KATHMANDU UNIVERSITY
End Semester Examination
February/March, 2018

Marks Scored:

Level : B.Pharm.
Year : II

Course : PHAR 203
Semester: I

Exam Roll No.:

Time: 30 mins.

F.M. : 20

Registration No.:

Date MAR 15 2018

SECTION "A"
[20 Q. × 1 = 20 marks]

Tick [√] the correct answer.

1. All of the followings are the role of Na^+-K^+ pump except
   a) Maintain Na^+ and K^+ concentration difference across cell membrane
   b) Establish negative voltage inside the cell
   c) Establish positive voltage inside the cell
   d) Control cell volume

2. The channel for water soluble substances in the cell membrane is formed by
   a) Integral protein
   b) Cholesterol
   c) Peripheral protein
   d) Fatty acid

3. It is engulfed by the cell with the help of pinocytosis
   a) Bacteria
   b) Dead cell
   c) Protein
   d) Tissue debris

4. One of the following organs lie in the throacic cavity
   a) Esophagus
   b) Caecum
   c) Stomach
   d) Duodenum

5. Which one of the following is fibrin stabilizing factor
   a) Factor XII
   b) Factor VII
   c) Factor XIII
   d) Factor XI

6. The RMP of SA node is
   a) -60 to -70 mv
   b) –55 to -60 mv
   c) -70 to -90 mv
   d) -50 to -70 mv

7. These are the response of the body against decrease in BP except
   a) Increase fluid intake
   b) Release of aldosterone
   c) Decrease in vasopressin release
   d) Vasoconstriction

8. Blood returning to the heart is delivered largely to the superior and inferior venacava except from
   a) Lungs
   b) Myocardium
   c) Portal circulation
   d) Spleen

9. T wave of ECG is formed due to
   a) Depolarization of atria
   b) Depolarization of ventricle
   c) Repolarization of atria
   d) Repolarization of ventricle

10. The rate of ramp signal of respiration is controlled by
   a) DRG of neuron
   b) VRG of neuron
   c) c. Pneumotaxic center
   d) d. Apneustic center

11. 23% of CO_2 in the body is transported as
   a) CO_2 b) $Hgb.CO_2$ c) $HCO3^-$ d) H^+

12 When PO_2 is 40mmHg, on average hemoglobin saturation is
   a) 75% b) 4% c) 97% d) 100%

13. It is the voluntary phase of deglutition
   a) Rolling the tongue upward
   b) Approximation of vocal cord
   c) c) Closing the posterior nares
   d) d) Upward movement of larynx

14. The secretion of parotid gland is almost entirely
   a) Mucus b) Serous c) Serous and mucus d) Lysozyme

15. These are not reabsorbed from gall bladder except.
   a) Lecithin b) Calcium c) Bile salt d) Water

16. Which of the following statements is true about "Erythropoiesis"?
   a) Cell size increases and nucleus develops during maturation of the red blood cell.
   b) Vitamin B6 and folic acid play an important role during the maturation of the RBC.
   c) Erythropoiesis completes in about 7 days
   d) Reticulocytes are the mature red blood cells.

17. Continuous contraction of muscle due to repeated stimulus is called
   a) Fasciculation b) Tetanus c) Fibrillation d) Clonus

18. Hemoglobin A is a combination of:
   a) Two beta and two delta chains
   b) Two beta and two alpha chains
   c) Two gamma and two delta chains
   d) Two alpha and two delta chains

19. Sarcoplasmic reticulum in the muscle is responsible for release of
   a) Acetylcholine
   b) Ca^{++}
   c) Na^+
   d) K^+

20. Each 100ml of RBC can accommodate .....grams of hemoglobin
   [a] 29 [b] 34 [c] 42 [d] 10

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Level : B.Pharm. Course : PHAR 203
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Time : 2 hrs. 30 mins. F.M : 55

SECTION "B"
[5 Q.×3=15 marks]

Give the answers with figures, graphs or flowcharts wherever appropriate

Attempt any *FIVE* questions

1. Give an account on hypertension.
2. What are the compositions of bile? What is enterohepatic circulation?
3. Write notes on anatomy of lungs.
4. What is cardiac output? Explain the factors that affects heart rate.
5. Give an account on genesis of white blood cells.
6. Compare and contrast different types of muscles.
7. Give an account on ABO system of blood typing.

SECTION "C"
[5 Q.×5=25 marks]

Answer any *FIVE* questions:

8. Explain vomiting reflex in detail.
9. Elaborate the mechanism of digestion of fat in the body.
10. Draw a well labelled diagram of cardiac cycle.
11. List cell organelles and elaborate on mitochondria. Explain about intercellular connections.
12. Explain the process of neuromuscular transmission.
13. Explain how lipid insoluble messenger transduce signal in the cells.
14. Explain about the action potential of cardiac muscle

SECTION "D"
[2 Q.×7.5=15 marks]

Attempt any *TWO* questions:

15. Explain how respiratory gases are transported between tissue and external environment.
16. Explain the mechanisms of regulation of blood pressure.
17. Explain the mechanisms of clot formation in the body.