

National Testing Agency

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Biochemistry of Biomolecules

Group Number :	1
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Group Marks :	100
Is this Group for Examiner? :	No

Biochemistry of Biomolecules-1

Section Id :	512452773
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	512452775
Question Shuffling Allowed :	Yes

**Question Number : 1 Question Id : 51245211840 Question Type : MCQ Option Shuffling : No Is
Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

Vitamin A will NOT help to

1. prevent certain cancers
2. build strong muscles
3. you to see in dim light
4. None of the above

Options :

- 51245235741. 1
- 51245235742. 2
- 51245235743. 3
- 51245235744. 4

Question Number : 2 Question Id : 51245211841 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Fill in the blanks

_____ and _____ are 2 foods rich in vitamin A.

1. Wheat bread and tuna fish
2. Milk and carrots
3. Mineral water and tofu
4. Beans and lettuce

Options :

- 51245235745. 1
- 51245235746. 2
- 51245235747. 3
- 51245235748. 4

Question Number : 3 Question Id : 51245211842 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

From which German word does the "K" in vitamin K come?

1. kerngesund
2. koagulation
3. krapeven
4. krame

Options :

- 51245235749. 1

51245235750. 2

51245235751. 3

51245235752. 4

Question Number : 4 Question Id : 51245211843 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In addition to promoting blood clotting, vitamin K (according to recent studies) helps protect against what condition in older men?

1. Diabetes
2. Sciatica
3. Gout
4. Malaria

Options :

51245235753. 1

51245235754. 2

51245235755. 3

51245235756. 4

Question Number : 5 Question Id : 51245211844 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which leafy-green vegetable has the highest amount of vitamin K?

1. Spinach
2. Kale
3. Green beans
4. Tomatoes

Options :

51245235757. 1

51245235758. 2

51245235759. 3

51245235760. 4

Question Number : 6 Question Id : 51245211845 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which specific population group is particularly susceptible to vitamin K deficiency?

1. Octogenarians in cold-weather climates
2. Newborns who are breast-fed
3. Bodybuilders who use human growth hormone
4. Anyone with internal diseases

Options :

- 51245235761. 1
- 51245235762. 2
- 51245235763. 3
- 51245235764. 4

Question Number : 7 Question Id : 51245211846 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

One of the first signs of vitamin A deficiency is

1. Anemia
2. Jaundice
3. Night blindness
4. Scurvy

Options :

- 51245235765. 1
- 51245235766. 2
- 51245235767. 3
- 51245235768. 4

Question Number : 8 Question Id : 51245211847 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Identify the best sources of carotenoids

1. Pumpkin, carrots, squash, sweet potatoes, and apricots
2. Whole grains, nuts, seeds, egg yolk, and plant oils
3. Lean meat, poultry, fish, and legumes
4. Corn, peas, and bean

Options :

- 51245235769. 1
- 51245235770. 2
- 51245235771. 3

51245235772. 4

Question Number : 9 Question Id : 51245211848 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Vitamin E functions in the body

1. to maintain vision and skin integrity, as well as growth of nails and bones
2. as an antioxidant to prevent cell damage
3. to calcify bones and teeth
4. to supply energy and spare protein

Options :

51245235773. 1

51245235774. 2

51245235775. 3

51245235776. 4

Question Number : 10 Question Id : 51245211849 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The vitamin synthesized by bacteria in the intestine is

1. E
2. D
3. A
4. K

Options :

51245235777. 1

51245235778. 2

51245235779. 3

51245235780. 4

Question Number : 11 Question Id : 51245211850 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Vitamin K is needed in the body for

1. blood clotting
2. enzyme action
3. metabolic regulation
4. energy production

Options :

51245235781. 1

51245235782. 2

51245235783. 3

51245235784. 4

Question Number : 12 Question Id : 51245211851 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Vitamin K is found in

1. seafood, iodized salt, and dairy products
2. citrus fruits, cantaloupe, seeds, and nuts
3. fortified cereals, milk, and cheese
4. green leafy vegetables

Options :

51245235785. 1

51245235786. 2

51245235787. 3

51245235788. 4

Question Number : 13 Question Id : 51245211852 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

State which of the following statements is false

1. Enantiomers are stereoisomers whose molecules are nonsuperposable mirror images of each other
2. Stereoisomers are a special type of constitutional isomers
3. Diastereomers may differ in physical properties such as melting point
4. Presence of a single chirality center is sufficient to cause a molecule to be chiral

Options :

51245235789. 1

51245235790. 2

51245235791. 3

51245235792. 4

Question Number : 14 Question Id : 51245211853 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following objects are chiral

1. A basketball
2. A fork
3. A wine glass
4. None of the above

Options :

- 51245235793. 1
- 51245235794. 2
- 51245235795. 3
- 51245235796. 4

Question Number : 15 Question Id : 51245211854 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT chiral?

