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**Biomolecules**

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**Level – I**

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1. (4)  
Cellulose is the component of the matrix of connective tissue.
2. (2)
3. (4)  
Raffinose is a trisaccharide, whereas Ribose, Mannose and galactose are disaccharides.
4. (1)
5. (4)
6. (1)
7. (3)  
Polymer of N-acetyl glucosamine.
8. (2)
9. (3)
10. (2)
11. (2)
12. (2)
13. (3)  
5-methyl uracil is thymine.
14. (2)  
Act as enzymes
15. (3)
16. (4)  
Haem is the prosthetic group
17. (3)
18. (1)  
It has free ketone group.
19. (1)
20. (1)
21. (1)  
Polymer of fructose
22. (1)
23. (3)  
Fruit sugar
24. (1)  
Non-reducing disaccharide
25. (3)  
Biologically active
26. (3)  
Lipid 2%
27. (4)
28. (2)
29. (2)
30. (2)
31. (3)  
Derived lipid

32. (1)  
33. (4)  
34. (3)  
35. (2)  
36. (1)  
37. (2)  
38. (1)  
39. (2)  
Structure of tryptophan is complex.  
40. (3)  
Sulphur containing amino acid.  
41. (2)  
Rotate path of plain polarized light toward left.  
42. (1)  
43. (2)  
B (1–4) linkage glucose  
44. (4)  
Glycogen is a polymer and Trehalose and sucrose lack free reactive group.  
45. (4)  
Cellulose is polysaccharide.  
46. (4)  
47. (4)  
48. (3)  
Glucagon is pancreatic hormone which converts glycogen into glucose.  
49. (1)  
Covalent bond.  
50. (3)  
51. (2)  
It binds tightly with protein part.  
52. (1)  
53. (4)  
54. (4)  
55. (1)  
Habitats or activators  
56. (2)  
Free hydrogen is unavailable.  
57. (3)  
58. (4)  
59. (1)  
60. (4)  
Peroxidase and catalase act on hydrogen peroxide.  
61. (4)  
62. (4)  
Polymer of fructose  
63. (3)  
Uracil Ribose sugar  
64. (2)  
65. (1)

66. (4)  
Tyrosine, Phenylalanine & Tryptophan are aromatic amino acids.
67. (3)  
Conjugated lipid.
68. (3)
69. (4)  
Polyunsaturated fatty acid
70. (3)  
Saturated fatty acid, lacks double bond 18 : 0.
71. (2)
72. (2)
73. (3)
74. (4)
75. (2)
76. (3)  
Storage-glycogen, starch and insulin.
77. (4)  
Single polypeptide.
78. (3)  
Active state
79. (4)
80. (4)  
Histones are positively charged protein whereas aspartate is negatively charged.
81. (2)  
Hordein-Rice
82. (2)  
Urad present in RNA
83. (4)  
Adenylic acid.
84. (4)
85. (1)
86. (3)
87. (4)
88. (3)
89. (4)
90. (4)
91. (4)
92. (3)
93. (2)  

$$\begin{array}{l} \text{CH}_2 - \text{OH} - \text{HOOC} - \text{R}_1 \\ | \\ \text{CH} - \text{OH} - \text{HOOC} - \text{R}_2 \\ | \\ \text{CH}_2 - \text{OH} - (\text{PO}_4) \end{array}$$
94. (4)

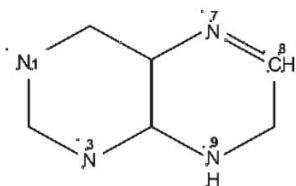
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**Level -II**

