Biochemistry

Faculty of Paramedical and Allied Health Sciences (FPMA)
Khyber Pakhtunkhwa First Semester
Exam august 2019
Biochemistry
Time: 00:40 Minutes Total Marks: 40

1. **Which One Of The Following Is Not Included In Major Six Classes Of Enzymes?**
   a. Transferases
   b. Polymerases'
   c. Hydrolases
   d. Oxidoreducatses
2. **In Polysaccharides, Monosaccharaides Are Joined by**
   a. Peptide Bond
   b. Glucose bond
   c. Glycosidic Bond
   d. Covalent Bond
3. **Which One Of The Following Structures Has Maximum Amount Of Total Body Calcium:**
   a. Skeletal Muscles
   b. Blood
   c. Bones
   d. Plasma
4. **Antioxidant Vitamin Is**
   a. Vitamin A
   b. Vitamin C
   c. Vitamin K
   d. Vitamin B1
5. **Which Of The Following Is A Non-reducing Sugar?**
   a. Trehalose
   b. Maltose
   c. Lactose
   d. Isomltose
6. **Fatty Acids Which Remain In Liquid State At Room Temperature Are Called**
   a. Fats, Glucose, Starch
   b. Oil
   c. Lipids
   d. Wax
7. **All Are Reducing Sugars EXCEPT**
   a. Sucrose
   b. Lactose
   c. Fructose
   d. Galactose

PMA)

arks: 40

Of Enzymes?

f Total Body

Are Called

8. **The Repeating Units Of Proteins Are:**
   a. Nucleic acids
   b. Fatty Acids
   c. Amino Acids
   d. Glucose units
9. **Cholesterol Is Present In High Levels In**
   a. Egg Yolk
   b. Egg White
   c. Fish
   d. Meat
10. **The Chief Source Of Calcium Is**
   a. Fish
   b. dairy Products
   c. Grains
   d. Meat
11. **Normal Blood PH Is Maintained By**
   a. Proteins
   b. Buffer
   c. Water
   d. Biomolecules
12. **PH is**
   a. Log of H+
   b. Negative Ln Of H+
   c. Negative Log [H+]
   d. Negative log of H+
13. **Essential Fatty Acid Is**
   a. Linolenic Acid
   b. Oleic Acid
   c. Palmitoleic Acid
   d. Palmitic Acid
14. **The Carbohydrate Found In DNA Is:**
   a. ROulose
   b. Xylose.
   c. Ribose
   d. Deoxyribose
15. **Glycogen In Animals Are Stored In:**
   a. Glucose
   b. Glycogen
   c. Sucrose
   d. Maltose
16. **The Largest Protein Amongst The Following Is**

a. Fibrinogen
b. Albumin
c. Hamoglobin
d. globulin

17. Maltose Is A Disaccharide Of

a. Glucose And Lactose
b. Fructose And Lactose
c. Glucose and Galactose
d. Glucose and glucose

18. Iodine Is Stored In:

a. Liver
b. Intestine
c. Thyroid Gland as thyroglobulin
d. Skin

19. Which One Of The Following Is A Phospholipid?

a. Steroid
b. Lecithin
c. Sterol
d. Cholesterol

20. Which One Of The Following Is Having A Steroid Vitamin?

a. Vitamin E
b. Vitamin A
c. Vitamin D
d. Vitamin K

21. Buffers Are Mixtures Of:

a. Strong Acid And Strong Base
b. Weak Base And Their Conjugate Acid
c. Strong Acid And Weak Base
d. Weak Acid And Their Conjugate Base

22. Carbohydrate Commonly Known As Invert Sugar, Is:

a. Lactose
b. Fructose
c. Glucose
d. Sucrose

23. Iron Is Transported In The Blood In The Form Of:

a. Haemosiderin
b. Transferrin
c. Haemoglobin
d. Ferritin

24. A Carbohydrate Commonly Known As Dextrose Is:

a. Dextrin

b. Glucos
c. D-fructose
d. Glycogen

25. Vitamin D Synthesis Occurs In

a. Muscles
b. Intestine T
c. Adipose tissue
d. Liver and kidney

26. Most Important Buffer Of Extra Cellular Fluid Is:

a. Phosphate
b. Hemoglobin
c. Protein
d. Bicarbonate- Carbonic Acid

27. Pellagra Is Caused Due To The Deficiency Of

a. Pyridoxine
b. Niacin
c. Ascorbic Acid
d. Pantothenic Acid

28. Triglycerides Are:

a. Less Soluble In Water
b. Soluble In Water
c. Soluble in boiling Water
d. In Soluble in water

29. The average PH of Urine is

a. 6.2
b. 7.4
c. 6.8
d. 7.8

30. Enzyme Amylase Breaks Down:

a. Proteins
b. Fats
c. Carbohydrates
d. Nucleoproteins

31. Essential Fatty Acid Is:

a. Oleic Acid
b. Palmitoleic Acid
c. Linolenic Acid
d. Plamitic Acid

32. The Vitamin C Deficiency Leads To:

a. Antibody Synthesis
b. Rickets

c. Scurvy
d. Pellagra

33. In Human Body The Optimum Temperature For Enzymatic Activities Is

a. 25°C
b. 37°C
c. 40°C
d. 30°C

34. Scurvy Is Caused Due To The Deficiency Of

a. Vitamin C
b. Vitamin K
c. Vitamin A
d. Vitamin D

35. The Phenomenon Of Osmosis Is Opposite To That Of

a. Coagulation
b. Affusion
c. Diffusion T
d. Effusion

36. BeriBeri Is caused due To Deficiency Of

a. Folic Acid
b. Vitamin C
c. Vitamin K
d. Vitamin B1 (thiamine)

