



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

Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code : FPPD (16AG722)

Course & Branch: B.Tech – AGE

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

Regulation: R16

**UNIT –I
INTRODUCTION TO PLANT LAYOUT**

1	a) Define plant layout and explain objectives of plant layout	[L1][CO1]	[6M]
	b) Explain factors in planning layout?	[L2][CO1]	[6M]
2	a) Explain methods of layout planning?	[L3][CO1]	[9M]
	b) Write about principles of plant layout?	[L3][CO1]	[3M]
3	a) What is plant layout meaning and importance of plant layout?	[L3][CO1]	[6M]
	b) Write advantages and disadvantages of good plant layout and write about site selection for plant layout?	[L3][CO1]	[6M]
4	Explain in detail about the fruit processing plant?	[L3][CO1]	[12M]
5	Write in detail about salient features of rice processing plant?	[L3][CO1]	[12M]
6	Write in detail about salient features of maize processing plant?	[L4][CO1]	[12M]
7	Write in detail about salient features of pulse processing plant?	[L5][CO1]	[12M]
8	Write in detail about salient features of oilseed processing plant?	[L4][CO1]	[12M]
9	Write in detail about salient features of horticulture processing plant?	[L4][CO1]	[12M]
10	Write in detail about salient features of vegetable crops processing plant?	[L5][CO1]	[12M]

UNIT –II
SALIENT FEATURES OF DIFFERENT PROCESSING PLANTS

1	Write in detail about salient features of poultry processing plant?	[L4][CO2]	[12M]
2	Write in detail about salient features of fish processing plant?	[L5][CO2]	[12M]
3	Write in detail about salient features of meat processing plant?	[L5][CO2]	[12M]
4	Write in detail about salient features of milk and milk products processing plant?	[L4][CO2]	[12M]
5	a) Define plant location? b) Explain factors in selecting the plant location?	[L3][CO2] [L4][CO2]	[2M] [10M]
6	a) Write about selection of plant site? b) Write steps involved in preparation of plant layout?	[L3][CO2] [L3][CO2]	[6M] [6M]
7	a) Explain different selection processes? b) Write comparison between batch and continuous operation?	[L3][CO2] [L4][CO2]	[6M] [6M]
8	a) Define plant capacity? b) Explain various plant equipment designations and flow patterns?	[L3][CO2] [L5][CO2]	[2M] [10M]
9	a) What is scale-up ? b) Briefly explain the safety factors in plant layout?	[L2][CO2] [L4][CO2]	[2M] [10M]
10	a) Write different materials required for construction of plant layout? b) Explain steps involved in scale-up design?	[L4][CO2] [L3][CO2]	[6M] [6M]

UNIT –III
PROJECT DESIGN AND DEVELOPMENT

1	a) Explain about process design development with suitable diagram? b) Define design, process and process design?	[L4][CO3] [L2][CO3]	[9M] [3M]
2	Write general design considerations of process design development?	[L4][CO3]	[12M]
3	Explain cost estimation necessary to estimate process design development?	[L3][CO3]	[12M]
4	Write in detail about factors affecting profitability of investment?	[L3][CO3]	[12M]
5	Explain about optimum design consideration both in economic and operation?	[L3][CO3]	[12M]
6	a) Write in detail about practical consideration in designing project systems? b) Explain about design approach for project design?	[L3][CO3] [L4][CO3]	[6M] [6M]
7	a) Explain in detail about different types of designs? b) What is meant by feasibility survey?	[L3][CO3] [L3][CO3]	[6M] [6M]
8	a) Write about process development of design? b) Enlist design considerations of process design development?	[L3][CO3] [L4][CO3]	[6M] [6M]
9	Write in detail about construction and operation of process design?	[L3][CO3]	[12M]
10	Give in detail explanation of design information from different literature?	[L3][CO3]	[12M]

UNIT –IV
FLOW DIAGRAM, PLANT PRILIMINARY DESIGN AND ECONOMICS

1	a) Draw qualitative and quantitative flow diagrams of food processing layout? b) Explain preliminary design and problem statement of equipment?	[L3][CO4]	[6M]
2	Explain about literature survey, material and energy balance?	[L3][CO4]	[12M]
3	Write in detail about equipment design and selection with suitable example?	[L3][CO4]	[12M]
4	Explain economics and problems carried in selection of equipment?	[L3][CO4]	[12M]
5	a) Define process control? b) Explain different factors considered for equipment selection?	[L1][CO4] [L3][CO4]	[2M] [10M]
6	Write in detail about instrumentation control, maintenance control and computer aided system?	[L4][CO4]	[12M]
7	Write in detail about handling equipment's and its factors?	[L3][CO4]	[12M]
8	Explain about plant elevation and requirements of plant building and its components?	[L3][CO4]	[12M]
9	Describe briefly the foundation equipment, dynamic loading, illumination and air-conditioning?	[L4][CO4]	[12M]
10	Explain about labor requirements for processing plant and different transmission systems?	[L4][CO4]	[12M]

UNIT –V
FOOD PLANT SANITATION

1	a) Define food plant sanitation? b) Explain environmental protection and regulations?	[L1][CO5] [L3][CO5]	[4M] [8M]
2	a) Explain pollution control and air pollution act briefly? b) Explain thermal pollution control briefly?	[L3][CO5] [L4][CO5]	[6M] [6M]
3	Write briefly about recycling and its methods?	[L3][CO5]	[12M]
4	Define CIP and write advantages and disadvantages of CIP?	[L3][CO5]	[12M]
5	Explain cash flow analysis of food plant layout with tree diagram?	[L4][CO5]	[12M]
6	Write in detail of factors affecting investment and production cost?	[L4][CO5]	[12M]
7	Explain about capital investment and estimation of capital investment?	[L3][CO5]	[12M]
8	Define cost index and write about factors affecting in capital investment?	[L3][CO5]	[12M]
9	a) Write about estimation of total product cost? b) Define feasibility report?	[L3][CO5] [L2][CO5]	[10M] [2M]
10	Write about types of reports and briefly explain about organization of design report?	[L4][CO5]	[12M]

Prepared by:
Er. G. SINDHURI
Assistant Professor/AGE