

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

**CLASS:** BTECH/IMSC/BHMCT  
**BRANCH:** BT/CIVIL/CHEMICAL/MECH/PIE/FT/PHYSICS/HMCT

**SEMESTER :** 1st  
**SESSION :** MO/2023

**SUBJECT: BE101 BIOLOGICAL SCIENCE FOR ENGINEERS**

**TIME:** 3 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.
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		CO	BL
Q.1(a)	Describe the characteristic features of living organisms.	[5]	2
Q.1(b)	Define animal cell structure and discuss any two organelles.	[5]	2
Q.2(a)	State the stages of Electron Transport Chain with diagram.	[5]	2
Q.2(b)	Discuss the light reaction of photosynthesis with diagram.	[5]	3
Q.3(a)	Describe lock and key model for enzyme-substrate.	[5]	2
Q.3(b)	Discuss any one technique of enzyme immobilization and its application.	[5]	3
Q.4(a)	Draw and discuss the nerve cell structure.	[5]	4
Q.4(b)	Write the structure and function of ear.	[5]	3
Q.5(a)	Comment on central Dogma of molecular biology with diagram.	[5]	3
Q.5(b)	Describe Various components and applications of PCR.	[5]	3

:::13/12/2023 M:::