

# University of Sargodha

Pharm-D (1<sup>st</sup> Prof.) 1<sup>st</sup> Semester Exam 2025

Paper: English-I (Functional English) PHRM-300/PHRM-5101

Time Allowed: 2:30 Hours

Maximum Marks: 60

Note: Attempt all questions.

## **Objective Part (Compulsory)**

Q.1. Write short answers of the following:

(2\*10)

- Differentiate between direct and indirect object.
- Change voice of the following:
  - Have you recommended him for the post?
  - Do it now.
- Correctly spell the following words:
  - acomodate
  - Recieve
- Differentiate between identifiers and qualifiers.
- What is participial phrase?
- Point out the mood of the following:
  - Life is not a bed of roses
  - If you work hard, you will succeed
- Discuss nominative and genitive case of noun.
- Change the number of the following:
  - Locus
  - Analysis
- Punctuate the following sentences:
  - You can use somebody else book, peter, if yours is at home
  - Mary gave the man directions, and then said you better go by taxi.
- Write two examples of Adverb clause.

## **Subjective Part (4\*10)**

Q.2. Read the following passage and answer the questions given at the end:

Education brings a number of benefits to society. Educated people can easily understand their rights and duties in society, and can act for the good of others and also of themselves. For example, a well-educated person will not like to break a rule of traffic when, he reads it on a road crossing while driving his vehicle. He will realize that if he breaks the rules knowing to be very much there, others looking at him would also like to break it, and it might result in dangerous accidents on the road. Educated persons can follow the programs of political parties in general election and vote wisely and properly. They cannot easily be deceived by clever politicians at all. They vote as they think in the best interest of the country and the nation, and thus they elect most suitable candidates for their assemble. Educated people are better workers than uneducated and or illiterate person in factories and on farms. They can learn easily how to work with new machines can increase the production of things of daily use and of food grains. We should therefore, try to educate our people as early as possible it would be very good indeed to have adult education in our cities town and village. If our resources permit we may also introduce compulsory universal education up to Matric.

- How can education benefit a person in political sphere?
- Why are the educated persons better than uneducated ones in factories and on farms?
- What should we do to educate our people?
- Suggest a suitable title to it.

Q.3. Write a paragraph on one of the following topics.

- Should Plastic be Banned?
- Women Empowerment

Q.4. What are the components of a good presentation?

Q.5. Translate the following paragraph into English.

مذہب صدیوں سے انسانی تہذیب کا اہم حصہ رہا ہے۔ یہ عقائد اور اقدار کا ایک خاکہ فراہم کرتا ہے جو افراد اور برادریوں کی رہنمائی کرتا ہے۔ مذہب کلچر زندگی کے ہر شعبے سے متعلق سوالات کے جوابات پیش کرتا ہے، جیسے کہ وجود کا مطلب اور مصائب کا مقصد۔ یہ تعلق اور برادری کا احساس بھی فراہم کرتا ہے۔ ساتھ ہی مشکل کے وقت سکون اور امید کا ذریعہ بھی ہے۔

# University of Sargodha

Pharm-D (1<sup>st</sup> Prof.) 1<sup>st</sup> Semester Exam 2025

Paper: Pharmaceutical Chemistry-I (Organic-I) PHRM-311/PHRM-5103

Time Allowed: 2:30 Hours

Maximum Marks: 60

Note: Attempt all questions.

## Objective Part (Compulsory)

- Q.1. Write short answers of the following: (2\*10)
- What is the concept of hybridization? Explain  $sp^3$  hybridization with an example.
  - Define and differentiate between mesomerism and hyperconjugation.
  - Explain the term electromeric effect with an example.
  - What is the steric effect? How does it influence the reactivity of organic compounds?
  - Write the general formula and one example of alkanes and alkynes.
  - ✓ Define geometrical isomerism and give an example.
  - What is meant by electrophilic substitution reaction? Give an example.
  - ✓ Define hyperconjugation and give an example.
  - Explain the concept of tautomerism in carbonyl compounds.
  - x. What are the different effects of hydrogen bonding in organic compounds?