1. ds DNA
2. tRNA
3. glucose
4. alanine

Options :

- 51245235797. 1
- 51245235798. 2
- 51245235799. 3
- 51245235800. 4

Question Number : 16 Question Id : 51245211855 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

State which of the following statements is false:

Optical rotation of a compound in solution

1. can be theoretically predicted
2. can only be determined experimentally
3. varies with its concentration
4. can be +, - or 0

Options :

- 51245235801. 1

51245235802. 2

51245235803. 3

51245235804. 4

Question Number : 17 Question Id : 51245211856 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The number of stereoisomers possible for a molecule with three chiral centers is

1. 10

2. 12

3. 2

4. 8

Options :

51245235805. 1

51245235806. 2

51245235807. 3

51245235808. 4

Question Number : 18 Question Id : 51245211857 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Binding interaction between biomolecules is

1. weak

2. stereospecific

3. stronger than covalent bonds

4. always between carbon compounds

Options :

51245235809. 1

51245235810. 2

51245235811. 3

51245235812. 4

Question Number : 19 Question Id : 51245211858 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Maleic and fumaric acids are

1. geometric isomers
2. conformational isomers
3. mirror images of each other
4. different names of the same compound

Options :

- 51245235813. 1
- 51245235814. 2
- 51245235815. 3
- 51245235816. 4

Question Number : 20 Question Id : 51245211859 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The term chirality means

1. reactivity
2. optical activity
3. radioactivity
4. metabolic activity

Options :

- 51245235817. 1
- 51245235818. 2
- 51245235819. 3
- 51245235820. 4

Question Number : 21 Question Id : 51245211860 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In the R,S system, each group attached to a chiral center is assigned with a

1. chirality
2. optical activity
3. priority
4. van der waal radius

Options :

- 51245235821. 1
- 51245235822. 2
- 51245235823. 3

51245235824. 4

Question Number : 22 Question Id : 51245211861 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The D,L system has been developed on the basis of the structure of

1. glyceraldehyde
2. alanine
3. glucose
4. amino alcohol

Options :

51245235825. 1

51245235826. 2

51245235827. 3

51245235828. 4

Question Number : 23 Question Id : 51245211862 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT a colligative property of water?

1. Vapor pressure
2. Melting point
3. Boiling point
4. Dipole moment

Options :

51245235829. 1

51245235830. 2

51245235831. 3

51245235832. 4

Question Number : 24 Question Id : 51245211863 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Osmosis is measured through

1. Rigid membrane
2. Permeable membrane
3. Non-permeable membrane
4. Non polar membrane

Options :

- 51245235833. 1
- 51245235834. 2
- 51245235835. 3
- 51245235836. 4

Question Number : 25 Question Id : 51245211864 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Osmotic pressure of an aqueous solution is proportional to

- 1. Solute size
- 2. Osmolarity
- 3. pH
- 4. Vapor pressure

Options :

- 51245235837. 1
- 51245235838. 2
- 51245235839. 3
- 51245235840. 4

Question Number : 26 Question Id : 51245211865 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

One gram of polysachharide composed of 1000 glucose unit has the same effect on osmolarity as

- 1. a milligram of glucose
- 2. a gram of glucose
- 3. microgram of glucose
- 4. none of the above

Options :

- 51245235841. 1
- 51245235842. 2
- 51245235843. 3
- 51245235844. 4

Question Number : 27 Question Id : 51245211866 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The change in the internal pH of an organism is controlled by

1. immune system
2. microflora
3. buffer
4. proton pump

Options :

51245235845. 1
51245235846. 2
51245235847. 3
51245235848. 4

Question Number : 28 Question Id : 51245211867 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. pH of urine	i. 7.4
B. pH of blood	ii. 4.5-6
C. pH of saliva	iii. 1.5-3.5
D. pH of gastric juice	iv. 6.2-7.6

