

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2023

19 JUL 2023

Level : B.Pharm.
Year : I
Time : 2 hrs. 30 mins.

Course : PHAR 114
Semester : II
F. M. : 55

Give the answers with figures, graphs or flowcharts wherever appropriate.

SECTION "B"
[5Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Explain positive feedback mechanism with an example.
2. Differentiate between simple diffusion and facilitated diffusion.
3. Give an account on refractory period.
4. Write down about the different types of anemia.
5. Draw a well labeled diagram of a heart.
6. Write notes on cough reflex.
7. What are the functions of blood?

SECTION "C"
[5Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Elaborate on neuromuscular transmission.
9. Write in detail about cell mediated immunity.
10. Give an account on short term regulation of blood pressure.
11. Elaborate on physiological anatomy of lungs.
12. Discuss on obstructive and restrictive lung disease with reference to FVC and FEV1
13. Elaborate on vomiting reflex and the process of vomiting
14. Write notes on
 - a. ventral body cavity
 - b. endoplasmic reticulum

SECTION "D"
[2Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. Elaborate on the different stages involved in hemostasis by intrinsic and extrinsic mechanisms.
16. What is cardiac output? Explain in detail about regulatory process of cardiac output. What are the factors that can increase cardiac output? [1.5+5+1]
17. Elaborate on the mechanism of HCl secretion along with the factors affecting its secretion. List out all the secretions of pancreas. [6+1.5]

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2023

Marks Scored:

Level : B.Pharm.

Year : I

Exam Roll No.:

Time: 30 mins.

Course : PHAR 114

Semester : II

F. M. : 20

Registration No.:

Date **19 JUL 2023**

SECTION "A"

[20Q. × 1 = 20 marks]

Encircle the most appropriate option.

- _____ divides body in superior and inferior parts.
a. Transverse plane b. Frontal plane c. Vertical plane d. Sagittal plane
- The major portion of liver lies in _____ quadrant of the body.
a. Right upper b. Right lower c. Left upper d. Left lower
- Permeability to lipids is determined by the _____ of the cell membrane
a. Peripheral protein b. Integral protein
c. Carbohydrate d. Cholesterol
- Intraocular fluid is an example of
a. Interstitial fluid b. Intracellular fluid
c. Transcellular fluid d. Plasma
- The condition in which membrane potential is reduced from resting potential is called
a. Depolarisation b. Repolarisation c. Hyperpolarisation d. Polarisation
- The portion of muscle fiber where there is no overlapping of filaments is called
a. I band b. A band c. H band d. Z disc
- Which one of the following is not the characteristics of white muscle fiber?
a. Glycolytic b. Aerobic c. Type II d. Less mitochondria
- Red Blood cells of females can concentrate _____ of hemoglobin.
a. 8 gm b. 14 gm c. 18gm d. 22 gm
- Which type of anemia can be caused by the Lack of Vitamin B12?
a. Aplastic b. Sickle cell c. Pernicious d. Thalassemia
- _____ is also called Christmas factor.
a. Factor IV b. Factor VI c. Factor IX d. Factor XI
- Which one of the following clotting factor is not produced in Vitamin K deficiency?
a. I b. II c. III d. IV

12. Which one of the following sentences regarding pumping of blood is **FALSE**?
- Deoxygenated blood is pumped by right side of the heart
 - Aortic valve is open during ventricular filling
 - Third heart sound is heard due to inrush of blood
 - End systolic volume is about 40-50 ml
13. Which of the following condition that does not decrease cardiac output?
- Setting from lying position
 - Heart disease
 - Tachycardia
 - High temperature
14. Which of the following is **NOT** the physiological condition of having high blood pressure?
- Increased age
 - Cold environment
 - Female
 - Obesity
15. _____ will be the alveolar ventilation in the condition where tidal volume is 450 ml, dead space volume is 120 ml and Respiratory rate is 16 breaths
- 4200ml/min
 - 4560ml/min
 - 5280ml/min
 - 5875ml/min
16. Majority of carbon dioxide in blood is carried in the form of
- CO₂
 - CO₂.Hgb
 - HCO₃⁻
 - H⁺
17. Which of the following factor that does not simulate the secretion of gastrin?
- Protein
 - Acid
 - Distension
 - Vagal nerve
18. All of the following about bile are **TRUE EXCEPT**
- Secreted 600-1000 ml/ day
 - It helps to emulsify fat
 - Help in the excretion of bilirubin
 - Is concentrated up to 50 times in Gall bladder
19. The following sentences about stomach emptying are **TRUE EXCEPT**
- Increased food volume in the stomach increases emptying
 - The degree of distension of duodenum decreases emptying
 - Gastrin hormone inhibits stomach emptying
 - The degree of osmolality in chyme inhibits emptying
20. The order of layer from heart from outside to inside is
- Endocardium, epicardium, myocardium
 - Epicardium, myocardium, endocardium
 - Epicardium, endocardium, myocardium
 - Myocardium, endocardium, epicardium