

Class : XIth Date : Subject : BIOLOGY DPP No. :1

Topic :- Cell Cycle and Cell Division

- 1. The second meiotic division leads to
 - a) Separation of sex chromosomes
 - b) Fresh DNA synthesis
 - c) Separation of chromatids and centromere
 - d) Separation of homologous chromosomes
- 2. In meiosis, chromosome number becomes
 - a) Half of its parent chromosome
 - b) Same as that of parent chromosome
 - c) One fourth of its parent chromosome
 - d) None of the above
- 3. Consider the following statements about plant cytokinesis

 I. It usually occurs by cell plate method
 II. The spindle usually persists during cytokinesis
 III. Cell plate grows centrifugally
 Which of the statements given above are correct?
 a) I and II
 b) I and III
 c) II and III
- I. ...A... phase corresponds to the interval between mitosis and initiation of DNA replication II. In animal cells, during the ...B... phase, DNA replication begins in the nucleus and the centriole duplicates in the cytoplasm

III. During the ...C... phase, proteins are synthesized for the preparation of mitosis, while cell growth continues

Identify the blanks (A-C) to complete the given statements (I-III) with reference to NCERT textbook

a) $A-G_2$, B-S, $C-G_1$ b) A-S, $B-G_2$, $C-G_1$ c) A-S, $B-G_1$, $C-G_2$ d) $A-G_1$, B-S, $C-G_2$

5. Select the matched ones.

I. S-phase	-	DNA replication			
II. Zygotene	-	Synapsis			
III. Diplotene	-	Crossing over			
IV. Meiosis	-	Both haploid and diploid cells			
V <i>G</i> ₂ -phase	-	Quiescent stage			
a) I and II only		b) III and IV only	c) III and V only	d) I,III and V only	

6.	Which type of cell div a) Mitosis	ision helps in regeneration b) Amitosis	on of cells? c) Meiosis	d)Karyokinesis				
7.	 7. Which of the following statement(s) is/are not correct about meiosis? I. Meiosis involves pairing of homologous chromosomes and recombination between them II. Two diploid cells are formed at the end of meiosis-II III. Meiosis involves two sequential cycles of nuclear and cell division called meiosis-I and meiosis-II, but only a single cycle of DNA replication IV. Meiosis-I is initiated after the parental chromosome replication which produce identical sister chromatids at the S-phase The correct option is a) I and III b) II only c) II and III d) I, II, III and IV 							
8.	 Choose the correct statements regarding cell cycle I. Interphase is called the resting phase II. Interphase is the time during which the cell is preparing for division III. The interphase is divided into phases, <i>i.e.</i>, G₁, S and G₂-phase IV. Interphase represents the phase between the two successive M-phases The option with correct statements is a) I and IV b) II and III c) I and III d) I, II, III and IV 							
9.	Crossing over occurs a) Leptotene	durin <mark>g</mark> b) Diplotene	c) Pachytene	d)Zygotene				
10.	10.During meiosis, the alleles of the parental pair separate or segregated from each other. How many allele(s) is/are then transmitted to a gamete?a) Fourb) Twoc) Sixd) One							
 11. The phragmoplast is organized at the a) Beginning of anaphase b) End of anaphase c) Beginning of telophase d) End of telophase 								
	a) Prophase Identify the correct st	aromosomes can be studi b) Metaphase age of mitosis by viewing uclear envelope nromatin threads ucleolus entrioles ytoplasm ell surface membrane	c) Anaphase	d)Telophase				
	a) Interphase	b) Prophase	c) Metaphase	d)Anaphase				

14.	14. The number of chromosomes becomes half in								
	a) Anaphase-I	b)Anaphase-II	c) Telpohase-I	d) Telophase-II					
15.	5. In which of the following phase of cell cycle, mitotic division got arrested?								
	a) G ₂ -phase	b)G ₀ -phase	c) S-phase	d) M-phase					
16.	5. Which of the following phase of cell cycle is also known as the resting phase?								
	a) G ₁ -phase	b) M-phase	c) S-phase	d)Interphase					
17.	7. Differentiated cell remains at which stage?								
	a) G ₁	b) G ₂	c) G ₀	d)M					
18.	8. The process of cytokinesis refers to the division of								
	a) Nucleus	b) Chromosomes	c) Cytoplasm	d)None of these					
19.	Choose the correct con	nbination of options to s	elect the correct statem	ent for prophase					
	I. Chromosomal material condenses to form compact mitotic chromosomes								
		otic spindle is initiated l							
	III. Cells do not show organ <mark>elles when view</mark> ed under the prophase IV. The nucleolus or nucleo <mark>li deg</mark> enerate completely								
	a) I only	b) I <mark>I and</mark> III	c) I and II	d)All of these					
	a) ronny	b) if and iff		a fini or chese					
20.	Which of the following	event distinguishes pro	phase-I of meiosis from	prophase of mitosis?					
	a) Nuclear membrane break <mark>s do</mark> wn b) Chromosomes become visible								
	c) Homologous chromo	osom <mark>es pa</mark> ir up	d) Spindle forms						