Choose the **correct** answer from the options given below:

1. A - ii, B - i, C - iv, D - iii
2. A - i, B - ii, C - iii, D - iv
3. A - i, B - iii, C - ii, D - iv
4. A - iv, B - i, C - ii, D - iii

Options :

51245235849. 1
51245235850. 2
51245235851. 3
51245235852. 4

Question Number : 29 Question Id : 51245211868 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The lung is a reservoir of

- A. Carbon dioxide
- B. Oxygen
- C. Blood
- D. Both Carbon dioxide and Oxygen

Choose the correct answer from the options given below

- 1. A, B and D only
- 2. only C
- 3. only B
- 4. only D

Options :

- 51245235853. 1
- 51245235854. 2
- 51245235855. 3
- 51245235856. 4

Question Number : 30 Question Id : 51245211869 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which one of the following reactions is exergonic?

- 1. ATP hydrolysis
- 2. Thermal decomposition
- 3. Double decomposition
- 4. Coupled reaction

Options :

- 51245235857. 1
- 51245235858. 2
- 51245235859. 3
- 51245235860. 4

Question Number : 31 Question Id : 51245211870 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Pepsin is a

1. Protein
2. Carbohydrate
3. Lipid
4. Nucleic acid

Options :

- 51245235861. 1
- 51245235862. 2
- 51245235863. 3
- 51245235864. 4

Question Number : 32 Question Id : 51245211871 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

State which amino acid will be eluted first in a cation exchanger column

1. Alanine
2. Aspartic acid
3. Valine
4. Lysine

Options :

- 51245235865. 1
- 51245235866. 2
- 51245235867. 3
- 51245235868. 4

Question Number : 33 Question Id : 51245211872 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The bonds present in a protein is/are

1. Hydrogen bonds
2. Disulfide bonds
3. Salt bridges
4. All of the above

Options :

- 51245235869. 1
- 51245235870. 2

51245235871. 3

51245235872. 4

Question Number : 34 Question Id : 51245211873 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Insulin structure has

1. Disulfide linkage
2. Salt bridge interaction
3. Dipole moment
4. Dipolar interaction

Options :

51245235873. 1

51245235874. 2

51245235875. 3

51245235876. 4

Question Number : 35 Question Id : 51245211874 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A biological redox reaction always involves

1. molecular oxygen
2. electron transfer
3. hydrogen removal
4. All of the above

Options :

51245235877. 1

51245235878. 2

51245235879. 3

51245235880. 4

Question Number : 36 Question Id : 51245211875 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Of the following statements, which one(s) is/are true and which one(s) is/are false?

- A. Biopolymers are proteins, carbohydrates and lipids
- B. Proteins contain Carbon, Hydrogen and Oxygen
- C. The process of transfer of an electron to Oxygen within a cell is independent of enzymes
- D. Carbohydrates are insoluble in water

Choose the correct answer from the options given below

- 1. A and B are true; C and D are false
- 2. A, B, C, D are all false
- 3. A is true and all others are false
- 4. Only D is true and all others are false

Options :

- 51245235881. 1
- 51245235882. 2
- 51245235883. 3
- 51245235884. 4

Question Number : 37 Question Id : 51245211876 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the significance of the Liver Function Test?

- 1. To test liver damage
- 2. To test histocompatibility
- 3. To test immunity
- 4. To test hydrophobicity

Options :

- 51245235885. 1
- 51245235886. 2
- 51245235887. 3
- 51245235888. 4

Question Number : 38 Question Id : 51245211877 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Fischer Lock and Key is the model of

1. Enzyme active site
2. Substrate of enzyme
3. Enzyme concentration
4. Enzyme inhibition

Options :

- 51245235889. 1
- 51245235890. 2
- 51245235891. 3
- 51245235892. 4

Question Number : 39 Question Id : 51245211878 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: If Michaelis constant K_m is higher, substrate affinity is lower

Reason R: K_m is inverse of substrate affinity

In light of the above statements, choose the **correct** answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

Options :

- 51245235893. 1
- 51245235894. 2
- 51245235895. 3
- 51245235896. 4

Question Number : 40 Question Id : 51245211879 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

DIFP is an agent which can act as a/an

1. Irreversible inhibitor
2. Competitive inhibitor
3. Non competitive inhibitor
4. Reversible inhibitor

Options :

- 51245235897. 1
- 51245235898. 2
- 51245235899. 3
- 51245235900. 4

Question Number : 41 Question Id : 51245211880 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Hypercholesterolemia is caused due to

1. Mutated VLDL receptor
2. LDL receptor
3. GPCR
4. NO linked receptor

Options :

- 51245235901. 1
- 51245235902. 2
- 51245235903. 3
- 51245235904. 4

Question Number : 42 Question Id : 51245211881 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Dehydrogenase needs which coenzyme?

