

Table UG Pool (Part-3) w.e.f. 2024-25

Pool of Minor, Multidisciplinary and Skill Enhancement Courses

S. No	Subject	Course Type		Nomenclature of Course	Page No.
1.	Computer Sciences (BCA)	MIC-1	Sem 1	Front Desk Management	1
		SEC-1	Sem 1	Numerical Ability and Enhancement Skills	4
		MDC-1	Sem 1	Mathematics	7

Course code	MIC-1			
Category	Minor Course (MIC)			
Course title	Front Desk Management			
Course ID	240/BCA/MI101			
Scheme and Credits	L	T	P	Credits
	1	0	2	2
Theory Internal	05			
Theory External	20			
Practical Internal	05			
Practical External	20			
Total	50			
Duration of Exam	3 HRS			

Note: The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

Course Outcomes:

1. Develop, format, setup and print Word documents.
2. Learn advance features of Word Processing and use tables, comments and mail merge.
3. Create & format worksheets.
4. Create worksheets and handle databases using advanced features such as filters, pivot tables and cell locking.

UNIT-I

Word Processing Basics: Creating, Formatting and Editing a Word Document: Word Wrap, Spelling and Grammar Check, Formatting Text and Paragraph, Paragraph Indents, Inserting and Formatting a Picture/ Clip Art in a Word document, Smart Art, Wrap Text around Images, Adding Effect to Images, Inserting Symbols and Equations, Document, Bullet and Numbered List, Find and Replace, Page Setup.

UNIT-II

Advance Features of Word Processing: Formatting Tables, Align Cell Text, Merge Cell, Text Directions, Adding a Chart and Chart Styles, using and Making Templates, Mail- Merge, Add to Dictionary, Treasures, Character Map, Headers and Footers, Page Numbering, Page Borders, Creating Columns, Creating and Dropping Comments, Watermark

UNIT-III

Excel Basics: About Ribbon Menus, Creating & Editing Worksheet, Use of Various Data Types, Text Orientation, Formatting Spreadsheet: Cell Alignment and Border, Freeze Panes, Conditional Formatting, Using Formulas and Functions, VLookup, Cell Referencing, Page Setup, Page Options, Customizing Margins, Headers and Footers, Print Options, Print Formulas.

Unit – IV

Excel Advance Features: Transferring Data to and From Non Worksheet Files, Database Handling, Adding, Formatting and Customising Chart, Change Chart Type, Sorting Data, Use of Filters, Data Analysis with Goal Seek and Scenario Manager, Creating Scenario, Creating Pivot Tables, Using Slicers, Pivot Chart, Creating a Drop Down List, Locking Cells, Using Multiple Workbooks.

Textbooks & Reference Books:

1. Kevin Wilson, Essential Office 2016, pdfdrive.com
2. Microsoft Office- Complete Reference, BPB Publication.
3. Russell A. Stultz, Learn Microsoft Office, BPB Publication.
4. Steven M. Freund, Mary Z. Last, Philip J. Pratt, Susan L. Sebok, Misty E. Vermaat, Jennifer T. Campbell, Mark Frydenberg, Discovering Computers & Microsoft Office 365- A Fundamental Combined Approach, Cengage Learning.
5. Courter, G Marquis, Microsoft Office 2000: Professional Edition, BPB.
6. Koers, D, Microsoft Office XP Fast and Easy, PHI.
7. Nelson, S L and Kelly J, Office XP: The Complete Reference, Tata McGraw-Hill

Front Desk Management Lab List of Experiments

MS Word:

- Adding text, editing text, finding and replacing text
- Formatting text: font styles, sizes, colors, bold, italic, underline
- Working with styles: creating, modifying, applying styles
- Text indentation: first line, hanging, left and right
- Page layout: setting margins, changing page size, orientation
- Printing a document: adjusting print settings, previewing before print
- Inserting page numbers, headers, footers
- Inserting date and time and Inserting pictures, objects, shapes
- Creating bulleted and numbered lists
- Working with tables: creating, formatting, editing tables
- Working with paragraphs and columns: alignment, spacing

- Reviewing documents: track changes, adding comments, spell check, grammar check
- Mail merge: creating from letters

MS Excel:

- Entering data into cells
- Formatting data: applying borders, currency formats, number formats, fonts
- Creating custom lists
- Using auto fill for data series
- Finding and replacing data
- Editing text: cut, copy, paste, paste special
- Working with formulae: basic arithmetic, using functions
- Applying conditional formatting to highlight data
- Sorting and filtering data: auto filter, advanced filter
- Working with charts: creating 2D charts
- Page layout and printing options: adjusting print area, page setup

Course code	SEC-1			
Category	Skill Enhancement Course			
Course title	Numerical Ability and Enhancement Skills			
Course ID	240/BCA/SE101			
Scheme and Credits	L	T	P	Credits
	3	0	0	3
Theory Internal	25			
Theory External	50			
Total	75			
Duration of Exam	3 hrs			

Note: The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

COURSE OUTCOMES:

- CO1. Understand real number system, fundamental arithmetical operations, use of BODMAS rule and solve typical expressions accurately and fast
- CO2. Acquire skill to identify types of given sequences/series and apply suitable method to find a particular term, sum of specific number of terms and practice this learning in real life mathematical problems.
- CO3. To formulate equations for specific mathematical problem and making use of mathematical skills to solve that.
- CO4. Have a deeper and comprehensive understanding of the basic concepts of Percentage, Profit & Loss, Alligation or mixture, Averages and acquire skill to use this knowledge in real life problems.

