

SRIMAD ANDAVAN ARTS AND SCIENCE COLLEGE (AUTONOMOUS)

DEPARTMENT OF MICROBIOLOGY

BIOCHEMISTRY

GLOSSARY

2016

S.NO	TERMS	DEFINITION	TAMIL TERMS
1	Carbohydrates	They are polyhydroxy aldehydes or ketones and their derivatives	கார்போஹைட்ரேட்
2	Monosaccharides	The monosaccharides, often called simple sugars, are compounds which possess a free aldehyde (—CHO) or ketone ($=\text{CO}$) group and 2 or more hydroxyl (—OH) groups.	மோனோசாக்கரைட்
3	Oligosaccharides	These are compound sugars that yield 2 to 10 molecules of the same or different monosaccharide on hydrolysis	ஒலிகோசாக்கரைடுகள்
4	Polysaccharides	These are also compound sugars and yield more than 10 molecules of monosaccharide's on hydrolysis.	பாலிசாக்கரைடுகள்
5	Homopolysaccharides	The polysaccharides are of the same type.	ஒத்தகருத்தோற்றபாலிசாக்கரைடுகள்
6	Heteropolysaccharides	The polysaccharides are of the different type.	எதிர்கருத்தோற்றபாலிசாக்கரைடுகள்
7	Isomerism	The different compounds with the same molecular formula of sugars	சமபகுதித்தன்மை
8	Structural isomers	The same molecular formula but possess different structures. of sugars.	கட்டுமான ஐசோமர்
11	Chain isomers	The difference in structure may be exhibited either in the length of the carbon chain.	சங்கிலி ஐசோமர்
12	Positional isomers	The difference in structure may be exhibited either in the position of a substituent group	நிலை ஐசோமர்
13	Functional-group isomers.	The difference in structure may be exhibited either in possessing different functional groups	செயல்பாட்டு குழு ஐசோமர்
14	Stereoisomers	Carbohydrates have the same molecular formula and the same structure but differ only in spatial configuration	ஸ்டீரியோ ஐசோமர்

15	Spatial configuration	The relative arrangement of parts or elements within three-dimensional space.	வெளி சார்ந்த கட்டமைப்பு
16	Optical isomers	The differ from each other in the disposition of the various atoms or groups of atoms in space around the asymmetric carbon atom.	ஒளியியல் மாற்றியங்கள்
17	Dextro rotation	One form in which H atom at carbon 2 is projected to the left side and OH group to the right is designated	வலமாகச் சுழற்சி
18	Levo rotation	where H atom is projected to the right side and OH group to the left	இடது சுழற்சி
19	Asymmetric carbon atoms	An asymmetric carbon atom is a carbon atom that is attached to four different types of atoms or groups of atoms.	சமச்சீரற்ற கார்பன் அணு
20	Chirality carbon	<i>Chiral</i> centers are tetrahedral <i>atoms</i> (usually <i>carbons</i>) that have four different substituent's	சமச்சீரின்மை கார்பன்
21	Cyanohydrin	A cyanohydrin is a functional group found in organic compounds. It is most commonly examples having a cyano and a hydroxyl group attached to the same carbon atom with the formula R_2CCN , where R is H, alkyl, or aryl	சயனோஹைட்ரின்
22	Epimers	Any two sugars which differ from each other only in the configuration around a single asymmetric carbon atom other than the carbonyl carbon atom	தனியானு மாற்றிய வடிவம்
23	Nucleotides	Nucleotides are the phosphoric acid esters of nucleosides. These occur either in the free form or as subunits in nucleic acids.	நியுக்ளியோடைடு
24	Nucleosides	The nucleosides are compounds in which nitrogenous bases (purines and pyrimidines) are conjugated to the pentose sugars (ribose or deoxyribose) by a β -glycosidic linkage..	நியுக்ளியோசைட்டு
25	Phosphoric Acid	The molecular formula of phosphoric acid is H_3PO_4 . It contains 3 monovalent hydroxyl groups and a divalent oxygen atom, all linked to the	பாஸ்பரிக் அமிலம்

