FBQ1: Glycerol, Fatty acid and --------- are the three components of Phosphoglycerides
Answer: *Phosphate*

FBQ2: Phosphoglycerides present in the outer monolayer of human red blood cells are _____ and _____
Answer: *Phosphatidylcholine*

FBQ3: Sphigomylins consist of glucose in its structure. True of False?
Answer: *False*

FBQ4: Membrane proteins that transverse the cell membrane is----------
Answer: *Integral protein*

FBQ5: Ion channels will most likely belong to ---------- category of membrane proteins
Answer: *Integral*

FBQ6: Major factor that affect the rate of facilitated diffusions are
Answer: *Concentration gradient*

FBQ7: _____ is a major component that affect the fluidity of membrane
Answer: *Cholesterol*

FBQ8: Transport across membrane that required energy input is ----------
Answer: *Active transport*

FBQ9: Na+ K+ ATPase is a typical example of ----------
Answer: *Active transporter*

FBQ10: Damage to Cl- ion channel is associated with ----------
Answer: *Cystic fibrosis*

FBQ11: Lactose and sucrose has _____ in common
Answer: *Glucose monomer*

FBQ12: Sucrose is non-reducing because _____
Answer: *It has no free anomeric carbon*

FBQ13: Glucose alcohol is ---------
Answer: *Sorbitol*

FBQ14: Lactose is a reducing sugar. True or False?
Answer: *True*

FBQ15: The two components of lactose are -------- and ----------
Answer: *Glucose*

FBQ16: The bond between the monomeric units in lactose is ----------
Answer: *B(1-4) glycosidic bond*

FBQ17: The monomeric units in isomaltose is ----------
Answer: *Glucose*

FBQ18: The monomeric units are joined together by ----------
Answer: *A(1-6) glycosidic bond*

FBQ19: Three examples of homo-polysaccharides are ---------, Starch and ----------
Answer: *Glycogen*

FBQ20: The storage polysaccharide in mammals is ----------
Answer: *glycogen*

FBQ21: The nucleotide solely found in RNA is called ----------
Answer: *Uracil*

FBQ22: ---------- is the Nucleotide found solely in DNA
Answer: *Thymine*

FBQ23: Sugar moiety of DNA differs from RNA in ----------
Answer: *The sugar is de-hydroxylated at position 2 in the ribose of DNA*

FBQ24: The nucleic acid that induces hyperglycaemia in rat is
----
Answer: *Alloxan*

FBQ25: Nucleic acids of physiological importance not found in DNA or RNA are
Answer: *Uric acid*

FBQ26: Examples of essential fatty acids are Linoleic acid,-------- and
Linolenic acid
Answer: *Arachidonic acid*

FBQ27: Transportation of lipid from the intestine to the liver is carried out by
----
Answer: *chylomicrons*

FBQ28: _____ transport cholesterol from the peripheral tissue to the liver
Answer: *HDL*

FBQ29: The transportation of lipid in the blood is carried out by
----
Answer: *Lipoproteins*

FBQ30: The precursor of prostaglandins is
Answer: *Arachidonic acid*

FBQ31: Which of the proteogenic amino acids is not optically active
Answer: *Glycine*

FBQ32: Glycine, Valine , Alanine , and Leucine are ----------
Answer: *Aliphatic amino acids*

FBQ33: Sulphur containing amino acids are
Answer: *methionine*

FBQ34: Aromatic amino acids are --------
Answer: *tryptophan*

FBQ35: An imino acid is
Answer: *Proline*

FBQ36: Proteogenic amino acids are ____ isomer
Answer: *L (levorotatory)*

FBQ37: ----------Is a conjugate acid base pair solution capable of resisting
large change in pH upon addition of small amount of H+ or OH -
Answer: *A buffer*

FBQ38: A polyprotic acid will most likely has
Answer: *Many ionization point*

FBQ39: A weak acid will ionized _____ in water
Answer: *Partially*

FBQ40: Enzymes are _____ in nature

Answer: *Proteinous*

FBQ41: Catalytic activity takes place at _____ site of an enzyme
Answer: *Active*

FBQ42: Non protein part of an enzyme is refers to as
Answer: *Co-factors*

FBQ43: Co-enzymes , ---------- and Metal group are the three types of co-factors
Answer: *Prosthetic group*

FBQ44: Co-factors that are loosely bound to enzymes are ----------
Answer: *Co-enzymes*

FBQ45: Examples of Mg containing metallo-enzymes are --------
Answer: *Kinases*

FBQ46: The classification of enzymes into classes divide them into _____ groups
Answer: *Six*

FBQ47: The first class of enzymes belongs to --------- group
Answer: *Oxido-reductases*

FBQ48: Enzymes that are involve in structural rearrangement of groups around a compound is ----------
Answer: *Isomerase*

FBQ49: The value obtained at half maximum velocity is
Answer: *Km*

FBQ50: An holoenzyme will contain ----------
Answer: *An apoenzyme and co-factors*