1. NADH
2. FADH
3. TPP
4. Coenzyme A

Options :

- 51245235905. 1
- 51245235906. 2

51245235907. 3

51245235908. 4

Question Number : 43 Question Id : 51245211882 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

FADH acts as a

1. redox centre
2. Hydrogen donor
3. Sulfur donor
4. Phosphorus donor

Options :

51245235909. 1

51245235910. 2

51245235911. 3

51245235912. 4

Question Number : 44 Question Id : 51245211883 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Lactate dehydrogenase has

1. Isozyme
2. Prozyme
3. Allozyme
4. Idiozyme

Options :

51245235913. 1

51245235914. 2

51245235915. 3

51245235916. 4

Question Number : 45 Question Id : 51245211884 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Proteins can be separated by

1. Solvent extraction
2. Gel exclusion chromatography
3. Salt extraction
4. Buffer extraction

Options :

- 51245235917. 1
- 51245235918. 2
- 51245235919. 3
- 51245235920. 4

Question Number : 46 Question Id : 51245211885 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A buffer in a biological system maintains

1. pH
2. Salt concentration
3. Temperature
4. Sulphur concentration

Options :

- 51245235921. 1
- 51245235922. 2
- 51245235923. 3
- 51245235924. 4

Question Number : 47 Question Id : 51245211886 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. pyridoxin	i. decarboxylation
B. thiamin	ii. transamination
C. riboflavin	iii. gluconeogenesis
D. biotin	iv. oxidation-reduction

Choose the **correct** answer from the options given below:

1. A - ii, B - i, C - iv, D - iii
2. A - i, B - ii, C - iii, D - iv
3. A - i, B - iv, C - iii, D - ii
4. A - iv, B - i, C - iii, D - ii

Options :

51245235925. 1
 51245235926. 2
 51245235927. 3
 51245235928. 4

Question Number : 48 Question Id : 51245211887 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Ribozyme is

1. only RNA
2. RNA protein complex
3. Only protein
4. Only lipid

Options :

51245235929. 1
 51245235930. 2
 51245235931. 3
 51245235932. 4

Question Number : 49 Question Id : 51245211888 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Rossmann fold is a

1. Supersecondary structure
2. Primary structure
3. Secondary structure
4. Quaternary structure

Options :

- 51245235933. 1
- 51245235934. 2
- 51245235935. 3
- 51245235936. 4

Question Number : 50 Question Id : 51245211889 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which interaction is NOT formed when protein subunits combine to form a quaternary structure?

1. Amide linkage
2. Hydrogen bonding
3. Hydrophobic interaction
4. Ionic interaction

Options :

- 51245235937. 1
- 51245235938. 2
- 51245235939. 3
- 51245235940. 4

Question Number : 51 Question Id : 51245211890 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following diseases is NOT caused due to protein misfolding?

1. Kuru
2. Cystic fibrosis
3. Diabetes
4. Sickle cell anemia

Options :

- 51245235941. 1

51245235942. 2

51245235943. 3

51245235944. 4

Question Number : 52 Question Id : 51245211891 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Protomers are

- A. Subunits of proteins and domains
- B. Part of quaternary structure
- C. Part of secondary and tertiary structure
- D. Part of motifs
- E. Part of only primary structures

Choose the **correct** answer from the options given below:

- 1. A, B and D only
- 2. only A
- 3. only A and B
- 4. only D

Options :

51245235945. 1

51245235946. 2

51245235947. 3

51245235948. 4

Question Number : 53 Question Id : 51245211892 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

All are conditions of ketosis except

- 1. Von Gierke's disease
- 2. High carbohydrate diet
- 3. Uncontrolled diabetes mellitus
- 4. Uncontrolled juvenile diabetes

