

HSE I YEAR MAECH/APRIL 2023

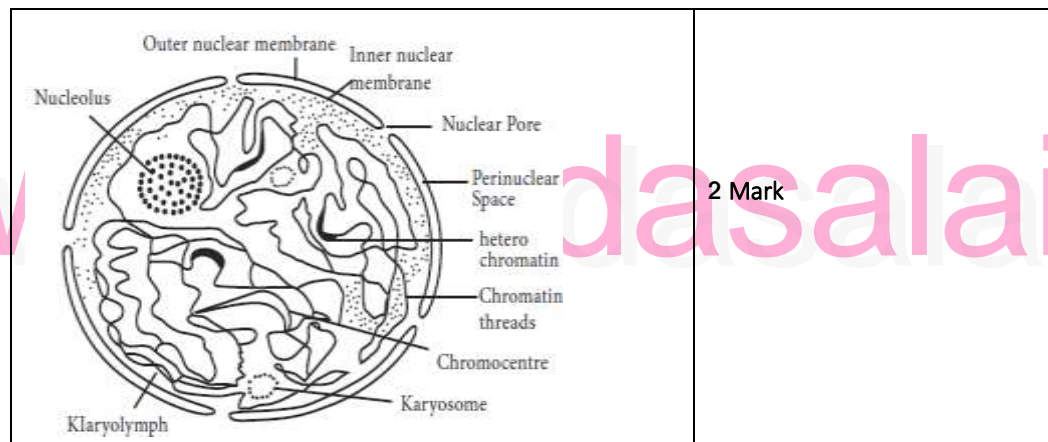
Answer Key – XI – Bio Chemistry

Part – I

1	b. 1 to 14	1 Mark
2	b. Glycogen	1 Mark
3	d. Di-Sulfide bond	1 Mark
4	d. Cellulose	1 Mark
5	b. Competitive inhibitor	1 Mark
6	d. Lactose	1 Mark
7	b. Choline	1 Mark
8	a.CAMP	1 Mark
9	b.Scurvy	1 Mark
10	b. Copper	1 Mark
11	a.Thyroxine	1 Mark
12	b.Volatile	1 Mark
13	d.Niacin	1 Mark
14	tRNA	1 Mark
15	c.Electrophoresis	1 Mark

Part - II

16.



2 Mark

17.

Protein containing heterocyclic compounds like porphyrins is called as chromo protein.	1 Mark
Example : myoglobin (in muscle)	1 Mark

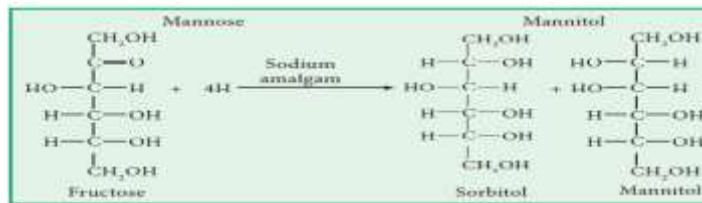
18.

The amino acids in protein are covalently linked together to form peptide bonds. Peptide bonds are amide linkages between the alpha carboxyl groups on one amino acid and the alpha amino group of another amino acid	1Mark
	1 mark

19.

A co factor is a non protein chemical compound or metallic ion that is required for an enzymes role as catalyst. Example : ATPase (Mg^{2+} , Ca^{2+})	2 Marks
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20.



- 2 Marks

21.

Fisher liver oil is the richest source of Vitamin D	1Mark
Milk, Butter and Egg Yolk	1Mark

22.

Poor wound healing	1Mark
Poor growth and hypogonadism during adolescence	1Mark

23.

It is a versatile method for the separation of small particles such as 10 microns in size	1 Mark
It is used to determine sedimentation co-efficient and molecular weight of the macromolecules in solution	1 Mark

24.