37. A Severe Deficiency Of Vitamin B1 (Thiamine) In Humans Causes

a. Beri Beri
b. Osteomalacia
c. Night Blindnesst
d. Rickets

38. Richest Source Of Vitamin C Is?

a. Egg
b. Lemon
c. Milk
d. Rice

39. The Monosaccharides Linked Together In Cellulose Are

a. Dextrin
b. Amylose
c. Sorbitol
d. Glucose

40. Obesity Is Usually Determined By Calculating:

a. Basal Metabolic Rate (BMR)
b. Body Mass Index (SMI)

c. Growth Chad
d. None Of The Above

Answer Key

1.	B	21.	D
2.	B	22.	B
3.		23.	C
4.	B	24.	B
5.	A	25.	D
6.	B	26.	D
7.	B	27.	B
8.	C	28.	D
9.	A	29.	B
10.	B	30.	C
11	B	31.	C
12.	C	32.	C
13.	A	33.	B
14.	D	34.	A
15.	A	35.	C
16.	C	36.	D
17.	D	37.	C
18.	C	38.	C
19.	D	39.	B
20.	A	40.	B

Faculty of Paramedical and Allied Health Sciences (FPMA)
Khyber Pakhtunkhwa First Semester
Exam March 2019
Biochemistry

Time: 00:40 Minutes
Total Marks: 40

1. **The Largest Protein Amongst The Following Is**
   a. Fibrinogen
   b. Albumin
   c. Haemoglobin
   d. Globluin
2. **Heart Diseases Are Associated With The Diet Containing**
   a. High In Vitamins
   b. High In Carbohydrates
   c. High in Proteins
   d. High In Saturated Fat
3. **Following Is Made From Cholesterol**
   a. Vitamin A
   b. DNA
   c. Steroid Hormons
   d. Glycogen
4. **Which One Of These Vitamins Is Involved In Blood Clotting?**
   a. Vitamin B6
   b. Vitamin K
   c. Vitamin E
   d. Vtiamin Dt
5. **In Human Body The Optimum Temperature For Enzymatic Activities Is**
   a. 40°C
   b. 37°C
   c. 30°C
   d. 25°C
6. **Denatured Proteins Are**
   a. Biologically Inactive
   b. Scurvy
   c. Difficult to Digest
   d. Difficult To Precipitate
7. **Obesity Is Usually Determined By Calculating**
   a. Basal Metabolic Rate (BMR)
   b. Growth Chart
   c. None of the Above
   d. Body Mass Index (BMI)

:: 00:40 Minutes
40

ctivities Is

8. **All the Following Are-B complex Vitamins, Except**
   a. Ascorbic Acid
   b. Thiamin
   c. Biotin
   d. Pantothenic Acid
9. **Essential Fatty Acid Is**
   a. Palmitoleic Acid
   b. Palmitic Acid
   c. Linolenic Acid
   d. Oleic Acid
10. **Antioxidant Vitamin Is**
   a. Vitamin K
   b. Vitamin A
   c. Vitamin C
   d. Vitamin B1
11. **scurvy Is Caused Due To The Deficiency Of**
   a. Vitamin K
   b. Vitamin C
   c. Vitamin A
   d. Vitamin D
12. **The End Product Of Acid Hydrolysis Of Glycogen Is**
   a. Galactose
   b. Glucose
   c. Mannose
   d. Fructose
13. **Glycogen In Animals Are Stored In**
   a. Liver And Muscles
   b. Liver Aid Adipose Tissue
   c. Live and Spleen
   d. Liver and bile
14. **A Severe Deficiency Of Vitamin B1 (Thiamine) In Humans Causes**
   a. Osteomalacia
   b. Beri Beri
   c. Night Blindnesst
   d. Rickets
15. **Cholesterol Is Present In High Levels In**
   a. Egg White
   b. Fish
   c. Meat
   d. Egg yolk

16. **Sulphur Containing Amino Acids Are**
    a. Serine
    b. Cysteine
    c. Lysine
    d. leucine
17. **Vitamin D Synthesis Occurs In**
    a. intestine T
    b. Adipose Tissue
    c. Muscles
    d. Liver and Kidney
18. **Richest Source Of Vitamin C Is?**
    a. Milk
    b. Lemon
    c. Rice
    d. Egg
19. **Night Blindness Is Caused By Deficiency Of**
    a. Vitamin B12
    b. Vitamin A
    c. Vitamin E
    d. Vitamin D
20. **The Vitamin C Deficiency Leads To:**
    a. Antibody Synthesis
    b. Rickets
    c. Scurvy
    d. Pellagra
21. **All Are Reducing Sugars EXCEPT**
    a. Sucrose
    b. Fructose
    c. Lactose
22. **Vitamins Often Act As**
    a. Holoenzymes
    b. Apoenzymes
    c. Cofactors
    d. Coenzymes
23. **Which Of The Following Is Not A Disaccharide?**
    a. Lactose
    b. Cellobiose
    c. None of these
    d. amylose
24. **Enzyme Increased In Myocardial Infarction Is**

a. Amylase
b. Esterase
c. Creatine Kianse
d. Lipase

25. Milk Protein Is Called A

a. keratin
b. Casein
c. gliadin
d. Gelatin

26. Normal Range Of PH Of Blood Is A

a. 7.4-8.2
b. 6.0 -7.4
c. 7.0-7.35
d. 7.35-7.45

27. A Homopolysaccharide Among The Following Is

a. KeratoSulphate
b. Cellulose
c. Heparint
d. Dermatinsulphate

28. Sucrose Is Composed Of

a. Glucose And Galactose
b. Glucose And Fructose
c. Fructose And Galactose
d. Glucose and Glucose

