

**SOPHIA GIRLS' COLLEGE,
AJMER
(AUTONOMOUS)**

SYLLABUS

**Batch
(2019-20)**

FOR

B.A. / BSc. / B.Com. / Honours

Vocational Computer Application

Vocational Computer Application

SCHEME OF EXAMINATION

The number of paper and the maximum marks for each paper together with the minimum marks required for a pass are shown against each subject separately. It will be necessary for a candidate to pass in the theory part as well as the practical part of a subject/paper, wherever prescribed, separately.

Classification of successful candidates shall be as follows:

First Division	60%	} of the aggregate marks prescribed at Part I Examination, Part II Examination, Part III Examination, taken together
Second Division	48%	

All the rest shall be declared to have passed the examination.

1. For passing a candidate shall have to secure at least 40% marks in each course.
2. Due paper(s) will be applicable if a candidate fails in not more than three (3) papers (theory,). Due paper(s) will be held along with the examination of the next semester.
3. Wherever a candidate appears at for a due paper examination he/she will do so according to the syllabus in force.
4. A candidate not appearing at any examination/absent in any paper of term end examination shall be deemed as fail/Due.

Examination Pattern

Maximum Marks: 50

Section A

Contains 10 Questions of 1 mark each & all are compulsory to do. 10 * 1 = 10 marks
Three questions from each unit (but 4 questions from one unit)
3 + 3 + 4 = 10 Questions

Section B

Contains 3 questions with internal choice (Two questions from each unit).
(2 Questions of 3 marks & 1 Question of 4 marks)
Student has to do 3 questions and at least one question from each unit. 3+3+4 = 10 marks

Section C

Contains 3 questions with internal choice (Two questions from each unit).
Each Question carries 10 marks.
Student has to do 3 questions and at least one question from each unit. 3 * 10 = 30 marks

Note:

1. A Laboratory Exercise File should be prepared by each student for each practical paper and should be submitted during practical examinations.
2. One internal and one external examiner shall conduct two practical exams, in a day, of a batch of 60 students.
3. Duration of practical exam is 3 hours.
4. Practical of 40 marks distribution is as under:

20 marks for practical examination exercise for 4 questions.
10 marks for Viva-voce
10 marks for Laboratory Exercise File.

**Teaching and Examination Scheme for
Vocational Computer Application (2019-20 Batch)**

SEMESTER - I

Sophia Girls' College, Ajmer (Autonomous)
VCA Semester – I (2019-20 Batch)

Max. Marks : 50

Min. Marks: 20

VCA – 101 Computer Fundamentals - I

Learning Outcome:

On successful completion of the course, the students will be able to

- Describe the computer system and identify its types.
- Illustrate the use of different input devices.
- Categorize different output devices on the basis on operation.
- Summarize the different aspects of data processing.

Unit - I

Introduction to Computer: Definition, Diagram, Characteristics, Classification of Computers: Analog Computers, Digital Computers, Hybrid Computers, Classifications of computer on the basis of size and speed, different type of computers, Generation of computers. Applications of Computer: Desktop publishing, design and manufacturing, military, robotics, planning and management, marketing, communications, education.

Unit – II

Input Devices: keyboard, mouse, track ball, touch pad, joystick, touch sensitive screens, pen based systems, digitizer, data scanning devices, optical recognition systems, bar code readers, optical mark readers, Optical character reader, optical scanners: drum scanners, hand scanner, flatbed scanner, web camera, game pad, digital camera.

Unit - III

Output Devices: Hard copy devices: Printer (impact printers) daisy wheel, dot matrix printer, line printer, chain printers, comb printers, (non-impact printers) DeskJet, inkjet, laser printer, thermal transfer printer, barcode printers. Soft copy devices: (Computer Display) CRT, LCD, projection displays, plasma display panel, display standard.

Reference Books:

1. Pradeep K. Sinha, Priti Sinha, “Computer Fundamentals”. BPB Publications.
2. Rajaraman, V., “Fundamental of Computers”. Prentice Hall India, New Delhi.
3. Fundamentals Of Information Technology, 2E , Alexis Leon & Mathews Leon, Vikas Publishing

Sophia Girls' College, Ajmer (Autonomous)
VCA Semester – I (2019-20 Batch)

Max. Marks : 50

Min. Marks: 20

VCA – 102 PC SOFTWARE - I

Learning Outcome:

On successful completion of the course, the students will be able to

- understand the difference between an operating system and an application program, and what each is used for in a computer
- study different tools of Microsoft Word by hands on practice
- Design effective presentation by implementing different formatting styles.

UNIT-I

Software: System software, application software, utility software.

User Interface: Introduction to CUI and GUI and Comparison .

MS Windows, Features of Windows, Desktop (My Computer, My Document, Recycle Bin, Network Places, Internet Explorer. Windows Explorer, Start Menu and Task bar.

System Tool:, Disk defragmentation, System Information, System Back up & Restore.

