



BRAINWARE UNIVERSITY

D. Pharm Part I Examination 2018 - 19

Programme- Diploma in Pharmacy

Course Name – Biochemistry and Clinical Pathology

Course Code – 1.4T

(D. Pharm First Year Final)

Time allotted: 3 Hours

Full Marks: 80

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group –A

(Multiple Choice Type Question)

20 x 1 = 20

1. Choose the correct alternative from the following
 - (i) The pigment in the rod cells of eye is called as _____

a. Rhodopsine	b. Melanine
c. Haemoglobin	d. Erythrocyte
 - (ii) The normal platelet count is _____

a. 2-5 lacs per cu.mm of blood	b. 2-8 lacs per cu.mm of blood
c. 3-5 lacs per cu.mm of blood	d. 1-5 lacs per cu.mm of blood
 - (iii) Which Hormone is responsible for regulation of water metabolism?

a. Vasopressin	b. Aldosterone
c. Renin	d. All of above
 - (iv) Vitamin B₁₂ is component of _____

a. FAD	b. TPP
c. NAD	d. COA
 - (v) Aldosterone regulate _____

a. Sodium absorption	b. Blood glucose
c. Urine concentration	d. Potassium absorption
 - (vi) Lactose is made up of _____

a. One glucose molecule and one galactose molecule	b. Two glucose molecule
c. Two glucose molecules	d. One glucose and one fructose molecule

- (vii) Enzymes are _____
- | | |
|---------------------------|---------------------|
| a. Protein in nature | b. Lipid in nature |
| c. Carbohydrate in nature | d. Acidic in nature |
- (viii) Heparin is a
- | | |
|-------------------|--------------------------|
| a. Monosaccharide | b. Aldolase |
| c. Disaccharide | d. Hetero polysaccharide |
- (ix) Rickets occur due to deficiency of _____
- | | |
|--------------|--------------|
| a. Vitamin E | b. Vitamin A |
| c. Vitamin D | d. Vitamin K |
- (x) The normal WBC count is _____
- | | |
|-------------------------------------|-------------------------------------|
| a. 4000 to 11000 per cu.mm of blood | b. 9000 to 11000 per cu.mm of blood |
| c. 4000 to 15000 per cu.mm of blood | d. 6000 to 11000 per cu.mm of blood |
- (xi) Multiple forms of the same enzyme are called _____
- | | |
|--------------|---------------|
| a. Apoenzyme | b. Holoenzyme |
| c. Coenzyme | d. Isoenzyme |
- (xii) Which of the following is not excreted through urine?
- | | |
|----------------|-----------|
| a. Lactic acid | b. Sodium |
| c. Sulphur | d. Urea |
- (xiii) Milky white colour of urine is due to the presence of _____
- | | |
|------------------|-----------------|
| a. Ketone bodies | b. Urea |
| c. Uric acid | d. Fat globules |
- (xiv) The coenzyme form of niacin is _____
- | | |
|--------|-----------------|
| a. NAD | b. TPN |
| c. FMN | d. All of these |
- (xv) Which of the following is a sulphur containing amino acid
- | | |
|---------------|---------------|
| a. Glycine | b. Tryptophan |
| c. Methionine | d. Valine |
- (xvi) Which of the following is not a reducing sugar?
- | | |
|-------------|--------------|
| a. Lactose | b. Galactose |
| c. Maltose. | d. Sucrose. |
- (xvii) Severe form of anemia known as
- | | |
|-------------------------|---------------------------|
| a. Polycythemia | b. Iron deficiency anemia |
| c. Megaloblastic anemia | d. Pernicious anemia |

- (xviii) Cholesterol is a
- | | |
|-----------------|---------------|
| a. Carbohydrate | b. Steroid |
| c. Lipid | d. Fatty acid |
- (xix) In anaerobic glycolysis number of ATP production from one mole of glucose is
- | | |
|------|------|
| a. 3 | b. 2 |
| c. 5 | d. 7 |
- (xx) Blood platelets are formed by
- | | |
|---------------------------|----------------|
| a. Spleen | b. W.B.C |
| c. Spleen and Bone marrow | d. Bone marrow |

Group – B

(Short Answer Type Questions)

8 x 5 = 40

Answer any *eight* from the following

- | | |
|--|---------|
| 2. Define nucleic acid. Write the function of and difference between DNA and RNA. | 1+2+2 |
| 3. Write a note on reducing sugar and non-reducing sugar with examples. | 2.5+2.5 |
| 4. What is the difference between essential, non-essential and semi essential amino acids? Describe with examples. | 5 |
| 5. Write the differences between Transamination and Decarboxylation. | 5 |
| 6. What is muta-rotation? Define Invert sugar with example. | 2+3 |
| 7. What is ATP? Write the structure and function of ATP. | 1+4 |
| 8. What do you mean by D, L; d, l, alpha and beta variety of glucose? | 1+1+2+1 |
| 9. Describe the general function of major and trace elements of human body. | 5 |
| 10. Human being cannot digest cellulose, but Herbivores can digest cellulose. Why? | 5 |

Group – C

(Long Answer Type Questions)

2x 10 = 20

Answer any *two* from the following

- | | |
|--|-------|
| 11. Write about Enzyme inhibition with examples. Write down about the Diagnostic application of Enzymes. | 6+4 |
| 12. Define Kreb's Cycle. Write the various steps of Tri carboxylic acid cycle & its regulations. Calculate the number of ATP formed from aerobic metabolism of carbohydrate. | 1+7+2 |
| 13. Define lymphocytes. Describe the abnormalities of Lymphocytes. | 2+8 |