29. The Largest Protein Amongst The Following Is

a. Fibrinogen
b. Globulin
c. Albumin
d. Haemogliobin

30. Which Of The Following Is A Monosaccharide?

a. Sucrose
b. Galactose
c. Lactose
d. Maltose

31. Carbohydrates Are

a. Polyhydroxy Aldehydes And Phenols
b. Polyhydroxy Phenols And Alçohols
c. Polyhydroxy Aldehydes And Ketones
d. Polyhydroxy Ketones And Phenols

32. Food Energy Is Measured In

a. Grams

b. Kilocalories
c. Protein
d. None Of The Above

33. **Which One Of The Following Is Not Included In Major Six Classes Of Enzymes?**
a. Hydrolases
b. Oxidoreductases
c. Polymerases
d. Transferases

34. **Which One Of The Following Structures Has Maximum Amount Of Total Body Calcium:**
a. Bones
b. Skeletal Muscles
c. Plasma
d. Blood

35. **Triglycerides Are**
a. Soluble In Water
b. Less Soluble In Water
c. Insolube in Water
d. Solube in boiling Water

36. **All The Following Are B Complex Vitamins, Except**
a. Biotin
b. Ascorbic Acid
c. Pantothenic Acid
d. Thiamin

37. **Iodine Is Stored In**
a. Intestine
b. Skin
c. Liver
d. Thyroid Gland

38. **What Is The Storage Form Of Glucose In Plants?**
a. Dextrins
b. Glycogen
c. Starch
d. Inulin

39. **The Movement Of Molecules From An Area Of Low Concentration To An Area Of High Concentration Against The Concentration Gradient Is Known As:**
a. Osmosis
b. Active Transport
c. Phagocytosis
d. Diffusion

Of Enzymes?

Of Total Body

n To An Area
nown As:

40. Enzymes Are
   a. DNA Molecule
   b. Nucleic Acids
   c. Proteins
   d. Carbohydrates

1.	B	21.	A
2.	D	22.	C
3.	C	23.	D
4.	B	24.	C
5.	B	25.	B
6.	A	26.	D
7.	A	27.	D
8.	A	28.	B
9.	C	29.	C
10.	C	30.	B
11	B	31.	C
12.	B	32.	B
13.	A	33.	B
14.	B	34.	A
15.	B	35.	C
16.	B	36.	B
17.	D	37.	D
18.	B	38.	C
19.	B	39.	B
20.	C	40.	C

Faculty of Paramedical and Allied Health Sciences (FPMA)
Khyber Pukhtunkhwa
First Semester Exam

Time: 1 Hour | Total Marks: 50 | Biochemistry

1. **Sucrose is made up of**
   a. Glucose and Glucose
   b. Glucose and fructose
   c. filucose and galactose
   d. fructose and galactose

2. **Enzyme Amylase breaks down;**
   a. Nucleoproteins
   b. Fats
   c. Proteins
   d. Carbohydrates

3. **Vitamin which is excreted in urine is;**
   a. Vitamin A
   b. Vitamin C
   c. Vitamin D
   d. Vitamin K

4. **Normal pH of blood is**
   a. 7
   b. 7.2
   c. 7.3
   d. 7.4

5. **Storage form of carbohydrates in animals is**
   a. Amylopectin
   b. glycogen
   c. cellulose
   d. Collagen

6. **Among the following is keto sugar is**
   a. glucose
   b. Galactose
   c. fructose
   d. Mannose

7. **Following is an aromatic amino acid**
   a. Serine
   b. Leucine
   c. Methionine
   d. Tyrosine

8. **Triglycerides are**
   a. Soluble in water
   b. insoluble in water
   c. soluble in boiling water
   d. less soluble in water

9. **Which of the following factor can affect enzymes activity**
   a. Temperature
   b. pH
   c. Inhibitors
   d. All of the above

10. **Which is a phospholipid**
   a. Lecithin
   b. Cholesterol
   c. Sterol
   d. steroid

11. **Non-essential amino acids**
   a. are not components of tissue proteins
   b. may be synthesized in the body from essential amino acids
   c. have no role in metabolism
   d. my be synthesized in the body in diseased states

12. **The general formula of monosaccharide's is**
   a. C_nH2nO_n
   b. $C_{2n}H_2O_n$
   c. CnH_20_{2n}
   d. CoH2n02n

13. **The normal range of plasma calcium is**
   a. 9-11 mg/dl
   b. 3-5 mg/dl
   c. 5-10 mg/dl
   d. 11-15 mg/dl

14. **Fatty acids which remain in liquid state at room temperature are called**
   a. wax
   b. oil
   c. fats, glucose, starch
   d. lipids

15. **Vitamin D increases the absorption of**
   a. calcium
   b. iron
   c. fatty acid
   d. folic acid

16. **Cholesterol is present in high levels in**
   a. egg yolk
   b. egg white
   c. meat
   d. fish

17. **The most abundant bio molecule on the earth**
   a. nuclei acid
   b. protein
   c. lipid
   d. carbohydrates

18. **Sulphur containing amino acid is**
   a. A methionine
   b. Leucine
   c. Valine
   d. Asparagine

19. **Enzymes are**
   a. Protein
   b. Carbohydrates
   c. Nucleic acid
   d. DNA molecule

20. Which of the following is not a disaccharide
   a. amylase
   b. cellobiose
   c. lactose
   d. none of these

21. **Pellagra is caused due to the deficiency of vitamin**
   a. Vitamin
   b. folic acid
   c. pantothenic acid
   d. niacin