## Subjective Part (4\*10)

- Q.2. Explain the concept of aromaticity and its importance. Discuss Huckel's rule.
- Q.3. Describe the preparation, properties, and identification tests of amines and ethers.
- Q.4. What is resolution of racemic mixture? Explain different methods for it.
- Q.5. Discuss electrophilic substitution reactions in benzene with mechanisms.

# University of Sargodha

Pharm-D (1<sup>st</sup> Prof.) 1<sup>st</sup> Semester Exam 2025

Paper: Anatomy & Histology (PHRM-314/PHRM-5109)

Time Allowed: 2:30 Hours

Maximum Marks: 60

Note: Attempt all questions.

## Objective Part (Compulsory)

Q.1. Write short answers of the following:

(2\*10)

- i. Planes / sections of the body.
- ii. Fascia and its types.
- iii. Features of synovial joints.
- iv. Appendages of the skin.
- v. Supporting cells of the neurons (neuroglia):
- vi. Structure of Urinary bladder with label.
- vii. Parathyroid gland.
- viii. Pneumatic bones with examples.
- ix. Epithelial tissues of the body.
- x. Hyaline cartilage.

## Subjective Part (4\*10)

- Q.2. Difference and similarities of sympathetic and parasympathetic system with neurotransmitters.
- Q.3. Write components of male reproductive system, further explain prostate gland.
- Q.4. CSF, its formation, fate and advantages in the brain & spinal cord and its clinical importance.
- Q.5. Describe Structure of heart with figure and its coronary blood circulation.

# **University of Sargodha**

**Pharm-D (1<sup>st</sup> Prof.) 1<sup>st</sup> Semester Exam 2025**

**Paper: Pharmaceutics-I (Physical Pharmacy-I) PHRM-310/PHRM-5101**

**Time Allowed: 2:30 Hours**

**Maximum Marks: 60**

**Note: Attempt all questions.**

## **Objective Part (Compulsory)**

**Q.1. Write short answers of the following: (2\*10)**

- i. What are the colligative properties of solutions?
- ii. Define Micelles and its types.
- iii. What are the types of emulsions?
- iv. Classify suspending agents.
- v. Write a method of determination of particle size.
- vi. Classify surfactants.
- vii. What is the difference between ideal and true solutions?
- viii. Write concentration expressions used for solutions.
- ix. What are the types of adsorption?
- x. Write the pharmaceutical application of colloids.

## **Subjective Part (4\*10)**

- Q.2.** What is Adsorption, explain various techniques and processes of adsorption in detail?
- Q.3.** What are Colloids, explain their properties and methods of preparation?
- Q.4.** What are pH indicators, buffers, isotonic solutions, and their application in pharmacy?
- Q.5.** Explain the history of pharmacy through ancient Greek and Arab periods with special reference to the contribution of Muslim scientists to pharmacy.

# University of Sargodha

Pharm-D (1<sup>st</sup> Prof.) 1<sup>st</sup> Semester Exam 2025

Paper: Physiology-A (PHRM-313/PHARM-5107)

Time Allowed: 2:30 Hours

Maximum Marks: 60

Note: Attempt all questions.

## **Objective Part (Compulsory)**

- Q.1.** Write short answers of the following: (2\*10)
- i. Define facilitated diffusion. Give one example.
  - ii. What are the components of feedback system?
  - iii. Define the replication and expression of genetic information.
  - iv. How proteins are synthesized?
  - v. Describe briefly carbohydrate metabolism.
  - vi. Compare the graded potential and action potential in neurons.
  - vii. Define muscle tone.
  - viii. Define synapse. What are presynaptic and post synaptic neurons.
  - ix. What is the important difference between action potential in skeletal and smooth muscle?
  - x. Define refractory period and its types.

## **Subjective Part (4\*10)**

- Q.2.** Explain the molecular mechanisms of skeletal muscle contraction.
- Q.3.** What is a neuron? Discuss the classification of neurons by three different methods.
- Q.4.** Describe the movement of molecules across the cell membrane.
- Q.5.** Discuss the mechanisms of actions of lipid soluble and water-soluble hormones.