KHAIRA COLLEGE KHAIRA,BALASORE

BOTANY QIUUESTION BANK

FIRST SEMESTER

CC-2: BIOMOLECULES AND CELL BIOLOGY

1. Which biomolecule is distributed more widely in a cell?

a. Chloroplast
b. RNA
c. DNA
d. Spaherosomes

2. Which is a reducing sugar?

a. Galactose
b. Gluconic acid
c. Sucrose
d. β-methyl galactosidase

3. Most abundant RNA in the cell

a. rRNA
b. mRNA
c. tRNA
d. tRNA threonine

4. Name the simplest amino acid

a. Alanine
b. Tyrosine
c. Asparagine
d. Glycine

5. Mineral associated with cytochrome is

a. Mg
b. Cu and Ag

c. Fe
d. Cu

6. The most common secondary structure of proteins is

a. β-pleated sheet
b. β-pleated sheet parallel
c. β-pleated sheet non-parallel
d. α-helix

7. The term enzyme was coined by

a. Urey Miller
b. Pasteur
c. Kuhne
d. Buchner

8. β-oxidation occurs in

a. Nucleus
b. Cytoplasm
c. Mitochondria
d. Chloroplast

9. Koshland's theory of enzyme action is known as

a. Lock and key theory
b. Reduced fit theory
c. Induced fit theory
d. Enzyme coenzyme theory

10. A high content of triglycerides are found in

a. VLDL
b. LDL
c. HDL
d. Chylomicrons

11. Haemoglobin has

a. Primary structure
b. Secondary structure
c. Tertiary structure
d. Quaternary structure

12. Which is the most abundant biomolecule on earth?

a. Mineral salts
b. Proteins
c. Lipids
d. Carbohydrates

13. In which of the following an anticodon occurs

a. tRNA
b. mRNA
c. rRNA
d. DNA

14. The fastest enzyme is

a. DNA gyrase
b. Pepsin
c. DNA polymerase
d. Carbonic anhydrase

15. Which of the following is a phospholipid?

a. Sterol
b. Cholesterol
c. Lecithin
d. Steroid

Answer Key

1- b	**2- a**	**3- a**	**4- d**	**5- c**	**6- d**	**7- c**	**8- c**

9- c	**10- d**	**11- d**	**12- d**	**13- a**	**14- d**	**15- c**	

1. _____ and _____ coined the term “Meiosis”.

1. Van Burin and Hertwig
2. Boveri and Stuka
3. Walleye and Hofmeister
4. Farmer and Moore

2. Chromatids coiling in the meiotic and mitotic division is _____

1. Plectonemic in both
2. Paranemic in both
3. Paranemic in mitosis and plectonemic in meiosis
4. Plectonemic in mitosis and paranemic in meiosis

3. When there is an increase in the condensation of chromatin during the process of cell division –

1. Heterochromatin increases
2. Euchromatin increases
3. Differentiation of euchromatin & heterochromatin decreases
4. Differentiation of euchromatin & heterochromatin increases

4. The condensation of chromosomes is observed in _____

1. Prophase 1
2. Anaphase 1
3. Metaphase 1
4. None of the above

5. Nuclear DNA replicates in the _____ phase.

1. G2 phase
2. M phase
3. S phase
4. None of the above

6. _____ is a form of cell division which results in the creation of gametes or sex cells.

1. Mitosis
2. Meiosis
3. Miosis
4. None of the above

7. ____ is the number of DNA in the chromosome at the G2 stage of the cell cycle

1. 1
2. 2
3. 3
4. 0

8. The stage which serves as a connecting link between meiosis 1 and meiosis 2

1. Interphase 2
2. Interphase 1
3. Interkineses

4. None of the above

9. The longest stage in the cell cycle is

1. Interphase
2. Anaphase
3. Metaphase
4. None of the above

10. The _____ state implies the exit of cells from the cell cycle

1. S
2. G1
3. G2
4. G0

11. Synapsis is defined as the pairing of _____

1. Acentric chromosomes
2. Non-homologous chromosomes
3. Any chromosomes
4. Homologous chromosomes

12. Mitosis can be observed in _____

1. Polyploid individual
2. Diploid individual
3. Haploid individual

4. Both (1,) (2) and (3)

13. The spindle apparatus is formed during the _____ phase of mitosis.

1. Telophase
2. Metaphase
3. Prophase
4. Anaphase

14. Cyclin is associated with _____

1. Leptospirosis
2. Glycolysis
3. Cylosis
4. Mitosis

15. If an individual wants to view diakinesis, which of these would be

1. Hair
2. Leaf
3. Onion root
4. Flower bud

16. Chromosome structure can be observed best during _____

1. Anaphase
2. Metaphase
3. Prophase
4. None of the above

Answer Keys for Cell Cycle And Cell Division MCQ

1 – 4	2 – 4	3 – 3	4 – 1
5 – 3	6 – 2	7 – 2	8 – 3
9 – 1	10 – 4	11 – 4	12 – 4
13 – 2	14 – 4	15 – 4	16 – 2