Options :

- 51245235949. 1
- 51245235950. 2
- 51245235951. 3
- 51245235952. 4

Question Number : 54 Question Id : 51245211893 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The catabolism of unsaturated fatty acids, as compared to saturated fatty acids, results in

- 1. More ATP synthesis because one of the enzymes required is an isomerase
- 2. Less ATP synthesis because fewer acetyl-CoA molecules are produced
- 3. Less ATP synthesis because they are more oxidized
- 4. More ATP synthesis because they are more oxidized

Options :

- 51245235953. 1
- 51245235954. 2
- 51245235955. 3
- 51245235956. 4

Question Number : 55 Question Id : 51245211894 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which statement does BEST describe the fate of propionyl-CoA in mammalian systems?

- 1. Propionyl-CoA is metabolized via a reaction sequence that involves vitamin B₁₂ and biotin
- 2. Propionyl-CoA is converted to acetyl CoA
- 3. Propionyl-CoA and acetyl CoA condense to form a 5 carbon precursor of a TCA cycle intermediate
- 4. Propionyl-CoA is oxidized to malonate and CoA

Options :

- 51245235957. 1
- 51245235958. 2
- 51245235959. 3
- 51245235960. 4

Question Number : 56 Question Id : 51245211895 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Enoyl-CoA isomerase catalyses the conversion of:

1. cis- Δ^2 -double bond to trans- Δ^2 -double bond
2. cis- Δ^3 -double bond to trans- Δ^3 -double bond
3. cis- Δ^2 -double bond to trans- Δ^3 -double bond
4. cis- Δ^3 -double bond to trans- Δ^2 -double bond

Options :

51245235961. 1
51245235962. 2
51245235963. 3
51245235964. 4

Question Number : 57 Question Id : 51245211896 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The key enzyme for the utilization of ketone bodies is

1. Thiolase
2. Thiophorse
3. Thiokinase
4. Thioesterase

Options :

51245235965. 1
51245235966. 2
51245235967. 3
51245235968. 4

Question Number : 58 Question Id : 51245211897 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which statement best describes the oxidation of odd chain fatty acids?

1. Hydroxy fatty acids are produced
2. One carbon is removed in one cycle
3. End product is propionyl-CoA
4. Additional specific enzymes are needed for the oxidative process

Options :

51245235969. 1
51245235970. 2

51245235971. 3

51245235972. 4

Question Number : 59 Question Id : 51245211898 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In Ketosis,

1. Ketonemia follows ketonuria
2. Ketonuria follows ketonemia
3. Ketonemia and ketonuria occurs simultaneously
4. Only ketonemia occurs

Options :

51245235973. 1

51245235974. 2

51245235975. 3

51245235976. 4

Question Number : 60 Question Id : 51245211899 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Sweet odor in the breath of untreated diabetics is because of

1. Acetoacetate
2. D-3-hydroxy-butyrate
3. Acetone
4. All of the above

Options :

51245235977. 1

51245235978. 2

51245235979. 3

51245235980. 4

Question Number : 61 Question Id : 51245211900 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Pernicious anemia develops due to

1. Lesser secretion of intrinsic factor
2. Loss of gastric parietal cells
3. Lesser absorption of vitamin B₁₂ in the ileum
4. All of the above

Options :

- 51245235981. 1
- 51245235982. 2
- 51245235983. 3
- 51245235984. 4

Question Number : 62 Question Id : 51245211901 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

5'-deoxyadenosyl-cobalamin is a derivative of:

1. Vitamin B₁₂
2. Vitamin B₆
3. Vitamin B₅
4. Vitamin B₁

Options :

- 51245235985. 1
- 51245235986. 2
- 51245235987. 3
- 51245235988. 4

Question Number : 63 Question Id : 51245211902 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For a successful 'interfacial activation', pancreatic lipase complexes with pancreatic co-lipase in a

1. 1:2 ratio
2. 1:1 ratio
3. 3:2 ratio
4. 2:1 ratio

Options :

- 51245235989. 1
- 51245235990. 2
- 51245235991. 3

51245235992. 4

Question Number : 64 Question Id : 51245211903 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Pancreatic phospholipase A₂ hydrolytically removes the fatty acid residue at which Carbon atom of a phospholipid?