		pentavalent phosphorus atom.	
26	Pyrimidine	These are all derived from their parent heterocyclic compound pyrimidine, which contains a six-membered ring with two-nitrogen atoms and three double bonds.	பிரிமிதின்
27	Purine	These are all derived from their parent compound purine, which contains a six-membered pyrimidine ring fused to the five-membered imidazole ring and is related to uric acid.	பியூரின்
28	Oligonucleotide	A short nucleic acid is referred to as an oligonucleotide	ஒலிகோ நியூக்ளியோடைடு
29	Polynucleotide	A longer nucleic acid is called a polynucleotide	பாலிநியூக்ளியோடைடு
30	Picogram	The amount of DNA is usually measured by the microunit of the weight known as the picogram, (pg) (1 pg = 10 ⁻¹² g).	பைக்கோ கிராம்
31	Palindromic DNA.	The regions of DNA in which there are inverted repetitions of base sequence with twofold symmetry occurring over two strands	பாலிந்ரோமிக் டிஎன்ஏ
32	mRNA	It carry the message from DNA	தூது ஆர்என்ஏ
33	tRNA	It transfer the amino acid from cytoplasm during translation process	இடமாற்ற ஆர்என்ஏ
34	rRNA	It involve the protein synthesis mechanism.	ரிபோசோமல் ஆர்என்ஏ
35	DNA	Deoxy ribo nucleic acid. It the basic unit of genetic materials. present in most of the living organism.	டிஎன்ஏ
36	RNA	Ribonucleic acid. most of the virus and plant has the RNA act as the genetic materials.	ஆர்என்ஏ
37	Adenine	A purine derivative, 6- aminopurine, found in nucleosides, nucleotides, coenzymes, and nucleic acids.	அடினைன்
38	Vitamins	Vitamins are organic compounds that are essential for normal growth and nutrition and are required in small quantities in the diet because they cannot be synthesized by the body.	வைட்டமின்கள்

39	Water Soluble Vitamin	A vitamin that can dissolve in water. Water-soluble vitamins	நீரில் கரையக்கூடிய வைட்டமின்கள்
40	Fat Soluble Vitamins	Fat-soluble vitamins are absorbed through the intestinal tract with the help of lipids (fats) and accumulate in the body.	கொழுப்பில் கரையக்கூடிய வைட்டமின்கள்
41	Examples of fat soluble vitamins	Four important fat-soluble vitamins are A, D, E, and K	கொழுப்பில் கரையக்கூடிய வைட்டமின்கள் எடுத்துக்காட்டுகள்
42	Soluble	The word “soluble” actually means “able to be dissolved.”	கரையக்கூடிய
43	HEMATOPOIETIC	The formation of blood cells in the living body.	ஹெமடோபோயளடிக்.
44	Vitamer	A vitamer of a particular vitamin is any of a number of chemical compounds, generally having a similar molecular structure, each of which shows vitamin-activity in a vitamin-deficient biological system.	விட்டமெர்
45	Vitamin A	Vitamin A is fat-soluble vitamins (as retinol) found especially in animal products (as egg yolk, milk, or fish-liver oils) or a mixture of them whose lack in the animal body causes epithelial tissues to become keratinous (as in the eye with resulting visual defects).	வைட்டமின் ஏ
46	Vitamin D	vitamin D found in liver and fish oils, essential for the absorption of calcium and the prevention of rickets in children and osteomalacia in adults. They include calciferol (vitamin D2) and cholecalciferol (vitamin D3).	வைட்டமின் டி
47	Vitamin E	Vitamin E is fat-soluble vitamins that are chemically tocopherols or tocotrienols whose lack in the human	வைட்டமின் ஈ