22. **The phenomena of osmosis is opposite to that of**
   a. diffusion
   b. effusion
   c. affusion
   d. coagulation

23. **Carbohydrates are**
   a. polyhydroxy aldehydes and phenols
   b. polyhydroxy aldehydes and ketones
   c. polyhydroxy ketones and phenols
   d. ployhydroxy phenols and alcohols

24. **Major sugar which is present in DNA and RNA is**
   a. ribose
   b. galactose
   c. mannose
   d. maltose

25. **Maltose is a disaccharide made up of**
   a. glucose and galactose
   b. glucose glucose
   c. glucose and lactose
   d. fructose and lactose

26. **The power house of the cell**
   a. Nucleus
   b. Cell membrane
   c. Mitochondria

d. Lysosomes

27. **Which one of the following is not included in major six classes of enzymes?**
   a. hydrolases
   b. transferases
   c. Oxidoreductases
   d. polymerases

28. **The chief source of calcium is**
   a. fish
   b. dairy products
   c. grains
   d. meat

29. **Basal metabolic rate (BMR) is affected by**
   a. body temperature
   b. body size
   c. sex
   d. all of above

30. **Amino acid are bounded with each other by**
   a. peptide bond
   b. hydrogen bond
   c. ionic bond
   d. glycosidic bonds

31. **Which of the following is a polysaccharide**
   a. glucose
   b. sucrose
   c. glycogen
   d. maltose

32. **Hemoglobin has**
   a. primary structure
   b. secondary structure
   c. tertiary structure
   d. quaternary structure

33. **The carbohydrate of blood group substance is**
   a. xylose
   b. lyxose
   c. fucose
   d. fructose

34. **The most important buffer system in plasma is**
   a. protein
   b. phosphate
   c. bicarbonate
   d. hemoglobin

35. **Essential fatty acid is**
   a. palmitic acid
   b. oleic acid
   c. linolenic acid
   d. palmitoleic

36. **vitamin C deficiency causes**
   a. **scurvy**
   b. antibody synthesis
   c. rickets
   d. **pellagra**

37. **Which of the following is a non-reducing sugar**
   a. isomaltose
   b. maltose
   c. lactose
   d. trehalose

38. **Which one the following amino acid is an essential amino acid**
   a. aspartate
   b. **tyrosine**
   c. **methionine**
   d. serine

39. **Carbohydrates linked to proteins are called**
   a. glycoproteins
   b. glycolipids
   c. glycosides
   d. ganglioside

40. **Enzymes increased** in myocardial infarction is
   a. amylase
   b. lipase
   c. creatine kinase
   d. esterase

41. Following is made from cholesterol
   a. steroid hormones
   b. vitamin A
   c. DNA
   d. glycogen

42. Duodenum is the principal site for the absorption of
   a. iron
   b. folic acid
   c. water
   d. vitamin B12

43. The mineral present in larger amount in the human body is
   a. sodium
   b. calcium
   c. potassium
   d. iron

44. The repeating units of proteins are
   a. glucose unit
   b. amino acid
   c. fatty acid

d. pep

45. Th
   a. amy
   b. sorl
   c. dex
   d. glu

46. In
   a. 37
   b. 40
   c. 25
   d. 30

47. Vi
   a. vit
   b. vit
   c. vit
   d. vi

48. Tl
   a. Fu
   b. m
   c. la
   d. fr

49. C
   a. g
   b. ga
   c. la
   d. m

50. A
   a. b
   b. s
   c. c
   d. a

d. peptides

45. **The monosaccharides linked together in cellulose are**
   a. amylase
   b. sorbitol
   c. dextrin
   d. glucose

46. **In human body optimum temperature for enzymatic activities**
   a. 37 °C
   b. 40 °C
   c. 25 °C
   d. 30 °C

47. **Vitamins produced in the skin on exposure to sunlight**
   a. vitamin A
   b. vitamin C
   c. vitamin D
   d. vitamin E

48. **The carbohydrate found in honey is**
   a. Fucose
   b. maltose
   c. lactose
   d. fructose

49. **Carbohydrate found only in milk is**
   a. glucose
   b. galactose
   c. lactose
   d. maltose

50. **A deficiency of thiamine produces disease known as**
   a. beriberi
   b. scurvy
   c. cataract.
   d. anemia

1.	B	21.	D	41.	A
2.	D	22.	A	42.	A
3.	B	23.	B	43.	B
4.	D	24.	A	44.	B
5.	B	25.	B	45.	D
6.	C	26.	C	46.	A
7.	D	27.	D	47.	C
8.	B	28.	B	48.	D
9.	D	29.	D	49.	C
10.	A	30.	A	50.	A
11	B	31.	C		
12.	A	32.	D		
13.	A	33.	C		
14.	B	34.	C		
15.	A	35.	C		
16.	A	36.	A		
17.	D	37.	D		
18.	A	38.	C		
19.	A	39.	A		
20.	A	40.	C		

Faculty of Paramedical and Allied Health Sciences (FPMA)
Khyber Pukhtunkhwa
First Semester Exam January 2018

