



**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**

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QUESTION BANK (DESCRIPTIVE)

Subject with Code: Greenhouse Technology (18AG0721)

Course & Branch: B.Tech - AGE

Regulation: R18

Year & Sem: IV-B.Tech & I-Sem

UNIT –I

INTRODUCTION TO GREENHOUSE

1	a	What is greenhouse effect?	[L1][CO1]	[2M]
	b	Write about saw tooth type greenhouse?	[L1][CO1]	[2M]
	c	Explain about Quonset greenhouse?	[L1][CO1]	[2M]
	d	What is photosynthesis reaction?	[L1][CO1]	[2M]
	e	List out the factors effecting the plant growth in greenhouse?	[L1][CO1]	[2M]
2	a	Write brief history about greenhouse and explain the greenhouse effect?	[L2][CO1]	[5M]
	b	Write advantages of greenhouse?	[L2][CO1]	[5M]
3	a	Define greenhouse and list the classification of greenhouse?	[L2][CO1]	[5M]
	b	Explain types of greenhouse based on shape with neat diagram?	[L2][CO1]	[5M]
4		Explain about classification of greenhouse based on shape with neat sketch?	[L3][CO1]	[10M]
5	a	Write about types of greenhouse based on utility?	[L2][CO1]	[5M]
	b	Explain about shade net?	[L2][CO1]	[5M]
6	a	Explain about pipe framed greenhouse structure with neat diagram?	[L2][CO1]	[5M]
	b	Explain about truss framed greenhouse structure with neat diagram?	[L2][CO1]	[5M]
7		Write about classification greenhouse based on covering materials?	[L3][CO1]	[10M]
8	a	Write about the effect of light on plant growth in greenhouse?	[L2][CO1]	[5M]
	b	Briefly explain about effect of temperature and RH on plant growth in greenhouse?	[L2][CO1]	[5M]
9		Explain about effect of following factors on plant growth in greenhouse?	[L2][CO1]	[5M]
		a. Carbon dioxide b. Ventilation	[L2][CO1]	[5M]
10	a	List out the classification of greenhouse?	[L2][CO1]	[5M]
	b	Explain about lean to type and even span greenhouse with neat sketch?	[L2][CO1]	[5M]

UNIT –II**ENVIRONMENTAL REQUIREMENT FOR CROPS AND CONTROL INSIDE GREENHOUSE**

1	a	List the environmental requirement parameters of any two crops?	[L1][CO2]	[2M]
	b	Write the carbon dioxide enrichment methods?	[L1][CO2]	[2M]
	c	Write about fluorescent lamp?	[L1][CO2]	[2M]
	d	What is solid CO ₂ ?	[L1][CO2]	[2M]
	e	What is greenhouse ventilation?	[L1][CO2]	[2M]
2	a	Write about temperature requirements of crop grown in greenhouse?	[L2][CO2]	[5M]
	b	Write about light requirements of crop grown in greenhouse?	[L2][CO2]	[5M]
3		Explain about greenhouse supplemental lighting systems?	[L3][CO2]	[10M]
4		Explain about active summer cooling systems with neat sketch?	[L3][CO2]	[10M]
5		Explain about active winter cooling systems with neat sketch?	[L3][CO2]	[10M]
6		Write about the carbon dioxide enrichment methods?	[L3][CO2]	[10M]
7		Write about the natural ventilation system with neat diagram?	[L3][CO2]	[10M]
8		Explain about working of forced ventilation system?	[L3][CO2]	[10M]
9		Write about computer control system in greenhouse with neat sketch?	[L3][CO2]	[10M]
10	a	Write in detail about microprocessor with neat diagram?	[L2][CO2]	[5M]
	b	Write the advantages and disadvantages of computers?	[L2][CO2]	[5M]

