BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
SECOND SEMESTER 2012-13
BIO G524 ANIMAL CELL TECHNOLOGY
MID TERM EXAMINATION

Max. Marks: 40
Time: 90 min

Date: 8/10/16

Note: Answer Part A and Part B is separately in the same answer sheets.

PART A

Q1. Differentiate between an organ culture and an organotypic culture. (3)

Q2. How are senescence cells different from normal cells? How can cells bypass senescence? Give 2 examples of cells which do no exhibit senescence. (4)

Q3 What are the prescribed norms of radiation protection? Briefly discuss. (3)

Q4(a) Name 3 enzymes that can be used for tissue dissagregation. (1.5)

(b) Suppose you are required to derive a cell line from a tumor biopsy sample provided to you by your instructor. Briefly describe your plan of work using a flow chart. (4)
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Q5 (a) You are given a cell line named Balb/3T3. What information can you derive from the name. (1.5)

(b) You have to freshly start your research work to study the mechanism of action of a newly developed anticancer drug. Suggest 5 criteria you should consider before choosing a cell line. (4)

(c) Depict a diagram showing subculture interval and split ratio in a serial subculture. (4)

PART B

Q6. Is the statement that "a high level of Oxygen is always required for most cell cultures" correct ? Explain with reasons. (3)

Q7. Why are cell lines often maintained at a slightly lower temperature than optimum? (3)

Q8. What are the disadvantages of using antibiotics? (3.5)

Q9. Explain digramatically cloning by limiting dilution in microtitre plates. (2.5)

Q10. Explain the use of cloning rings in the isolation of clones. (3)

Good Luck