Time: 1 Hour | Total Marks:50 | Biochemistry

1. **Vitamin D increases the absorption of:**
   a. Calcium
   b. Iron
   c. Fatty acids
   d. Folic acid
2. **Iron is mainly absorbed from:**
   a. Duodenum
   b. Ilium
   c. Caecum
   d. Colon
3. **Alkalosis can occur due to:**
   a. Vomiting
   b. Severe diarrhea
   c. Diabetes mellitus
   d. Strenuous exercise
4. **Amino acid are joined by:**
   a. Peptide bond
   b. Hydrogen bond
   c. Ionic bond
   d. Glycosidic bond
5. **Which of these is saturated acid?**
   a. Palmitic acid
   b. Linoleic acid
   c. Arachidonic acid
   d. Linoleic acid
6. **Hyaluronic acid a carbohydrate is found in:**
   a. Joints
   b. Brain
   c. Abdomen
   d. Mouth
7. **Deficiency of which one of these vitamins is a major cause of night blindness**
   a. Vitamin D
   b. Vitamin C
   c. Vitamin A
   d. Vitamin B
8. **Factors affecting enzyme activity are:**
   a. pH
   b. Temperature
   c. Enzyme concentration
   d. All the above
9. **Enzyme amylase breaks down:**

a. Nucleoproteins
b. Fats
c. Proteins
d. Carbohydrates

10. Maltose is a disaccharide made up of:

a. Glucose and galactose
b. Glucose and glucose
c. Glucose and lactose
d. Fructose and lactose

11. Milk of deficient of which mineral:

a. Phosphorus
b. Sodium
c. Iron
d. Potassium

12. A homopolysaccharide made up of fructose is

a. Glycogen
b. Cellulose
c. insulin
d. dextrin

13: Basal metabolic rate is affected by:

a. Body temperature
b. Body size
c. sex
d. All of above

14: A carbohydrate found only in milk is:

a. Glucose
b. Galactose
c. Lactose
d. Maltose

15: The principal cation of intracellular fluid is:

a. Sodium
b. Potassium
c. Chloride
d. Calcium

16: Hemoglobin has:

a. Primary structure
b. Secondary structure
c. Tertiary structure
d. Quaternary structure

17: The storage form of iron is:

a. Cerruloplasmin
b. Ferritin

c. Transferrin
d. Hemosiderin

18: Which one of the following is not included in major six classes of enzymes
a. Hydrolyses
b. Transferases
c. Oxidoreductases
d. Polymerases

19: The carbohydrate of honey is:
a. Fucose
b. Maltose
c. Lactose
d. Fructose

20: Iodine is stored in:
a. Thyroid gland
b. Liver
c. Intestine
d. Skin

21: Denatured proteins are:
a. Soluble
b. Difficult to adjust
c. Biologically inactive
d. Difficult to precipitate

22: The carbohydrate of blood group substance is:
a. Xylose
b. Lyxose
c. Fucose
d. Fructose

23: Storage form of carbohydrate in animals is in the form of:
a. Amylopectin
b. Glycogen
c. Cellulose
d. Collagen

24: The most important buffer system in plasma is:
a. Protein
b. Phosphate
c. Bicarbonate
d. Hemoglobin

25: Milk protein is called:
a. Casein
b. Keratin
c. Gelatin
d. Gliadin

26: Milk is deficient in which vitamin:
e. Vitamin c
f. Vitamin a
g. Vitamin b2

h. Vitamin k

27. **The proteins are made up of:**
   a. Glucose units
   b. Amino acids
   c. Fatty acids
   d. peptides

28. **Beri beri is caused due to deficiency of:**
   a. folic acid
   b. ascorbic acid
   c. thiamine
   d. niacin

29. **Pancreatic lipase is an enzyme which breaks down**
   a. Carbohydrates
   b. proteins
   c. fats
   d. nucleoprotein

30. **Vitamins which is excreted in urine is:**
   a. vitamin A
   b. vitamin C
   c. vitamin D
   d. vitamin K

31. **Normal blood PH is maintained by**
   a. proteins
   b. water
   c. buffers
   d. biomolecules

32. **A homopolysaccharide among the following is**
   a. hyaluronic acid
   b. dermnatinsulphate
   c. keratosulphate
   d. cellulose

33. **Normal range of blood PH is**
   a. 6.0-7.4
   b. 7.0-7.35
   c. 7.35-7.45
   d. 7.4-8.2

34. **The largest protein among the following is**
   a. fibrinogen
   b. globulin
   c. albumin
   d. haemoglobin

35. **Which one of these vitamins is involved in blood clotting**

a. vitamin D
b. vitamin B6
c. vitamin K
d. vitamin E

36. Antioxidant vitamin is
a. vitamin B
b. vitamin A
c. vitamins C
d. vitamin K

37. Osmosis is the selective passage of
a. solute molecule
b. colloidal particle
c. solvent molecule
d. solute & solvent

38. Deficiency of vitamin niacin causes a disease named
a. beriberi
b. pernicious anemia
c. scurvy
d. pellagra

39. The carbohydrate found in DNA is
a. xylose
b. ribose
c. deoxyribose
d. ribulose

40. Normal blood PH is maintained by
a. Protein
b. water
c. buffers
d. biomolecules

41. All are aromatic amino acids except
a. phenylaterine
b. tryptophan
c. cystein
d. tyrosine

42. The major storage form of lipid is
a. Cholesterol
b. glycerophaspholipids
c. triglyserides
d. sphingolipids

43. Sucrose is made up of
a. glucose & glucose

b. glucose & fructose
c. glucose & galactose
d. fructose & galactose

44. The end product of break down of glycogen is:

a. Amylase
b. sorbitol
c. dextrin
d. glucose

45. All are aromatic amino acid except:

a. phenylalanine
b. tryptophan
c. cystein
d. tyrosine

46. Enzyme in saliva which break down starch is called:

a. pepsinogen
b. alpha amylase
c. chymotrypsin
d. erepsin

47. Neutral fats are

a. triglycerides
b. diglycerides
c. phospheidic acid
d. monoglycerides

48. Amino acid which are not synthesized by human body are called "

a. essential amino acid
b. non-essential amino acid
c. simple amino acid
d. complex amino acid

49. Cholesterol comes from

a. animal product
b. vegetable products
c. fruit products
d. insect products

50. The average pH of urine is:

a. 6.8
b. 6.2
c. 7.4
d. 7.8

Answe

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8.
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10.
11
12.
13.
14.
15.
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20.

