

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP/2023)

CLASS: BTECH
BRANCH: BIOTEHNOLOGY

SEMESTER : IV
SESSION : SP/2023

SUBJECT: BE214R1 NATURAL PRODUCT BIOTECHNOLOGY

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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Q.1(a)	Categorize the sources of natural products citing suitable examples.	[2]	CO1	4
Q.1(b)	Evaluate the importance of secondary metabolites giving two suitable examples.	[3]	CO1	6
Q.2(a)	Compare the phytochemicals used as drugs giving examples.	[2]	CO1	4
Q.2(b)	Justify giving suitable examples that major biosynthesis pathways of metabolites are interrelated.	[3]	CO1	6
Q.3(a)	Interpret the importance of terpenoids.	[2]	CO1	3
Q.3(b)	Assess the significance of secondary metabolites produced by microorganisms giving two suitable examples.	[3]	CO1	6
Q.4(a)	Illustrate the Ephedrine biosynthesis pathway.	[2]	CO2	3
Q.4(b)	Analyze the correlation between phenylpropanoids biosynthesis and the shikimic acid pathway.	[3]	CO2	4
Q.5(a)	Choose and explain the qualitative and quantitative test performed for screening of any <u>one</u> phytochemical.	[2]	CO2	3
Q.5(b)	Outline the method for screening of microbes with bioactivities giving a suitable example.	[3]	CO2	4

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