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220152

5th Sem., Branch : Agriculture
Subject : Renewable Energy Sources in Agriculture Engineering

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (6x1=6)

Q.1 The KVIC biogas plant is _____type of biogas plant. (CO2)

a) Floating b) Fixed
c) Floating & Fixed d) None

Q.2 Wind flows from _____ pressure area to _____pressure areas. (CO3)

a) High, high b) High, low
c) Low, high d) Low, low

Q.3 A Solar cell is an electrical device that converts the energy of light directly into electricity by the (CO5)

a) Chemical effect b) Atmospheric effect
c) Photovoltaic effect d) All of these

Q.4 Renewable energy is mainly obtained from (CO1)

a) Biomass & biogas b) Wind
c) Sun d) All of these

Q.5 Which one is not related with wind energy? (CO3)

a) HAWT b) Darious Motor
c) Savonious Rotor d) Photo-Voltaic

Q.6 Renewable sources of energy are _____. (CO1)

a) Exhaustible b) Inexhaustible

c) Both of these d) None of these

Section-B

Note: **Objective/Completion type questions. All questions are compulsory. (6x1=6)**

Q.7 Pressure gauge is used for _____. (CO4)

Q.8 Write two main products of anaerobic digestion. (CO2)

Q.9 Photovoltaic solar cells are made up of _____. (CO5)

Q.10 Write down names of raw materials required for biogas generation. (CO2)

Q.11 Write down names of different types of furnaces used for biomass combustion. (CO2)

Q.12 Wind mill is used for. (CO3)

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Define principle of energy conservation. Enlist different types of energy conservation appliances. (CO2)

Q.14 Write a short note on maintenance and performance of wind mill. (CO2)

Q.15 What is geothermal energy? Also write down its applications. (CO2)

Q.16 Explain the criteria for the site selection for biogas plant. (CO2)

Q.17 What is the concept behind farm residue management? (CO2)

Q.18 Describe the various parameters affect the biogas production. (CO2)

Q.19 What are the basic principles of wind energy conversion system? (CO2)

Q.20 What is the scope of renewable energy sources? (CO2)

Q.21 Explain the solar energy conversion process. (CO2)

Q.22 Write down at least four benefits of biogas. (CO2)

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

Q.23 What is the scope of energy conservation in domestic, commercial and agricultural sector? Also suggest any five methods to conserve energy. (CO1)

Q.24 Describe principle and constructional details of fixed dome type biogas plant with suitable diagram. (CO2)

Q25 What is geothermal energy? Also write down advantages and disadvantage of geothermal energy over other form of energy. (CO4)