1. C-1
2. C-2
3. C-3
4. both C-1 and C-2

Options :

- 51245235993. 1
- 51245235994. 2
- 51245235995. 3
- 51245235996. 4

Question Number : 65 Question Id : 51245211904 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Intestinal fatty acid-binding proteins (I-FABP),

1. increase the effective solubility of fatty acids
2. protect the intestinal mucosal cells from the detergent-like effects of the fatty acids
3. decrease the effective solubility of fatty acids
4. both Option 1 and Option 2

Options :

- 51245235997. 1
- 51245235998. 2
- 51245235999. 3
- 51245236000. 4

Question Number : 66 Question Id : 51245211905 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

TAGs synthesised by the liver are packaged into

1. Very Low Density Lipoproteins (VLDL)
2. Chylomicrons
3. Both VLDL and Chylomicrons
4. Neither VLDL nor Chylomicrons

Options :

- 51245236001. 1
- 51245236002. 2
- 51245236003. 3
- 51245236004. 4

Question Number : 67 Question Id : 51245211906 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

L-glycerol transported to the liver or kidneys, is first converted to which of the following glycolytic intermediates?

1. glyceraldehyde-3-phosphate
2. dihydroxy acetone phosphate
3. fructose-1,6-bisphosphate
4. glucose-6-phosphate

Options :

- 51245236005. 1
- 51245236006. 2
- 51245236007. 3
- 51245236008. 4

Question Number : 68 Question Id : 51245211907 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Hippuric acid is the

1. glycine-amide of acetic acid
2. glycine-amide of phenyl acetic acid
3. glycine-amide of benzoic acid
4. glycine-amide of iodoacetic acid

Options :

- 51245236009. 1
- 51245236010. 2
- 51245236011. 3

51245236012. 4

Question Number : 69 Question Id : 51245211908 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Who showed that fatty acid oxidation occurs exclusively in the mitochondria?

1. F. Knoop
2. F. Knoop and A. L. Lehninger
3. E. P. Kennedy and A. L. Lehninger
4. A. L. Lehninger

Options :

- 51245236013. 1
- 51245236014. 2
- 51245236015. 3
- 51245236016. 4

Question Number : 70 Question Id : 51245211909 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

L- β -hydroxy-acyl CoA dehydrogenase requires

1. FAD as the coenzyme
2. FMN as the coenzyme
3. NAD⁺ as the coenzyme
4. biotin as the coenzyme

Options :

- 51245236017. 1
- 51245236018. 2
- 51245236019. 3
- 51245236020. 4

Question Number : 71 Question Id : 51245211910 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

β -oxidation of one molecule of palmitoyl-CoA yields

1. 7 FADH₂, 7 NADH and 8 acetyl CoA
2. 8 FADH₂, 7 NADH and 8 acetyl CoA
3. 7 FADH₂, 8 NADH and 8 acetyl CoA
4. 8 FADH₂, 8 NADH and 8 acetyl CoA

Options :

- 51245236021. 1
- 51245236022. 2
- 51245236023. 3
- 51245236024. 4

Question Number : 72 Question Id : 51245211911 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which amino acid is achiral?

- 1. Glycine
- 2. Alanine
- 3. Phenylalanine
- 4. Methionine

Options :

- 51245236025. 1
- 51245236026. 2
- 51245236027. 3
- 51245236028. 4

Question Number : 73 Question Id : 51245211912 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

An uncommon amino acid involved in urea cycle is

- 1. Ornithine
- 2. Alanine
- 3. Cysteine
- 4. Phenylalanine

Options :

- 51245236029. 1
- 51245236030. 2
- 51245236031. 3
- 51245236032. 4

Question Number : 74 Question Id : 51245211913 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Proteins absorb light in the range of 280 nm due to the presence of

- a. Phenylalanine, tyrosine, tryptophan
- b. Phenylalanine, cysteine, methionine
- c. Alanine, glycine, glutamic acid, tyrosine
- d. Aspartic acid, glycine, glutamic acid, tryptophan

Choose the correct answer from the options given below

- 1. a only
- 2. both a and b
- 3. only c
- 4. both b and d

Options :

- 51245236033. 1
- 51245236034. 2
- 51245236035. 3
- 51245236036. 4

Question Number : 75 Question Id : 51245211914 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : D amino acid is only found in bacteria

Reason R : D amino acid degrading enzyme is only present in bacteria

In light of the above statements, choose the **correct** answer from the options given below

- 1. Both **A** and **R** are true and **R** is the correct explanation of **A**
- 2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
- 3. **A** is true but **R** is false
- 4. **A** is false but **R** is true

Options :

- 51245236037. 1
- 51245236038. 2
- 51245236039. 3

51245236040. 4

Question Number : 76 Question Id : 51245211915 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which chemical reagent is used to detect alpha-amino acids?

