ و تشریح کریں۔

سوال 4:- حدیث کا مفہوم بیان کریں اور حجیت حدیث یا حدیث کی شرعی حیثیت پر نوٹ لکھیں۔

سوال 5:- درج ذیل حدیث مبارکہ کا ترجمہ اور تشریح کریں۔

قَالَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ " بُنِيَ الْإِسْلَامُ عَلَى خَمْسٍ: شَهَادَةِ أَنْ لَا إِلَهَ إِلَّا اللَّهُ وَأَنَّ مُحَمَّدًا رَسُولُ اللَّهِ، وَإِقَامِ الصَّلَاةِ، وَإِيتَاءِ الزَّكَاةِ، وَالْحَجِّ، وَصَوْمِ رَمَضَانَ "

سوال 6- صلح حدیبیہ پر نوٹ لکھیں۔

### SECTION –C

Q5. Passing of Pakistan Resolution was actually the Foundation of Pakistan. Discuss

Q6. What is Ideology? Discuss its Importance.

Q7. Write down the Educational Services of Sir Sayyed Ahmad Khan

Q8. Write Short Notes on the Following

- Kashmir Issue
- CPEC



# SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL

Pharm-D Annual Examination 2022

Paper-VI: Pharmacy Practice-I, (Pharmaceutical Mathematics and Biostatistics)

Time Allowed: 03 Hours

Max. Marks: 100

General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination are strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.

## SECTION-A

Time Allowed: 30 minutes

Marks: 30

Roll No. \_\_\_\_\_

Sign: \_\_\_\_\_

**Note:** Attempt all the question of Section 'A' and return to the Superintendent after 30 minutes even if you have not attempted any question. Overwriting / Defacing / Cutting etc is prohibited to section (A) and no credit shall be given to such answer.

I. Choose the correct option and write it in the empty box provided opposite to each part.

i. In quadratic equation  $9x^2 + 6x + 1 = 0$  roots

A. Real                      B. Imaginary                      C. Equal                      D. Both A and C

i

ii. Equation  $y^2 + x^2 = 4$  represents

A. Circle                      B. parabola                      C. Line                      D. Hyperbola

ii

iii. Geometric means between 16 and 36 is

A. 16                      B. -36                      C. 18                      D. -12

iii

iv. In the expansion of Binomial  $(x + 3)^3$  has terms

A. 2                      B.  $x$                       C. 3                      D. 4

iv

v. The period of cosecx is

A.  $\pi$                       B.  $2\pi$                       C.  $\frac{\pi}{2}$                       D. None

v

vi.  $1 - \sin^2\alpha =$

A. 1                      B.  $\cos^2\alpha$                       C.  $\cos\alpha$                       D. None of these

vi

vii.  $2x + y + 1 = 0$  has slop

A. -2                      B. 2                      C. 1                      D. All of these

vii

viii.  $e^x$  is form of function

A. Trigonometric                      B. Exponential                      C. Transcendental                      D. Both B,C

viii



ix.  $\frac{d}{dx}(x^2) =$

A.  $-x^{-3}$

B.  $-2x^{-3}$

C.  $2x^{-3}$

D. None

☐

ix

x.  $S_{\infty}$  of Geometric Series is given by..... for r is less than 1,

A. 1

B.  $\frac{a}{1-r} + \frac{dr}{1-r}$

C.  $\frac{a}{1-r} + \frac{dr}{(1-r)^2}$

D.  $\frac{a}{1-r}$

☐

x

xi.  ${}^n p_r =$  .....

A.  $\frac{n!}{(n-r)!r!}$

B.  $\frac{n!}{(n-r)!}$

C.  $\frac{n!}{(n+r)!}$

D. n!

☐

xi

xii. Mean of 7,7,7,7,7,7 is

A. 42

B. 6

C. 14

D. 7

☐

xii

xiii. Standard deviation of any constant is

A. 4

B. Variable

C. 0

D. None

☐

xiii

xiv. Mode among the percent data 25%, 45%, 30% is

A. 30%

B. 25%

C. 45%

D. All

☐

xiv

xv. if n=5 in the expansion of  $(a+b)^n$  then the sum of the Binomial coefficient

A. 23

B. 32

C. 5

D. 6

☐

xv

2. Choose the correct option as true T or False F and write it in the empty box provided opposite to each part. 10

i. In quadratic equation  $ax^2 + bx + c = 0$  have maximum 2 roots.

i ☐

ii.  $x^2 + y^2 = r^2$  Represents a symmetric shape.

ii ☐

iii.  $360^0 = 0$  radians

iii ☐

iv.  $\frac{d}{dx}(e^2) = \frac{1}{x}$

iv ☐

v.  $\int \cos x dx = \sin x + c$

v ☐

vi.  $1 + \sin^2 \alpha = \tan^2 \alpha$

vi ☐

vii. Most frequent value in a data is called Standard deviation.

vii ☐

viii. Shoes Size of BS Pharmacy students is qualitative data.

viii ☐

ix. Mean divides the data into two unequal parts.

ix ☐

x. Mean, Mode and Median are in primary data

x ☐



## SHAHEED BENAZIR BHUTTO UNIVERSITY SHERINGAL

Pharm-D Annual Examination 2022

Paper-VI: Pharmacy Practice-I, (Pharmaceutical Mathematics and Biostatistics)

Time Allowed: 02:30 Hours

Max. Marks: 60

General Instructions: Possession and use of Mobile phone & other electronic devices which can be helpful in examination are strictly prohibited in the examination hall and can lead to the cancellation of paper and examination on report.

### SECTION –B

Attempt any **THREE** questions from the following, all carry (20) equal marks.

- Q.3 Find Arithmetic Mean, Geometric Mean and Harmonic Mean when  $a=16$  and  $b=36$ .
- Q.4 Find the distance between  $A(2,-4)$  and  $B(2,8)$ , and the midpoint of  $\overline{AB}$ . Interpret your answer through graph
- Q.5 Evaluate the integral by using integration by part,  $\int (\ln x) dx$ .
- Q.6 Find **Variance and Standard deviation** of the following Data

Value x	1	2	3	4	5	6	7	8
Frequency f	4	6	14	22	14	5	7	3

- Q.7 Calculate **Mean, Median and Mode** from the following data represents size of kids shoes.

X	8	9	10	11	12	13
F	1	2	3	3	2	1

**Best of luck.**