Multiple Choice Questions (MCQs):
MCQ1: Antioxidant enzymes are predominantly found in
Answer: Peroxisome

MCQ2: Which of the following has no effect on the fluidity of the plasma membrane
Answer: Asymmetry nature of phospholipids

MCQ3: Which of the following substances are not actively transported through the cell membrane
Answer: Sodium ion

MCQ4: Which of the following is not true of phosphoglycerides of cell membrane
Answer: They contain glycerol back bone

MCQ5: Which of the following is not true about the property of peripheral protein
Answer: Detergents are required to removed them

MCQ6: The factor that regulate facilitated diffusion across membrane is
Answer: The concentration gradient

MCQ7: Cystic fibrosis is a disorder of
Answer: Cl- channels

MCQ8: The detoxification of toxic compounds and drug metabolism takes place in the
Answer: mitochondria

MCQ9: Sodium and potassium channels are example of ----------

Answer: Voltage gated channels

MCQ10: Cell death resulting from the lack of essential growth factors is known as --------
Answer: Lession

MCQ11: Which of these nucleic acid bases can cause glycosuria
Answer: Adenine

MCQ12: The condensation product of purine and pyrimidine bases with sugar (ribose or deoxyribose) is--------
Answer: DNA

MCQ13: Cyclic AMP is an example of
Answer: Nitrogenous base

MCQ14: The distance between adjacent base pair in a DNA duplex is --------
Answer: 0.34 nm

MCQ15: The distance between neighbouring nucleotide in a DNA strand is
Answer: 0.34 nm

MCQ16: A substance that reduces the pH of a solution by removing OH- from solution is most likely a ----------
Answer: Acid

MCQ17: A conjugate acid bas pair will give raise to which of the following?
Answer: Acidic solution

MCQ18: Protein buffer system is most likely to be found in -------
Answer: ECF

MCQ19: Increase in blood pH as a result of rigorous exercise is called
Answer: Metabolic acidosis

MCQ20: The pH of 0.0001 M HNO3 is
Answer: 1

MCQ21: What will be the new pH if 50 ml of distilled water is added to 100 ml of the solution above in question 20
Answer: 2.5

MCQ22: When the concentration of acid and conjugate base in a solution is equal, which of the following statement is in-correct?
Answer: The pH = pka

MCQ23: Which of the following is the type of glycosidic bond in cellulose
Answer: β-(1-4)

MCQ24: The specific optical rotation of equilibrium mixture of α and β- D glucose is
Answer: 18.7 degree

MCQ25: Anomerism is produced with reference to one of the following
Answer: Carbon 1 in aldose and ketose

MCQ26: When glucose is reduced, the product is
Answer: Mannitol

MCQ27: Galactose reacting in the presence of nitric acid and heat will give a compound called
Answer: Mucic acid

MCQ28: The bond found in sucrose is between

Answer: Carbon 1 of glucose and carbon 2 of fructose

MCQ29: The following amino acids have right handed stereoisomerism except
Answer: Valine

MCQ30: Which of the following naturally occurring amino acids is not L-amino acids?
Answer: Histidine

MCQ31: Which of the following is not a branch chain amino acids
Answer: Methionine

MCQ32: Toxix non protein amino acids include
Answer: Ornithine

MCQ33: Ketogenic amino acids include the following except
Answer: Phenylalanine

MCQ34: Which of the following is not a class of lipid
Answer: Simple lipids

MCQ35: The major function of cholesterol is all of the above except
Answer: Synthesis of bile salt

MCQ36: The following are essential fatty acids except
Answer: Linoleic acid

MCQ37: Which of the following is the precursor of prostaglandins
Answer: Linoleic acid

MCQ38: Which of the following enzymes are involved in the hydrolysis of triacylglycerol
Answer: Cyclooxygenase

MCQ39: The following are true concerning linolenic acid except
Answer: It is synthesized in the kidney

MCQ40: All of the following are correct regarding triacylglycerol except
Answer: TAG are esters of alcohol and fatty acids

MCQ41: The unit of catalytic constant is
Answer: Katal

MCQ42: The intercept on the X axis for a Woolf plot is
Answer: Km / Vmax

MCQ43: The slope of Eadie-Hofstee plot is
Answer: Km / Vmax

MCQ44: The slope of Lineweaver burk plot is
Answer: Km / Vmax

MCQ45: The intercept on the horizontal axis of Linweaver burk can be use to estimate
Answer: Km / Vmax

MCQ46: The value derived at half maximum velocity is of an enzyme catalyzed reaction is
Answer: Km / Vmax

MCQ47: The linear transformation of Michaelis-Menten equation will give raise to the following except
Answer: Lineweaver Burk plot

MCQ48: Catalysis takes place on _____ site of an enzyme
Answer: Active site

MCQ49: Regulation of enzyme activity by cleavage of some residue from the enzyme is known as
Answer: Allosteric regulation

MCQ50: A non-protein part of an enzyme is known as the
Answer: Co-factor