

11. The normal lifespan of RBC is _____
a. 45 days b. 120 days c. 20 days d. 100 days
12. This is the tissue macrophage in brain _____
a. Kupffer cells b. Osteoclast c. Histocytes d. Microglia
13. Prothrombin is the clotting factor number _____
a. I b. III c. II d. IV
14. Vitamin K deficiency can lead to deficiency of all of the following clotting factors EXCEPT _____
a. VII b. XI c. XII d. X
15. Impulse from SA node is delayed before passing to ventricle by _____
a. Intermodal pathway b. Bundle of His
c. AV node d. Purkinje fiber
16. Total duration of cardiac cycle is _____ at heart rate 75/min
a. 1 sec b. 0.8 sec c. 0.6 sec d. 0.4 sec
17. Partial pressure of CO₂ in alveolar air is _____
a. 569 mmHg b. 104mmHg c. 40 mmHg d. 47 mmHg
18. Blood flow to tissue is slow in case of _____
a. Hypoxic hypoxia b. Anemic hypoxia
c. Histotoxic hypoxia d. Stagnant hypoxia
19. All of the following is true about regulation of respiration EXCEPT
a. Basic rhythm is generated in DRG of neuron
b. Pneumotaxic center controls switch off point of inspiratory ramp
c. DRG controls inspiration and expiration during increased ventilation
d. VRG remains inactive during quiet respiration
20. All of the followings are enteroendocrine hormone EXCEPT
a. Somatostatin b. Gastrin c. Serotonin d. Pepsin

KATHMANDU UNIVERSITY
End Semester Examination [C]
November/December, 2023

30 NOV 2023

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

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

SECTION "B"

[5 Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions.

1. Explain the functional anatomy of respiratory system. .
2. Elaborate the signal transduction pathways of lipid soluble messengers.
3. Differentiate slow twitch and fast twitch muscle fiber.
4. Explain oxygen-hemoglobin dissociation curve.
5. Write briefly about the movements occurring in the small intestine and the colon
6. Draw a chart showing the process of erythropoiesis.
7. Write briefly about hypertension.

SECTION "C"

[5 Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Explain the long term regulation of BP.
9. Elaborate on pulmonary volumes and capacities.
10. Elaborate neuromuscular transmission.
11. Elaborate changes in volume, sound and pressure in heart in reference to cardiac cycle
12. Elaborate in detail on vomiting reflex.
13. Explain the mechanism of secretion of hydrochloric acid in the stomach. Write briefly about the phases of gastric secretion [3+2]
14. Discuss the mechanism of SA node rhythmicity.

SECTION "D"

[2 Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. Write in detail about the mechanism of blood coagulation. Which clotting factors are deficient in Hemophilia?
16. Give an account on cell membrane with well labeled diagram. How does the substance get transported across the cell membrane? Write down the concentration of 3 different ions in ECF and ICF.
17.
 - a. Show the red blood cell compatibility in a table. Explain the procedure for determining blood type of individuals before transfusion.
 - b. Elaborate on generation of action potential in nerves. Write about Na^+K^+ pump.