

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MSC
BRANCH: BIOTECH

SEMESTER : I
SESSION : MO/2022

SUBJECT: BT401 MOLECULAR CELL BIOLOGY

TIME: 3:00 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
-

- Q.1(a) Explain the structure and function of mitochondria with suitable diagram. [5]
Q.1(b) How does eukaryotic cell differ from prokaryotic cell? [5]
- Q.2(a) Explain the structure of DNA mentioning their difference with RNA. [5]
Q.2(b) Write a brief note on fundamental of molecular biology. [5]
- Q.3(a) Briefly explain about the extra cellular matrix (ECM). [5]
Q.3(b) What do you understand by cell junction? describe different types of cell junction. [5]
- Q.4(a) What is signal transduction and how signal transduction take place? [5]
Q.4(b) How are plants dependent on light for its growth? [5]
- Q.5(a) what is cell cycle? Explain different phases of cell cycle and their checkpoint. [5]
Q.5(b) what is apoptosis? explain the mechanism of apoptosis. [5]

:::::21/11/2022:::::E