

B.Sc. Semester - 5 (Remedial) (CBCS) Examination**March/April-2024 (Old Course)****BIOCHEMI., CYTOLOGY, INSTRU., BIOLOGY (CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Que.1(A) Answer the following questions. (Any one out of two) (07)
- 1) Describe Glycolysis.
 - 2) Give the classification of protein.
- Que.1(B) Answer the following questions. (Any one out of two) (04)
- 1) Give the classification of Enzymes.
 - 2) Write a short note on importance of vitamins in short.
- Que.1(C) Answer the following questions. (Any three out of five) (03)
- 1) Which class of carbohydrates cannot be hydrolyzed further?
 - 2) Gluconeogenesis is a process that transforms non carbohydrates substrates in to.....
 - 3) Keratin type protein found in
 - 4) A is a biocatalyst that increase the rate of the reaction without being changed.
 - 5) Give any two importance of minerals.
- Que.2(A) Answer the following questions. (Any one out of two) (07)
- 1) Describe phenomenon of mitosis.
 - 2) What is cancer? Give the types of cancer in detail.
- Que.2(B) Answer the following questions. (Any one out of two) (04)
- 1) Describe phenomenon of prophase -I of meiosis.
 - 2) Write a short note on microtubules.
- Que.2(C) Answer the following questions. (Any three out of five) (03)
- 1) is added to arrest cell division at metaphase stage.
 - 2) What is the function of microtubules?
 - 3) During which phase of mitosis chromosomes arrange on equatorial plate?
 - 4) After completion of meiosis how many cells are found from mother cell?
 - 5) Neoplastic growth of leucocytes are cancer known as
- Que.3(A) Answer the following questions. (Any one out of two) (07)
- 1) Describe gel electrophoresis.
 - 2) Describe recombinant DNA technology in detail.
- Que.3(B) Answer the following questions. (Any one out of two) (04)
- 1) Describe principle, method and application of paper chromatography.
 - 2) Write a short note on vector.
- Que.3(C) Answer the following questions. (Any three out of five) (03)
- 1) Amino acids are separated by technique of
 - 2) For cloning a DNA fragment larger than 100 kb, which vector system would be suitable?
 - 3) In which technology ligase is used to joins the DNA segments?
 - 4) In paper chromatography Rf value is
 - 5) is the best example of DNA recombinant technology.
- Que.4(A) Answer the following questions. (Any one out of two) (07)
- 1) Describe amniocentesis in detail.
 - 2) Describe molecular structure of gene.

- Que.4(B) Answer the following questions. (Any one out of two) (04)
- 1) Write a short note on Haemophilia.
 - 2) Write a short note on Ionizing radiation as mutagens.
- Que.4(C) Answer the following questions. (Any three out of five) (03)
- 1) In the structure of the gene, the smallest distance within which recombination can occur is known as
 - 2) In double helix structure of DNA, distance between two polynucleotide chain is
 - 3) Colour blindness is linked inheritance.
 - 4) Pentose sugar + Nitrogen base + Phosphate =
 - 5) During chromosomal mutation loss of a portion of a chromosome is called
- Que.5(A) Answer the following questions. (Any one out of two) (07)
- 1) Give a general account of DNA replication in detail.
 - 2) Describe different phases of transcription.
- Que.5(B) Answer the following questions. (Any one out of two) (04)
- 1) Describe the enzymes and its functions which involved in DNA replication process.
 - 2) Write a short note on translation.
- Que.5(C) Answer the following questions. (Any three out of five) (03)
- 1) List out stop codons.
 - 2) is consider as a start codon.
 - 3) The process of translation is occurs in
 - 4) Protein prevents the DNA halix from rewinding.
 - 5) During replication of DNA okazaki fragments are formed in the direction.