UNIT –III**PLANNING OF GREENHOUSE FACILITY AND GREENHOUSE COVERING MATERIAL**

1	a	Write the steps of greenhouse planning?	[L1][CO3]	[2M]
	b	List out greenhouse covering material with their life span?	[L1][CO3]	[2M]
	c	What is galvanizing process?	[L1][CO3]	[2M]
	d	List out the construction materials of greenhouse?	[L1][CO3]	[2M]
	e	Write difference between hammered and tempered glass?	[L1][CO3]	[2M]
2		Explain about structural design of greenhouse with suitable diagram?	[L3][CO3]	[10M]
3		Write briefly about the types of construction materials of greenhouse?	[L3][CO3]	[10M]
4		Explain about the polyethylene covering material?	[L3][CO3]	[10M]
5	a	Write about site selection and orientation of greenhouse?	[L2][CO3]	[5M]
	b	Write about the selection of covering materials of greenhouse?	[L2][CO3]	[5M]
6		Explain about the wood, galvanized iron and glass construction materials?	[L3][CO3]	[10M]
7		Explain in detail about the polyethylene covering material?	[L3][CO3]	[10M]
8	a	Write about the polyvinyl chloride film?	[L2][CO3]	[5M]
	b	Write about polyvinyl chloride rigid film?	[L2][CO3]	[5M]
9	a	Briefly explain about tefzal T ² film?	[L2][CO3]	[4M]
	b	Explain about acrylic and polycarbonate rigid panel?	[L2][CO3]	[6M]
10	a	Write about the design aspects of greenhouse?	[L2][CO3]	[5M]
	b	Write about properties of covering materials?	[L2][CO3]	[5M]

UNIT –IV
GREENHOUSE HEATING AND ENERGY STORAGE AND IRRIGATION SYSTEMS

1	a	What is a design criterion of greenhouse construction?	[L1][CO4]	[2M]
	b	List out structural members in pipe framed greenhouse?	[L1][CO4]	[2M]
	c	What is irrigation and list the types of irrigation systems?	[L1][CO4]	[2M]
	d	Write about hand watering system?	[L1][CO4]	[2M]
	e	What is boom watering system?	[L1][CO4]	[2M]
2		Write about the construction details of glass greenhouse?	[L3][CO4]	[10M]
3		Write about the construction of pipe framed greenhouse with neat diagram?	[L3][CO4]	[10M]
4	a	Explain about modes of heat loss in greenhouse?	[L2][CO4]	[5M]
	b	Explain about greenhouse heating systems?	[L2][CO4]	[5M]
5		Explain solar heating system with neat diagram?	[L3][CO4]	[10M]
6		Write about water and rock storage with neat diagram?	[L3][CO4]	[10M]
7		Write about the rules of application of irrigation?	[L3][CO4]	[10M]
8		Explain about perimeter watering system with neat sketch?	[L3][CO4]	[10M]
9		Write about overhead sprinkler system with neat sketch?	[L3][CO4]	[10M]
10		Explain about drip irrigation system for greenhouse with neat diagram?	[L3][CO4]	[10M]

**GREENHOUSE UTILIZATION IN OFF SEASON AND ECONOMICS OF GREENHOUSE
PRODUCTION**

1	a	List the process of greenhouse utilization in off seasons?	[L1][CO5]	[2M]
	b	Define drying and curing process?	[L1][CO5]	[2M]
	c	What is row covers and list out the types of row covers used in greenhouse?	[L1][CO5]	[2M]
	d	What are the advanced protected agricultural systems?	[L1][CO5]	[2M]
	e	What economics of production?	[L1][CO6]	[2M]
2		Explain briefly about greenhouse utilization in off-season?	[L3][CO5]	[10M]
3		Explain about greenhouse drying system for grain in with neat diagram?	[L3][CO5]	[10M]
4		Write in detail about curing of tobacco in greenhouse with suitable diagram?	[L3][CO5]	[10M]
5	a	Explain about perforated plastic tunnel type row cover with neat diagram?	[L2][CO5]	[5M]
	b	Explain about slitted row cover with neat diagram?	[L2][CO5]	[5M]
6		Write about air supported row cover with neat sketch?	[L3][CO5]	[10M]
7		Write about floating row cover with neat sketch?	[L3][CO5]	[10M]
8		Draw flowchart of capital requirements of production and explain	[L3][CO6]	[10M]
9	a	Explain briefly about economic analysis of greenhouse production.	[L2][CO6]	[5M]
	b	Explain the conditions influencing returns in protected agriculture?	[L2][CO6]	[5M]
10	a	Explain about hydroponic system?	[L2][CO5]	[5M]
	b	Write the advantages and disadvantages of hydroponics system?	[L2][CO5]	[5M]

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