1. Ninhydrin
2. HCl
3. NaOH
4. Biuret

Options :

- 51245236041. 1
- 51245236042. 2
- 51245236043. 3
- 51245236044. 4

Question Number : 77 Question Id : 51245211916 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Alanine is similar to Serine in the same way that

1. Phenylalanine is to Tyrosine
2. Glycine is to Valine
3. Methionine to Cysteine
4. Serine to Threonine

Options :

- 51245236045. 1
- 51245236046. 2
- 51245236047. 3
- 51245236048. 4

Question Number : 78 Question Id : 51245211917 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

DTNB and iodoacetate are the reagents that are used to modify which amino acid?

1. Cysteine
2. Methionine
3. Glycine
4. Alanine

Options :

- 51245236049. 1
- 51245236050. 2
- 51245236051. 3
- 51245236052. 4

Question Number : 79 Question Id : 51245211918 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The predominant type of crosslink present in alpha- keratin is

1. *via* proline crosslinks
2. *via* Cysteine crosslinks
3. *via* two Lysine residues
4. none of the above

Options :

- 51245236053. 1
- 51245236054. 2
- 51245236055. 3
- 51245236056. 4

Question Number : 80 Question Id : 51245211919 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In protein sequencing, the sequence is

- A. Degradation of disulfide bonds
- B. Edman degradation of each polypeptide
- C. Acid Hydrolysis
- D. Individual chromatographic separation of fragments and amino acids
- E. Detection of amino acid

Choose the **correct** answer from the options given below

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

Options :

- 51245236057. 1
- 51245236058. 2
- 51245236059. 3
- 51245236060. 4

Question Number : 81 Question Id : 51245211920 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Protein folding needs hydrophobic interactions was proposed by	i. Linderstrom-Lang
B. The message of folding is hidden in the primary sequence was proposed by	ii. Anfinsen
C. Protein sequencing was discovered by	iii. Fredrick Sanger
D. DNA double helix structure was proposed by	iv. Watson and Crick

Choose the **correct** answer from the options given below:

1. A - i, B - ii, C - iii, D - iv
2. A - iv, B - ii, C - i, D - iii
3. A - iv, B - i, C - iii, D - ii
4. A - i, B - iv, C - iii, D - ii

Options :

51245236061. 1
51245236062. 2
51245236063. 3
51245236064. 4

Question Number : 82 Question Id : 51245211921 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Anfinsen experiment was done with

1. RNAase
2. DNAase
3. Protease
4. Hydrolase

Options :

51245236065. 1
51245236066. 2
51245236067. 3
51245236068. 4

Question Number : 83 Question Id : 51245211922 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Therodynamics of protein folding includes

1. Conformational entropy
2. Charge-charge interaction
3. Internal hydrogen bond
4. All of the above

Options :

- 51245236069. 1
- 51245236070. 2
- 51245236071. 3
- 51245236072. 4

Question Number : 84 Question Id : 51245211923 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Chaperonins include the action of

1. GRO-EL
2. GRO-ES
3. Heat shock proteins
4. None of the above

Options :

- 51245236073. 1
- 51245236074. 2
- 51245236075. 3
- 51245236076. 4

Question Number : 85 Question Id : 51245211924 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Proteins have

1. cyclic symmetry
2. dihedral symmetry
3. helical symmetry
4. all of the above

Options :

- 51245236077. 1
- 51245236078. 2
- 51245236079. 3

51245236080. 4

Question Number : 86 Question Id : 51245211925 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The protein allosteric model follows the

1. Concerted model
2. Sequential model
3. Morpheen model
4. All of the above

Options :

- 51245236081. 1
- 51245236082. 2
- 51245236083. 3
- 51245236084. 4

Question Number : 87 Question Id : 51245211926 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Receptor theory postulates that

