



Department of Higher Education

U.P. Government, Lucknow

National Education Policy-2020

Common Minimum Syllabus for all U.P. State Universities

Co-curricular course: Semester-5

Course Title: Analytic Ability and Digital Awareness

Name	Designation	Affiliation
Steering Committee		
Mrs. Monika S. Garg, (I.A.S.), Chairperson Steering Committee	Additional Chief Secretary	Dept. of Higher Education U.P., Lucknow
Prof. Poonam Tandan	Professor, Dept. of Physics	Lucknow University, U.P.
Prof. Hare Krishna	Professor, Dept. of Statistics	CCS University Meerut, U.P.
Dr. Dinesh C. Sharma	Associate Professor	K.M. Govt. Girls P.G. College Badalpur, G.B. Nagar, U.P.

Syllabus Developed by:

S. N.	Name	Designation	Department	College/ University
1	Dr. Raj Kumar	Head	Mathematics, Faculty of Engg. & Technology	Veer Bahadur Singh Purvanchal Univ. Jaunpur-222003 UP
2	Prof. Ashutosh Gupta	Director/ Professor	School of Science	U.P. Rajarshi Tandon Open University, Prayagraj
3	Prof. Manu Pratap Singh	Professor	Dept. of Computer Science	Dr. B. R. Ambedkar University, Agra
4	Dr. Brajesh Kumar	Associate Professor	Dept. of CS & IT	MJP Rohilkhand University, Bareilly

Co-Curricular Course name: Analytic Ability and Digital Awareness

Programme/Class: Bachelor of Science	Year: Third	Semester: Fifth		
Subject: Co-Curricular Course				
Course Code: Z050501	Course Title: Analytic Ability and Digital Awareness			
Course outcomes (Analytic Ability):				
<p>CO 1: Familiarize with analogy, number system, set theory and its applications, number system and puzzles.</p> <p>CO 2: To understand the basics of Syllogism, figure problems, critical and analytical reasoning.</p> <p>CO 3: Familiarize with word processing application and worksheet .</p> <p>CO 4: To understand the basics of web surfing and cyber security.</p>				
Credits: 2	Co-Curricular			
Max. Marks: 25+75	Min. Passing Marks:			
Total No. of Lectures-Tutorials-Practical (in hours per week): 2-0-0				

Unit	Topic	No. of Lectures
I	Alphabet test, Analogy, Arithmetic Reasoning, Blood relations, Coding and Decoding, Inequalities, Logical Venn diagram, Seating Arrangements, Puzzles and Missing numbers	6L+2T+0P
II	Syllogism, Pattern completion and figure series, Embedded Figure and counting of figures, Cube & Dice, Paper cutting and folding, Data sufficiency, Course of Action, Critical Reasoning, Analytical and decision making	5L+2T+0P
III	<p>Computer Basics:</p> <p>Block diagram of Digital Computer, Classification of Computers, Memory System, Primary storage, Auxiliary memory, Cache memory, Computer Software (System/Application Software),</p> <p>MS Word Basics: The word screen, Getting to word documents, typing and Revising text, Finding and Replacing, Editing and Proofing tools, Formatting text characters, Formatting Paragraph, Document templates., Page set up, tables, Mail Merge, Macros, protecting documents, printing a document.</p>	2T+3P+3P

	<p>MS-Excel Introduction, Worksheet basics, Creating worksheet, Heading information, Data & Text, Date & Time, Alphanumeric values, Saving & quitting worksheet, Opening and moving around in an existing worksheet, Toolbars and Menus, Excel shortcut and function keys, Working with single and multiple workbook, Working with formulae & cell referencing, Auto sum, coping formulae, Absolute & relative addressing, Worksheet with ranges, Formatting of worksheet, Previewing & Printing worksheet, Graphs and charts, Database, Creating and using macros, Multiple worksheets- concepts Introduction of Open Source Applications: LibreOffice, OpenOffice and Google Docs etc.</p>	
IV	<p>Web Surfing: An Overview: working of Internet, Browsing the Internet, E-Mail, Components of E-Mail, Address Book, Troubleshooting in E-Mail, Browsers: Netscape Navigator, Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, Tor, Search Engines like Google, DuckDuckGo etc, Visiting web sites: Downloading. Cyber Security: Introduction to Information System, Type of information system, CIA model of Information Characteristics, Introduction to Information Security, Need of Information Security, Cyber Security, phishing, spamming, fake news, general issues related to cyber security, Business need, Ethical and Professional issues of security.</p>	3P+ 4T

Suggested Readings:

1. Sharma, A., "How to prepare for Data Interpretation and Logical Reasoning for the CAT" McGraw Hill Education Pvt. Ltd., New Delhi, India, 2011, Ed. 5, ISBN 978 2007 070 481
2. Aggarwal, R.S., "A Modern Approach to Verbal and Non-verbal Reasoning" S. Chand Publishers New Delhi, India, 2010, ISBN 10: 8121905516
3. Madan, Sushila, Introduction to Essential tools, Jain Book Agency, New Delhi/India, 2009, 5th ed..
4. Goel, Anita, Computer Fundamentals, Pearson Education, India, 2012
5. Michael E. Whitman and Herbert J. Mattord, "Principles of Information Security," Sixth Edition, Cengage Learning, 2017

Note: Course Books published in Hindi may be prescribed by the Universities.

This course can be opted as an elective by the students of following subjects:

“Co-Curricular”

Suggested Continuous Evaluation Methods: **Max. Marks: 25**

1. Assessment Type: Class Tests (Max. Marks 14)

Suggested Usage:

Include all types of questions-essay, short answer, objective; Design to test all levels of domain; Exam Blue Print be prepared to ensure inclusion of all types & levels of questions and proper sampling of content; Marking Criteria made known to students; Teacher should provide written feedback selectively and discuss answers in the class; Only Role/Code numbers, not names be written to avoid bias in marking; Display of model answer copies.

After Completion of Unit I and Unit II, a first class test of max. marks of 7 shall be conducted.

After Completion of Unit III and IV, a second class test of max. marks of 7 shall be conducted.

If any student does not appear in any one or both class test, a makeup test shall be conducted of max. marks of 5 instead of total 14 marks.

2. Assessment Type: Quizzes/ Objective Tests / Recognition Type (such as MCQs; True or False; Matching; Classifying) /Recall Type -Filling Blanks; One word / Phrase Answers (Max Marks: 5)

Suggested Usage: Teachers be trained in construction, advantages, disadvantages and precautions while preparing different types of objective items; Go beyond factual information to High Order Thinking (HOT) Skills. It shall be “End of the class quiz”.

3. Assessment Type: Assignments (Max Marks: 4)

Suggested Usage: Some class assignments shall be given to students at the end of each Unit. Note making techniques be taught to students; Not just direct questions from notes, but application analysis and synthesis of that knowledge.

4. Assessment Type: Group Discussion (Max. marks: 2)

Course prerequisites: None

Suggested equivalent online courses:

Further Suggestions: None