Control Panel : Add & Remove Hardware / Software, Date & Time, Personalization , Font, Mouse, Keyboard, Printer & Faxes, Sound, User Account, Windows Task Manager, Power option, Folder Option.

UNIT-II

MS-Word: Introduction to MS-Word, Features, Application Areas and its uses, types of views, Creating & Saving : New Document, copy, cut, paste, paste special, clipboard, undo, redo, Fonts, Paragraphs: Indentation and Spacing, Columns & Breaks, Styles, Find, Replace & Goto. Inserting Tables, Picture, ClipArt, Shapes, Smart Art and Charts, Symbols and Equations, Hyperlink, Bookmark. Header & Footer. DropCap, Textbox, WordArt, Date and Time. Table of contents, Footnotes and Endnotes, Page background. Mail merge, Macros, Auto correct and Auto Text. Comments, Page Setup, Size, Margins, Gutter, Orientation.

UNIT-III

MS-PowerPoint: Introduction to PowerPoint, Features, Application Areas and its uses, Creating Presentations through Blank Presentations, Templates, Slide Master, Views of PowerPoint, Formatting of Presentations : Inserting Graphics and Animations, Formatting & Customizing Presentations : Slide Transactions, Custom Animation, Inserting sounds. Set up and Custom Slide Show , Handouts.

Reference Books:

1. Microsoft Office 2007 – Joyce Cox & Joan Preppernau – PHI Publication
2. Working in Microsoft Office- Ron Mans Field, TMH
3. Absolute Beginners Guide To Computer Basics 4th Edition, Michael miller, Pearson
4. PC- Software- Dr. Neeraj Bhargava , University Book House

SEMESTER - II

Sophia Girls' College, Ajmer (Autonomous)
VCA Semester – II (2019-20 Batch)

Max. Marks : 50

Min. Marks: 20

VCA – 201 Computer Fundamentals - II

Learning Outcome:

On successful completion of the course, the students will be able to

- Identify computer memory according to its accessibility and hardware
- Convert values in different number systems
- Generalize the software according to their uses
- Manage different aspects of Internet & defend the system against computer viruses

Unit – I

Introduction to memory, classifications, random-access memory, volatile memory, non-volatile memory, flash memory, read-only memory, secondary memory, the cache memory, auxiliary storage memory, memory hierarchy, storage device, magnetic tape, magnetic disk, floppy disk, hard disks, CD, DVD, magneto-optical.

Unit – II

Number system: binary, octal, hexadecimal, addition, subtraction, multiplications. Computer code: BCD, ASCII, EBCDIC code, Excess-3 code, gray code, logic gates and Boolean algebra representation and simplifications by k Map. Introduction to Data warehouse, components of a data warehouse, different methods of storing data in a data warehouse, advantages of using data warehouse.

Unit – III

Software: System software, application software, programming software.

Computer Viruses: Introduction, history, types of computer viruses, classification of viruses, symptoms of a computer virus, & ways to catch a computer virus.

Introduction of Internet, history, TCP / IP & UDP, application protocol, world wide web, how the web works, web standards, website, overview, types of websites, electronic mail, e-mail header, saved message file extension, messages and mailboxes, introduction to intranet, uses, advantages, disadvantages.

Reference Books:

- 1 Computer Fundamentals-Pradeep K. Sinha, Priti Sinha, BPB Publications.
2. Fundamental of Computers-V Rajaraman, Prentice Hall India, New Delhi.

Sophia Girls' College, Ajmer (Autonomous)
VCA Semester – II (2019-20 Batch)

Max. Marks : 50

Min. Marks: 20

VCA –202 PC SOFTWARE - II

Learning Outcome:

On successful completion of the course, the students will be able to

- Develop charts and validation on the data
- Apply functions on the excel sheet
- Create and manage database

Unit I

MS-Excel: Introduction, Features, Application Areas and its uses, views and its types, formatting and its types. **Charts:** Line, bar, column, area, pie. Pivot Tables, Data management (Sort, filters, Validation, consolidation, Text to column), auditing and tracing.

Unit II

Functions and Formulas -Text: char, concatenate exact, find, left, right, mid, lower, upper, proper, search, substitute, trim. **Logical:** and, or, not **Math and trig:** abs, int, even, odd, fact, mod, pi, power, product, round, roman, sign, sqrt, trim. **Statistical:** Average, count. Protecting sheet and workbook.

Unit III

MS-Access: Introduction, application areas and its uses, concepts of databases, datatypes, creating a database and tables, Records Insertion, creating and customizing a form, creating and customizing reports, queries and its types(Select, Update, Delete)

Reference Books:

1. Microsoft Office 2007 – Joyce Cox & Joan Preppernau – PHI Publication
2. Introduction to computers 6th Edition,- Peter Norton, TMH
3. Understanding computers today and tomorrow-Deborah Morley & Parker, Thomson
4. Users Reference Manuals of Ms Access

