

B.Sc. Semester - 5 (Remedial) (CBCS) Examination**Feb/Mar. -2021 (OLD COURSE)****BIOCHEMI., CYTOLOGY, INSTRU., BIOLOGY(CORE)****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
-

Q.1(A) Answer the following questions. (Any one out of two) (07)

1. Describe types of enzymes and factors affecting on it.
2. Describe: Gluconeogenesis

Q.1(B) Answer the following questions. (Any one out of two) (04)

1. Write a short note: Urea cycle.
2. Importance of minerals.

Q.1(C) Answer the following questions. (Any three out of five) (03)

1. What is reducing sugar?
2. Give only difference between glycolysis and gluconeogenesis.
3. What is simple and compound proteins?
4. What is Co – enzyme?
5. Give the sources of sodium.

Q.2(A) Answer the following questions. (Any one out of two) (07)

1. Describe: Meiosis.
2. What is cancer? Give the types of cancer and characteristic of cancerous cells.

Q.2(B) Answer the following questions. (Any one out of two) (04)

1. Write a short note on Mitosis.
2. Describe: Microfilaments.

Q.2(C) Answer the following questions. (Any three out of five) (03)

1. Function of intermediate filaments.
2. L, J, U and V shaped chromosomes are seen instage of mitosis.
3. Inphase splitting of centromere is seen during meiosis.
4. Neoplastic growths of leucocytes is the characteristic of sarcomas type of cancer. Is it true or false?
5. Hodgkin's disease is an example oftype of cancer.

Q.3(A) Answer the following questions. (Any one out of two) (07)

1. Describe: r DNA technology.
2. Write principle, method and application of paper chromatography.

- Q.3(B) Answer the following questions. (Any one out of two) (04)
1. Write a short note on agarose gel electrophoresis.
 2. Describe Restriction enzymes.
- Q.3(C) Answer the following questions. (Any three out of five) (03)
1. Define: Isoelectric point.
 2. Who created the first rDNA molecule?
 3. What is palindromic sequence?
 4. The technique electrophoresis, for the separation of charged molecules was developed by
 5. Locating agent of amino acids is
- Q.4(A) Answer the following questions. (Any one out of two) (07)
1. Describe: Structural chromosomal mutation.
 2. Describe: Mutagenic agents.
- Q.4(B) Answer the following questions. (Any one out of two) (04)
1. Describe amniocentesis.
 2. Write a short note on haemophilia and Y – linked inheritance.
- Q.4(C) Answer the following questions. (Any three out of five) (03)
1. A smallest unit of gene whose mutation can produce a mutant phenotype is known as
 2. Pentose sugar + nitrogen base + phosphate =
 3. Two strand of DNA helix is joined bybond.
 4. Give the examples of X-linked recessive hereditary trait.
 5. List out chemical mutagens.
- Q.5(A) Answer the following questions. (Any one out of two) (07)
1. Describe: DNA replication.
 2. Write a short note transcription.
- Q.5(B) Answer the following questions. (Any one out of two) (04)
1. Give general account of translation.
 2. Describe: Modes of replication.
- Q.5(C) Answer the following questions. (Any three out of five) (03)
1. Define – Template.
 2. Function of ligase.
 3. The enzyme required for transcription is
 4. Translation occurs in
 5. What is the function of nuclease in DNA replication?
