

BCM SCHOOL BASANT AVENUE, DUGRI LUDHIANA XI BIOLOGY ANSWER KEY	
1	Germ cells
2	80 MINS
3	S- phase
4	interphase
5	G0 Phase
6	a. prophase b. telophase c. anaphase d. s- phase
7	<b>During mitosis, replicated chromosomes align themselves along the equator of the cell forming a metaphase plate, and then sister chromatids are pulled apart towards opposite poles of the cell</b>
8	<p>Cytokinesis, the process of cytoplasmic division to form two daughter cells, differs between plant and animal cells mainly in the method of division and the structures involved. Here's a summary of the key differences:</p> <p>Mode of Division:</p> <ul style="list-style-type: none"> <li>• <u>In plant cells, cytokinesis occurs through the formation of a cell plate that develops from the center to the periphery<sup>1</sup>.</u></li> <li>• <u>In animal cells, it occurs through the formation of a cleavage furrow that constricts from the periphery to the center<sup>1</sup>.</u></li> </ul> <p>Direction of Division:</p> <ul style="list-style-type: none"> <li>• <u>Plant cell division is centrifugal, with the cell plate expanding outward<sup>1</sup>.</u></li> </ul>
9	<p>The key events that take place in prophase such as condensation of chromatin, breakdown of the nuclear envelope, nucleolus, etc. get reversed during telophase as is evident due to the decondensation of chromosomes to chromatin and reappearance of the nuclear envelope and nucleolus. Thus, telophase is the reverse of prophase.</p>