Answer Key

1.	A	21.	C	41.	C
2.	A	22.	C	42.	C
3.	A	23.	B	43.	B
4.	A	24.	D	44.	D
5.	A	25.	A	45.	C
6.	A	26.	A	46.	B
7.	C	27.	B	47.	A
8.	D	28.	C	48.	A
9.	D	29.	C	49.	A
10.	B	30.	B	50.	B
11	C	31.	C		
12.	A	32.	D		
13.	D	33.	C		
14.	C	34.	D		
15.	B	35.	C		
16.	D	36.	C		
17.	D	37.	C		
18.	D	38.	A		
19.	D	39.	C		
20.	A	40.	C		

Faculty of Paramedical and Allied Health Sciences (FPMA)
Khyber Pukhtunkhwa
First Semester Exam July 2017

Time: 1 Hour | Total Marks: 50 | Biochemistry

1. **The chief source of calcium is:**
   a. fish
   b. Dairy Products
   c. grains
   d. meat
2. **Non-essential amino acids**
   a. are not components of tissue proteins
   b. May be synthesized in the body from essential amino acids
   c. Have no role in the metabolism
   d. may be synthesized in the body in diseased states
3. **In human body the optimum temperature for *enzymatic activities is:***
   a. 37 °C
   b. 40 °C
   c. 25 °C
   d. 30 °C
4. **Vitamin produced in the skin on *exposure to sunlight:***
   a. vitamin A
   b. vitamin C
   c. vitamin D
   d. vitamin E
5. **Which of the following factors can affect *enzyme activity?***
   a. Temperature
   b. pH
   c. inhibitors
   d. all of the above
6. **Cholesterol is present in high levels in:**
   a. egg yolk
   b. egg white
   c. meat
   d. fish
7. **Among the following keto sugar is**
   a. glucose
   b. galactose
   c. fructose

d. mannose

8. **Amino Acids are bonded with each other by:**
   a. peptide bonds
   b. hydrogen bonds
   c. ionic bonds
   d. glycosidic bonds

9. **Carbohydrates linked to proteins are called:**
   a. Glycoproteins
   b. glycolipids
   c. galactosides
   d. ganglioside

10. **Pellagra is caused due to the deficiency of:**
   a. vitamin C
   b. folic acids
   c. Pantothenic Acid
   d. Niacin

11. **Enzymes are**
   a. proteins
   b. carbohydrates
   c. nucleic acids
   d. DNA molecule

12. **The general formula of monosaccharides is:**
   a. CnH2nOn
   b. $C_{2n}H_{2On}$
   c. CnH02n
   d. CnH2n02n

13. **Carbohydrates are**
   a. polyhydroxy aldehydes and phenols
   b. polyhydroxy aldehydes and ketones
   c. polyhydroxy ketones and phenols
   d. polyhydroxy phenols and alcohols

14. **A carbohydrate found only in milk is:**
   a. glucose
   b. galactose
   c. lactose
   d. maltose

15. **Basal Metabolic Rate (BMR) is affected by:**
   a. Body temperature
   b. body size
   c. sex
   d. All of the above

16. **The repeating units of proteins are**
   a. glucose units
   b. amino acids
   c. fatty acids
   d. peptides

17. **The phenomenon of osmosis is opposite to that of**
   a. diffusion
   b. effusion
   c. affusion
   d. coagulation

18. **A deficiency of Thiamine produces the disease known a**
   a. beriberi
   b. scurvy
   c. cataract
   d. anemia

19. **Which one of the fallowing amino acid is an essential amino acid**
   a. aspartate
   b. tyrosine
   c. methionine
   d. serine

20. **Enzyme Amylase breaks down:**
   a. nucleoproteins
   b. fats
   c. proteins
   d. carbohydrates

21. **The monosaccharides linked together in cellulose are**
   a. amylose
   b. sorbitol
   c. dextrin
   d. glucose

22. **Vitamin which is excreted in urine is**
   a. vitamin A
   b. vitamin C
   c. vitamin D
   d. vitamin K

23. **The carbohydrate found in honey is:**
   a. fiicose
   b. maltose
   c. lactose
   d. fructose

24. **The most important buffer system in plasma is:**
   a. protein
   b. phosphate
   c. bicarbonate
   d. hemoglobin

25. **Sucrose is made up of**
   a. glucose and glucose
   b. glucose and fructose
   c. glucose and galactose
   d. fructose and galactose

26. **Following is an Aromatic Amine Acid**
   a. Serine
   b. Leucine
   c. methionine
   d. tyrosine

27. **Major sugar which is present in DNA and RNA is**
   a. A. ribose
   b. galactose
   c. mannose
   d. maltose

28. **Which of the following is not a disaccharide?**
   a. amylose
   b. cellobios
   c. lactose
   d. None of these

29. **Triglycerides are**
   a. soluble in water
   b. insoluble in water
   c. Soluble in boiling water
   d. Less soluble in water

30. **Which is a phospholipid?**
   a. lecithin
   b. cholesterol
   c. sterol
   d. Steroid

31. **Haemoglobin has:**
   a. primary structure
   b. secondary structure
   c. tertiary structure
   d. quaternary structure