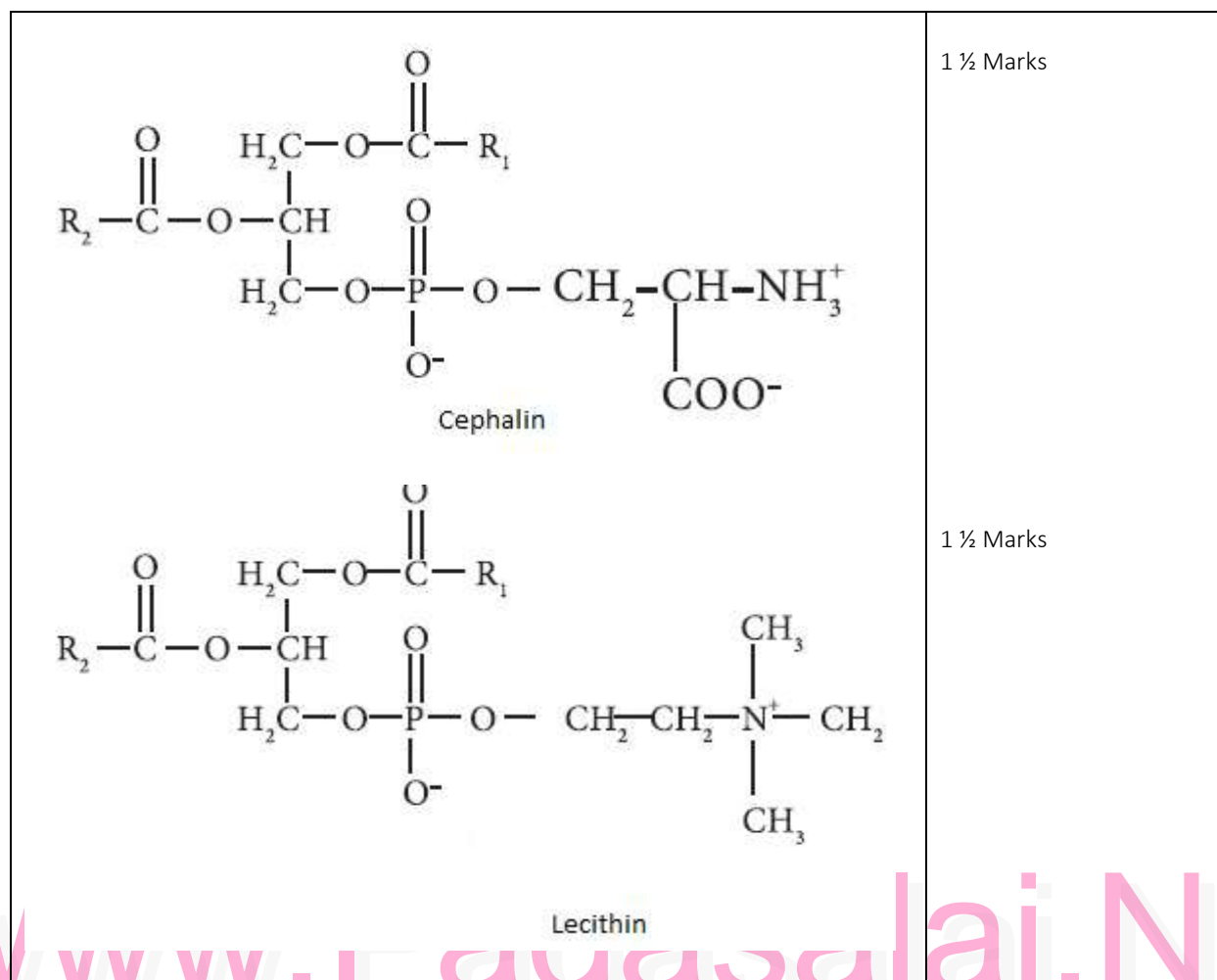
Rancidity is a term generally used to denote unpleasant odours and flavours in food resulting from deterioration in the fat or oil portion of a food.	2 Mark
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Part - III

25.

Blood transports various minerals, vitamins and hormones	1 Mark
Blood regulate water balance	1 Mark
It maintains acid base balance in the body	1 Mark

26.



27.

The fibril forming collagen present in skin, bone, cartilages, tendons and blood vessels	1 Mark
The network forming collagens form network like structure beneath the membrane	1 Mark
Fibril associated collagens connect two fibril forming collages	1 Mark

28.

Enzyme asparaginase is used as anticancer drug	1 Mark
Enzymes are used to diagnose various diseases such as AIDS	1 Mark
Immobilized enzymes like glucose oxidase used in the estimation of blood glucose	1 Mark

29.

To identify classes of compound in pure and biological samples	1 Mark
For quantitative analysis of protein lipids and nucleic acid extra	1 Mark
Measurement growth kinetics	1 Mark

30.

Oligonucleotides are polymers which yield two to ten residues of mononucleotides on hydrolysis.	2 Mark
Example : Biological important dinucleotides are NAD and FAD which act as co-enzymes	1 Mark

31.

Chromium reduce serum cholesterol level	1 Mark
Important in the metabolism of plasma lipoproteins	1 Mark
Accelerates the utilization of glucose	1 Mark

32.

Amylose	Amylopectin	
The glucose residues are united by alpha 1-4 linkage	The glucose residues are united by alpha 1-4 linkage and alpha 1-6 at branch point	1 Mark
The Amylose form the inner portion of the starch grain and soluble in water	The amylopectin form outer portion of the starch grain and in soluble in water	1 Mark
The molecular weight of amylose is 60000	The molecular weight of amylopectin is 200000	1 Mark

33.

The earliest of Vitamin A deficiency is concern with the vision	1 Mark
Initially there is loss of sensitivity to green light followed by impairment to adapt to dim light leads to night blindness	1 Mark
Ulceration of Cornea occurs this condition is known as Xerophthalmia or keratomalacia	1 Mark

Part - IV

34. A. Any five difference between Prokaryotic and Eukaryotic - 5 Marks

- b. Repair and maintenance - 1 Mark
- Hormones - 1 Mark
- Enzymes - 1 Mark
- Transportation - 1 Mark
- Storage - 1 Mark

35.

- a. Any five difference between alpha Helix and beta Sheet - 5 Marks
- b. Six different class of enzymes with example - 5 Marks

36.

- a. As a source of energy - 1 Mark
- Protein sparing action - 1 Mark
- Essential for Fat Oxidation - 1 Mark
- Functions as Antigen - 1 Mark
- Functions as Hormones - 1 Mark

- b. Properties of Cholesterol - 2 Marks
- Importance of Cholesterol - 3 Marks

37.

- a. Salient feature of DNA - 4 Marks
- Diagram - 1 Mark
- b. pH - 1 Mark
- Protein - 1 Mark
- Vitamin D - 1 Mark
- Lactic Acid - 1 Mark
- Phytic Acid - 1 Mark

38.

- a. Function of Folic acid - 2 Marks
- Deficiency of Folic acid - 3 Marks
- b. Methodology - 3 Marks
- Retardation Factor - 1 Mark
- Diagram - 1 Mark

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