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END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time: 3 hoursProgram Name: B.Sc.(Hons.) AgricultureCourse Name: Renewable Energy and Green Technology

Total Marks : 100 Semester : IV Course Code : BSAG403

1

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Five Parts, Each Question Carries 5 Marks,	CO	BL
(a)	Explain different types of wind mills?	CO 1	2
(b)	What are the renewable energy sources? Write its advantages and obstacles to implement the sesources.	CO 1	1,2
(c)	What are the convention and non-conventional sources? Write advantages of non-conventional energy sources.	CO 1	1,2
(d)	What are the limitations of conventional energy sources?	CO 1	1,2
(e)	Explain the main advantages and disadvantages of ocean wave energy.	CO 1	1,2
(f)	Explain sensible heat and latent heat.	CO 1	1,2

Q. No 2	Attempt Any Five Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Write the advantages and disadvantages of: a. Updraft gasifier b. Downdraft gasifier.	CO 2	1
(b)	Write the classification of tidal power plants.	CO 2	2
(c)	What is meant by Natural Resources? Explain Renewable and Non-renewable Natural resources	CO 2	1,2
(d)	Define solar constant and its standard value.	CO 2	2
(e)	Describe working of a biogas plant (with the help of diagram).	CO 2	1
(f)	What is energy storage management?	CO 2	2

Attempt Any Five Parts. Each Question Carries 5 Marks.	CO	BL
State the application of solar photovoltaic system.	CO 3	1
Discuss the different types of photovoltaic cells.	CO 3	6
How do wind turbines extract power?	CO 3	6
Explain the main applications of solar pond.	CO 3	2
What are the advantages and limitations of wave energy conversion?	CO 3	6
How are Flat plate collectors classified? Explain any two types with neat sketch.	CO 3	1,2
	Attempt Any Five Parts. Each Question Carries 5 Marks. State the application of solar photovoltaic system. Discuss the different types of photovoltaic cells. How do wind turbines extract power? Explain the main applications of solar pond. What are the advantages and limitations of wave energy conversion? How are Flat plate collectors classified? Explain any two types with neat sketch.	Attempt Any Five Parts. Each Question Carries 5 Marks.COState the application of solar photovoltaic system.CO 3Discuss the different types of photovoltaic cells.CO 3How do wind turbines extract power?CO 3Explain the main applications of solar pond.CO 3What are the advantages and limitations of wave energy conversion?CO 3How are Flat plate collectors classified? Explain any two types with neat sketch.CO 3

O No 4	Attempt Any Five Parts, Each Question Carries 5 Marks.	CO	BL	
(2)	Define the wind farms and its advantages.	CO 4	1	
(a) (b)	Define beam, diffused, and global radiation.	CO 4	3	
	Sketch and explain the different operational characteristics of Wind turbine.	CO 4	3,2	,
(0)	Explain about single basin arrangement in tidal power generation.	CO 4	3	-
(u)	With a neat diagram of a wind mill write its construction and working.	CO 4	1	
(e) (f)	Explain the different Economic and Environmental considerations of a tidal	CO 4	3	
(1)	power plant.			_

-----End of Paper-----

13