		body is associated especially with neurological symptoms (as ataxia and muscle weakness), that are found especially in wheat germ, vegetable oils, egg yolk, and green leafy vegetables or are made synthetically,	
48	Vitamins K	Vitamins K found mainly in green leaves and essential for the blood-clotting process. They include phylloquinone (vitamin K1), menaquinone (vitamin K2), and menadione (vitamin K3).	வைட்டமின் கே
49	Vitamin B complex	Vitamin B complex are essential for the working of certain enzymes in the body and, although not chemically related, are generally found together in the same foods.	வைட்டமின் பி காம்ப்ளக்ஸ்
50	Vitamin C	An essential nutrient found mainly in fruits and vegetables. The body requires vitamin C to form and maintain bones, blood vessels, and skin. Vitamin C is also known as ascorbic acid.	வைட்டமின் சி
51	Vitamin B-1	Vitamin B-1 - (thiamin) processes carbohydrates into energy and is necessary for nerve cell function. Breads and cereals are often fortified with thiamin, though it is also found in whole grains, fish, lean meats, and dried beans.	வைட்டமின் பி 1
52	Vitamin B-2 -	Vitamin B-2 - (riboflavin) helps the production of red blood cells and is important for growth	வைட்டமின் B2
53	Vitamin B-3	Vitamin B-3 - (niacin) helps control cholesterol, processes alcohol, maintains healthy skin, and converts carbohydrates to energy.	வைட்டமின் பி 3
54	Vitamin B-5	Vitamin B-5 - (pantothenic acid) serves several bodily functions, such as converting fats to energy and synthesizing cholesterol.	வைட்டமின் பி 5

55	Vitamin B-6	Vitamin B-6 - (pyridoxine) is important in the production of hormones such as serotonin, dopamine, and melatonin, as well as for processing amino acids.	வைட்டமின் பி 6
56	Vitamin B-12	Vitamin B-12 - A crucial component of DNA replication and nerve cell regulation. It is found in milk products, poultry, meat, and shellfish.	வைட்டமின் பி -12
57	Anti-vitamins	Anti-vitamins are chemical compounds that inhibit the absorption or actions of vitamins	எதிர்ப்பு வைட்டமின்கள்
58	HYPOVITAMINOSIS:	A vitamin deficiency can cause a disease or syndrome known as an avitaminosis or hypovitaminosis. This usually refers to a long-term deficiency of a vitamin.	பற்றாக்குறை உயிர்ச்சத்து
59	Hypervitaminosis	Hypervitaminosis refers to a condition of abnormally high storage levels of vitamins, which can lead to toxic symptoms.	கூடுதல் உயிர்ச்சத்து
60	RDA	The Recommended Dietary Allowances (RDAs) for vitamins reflect how much of each vitamin most people should get each day.	ஆர்டிஏ
61	Biotin	Biotin(formerly known as anti-eggwhite injuryfactor, vitamin B7 or vitamin H)is a sulfur cotaining B-complex and act as co-enzymes in the carboxylation reactions.	பயோட்டின்
62	COENZYMES	Coenzymes are small molecules. They cannot by themselves catalyze a reaction but they can help enzymes to do so.	இணை நொதியம்
63	Biomolecules	The human body is composed of major elements such as carbon, hydrogen, oxygen and nitrogen that combine to form a great variety of molecules called biomolecules	உயிர்மூலக்கூறு

64	Proteins	Proteins may be defined as the high molecular weight polymers composed of a-amino acids united to one another by peptide linkage	புரதங்கள்
65	Lipids	Lipids are the heterogenous group of compounds, actually or potentially related to fatty acids.	கொழுப்பு
66	Enzymes	All the enzymes are proteins and they are produced by the living cells. They act as biological catalysts.	நொதிகள்
67	Biocatalyst	Enzymes that mediate biological reactions	உயிரி செயலூக்கி
68	Amino acids	Building block of proteins	நவசிய அமிலம்
69	Polar	Polar molecules are highly soluble compounds.	முனைவுபெற்ற
70	Non – polar	Non polar compounds are water insoluble.	முனைவு தன்மையற்ற பகுதி
71	Saturated Fatty acids	Fatty acids which do not contain double bonds	நிறைவுற்ற கொழுப்பு அமிலம்
72	Buffer system	Maintains the pH of the solution	தாங்கள் செயல்
73	Derived lipids	Derived from the hydrolysis of simple and compound lipids	பெறப்பெற்ற கொழுப்பு