



Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BTECH
(SEM VII) THEORY EXAMINATION 2024-25
BIOECONOMICS

TIME: 3 HRS

M.MARKS: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

Q no.	Question	Marks	CO
a.	Define plant based biomass.	2	2
b.	Define “diversity of biomass”	2	2
c.	Define analog filters.	2	1
d.	Write use of Op-amp resistor circuits.	2	2
e.	Define aquatic biomass.	2	2
f.	Define biomass energy.	2	2
g.	Define alcohol fuels.	2	2
h.	How the land fill gases are used?	2	1
i.	Define anaerobic digestion as source of energy.	2	2
j.	Give some examples of liquid biofuels.	2	1

SECTION B

2. Attempt any three of the following:

a.	Describe circuit simulated modeling.	10	2
b.	Describe bio based economy.	10	2
c.	Write an ideal bio economy cycle of any developed country.	10	1
d.	Write the recycling process of plant based biomass.	10	2
e.	Write the principle and working of analog filters.	10	1

SECTION C

3. Attempt any one part of the following:

a.	Write the principle and applications of Op-amp models.	10	1
b.	Enumerate various types of filters. Describe any one.	10	2

4. Attempt any one part of the following:

a.	Enumerate various tools to support the transition to a bio economy.	10	4
b.	Write the role of Government in environmental economics.	10	3

5. Attempt any one part of the following:

a.	Write the concept of bio refineries.	10	3
b.	Describe the resources competition, complementarities and food security.	10	3

6. Attempt any one part of the following:

a.	Explain the bio based resources and value chain.	10	4
b.	Describe the use of biomass for the production of fuel and chemicals.	10	3

7. Attempt any one part of the following:

a.	Describe dynamic management of fossil fuel.	10	4
b.	Enumerate various biofuels. How the production of these fuels can be increased.	10	3