32. **The mineral present in large amount in the human body is**
   a. sodium
   b. calcium
   c. potassium
   d. iron

33. **Essential fatty acid is:**
   a. Palmitic acid
   b. Oleic acid
   c. Linolenic acid
   d. Palmitoleic acid

34. **Following is made from Cholesterol:**
   a. steroid hormones
   b. vitamin A
   c. DNA
   d. glycogen

35. **Which of the following is a polysaccharide**
   a. glucose
   b. sucrose
   c. glycogen
   d. maltose

36. **The power house of the cell is:**
   a. Nucleus
   b. Cell membrane
   c. Mitochondria
   d. Lysosomes

37. **Which one of the following is not included in major six classes of enzymes.**
   a. hydrolases
   b. transferases
   c. oxidoreductases
   d. polymerases

38. **Enzyme increased in myocardial infarction is**
   a. amylase
   b. lipase
   c. creatine kinase
   d. esterase

39. **Maltose is a disaccharide made up of:**
   a. Glucose and galactose
   b. Glucose and glucose
   c. glucose and lactose
   d. fructose and lactose

40. **Vitamin D increases the absorption of**
   a. calcium
   b. iron
   c. if.C. fatty acid
   d. folic acid

ses of enzymes.

41. **Normal pH of blood is:**
   a. 7
   b. 7.2
   c. 7.3
   d. 7.4

42. **Storage form of carbohydrate in animals is**
   a. amylopectin
   b. glycogan
   c. cellulose
   d. collagen

43. **Duodenum is the principal site for the absorption of:**
   a. iron
   b. Folic acid
   c. water
   d. Vitamin B12

44. **Vitamin C deficiency causes:**
   a. Scurv y
   b. Antibody Synthesis
   c. Rickets
   d. Pellagra

45. **Sulphur containing amino acid is:**
   a. methionine
   b. leucine
   c. valine
   d. Asparagine

46. **The carbohydrate of Blood Group substance is:**
   a. Xylose
   b. lyxose
   c. Fucose
   d. fructose

47. **The normal range of plasma calcium is**
   a. 9-11 mg/dl
   b. 3-5 mg/dl
   c. 5-10 mg/dl
   d. 11-15 mg/dl

48. **Fatty acids which remain in liquid state at room temperature are called**
   a. wax
   b. oil
   c. fats, glucose, starch
   d. lipids

49. **The most abundant bio molecule on earth:**
   a. nucleic acids

b. proteins
c. lipids
d. carbohydrate

50. **Which of the following is a non-reducing sugar?**
a. iso maltose
b. maltose
c. lactose
d. trehalose

– Answer Key

1.	B	21.	D	41.	D
2.	B	22.	B	42.	B
3.	A	23.	D	43.	A
4.	C	24.	C	44.	A
5.	D	25.	B	45.	A
6.	A	26.	D	46.	C
7.	C	27.	A	47.	A
8.	A	28.	A	48.	B
9.	A	29.	B	49.	D
10.	D	30.	A	50.	D
11	A	31.	D		
12.	A	32.	B		
13.	B	33.	C		
14.	C	34.	A		
15.	D	35.	C		
16.	B	36.	C		
17.	A	37.	D		
18.	A	38.	C		
19.	C	39.	B		
20.	D	40.	A		

D
B
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D

Faculty of Paramedical and Allied Health Sciences (FPMA)
Khyber Pukhtunkhwa
First Semester Exam January 2017

Time: 1 Hour **Total Marks: 50** **Biochemistry**

1. **Which of the following is an amino acid that is found in proteins?**
   a. adenosine
   b. adenine
   c. alanine
   d. linoleic acid
2. **Milk is deficient of which mineral?**
   a. phosphorus
   b. sodium
   c. iron
   d. potassium
3. **Which of the following is not an amino acid?**
   a. glutamic acid
   b. aspartic acid
   c. glutamine
   d. palmitic acid
4. **Hydrolysis of peptides is caused by the enzyme**
   a. Esteras
   b. trypsin
   c. amylase
   d. lipase
5. **Saliva contains all of the following except**
   a. hormones
   b. amylase
   c. bacteria killing enzymes
   d. antibodies
6. **What does a buffer do?**
   a. keeps the pH of a solution constant
   b. keeps the salt concentration of a solution constant
   c. keeps the cation concentration constant
   d. keeps the anion concentration constant
7. **Maltose is disaccharide of.**
   a. glucose & galactose
   b. glucose & glucose
   c. glucose & lactose
   d. fructose & lactose
8. **Ascorbic acid acts as an.**
   a. reducing agent
   b. oxidizing agent
   c. reducing and oxidizing agent both
   d. none of the above

9. **Buffers are mixture of**
   a. strong acid and strong base
   b. strong acid & weak base
   c. weak acid and their conjugate base
   d. weak base and their conjugate acid

10. **Sucrose consists of**
   a. glucose + glucose
   b. glucose + fructose
   c. glucose + galactose
   d. glucose + mannose

11. **Cholesterol is the precursor of**
   a. steroid hormones
   b. vitamin A
   c. bile salts
   d. both A & C

12. **The sugar which forms major component of nucleic acid is**
   a. ribose
   b. galactose
   c. mannose
   d. maltose

13. **Non-essential amino acids**
   a. are not components of tissue protein
   b. may be synthesized in the body from essential amino acid
   c. have no role in the metabolism
   d. may be synthesized in the body in diseased state

14. **Normal level of sodium in serum/plasma is.**
   a. 95-105 mEq/L
   b. 135-145 mEq/L
   c. 3.5 — 5 mEq/L
   d. 22-28 mEq/L