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1. (3)
2. (2)
3. (2)
4. (2)
5. (2)  
Essential as well as sulphur containing is Methionine
6. (4)
7. (1)
8. (3)
9. (3)  
Silk fibrion has  $\beta$ -pleated antiparallel
10. (3)
11. (1)  
Sugars-Bendict and Fehling, lipids-Sudan III test
12. (1)  
Glucose + Galactose
13. (3)
14. (3)  
Chitin is polysaccharide
15. (4)
16. (2)
17. (2)  
Polymer of fructose
18. (4)
19. (2)
20. (1)
21. (4)
22. (2)  
10 base pairs in one turn  
 $\therefore$  100 turns = 1000
23. (1)
24. (1)
25. (1)
26. (2)  
Apoenzyme because active site
27. (2)  
Causes histotoxic hypoxia
28. (2)  
It is reversible
29. (2)  
 $K_m = v_{max}/2$
30. (3)
31. (1)
32. (2)
33. (3)

34. (2)  
Solid at room temperature.
35. (4)
36. (3)
37. (3)
38. (4)
39. (3)  
Only organic compounds are present in acid soluble fraction.
40. (4)
41. (4)  
Amino acid
42. (1)
43. (1)
44. (2)
45. (3)  
Has 1-6 branch in amylopectin
46. (3)



47. (2)
48. (3)
49. (4)  
Example Fructose 6-phosphate → Glyceraldehyde + Dihydroxyacetone
50. (1)

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**Assertion and Reason**

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1. (1)
2. (2)  
Co-enzyme is a cofactor attached with protein part of enzyme.
3. (2)
4. (1)
5. (1)
6. (2)  
Different proteins have difference in the arrangement of a.a.
7. (1)
8. (4)  
Lipids are esters of fatty acids and glycerol. Lipids are always either in the form of simple, compound and derived.
9. (1)
10. (3)  
They are constructed like a neutral fat, except at 3<sup>rd</sup> fatty acid, there is phosphate group.
11. (3)  
Found in plant fungal and microbial cells and have limited role in plant.
12. (1)
13. (1)
14. (2)  
Have none of the reactive groups free.
15. (3)  
Myoglobin has single polypeptide.
16. (1)
17. (1)
18. (2)
19. (2)
20. (1)
21. (1)
22. (4)  
Arachidic acid is saturated fatty acids. There are no double bonds between carbon atoms.
23. (3)  
Amino acids act as acids as well as base in solution.
24. (1)
25. (4)  
Co-factor with apoenzyme is called a prosthetic group. Prosthetic group alone can cause activation of the enzyme.
26. (2)

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**Previous Year**

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1. (5)
2. (2) Non-reducing sugar
3. (1)
4. (4) Four carbon atoms
5. (1) Monosaccharide, Disaccharide, 2-9 Monosaccharide, Polysaccharide
6. (4)
7. (2)
8. (2)
9. (3)
10. (2)
11. (1)
12. (4)
13. (2) It has another Hydrogen atom in the R-chain.
14. (1)
15. (1)
16. (3) Sulphur containing amino acid
17. (1)
18. (4) Polymer of glucose
19. (4)
20. (1)
21. (1)
22. (2)
23. (2)
24. (2)
25. (1)
26. (3)
27. (1)
28. (2) C3-OH and C5-PO4
29. (2)
30. (4)
31. (4) Homopolymer
32. (2)
33. (2)
34. (4)
35. (1)
36. (3)
37. (1)

- 38. (3)
- 39. (2)
- 40. (4)
- 41. (4)
- 42. (4) Malonate resembles Succinate in structure
- 43. (3)
- 44. (2)
- 45. (3)
- 46. (3)
- 47. (4) Given by Emil Fischer-Lock and Key Hypothesis
- 48. (2)
- 49. (1)
- 50. (3)
- 51. (1)
- 52. (3) Zinc is a cofactor.
- 53. (3)
- 54. (1)
- 55. (2)
- 56. (D)
- 57. (1)
- 58. (2) RER is for Protein
- 59. (3)
- 60. (3)
- 61. (3)
- 62. (2)
- 63. (1)
- 64. (4)
- 65. (2)
- 66. (1)
- 67. (3) Apoenzyme + Coenzyme=Holoenzyme
- 68. (4)
- 69. (4)