

BACHELOR OF SCIENCE (RADIOLOGY & IMAGING TECHNOLOGY) (CBCS-2019 COURSE)
B.Sc. (R&IM) Sem-I : WINTER :- 2021
SUBJECT: BIOCHEMISTRY

Day : Thursday
Date 24-02-2022

W-21582-2021

Time : 10:00 AM-12:00 PM
Max. Marks: 10

N. B. :

- 1) There are **THREE** sections as
Section – A – Objective Type Questions 10 marks
Section – B- Long Answer Questions 20 marks
Section – C – Short Answer Questions 10 marks
- 2) Section A is given **SEPARATE** sheet and has to be answered on **SAME** sheet.
This sheet be completed within the first 20 minutes of starting of the examination.
The sheet with Section A only will be collected by Supervisor.
- 3) You have to mark ☒ such kind of mark in the box of the appropriate answers.
- 4) There is no negative marking.

Seat No.

SECTION - A

MCQ's:

- 1) Which of the following enzymes is increased in myocardial infarction?
 - a) ☐ Creatine kinase (CK-MB)
 - b) ☐ Alanine transaminase
 - c) ☐ Lipase
 - d) ☐ Acid phosphatase
- 2) Cholesterol is transported for liver to peripheral tissues by
 - a) ☐ VLDL
 - b) ☐ LDL
 - c) ☐ HDL
 - d) ☐ Chylomicrons
- 3) Proteins synthesis occurs in which of the following cellular organelle?
 - a) ☐ Golgi Apparatus
 - b) ☐ Nucleus
 - c) ☐ Endoplasmic reticulum
 - d) ☐ Lysosomes
- 4) Vitamin D is produced from which of the following compound?
 - a) ☐ Cholesterol
 - b) ☐ Lecithin
 - c) ☐ Triacylglycerol
 - d) ☐ Wax

P.T.O.

- 5) Which of the following is an example of contractile protein?
- a) ☐ Hemoglobin
 - b) ☐ Collagen
 - c) ☐ Histone
 - d) ☐ Myosin
- 6) The product of heme breakdown is
- a) ☐ Amino acids
 - b) ☐ Bilirubin
 - c) ☐ Fatty acids
 - d) ☐ Glucose
- 7) Transport of molecules against concentration gradient is known as
- a) ☐ Facilitated diffusion
 - b) ☐ Osmosis
 - c) ☐ Exocytosis
 - d) ☐ Active transport
- 8) All of the following are plasma proteins EXCEPT
- a) ☐ Keratin
 - b) ☐ Albumin
 - c) ☐ Globulin
 - d) ☐ Fibrinogen
- 9) Adult hemoglobin (HbA₁) is composed of
- a) ☐ $\alpha_2\gamma_2$
 - b) ☐ $\alpha_2\beta_2$
 - c) ☐ $\alpha_2\epsilon_2$
 - d) ☐ $\alpha_2\delta_2$
- 10) All of the following are essential amino acids, EXCEPT
- a) ☐ Glycine
 - b) ☐ Methionine
 - c) ☐ Phenylalanine
 - d) ☐ Lysine

Total Marks obtained : _____

Signature of Invigilator

Signature of Examiner

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Max. Marks: 30

N. B. :

- 1) There are **THREE** sections as
Section – A – Objective Type Questions 10 marks
Section – B- Long Answer Questions 20 marks
Section – C – Short Answer Questions 10 marks
- 2) Section **B** has four long answer questions and **ANY TWO** questions have to be answered.
- 3) Section **C** has **Six** short answer questions and **ANY FIVE** questions have to be answered.
- 4) Section B and C should be written in **SAME** answer sheet.
- 5) Draw neat diagrams wherever necessary.

SECTION - B

Long answer questions : (Any TWO) (20)

- 1) Define carbohydrates. Classify them giving suitable examples.
- 2) Describe the chemistry, sources, Recommended Daily Allowance (RDA), functions and deficiency manifestations of vitamin A.
- 3) Describe the factors affecting the rate of enzyme activity.
- 4) Describe the structures and functions of DNA and RNA.

SECTION - C

Short answer questions : (Any FIVE) (10)

- 1) Mitochondria
- 2) Phospholipids
- 3) Functions of calcium
- 4) Immunoglobulins
- 5) Jaundice
- 6) Blood buffers

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