15. **Vitamins often act as**
   a. apoenzymes
   b. holoenzymes
   c. cofactors
   d. coenzyme

16. **Sulphur containing amino acid is**
   a. methionine
   b. leucine
   c. valine
   d. asparagine

17. **The amino acid from which synthesis of the protein of hair keratin takes place**
   a. alanine
   b. methionine
   c. proline
   d. hydroxyproline

18. **Storage polysaccharides made by animals is.**
   a. amylopectin
   b. glycogen
   c. cellulose
   d. collagen

19. **Which of the following factors can affect enzyme activity ?**
   a. Temperature
   b. pH
   c. inhibitors
   d. all of the above

20. **Which of the following has the highest cholesterol content**
   a. egg yolk
   b. egg white
   c. meat
   d. fish

21. **The phenomena of osmosis is opposite to that of**
   a. diffusion
   b. effusion
   c. affusion
   d. coagulation

22. **Normal pH of blood is.**
   a. 7
   b. 7.2
   c. 7.3
   d. 7.4

23. **Which of the following is a sugar alcohol?**
   a. arabitol
   b. manitol
   c. sorbitol
   d. all of these

24. **Essential fatty acid is.**
   a. palmitic acid
   b. oleic acid
   c. linolenic acid
   d. palmitoleic acid

25. **The most important buffer system in plasma is.**
   a. protein
   b. phosphate
   c. bicarbonate
   d. hemoglobin

26. **Triacylglycerols are.**
   a. soluble in water
   b. insoluble in water
   c. soluble in water at elevated temperatures

akes place

d. partially soluble in water

27. **The following is a ketogenic amino acid**
   a. lysine
   b. Tryptophan
   c. valine
   d. none of these

28. **A carbohydrate found only in milk is.**
   a. Glucose
   b. Galactose
   c. Lactose
   d. maltose

29. **Enzyme amylase breaks down.**
   a. Nueleoptateins
   b. Fats
   c. Proteins
   d. carbohydrates

30. **Milk is deficient in which vitamins?**
   a. vitaminf C
   b. vitamin A
   c. vitamin B2
   d. vitamin K

31. **The mineral present in the human body in large amounts than any other cation is**
   a. Sodium
   b. calcium
   c. potassium
   d. iron

32. **The vitamin C or ascorbic acid prevents.**
   a. Scurvy
   b. antibody synthesis
   c. rickets
   d. pellagra

33. **The normal range of plasma calcium is.**
   a. 9-llmg/dl
   b. 3-5mg/dl
   c. 5-10mg/dl
   d. 11-15mg/dl

34. **The carbohydrate of honey is.**
   a. fucose
   b. maltose
   c. lactose
   d. fructose

35. **Proteins are soluble in.**
   a. anhydrous acetone
   b. aqueous alcohol
   c. anhydrous alcohol
   d. benzene

36. **The power house of cell is.**
   a. golgi apparatus
   b. lysosome
   c. mitochondria
   d. ribosome

37. **A pentose sugar is.**
   a. Dihydroxyacetone
   b. Ribulose
   c. Erythrose
   d. glucose

38. **What type of covalent bond link the amino acids in a protein**
   a. peptides bond
   b. hydrogen bonds
   c. ionic bonds
   d. glycosidic bonds

39. **Which of the following is a non-reducing sugar?**
   a. isomaltose
   b. maltose
   c. Lactose
   d. trehalose

40. **Duodenum is the principal site for the absorption of.**
   a. Iron
   b. Folic acid
   c. Water
   d. Vitamin B12

41. **The general formula of monosaccharide is.**
   a. $C_nH_{2n}O_n$
   b. $C_2H_2O_n$
   c. $C_nH_2O_{2n}$
   d. $C_nH_2n0_{2n}$

42. **The power house of the cell is.**
   a. Nucleus
   b. cell membrane
   c. mitochondria
   d. lysosomes

43. **Food energy is measured in.**
   a. Kilocalories
   b. Proteins
   c. Grams
   d. None of the above

44. **Basal metabolic rate is affected by.**
   a. Body temperature
   b. Body size
   c. Sex
   d. All of the above

45. **Maltose can be formed by the hydrolysis of.**
   a. Starch

b. Dextrin
c. Glycogen
d. all of these

46. The deficiency of thymine produces a disease known as.

a. Beriberi
b. Scurvy
c. Cataract
d. anemia

47. Which of the following is not a disaccharide?

a. Amylase
b. Cellobiose
c. Lactose
d. None of these

48. Two sugars which differ from one another only in configuration around a single carbon atom are termed.

a. Epimers
b. Anomers
c. Optical isomers
d. stereoisomers

49. Enzyme increased in myocardial infarction is.

a. Amylase
b. Lipase
c. Creatine kinase
d. Esterase

50. An essential amino acid in man is.

a. Aspartate
b. Tyrosine
c. Methionine
d. Serine

a single

1.	C	21.	A	41.	A
2.	C	22.	D	42.	C
3.	D	23.	D	43.	A
4.	B	24.	C	44.	D
5.	D	25.	C	45.	D
6.	A	26.	B	46.	A
7.	B	27.	A	47.	A
8.	C	28.	C	48.	A
9.	C	29.	D	49.	C
10.	B	30.	A	50.	C
11	A	31.	B		
12.	A	32.	A		
13.	B	33.	A		
14.	B	34.	D		
15.	D	35.	D		
16.	A	36.	C		
17.	B	37.	B		
18.	B	38.	A		
19.	D	39.	D		
20.	A	40.	A		