

B.Sc. Semester - 5 (CBCS) Examination**Oct/Nov. - 2018****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 different structure of protein.
 2. Give the classification and structure of carbohydrates.
- (B) Answer the following questions. (Any one out of two) (04)
1. Give an account of types of Enzymes.
 2. Write a short note. Glycolysis.
- (C) Answer the following questions. (Any three out of five) (03)
1. Give some examples of reducing sugar.
 2. What is gluconeogenesis.
 3. List out the name of non-polar amino acids.
 4. is the chemical name of vitamin E.
 5. Daily requirement of Iodine is
- Que-2 (A) Answer the following questions. (Any one out of two) (07)
1. What is cancer? Give the types of cancer and characteristic of cancerous cells.
 2. Write a short note on microtubules.
- (B) Answer the following questions. (Any one out of two) (04)
1. Phenomenon of Mitosis.
 2. Describe only prophase I of Meiosis.
- (C) Answer the following questions. (Any three out of five) (03)
1. Give the function of intermediate filaments.
 2. During phase of mitosis nuclear membrane and nucleolus disappears.
 3. Formation of chiasmata shown during which phase of meiosis.
 4. What is leukemias?
 5. are tumors made up principally of epithelial cells of ectodermal or endodermal origin.
- Que-3 (A) Answer the following questions. (Any one out of two) (07)
1. Write principle, method and application of paper chromatography.
 2. Describe gel electrophoresis?
- (B) Answer the following questions. (Any one out of two) (04)
1. Application of DNA recombinant technology.
 2. Write a short note on enzymes which are used in DNA recombinant technology.

(C) Answer the following questions. (Any three out of five) (03)

1. What is the principle of gel electrophoresis.
2. What is vector?
3. Insulin is an example oftechnology.
4. is the most common type of gel used for DNA separation.
5. Paper chromatography is used for the separation of

Que-4 (A) Answer the following questions. (Any one out of two) (07)

1. Describe mutagenic agents.
2. Molecular structure of gene.

(B) Answer the following questions. (Any one out of two) (04)

1. Describe colour blindness with suitable example.
2. Describe amniocentesis.

(C) Answer the following questions. (Any three out of five) (03)

1.is distance between two polynucleotide chain of double helix structure of DNA.
2. In which type of chromosomal mutation – Broken segment of chromosome reattached to original chromosome in reverse order?
3. When carrier mother marries with normal father, what will be the ratio of haemophilic male and female in F₁?
4. When two genetical units exhibit cis – trans phenomenon, they are considered to the same functional unit is called.....
5. Give the examples of ionizing radiation.

Que-5 (A) Answer the following questions. (Any one out of two) (07)

1. Describe DNA replication.
2. Write a short note on translation.

(B) Answer the following questions. (Any one out of two) (04)

1. Describe mode of DNA replication.
2. Write a short note on translation.

(C) Answer the following questions. (Any three out of five) (03)

1. What are okazaki fragments?
2. Which enzyme is known as Kornberg enzyme?
3. What is the function of Rho factor in transcription?
4. What is central dogma?
5. Define – replication.
