AMSB26 SHIP PRODUCTION MANAGEMENT

UNIT-1 PRODUCTION SYSTEM

1.1 The systems approach subsystems, comprehensive system model- the firm as a system.
1.2 Production design- application of the principles of design for production in shipbuilding
1.3 Joining of parts, relations between structural design and prefabrication, simplifications in structural design (design for welding).

UNIT-2 PROCESS PLANNING IN SHIPBUILDING

2.1 Planning for operations – interconnection between production design and process planning,
2.2 Production and process analysis, assembly charts, operation process charts, flow process charts;
2.3 Process selection. Application of models for process planning, scheduling and control
2.4 Gantt charts, CPM & PERT.; Special aspects of application of these in shipbuilding process

UNIT-3 INTRODUCTION TO OPERATION RESEARCH

3.1 Operation planning and control production planning scheduling network models (PERT, CPM) quality control maintenance analysis.
3.2 Production Standards- production standards in several parts of the ship production process, work measurement systems, methods of man-hour determination.

UNIT-4 QUALITY ASSURANCE AND QUALITY CONTROL ACTIVITIES IN SHIPYARDS

4.1 Problems of accuracy- tolerances, standards, measuring techniques (theodoilite laser).

UNIT-5 GENERAL SHIPBUILDING AND SHIPYARD ACTIVITIES

5.1 Business Development, Safety, Security, Housekeeping,
5.2 Training, Enterprise resource Planning-Data Management Systems
Practicals: Application of network models with critical path scheduling in shipbuilding.

Reference Books:

1. Taggart; Ship Design and Construction, SNAME, 1980.42
2. Storch R. Lee, Hammon C.P. & Bunch H.M.; Ship Production, Cornell Maritime Press, Maryland, USA, 1988
3. Dormidontov V.K. & et.al.; Shipbuilding Technology, Mir Publishers, Moscow.
4. Eyres D.J.; Ship Construction William Heinemann Ltd, London, 1982
5. Elwood S.Buffa; Modern Production/Operations Management, Wiley Eastern Ltd., 2004.