

JD-20 & 21 June, 2017 AC after Circulars

- 32 -

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY



CIRCULAR NO.SU/Engg./B.E.Elective/52/2017

It is hereby informed to all concerned that, on the recommendation of the Dean, Faculty of Science & Technology, the Hon'ble Vice-Chancellor **has accepted the "Elective for B.E. Final Year for the branch of Electrical Engineering i.e. SAP Production Planning - I for Ist semester and SAP Production Planning - II for IInd semester as an Elective -I,II** under the Faculty of Science & Technology in his emergency powers under section 12(7) of the Maharashtra Public Universities Act, 2016 on behalf of the Academic Council as appended herewith.

This shall be effective from the Academic Year 2017-2018 and onwards.

All concerned are requested to note the contents of this circular and bring the notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.

REF.NO. SU/B.E./2018/6527-35

Date:- 06.02.2018.

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Deputy Registrar,
Syllabus Section.

Copy forwarded with compliments to :-

- 1] **The Principals, affiliated concerned Colleges, Dr. Babasaheb Ambedkar Marathwada University.**
- 2] **The Director, University Network & Information Centre, UNIC, with a request to upload this Circular on University Website.**

Copy to :-

- 1] The Director, Board of Examinations & Evaluation,
- 2] **The Section Officer, [Engineering Unit] Examination Branch,**
- 3] The Section officer, [Eligibility Unit],
- 4] **The Programmer [Computer Unit-1] Examinations,**
- 5] **The Programmer [Computer Unit-2] Examinations,**
- 6] The In-charge, [E-Suvidha Kendra],
- 7] The Public Relation Officer,
- 8] The Record Keeper,

Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD
FACULTY OF SCIENCE AND TECHNOLOGY
Final Year Engineering (ELECTRICAL ENGINEERING)
Semester – I

Course Code: Elective –I
Teaching Scheme:
Theory: 4 Hours/Week

Title: SAP Production planning I (SAP PP-I)
Examination Scheme
Class Test: 20 Marks
Theory Examination (Marks): 80 Marks
Theory Examination (Duration): 03 Hrs

Section A:

Unit I:

INTRODUCTION

SAP overview: Introduction to different modules of SAP, Integration of SAP PP with other modules.

Organizational Structures in SAP ERP: Client, Company Code, Plant, Storage Location, Material Requirements Planning Controllers, Material Requirements Planning Controllers, Capacity Planners, Production Schedulers.

Production Planning in SAP ERP: Objectives of PP Module, key elements of PP module, Production processes overview, Production Types and their characteristics.

SAP Calendar: Public Holidays, Holiday Calendar, Factory Calendar. **(06Hrs.)**

Unit II:

SAP-PP MASTER DATA

Overview of Master Data, Types of Data in SAP ERP, Use of Organizational Data and Master Data in Production

Material Master: Classification of the Material Master, MRP data, Scheduling data, MRP Planner code, Lot size, Procurement data, Lead time, MRP types, Availability check, Planning strategy

Bill of Materials: Characteristics of BOM (BOM usage, Status, Item category), Creation, Change and display of BOM, Types of BOM, Explosion of BOM

Work Centre: Key features of Work centre (No of individual Capacities, Efficiency, Shift timings, Capacity & Scheduling Parameters, Linkage to appropriate cost center), Creation, Change and display of Work Centre

Routing: Key features of Routing (List of operations with appropriate work centers, Operation time, Interoperation times), Creation and Change of Routing.

Production Version: (10 Hrs.)

Unit III

ADVANCED FUNCTIONS OF MASTER DATA

Advanced Bill of Material Functions: Phantom Assemblies, Co-Products and By-Products, Discontinuation and Substitute Parts in the Bill of Materials, Multiple and Variant BOMS

Advanced Routing Functions: Rate routing, Reference Operation Sets, Reference rate routing, Master recipe **(06 Hrs.)**


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C.S.M.S.S. Chit. Shahu College of Engineering
Kanchanwadi, Aurangabad.

Section B:

Unit IV:

DEMAND MANAGEMENT AND LONG TERM PLANNING

Planning Strategy: Planning with Final Assembly, Requirements Class and Requirements Type , Strategy Groups ,Maintain Requirements Class for Planned Independent Requirements ,Planned Independent Requirements, Customer Independent Requirements.

Long term Planning: LTP Master Data and Planning Data, Business Process, Evaluate Information Systems for LTP (08Hrs.)

Unit V:

MATERIAL REQUIREMENTS PLANNING

Process Overview: Prerequisites, Influencing Factors in Material Requirements Planning, Lot Sizes, Configuring MRP Lot Size, Rounding Static, Rounding Profile

Scrap: Assembly Scrap, Component Scrap, Operations and Component Scraps in Bill of Materials (BOM), Scrap in Routing

MRP Procedures: MRP Types, Configuring MRP Types

Safety Stock: Safety Stock Availability, Master Data Selection

MRP run analysis and procurement proposals: Stock Overview ,Stock/Requirements List, Purchase Requisitions, Planned Orders, Planned Order Profile(06Hrs.)

Unit VI:

PRODUCTION ORDER

Overview, Order Structure and Processing, Creation, change and release of production order
Material Staging, Order Control, Confirmation, Goods Receipt, Mass Processing and Automation,
Logistics Information System (04Hrs.)

