

SEM	SET	PAPER CODE	TITLE OF THE PAPER
II	2014	14PBT2202A	CELL SIGNALING

**SECTION – B****Answer all the questions:****5 x 5 = 25**

31. a. “Intracellular residence of bacteria is advantageous for the initiation of diseases? Substantiate the statement.

**OR**

- b. Discuss the mechanisms involved in the malignant transformation of cells by virus.
32. a. Discuss the steps in MAP Kinase pathway.

**OR**

- b. Write short notes on Bacterial Chemotaxis.
33. a. Give a short account on the general principles of cell communication.

**OR**

- b. How the messages are transmitted between neurons? Explain the biochemical mechanisms.
34. a. Illustrate the role of p53 tumor suppressor gene in controlling the cell cycle.

**OR**

- b. Write down the properties of Cancer cells.
35. a. Give a brief account on the role of various enzymes that induce the programmed cell death of cells.

**OR**

- b. Discuss the mechanisms involved in the mitochondrial regulation of apoptosis.

**SECTION – C**

**Answer any THREE questions:**

**3 x 15 = 45**

36. Describe the recognition and entry mechanisms of intracellular virus into host cells with an example.
37. Explain the signaling cascades through G-Protein coupled receptors and secondary messengers.
38. Compare and contrast the role of gap junctions, integrins & extracellular matrix between the communication of cells.
39. Discuss the role and types of oncogenes. How its activation results in the transformation of normal cells to malignant cells?
40. Illustrate the main events that results in organisms aging and senescence.

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