UNIT - I

Real number system, Operations on numbers, Tests for divisibility of natural numbers, Decimals, Fractions, Square roots, Cube roots, Surds and indices, Use of BODMAS.

UNIT – II

HCF, LCM of integers, Ratio and Proportion, Progressions: Arithmetic Progression, Geometric Progression, Harmonic Progression with their simple and basic practical applications, Number series completion.

UNIT – III

Percentage, Profit & Loss, Alligation or mixture, Average, Average speed problems, Calendar.

UNIT - IV

Logarithms, Area of Quadrilaterals (Parallelogram, Square, Rectangle, Rhombus, Trapezium),

Volume and surface area of Cube, Cuboid, Cylinder, Cone, Sphere and Hemisphere.

TEXT AND REFERENCE BOOKS:

1. R. S. Aggarwal (2022). Quantitative Aptitude. S Chand & Company Limited, New Delhi.
2. A. Guha (2020). Quantitative Aptitude (7th Edition). Mc Graw Hill Publications.
3. V. Dyke, J. Rogers and H. Adams (2011). Fundamentals of Mathematics, Cengage Learning.
4. A.S. Tussy, R. D. Gustafson and D. Koenig (2010). Basic Mathematics for College Students. Brooks Cole.
5. C. C. Pinter (2014). A Book of Set Theory. Dover Publications.
6. G. Klambauer (1986). Aspects of calculus. Springer-Verlag.

Course code	MDC-1			
Category	Multidisciplinary Course			
Course title	Mathematics			
Course ID	240/BCA/MD101			
Scheme and Credits	L	T	P	Credits
	3	0	0	3
Theory Internal	25			
Theory External	50			
Total	75			
Duration of Exam	3 hrs			

Note: The examiner will set nine questions in total. Question one will have seven parts from all units and the marks of first question will be of 20% of total marks of Question Paper and the remaining eight questions to be set by taking two questions from each attempt FIVE questions in all, selecting one question from every unit apart from the Question Number 1.

COURSE OUTCOMES:

After completing this course, the learner will be able to:

1. Define mathematical structures (relations, functions, sets) and use them to model real life situations
2. Solve puzzles based on counting principles.
3. Organize, manage, present and Analyze Statistical data using measures of central tendency
4. Analyze Statistical data using measures of dispersion and Study the relationship between variables using techniques of correlation.

UNIT - I

Sets, relations and functions: Operations on sets, relations and functions, binary relations, partial ordering relations, equivalence relations, principles of mathematical induction.

UNIT – II

Introduction to counting: Basic counting techniques - inclusion and exclusion, pigeon-hole principle, permutation, combination, summations. Introduction to recurrence relation and generating function.

UNIT – III

Data Types and Data Presentation: Data types: Attribute, Variable, Discrete and Continuous variable, Univariate and Bivariate distribution. Types of Characteristics, Different types of scales: nominal, ordinal, interval and ratio.

Data presentation: Frequency distribution, Histogram, Ogive curves.

Measures of Central tendency: Concept of average/central tendency, characteristics of good measure of central tendency. Arithmetic Mean (A.M.), Median, Mode - Definition, examples for ungrouped and grouped data, effect of shift of origin and change of scale, merits and demerits. Combined arithmetic mean. Partition Values: Quartiles, Deciles and Percentiles - examples for ungrouped and grouped data

UNIT - IV

Measures of dispersion: Concept of dispersion, Absolute and Relative measure of dispersion, characteristics of good measure of dispersion. Range, Semi-interquartile range, Quartile deviation, Standard deviation - Definition, examples for ungrouped and grouped data, effect of shift of origin and change of scale, merits and demerits. Combined standard deviation, Variance.

Correlation: Concept of correlation, Types and interpretation, Karl Pearson's coefficient of correlation.

TEXT AND REFERENCE BOOKS:

1. Kenneth H. Rosen, Discrete Mathematics and its Applications, Tata McGraw-Hill.
2. C. L. Liu, Elements of Discrete Mathematics, Tata McGraw-Hill.
3. Norman L. Biggs, Discrete Mathematics, Oxford University Press.
4. Kenneth Bogart, Clifford Stein and Robert L. Drysdale, Discrete Mathematics for Computer Science, Key College Publishing.
5. Thomas Koshy, Discrete Mathematics with Applications, Elsevier.
6. Ralph P. Grimaldi, Discrete and Combinatorial Mathematics, Pearson Education, Asia.
7. Goon, A. M., Gupta, M. K. and Dasgupta, B. (1983). Fundamentals of Statistics, Vol. 1, Sixth Revised Edition, The World Press Pvt. Ltd., Calcutta.
8. Gupta, S.C. and Kapoor, V.K. (1987): Fundamentals of Mathematical Statistics, S. Chand and Sons, New Delhi.