Books / Resources:

1. Production Planning and Control with SAP ERP by Jawad Akhtar, SAP Press 2nd edition, 2016, Publisher: Rheinwerk Verlag GmbH, ISBN 978-1-4932-1430-3.
2. First Steps in the SAP Production Processes (PP) By Björn Weber 2014, Publisher: Espresso Tutorials, ISBN 3943546608, 9783943546606
3. SAP Certified Application Associate Production Planning & Manufacturing with SAP ERP 6.0 by J Clark and N Thind, Csm edition (November 29, 2011) , Publisher: CreateSpace Independent Publishing Platform, ISBN-10: 1468001353, ISBN-13: 978-1468001358
4. Configuring Kanban in SAP ERP MM and PP by Jawad Akhtar, SAP Press ,2016 Publisher: Rheinwerk Verlag GmbH, ISBN: 978-1-4932-1337-5
5. S&OP with SAP ERP Production Planning by Jawad Akhtar, SAP Press , 2nd edition, 2016, Publisher: Rheinwerk Verlag GmbH, ISBN 978-1-4932-1392-4

PATTERN OF QUESTION PAPER:

Six units in the syllabus shall be divided in two equal parts i.e. 3 units in each part. Question paper shall be set having two sections A and B. **Section A** questions shall be set on first part and **Section B** questions on second part. Question paper should cover the entire syllabus.

For 80 marks Paper:

1. Minimum ten questions

2. Five questions in each section
3. Question no. 1 from section A and Question no. 6 from section B, 10 marks each, will be compulsory.
4. From the remaining questions in section A and B students are supposed to solve any two questions from each section, 15 marks each

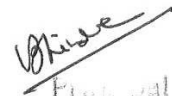
Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD
FACULTY OF SCIENCE AND TECHNOLOGY
Final Year Engineering (ELECTRICAL ENGINEERING)
Semester – I

Course Code:
Teaching Scheme
Practical: 2 Hours/Week

Title: - LAB - Elective-I SAP PP-I
Examination Scheme
Term Work: 25 Marks

Term Work: The term work shall consist of at least 8 experiments/ assignments based on the syllabus above. Assessment of term work should be done as follows

- Continuous lab assessment
- Actual practical performance in Laboratory.
- The instructor has to frame 8 experiments relevant to course contents mentioned in syllabus.


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Final Year Engineering (ELECTRICAL ENGINEERING)
Semester – II

Course Code: Elective –II
Teaching Scheme:
Theory: 4 Hours/Week

Title: SAP Production planning II (SAP PP-II)
Examination Scheme
Class Test: 20 Marks
Theory Examination (Marks): 80 Marks
Theory Examination (Duration): 03 Hrs

Section A:

Unit I

CONFIGURATION SPECIFICS AND PRODUCTION PLANNING FOR DISCRETE MANUFACTURING:

Configuration Basics of Discrete Manufacturing: Material Master, Bill of Materials, Work Center, Routing, Production Order Creation, Order Type-Dependent Plant Parameters, Production Scheduling Profile, Default Values for the Generation of Operations, Availability Check, Stock and Batch Determination, Scheduling, Reduction Strategy, Confirmation, Reason for Variances, Trigger Points

Define Print Control, Background Jobs, and Process Integration.

Production Planning for Discrete Manufacturing: Process Overview, Master Data, Production Order Management, Release Production Order, Printing, Material withdrawal, Confirmation, Goods Receipt, Post processing, Settlement and Completion, Additional Functions and Information Systems. (08Hrs.)

Unit II

CONFIGURATION SPECIFICS AND PRODUCTION PLANNING FOR PROCESS MANUFACTURING:

Configuration Basics of Process Manufacturing: Master Data in Process Industries, Order Type-Dependent Parameters, Production Scheduling Profile, Process Management, Process Messages, Process Instruction Category, Control Recipe/Process Instruction Sheets, Background Jobs, Process Management: Configuration and Implementation.

Production Planning for Process Manufacturing: Process Manufacturing Overview, Master Data, Process Management, Process Order Execution, Process Management in Action, Execution Steps (Xsteps), Process Manufacturing Cockpit, Process Messages Evaluation. (08Hrs.)

Unit III

CONFIGURATION SPECIFICS AND PRODUCTION PLANNING FOR REPETITIVE MANUFACTURING:

Configuration Basics of Repetitive Manufacturing: Repetitive Manufacturing Profile, Kanban, Scheduling Planned Orders, Display, Material Staging, Global Settings for Confirmation and the Logistics Information System.

Production Planning for Repetitive Manufacturing: Overview, Master Data, Material Requirements Planning, Collective Availability Check, Planning Table in Repetitive Manufacturing, Material Staging, Production List, Confirmation, Reversals and Scrap, Collective Confirmation (08Hrs.)


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Section B:

Unit IV:

SALES AND OPERATIONS PLANNING

Overview, Flexible Planning, Maintaining Version Management, Forecasting, Rough-Cut Planning Profile, Events, Mass Processing in SOP, Standard Analysis in Flexible Planning **(06Hrs.)**

Unit V:

OPTIMIZATION OF PRODUCTION PLANNING

Special Procurement Types: Overview, Direct Production, Direct Procurement, Stock Transfer (Inter-Plant Transfer), Withdrawal from Alternate Plant, Production in Alternate Plant Subcontracting, Consignment, Pipeline Material

Capacity Requirements Planning: Process Overview, Capacity Requirements and Capacity Evaluation, Finite Scheduling, Dispatching, Capacity Planning Table **(06Hrs.)**

Unit VI:

ENGINEERING CHANGE MANAGEMENT AND DOCUMENT MANAGEMENT SYSTEM (DMS)

ECM Configuration, Change Master, Engineering Change Request (ECR)/Engineering Change Order (ECO), DMS Configuration, DMS in Action, Web Documents, Additional Features of DMS **(04Hrs.)**

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