



	<p>7. Genotoxicity can be checked by which of the following assays  P. MTT assay    Q. Chromosome aberration test    R. Clonogenic assay  S. Anchorage independence assay    T. Comet assay</p> <p>a. P, Q and T    b. P, R and T    c. Q, S and T    d. Q and T</p> <p>8. A researcher would like to observe the effects of a drug as anti-cancer agent, which category of cells he will go about?  a. Transformed    c. Immortalized  b. Primary culture    d. Secondary cell line</p> <p>9. What does "T" refers to in T25 tissue culture flask?  a. Total volume of the flask    c. Total weight of the flask  b. Total surface area of the flask    d. Total mass of the flask</p> <p>10. Which of these is an example of antifoam used in cell cultures?  a. Sodium alginate    c. Pluronic F68  b. Polylactic acid    d. Gelatin</p> <p>11. _____ and _____ are two groups of plant growth regulators apart from the principal 5 hormones.</p>			
Q.2	<p><b>Answer in brief (5 x 2 marks = 10 marks)</b></p> <ol style="list-style-type: none"> <li>How does co-culture increase the complexity of culturing in terms of time scale and data acquisition?</li> <li>Which are the two methods of obtaining a primary culture?</li> <li>Differentiate between continuous and finite cell cultures</li> <li>How is sub-culturing performed for suspension culture?</li> <li>What is meant by undefined composition of serum? Does that enhance the growth of cells in culture?</li> </ol>	10	CO1, CO2	BT1, BT3, BT4
Q.3	<p><b>Answer in detail (Any Three) (3 x 3 marks = 9 marks)</b></p> <ol style="list-style-type: none"> <li>What are the different methods for co-culture cell culture?</li> <li>What are the major molecular participants in cell-cell and cell-substrate interactions?</li> <li>Describe any cytotoxicity and survival assay.</li> <li>How are MTT results analyzed?</li> <li>Which are the different sources of stem cells in the human body?</li> </ol>	9	CO1, CO2	BT1, BT3, BT4
Q.4	<p><b>Answer in detail (Any Two) (2 x 5 marks = 10 marks)</b></p> <ol style="list-style-type: none"> <li>Discuss any four approaches used for scale up of adherent cultures.</li> <li>Write a note on iPSCs.</li> <li>With the help of a labelled diagram, explain: <ol style="list-style-type: none"> <li>Dedifferentiation</li> <li>Direct transdifferentiation</li> <li>Indirect transdifferentiation</li> </ol> </li> </ol>	10	CO1, CO2	BT1, BT3, BT4