1. Receptors must possess structural and steric specificity
2. Receptors are saturable and finite (limited number of binding sites)
3. Receptors must possess high affinity for its endogenous ligand
4. All of the above

Options :

- 51245236085. 1
- 51245236086. 2
- 51245236087. 3
- 51245236088. 4

Question Number : 88 Question Id : 51245211927 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Protein dynamics include

1. local flexibility
2. global flexibility
3. regional flexibility
4. all of the above

Options :

- 51245236089. 1
- 51245236090. 2
- 51245236091. 3
- 51245236092. 4

Question Number : 89 Question Id : 51245211928 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Collagen is a

1. Triple helix
2. Single helix
3. Double helix
4. Helix bundle

Options :

- 51245236093. 1
- 51245236094. 2
- 51245236095. 3
- 51245236096. 4

Question Number : 90 Question Id : 51245211929 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Globular proteins function as which of the following?

1. Enzymes
2. Receptors
3. Immunoglobulins
4. All of the above

Options :

- 51245236097. 1
- 51245236098. 2

51245236099. 3

51245236100. 4

Question Number : 91 Question Id : 51245211930 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The pH dependence of enzyme designates

1. Presence of specific conformation of active site amino acid
2. Thermolability
3. Secondary structure of enzyme
4. Total three dimensional structure of enzyme

Options :

51245236101. 1

51245236102. 2

51245236103. 3

51245236104. 4

Question Number : 92 Question Id : 51245211931 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Enzyme activity unit is

1. katal
2. Turnover number
3. Enzyme activity unit U
4. All of the above

Options :

51245236105. 1

51245236106. 2

51245236107. 3

51245236108. 4

Question Number : 93 Question Id : 51245211932 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The normal level of serum cholesterol is

1. 3.6-5.2mmol/l
2. 5.2-6.7mmol/l
3. >6.7mmol/l
4. None of the above

Options :

- 51245236109. 1
- 51245236110. 2
- 51245236111. 3
- 51245236112. 4

Question Number : 94 Question Id : 51245211933 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Cholesterol estimation includes the enzyme

1. Cholesterol oxidase
2. Cholesterol esterase
3. Peroxidase
4. All of the above

Options :

- 51245236113. 1
- 51245236114. 2
- 51245236115. 3
- 51245236116. 4

Question Number : 95 Question Id : 51245211934 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Match **List I** with **List II**

List I	List II
A. Amino acid	i. Coagulation
B. Protein	ii. Ninhydrin
C. Lipid	iii. VLDL
D. Carbohydrate	iv. Anomer

Choose the **correct** answer from the options given below:

1. A - ii, B - i, C - iii, D - iv
2. A - i, B - ii, C - iii, D - iv
3. A - iv, B - ii, C - i, D - iii
4. A - i, B - iii, C - ii, D - iv

Options :

51245236117. 1
 51245236118. 2
 51245236119. 3
 51245236120. 4

Question Number : 96 Question Id : 51245211935 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Kit based glucose estimation is based on

1. Glucose oxidase Peroxidase method
2. Transaminase method
3. Transketolase method
4. Deaminase method

Options :

51245236121. 1
 51245236122. 2
 51245236123. 3
 51245236124. 4

Question Number : 97 Question Id : 51245211936 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

DNA has absorption at

1. 260nm
2. 250nm
3. 240nm
4. 230nm

Options :

- 51245236125. 1
- 51245236126. 2
- 51245236127. 3
- 51245236128. 4

Question Number : 98 Question Id : 51245211937 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The estimated RNA can be used for

1. gene therapy
2. disease treatment
3. crop quality improvement
4. all of the above

Options :

- 51245236129. 1
- 51245236130. 2
- 51245236131. 3
- 51245236132. 4

Question Number : 99 Question Id : 51245211938 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

DNA double helix structure was proposed by

1. Watson and Crick
2. Sanger
3. Lowry
4. Bradford

Options :

- 51245236133. 1
- 51245236134. 2
- 51245236135. 3
- 51245236136. 4

**Question Number : 100 Question Id : 51245211939 Question Type : MCQ Option Shuffling : No Is
Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0**

Cholestrol is made in

1. Liver
2. Heart
3. Muscle
4. Blood

Options :

- 51245236137. 1
- 51245236138. 2
- 51245236139. 3
- 51245236140. 4