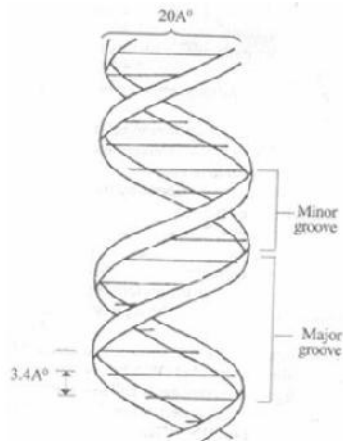


Class: 11
Subject: biology
Topic: Biomolecules
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

1. Distance between two successive nitrogenous bases or base pairs of DNA is

- A. 34 \AA
- B. 3.4 \AA
- C. 10 \AA
- D. 5 \AA

Detailed Answer:



Answer: B

2. Galactose is

- A. Pentose sugar
- B. Hexose sugar
- C. Heptose sugar
- D. Triose carbohydrate

Answer: B

3. Ribozyme is

- A. RNA with enzyme activity
- B. RNA without sugar
- C. RNA without phosphate
- D. RNA with extra phosphate

Answer: A

4. The ratio between hydrogen and oxygen in a carbohydrate is

- A. 5:1
- B. 4: 3
- C. 3:1
- D. 2: 1

Detailed Answer:

Eg: glucose- $C_6H_{12}O_6$

Answer: D

5. One of these is not an amino acid

- A. Glycine
- B. Lysine
- C. Tryptophan
- D. Uracil

Detailed Answer:

Uracil is a nitrogenous base in RNA.

Answer: D

6. Match the biological molecules listed under column I with their' biological functions listed under column II. Choose the answer which gives correct combination of alphabets of two columns.

Column I		Column II	
Biological Molecule		Function	
a	Glycogen	p	Hormone
b	Globulin	q	Biocatalyst
c	Steroids	r	Antibody
d	Thrombin	s	Storage product

- A. a-s, b-r, c-p, d-q
- B. a-q, b-s, c-r, d-p
- C. a-s, b-q, c-p, d-r
- D. a-r, b-q, c-s, d-p

Answer: A

7. Lanolin or wool fat is a

- A. Hard fat
- B. Oil
- C. Wax
- D. Sterol

Answer: C

8. Glycine is

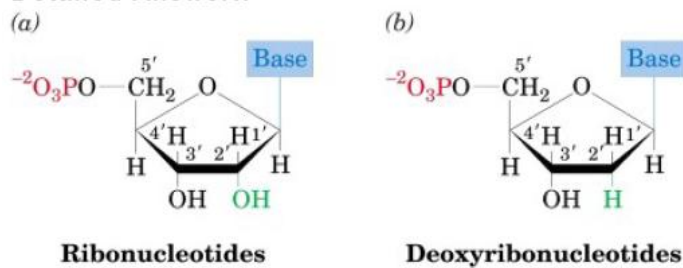
- A. Enzyme
- B. Hormone
- C. Fatty acid
- D. Amino acid

Answer: D

9. A nucleoside is formed of

- A. Pentose sugar, phosphate and nitrogen base
- B. Phosphate and nitrogen base
- C. Pentose sugar and phosphate
- D. Pentose sugar and nitrogen base

Detailed Answer:



Answer: D

10. Number of semi-indispensable amino acids is

- A. 4
- B. 3
- C. 2
- D. 1

Detailed Answer:

Semi-essential or semi-indispensable amino acids are ones that can sometimes be made internally if conditions are right. Arginine and histidine can be converted from other amino acids if needed. Methionine can be converted to cystine, but cystine cannot be converted to methionine. Phenylalanine can be converted to tyrosine, but not the other way around. Therefore, when cystine and tyrosine are present in the diet, the requirements for methionine and phenylalanine are reduced. Thus, cystine and tyrosine are sometimes classified as "semi-essential." The liver is able to produce 80% of the amino acids it needs for protein construction, while the remaining 20% must be consumed

Answer: C

11. Identify the group which contains only pyrimidines

- A. Adenine, cytosine
- B. Uracil, cytosine
- C. Guanine, uracil, cytosine

D. Adenine, guanine

Detailed Answer:

There are 3 pyrimidines: thymine, cytosine and uracil

Answer: B

12. Animal starch (glycogen) in human body is stored in

- A. Liver and muscles
- B. Liver and spleen
- C. Spleen and gall bladder
- D. Spleen and muscles

Answer: A

13. Essential fatty acids were discovered by

- A. Evans and Burr
- B. Bloor
- C. Sutherland
- D. Beevers

Answer: A

14. Combination of apoenzyme and coenzyme produces

- A. Prosthetic group
- B. Holoenzyme
- C. Enzyme substrate complex
- D. Enzyme-product complex

Answer: B

15. The term lipid was given by

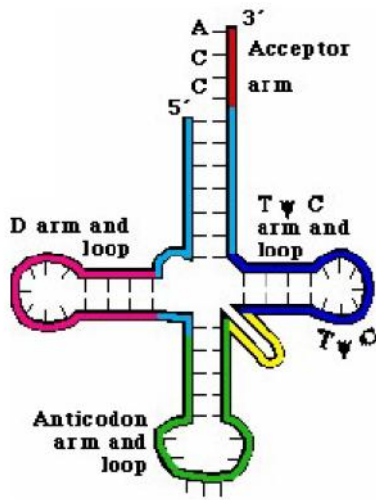
- A. Sutherland
- B. Bloor
- C. Altmann
- D. Berzeiius

Answer: B

16. Clover leaf structure is found in

- A. DNA
- B. rRNA
- C. tRNA
- D. mRNA

Detailed Answer:



Clover leaf model of tRNA

Answer: C

17. is the formula of $C_nH_{2n}O_nCHO$

- A. Carbohydrate
- B. Fatty acid
- C. Fat
- D. Nucleic acid

Answer: A

18. Epimerase belongs to the class of enzymes

- A. Hydrolases
- B. Ligases
- C. Isomerases
- D. Oxidoreductases

Detailed Answer:

An isomerase is an enzyme that catalyzes the structural rearrangement of isomers. Isomerases thus catalyze reactions of the form $A \rightarrow B$ Where B is an isomer of A

Answer: C

19. Thymine is

- A. Amino acid
- B. Purine
- C. Pyrimidine
- D. Fatty acid

Answer: C

20. Is the formula of $n 2n n C H O$

- A. Fatty acid
- B. Fat
- C. Glycerol
- D. Carbohydrate

Answer: D

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