

CBSE | DEPARTMENT OF SKILL EDUCATION

CURRICULUM FOR SESSION 2021-2022

INFORMATION TECHNOLOGY (SUB. CODE - 802)

JOB ROLE: DOMESTIC IT HELPDESK ASSISTANT

CLASS – XII

The present course curriculum offers an opportunity for students to understand the basics of computer software and hardware for working efficiently on computer. This course will enable students to hone skills to develop desktop based applications etc. With extensive demand of designers, the course aims at inculcating not only programming skills but also the understanding of graphics. Graphics in itself is a wide and very interesting area which helps in shaping the creativity of a student.

PREAMBLE:

Computer is now affecting every sphere of human activity. It is instrumental in bringing revolutionary changes in industry, scientific research and education. This is not only the demand of time but also the demand of almost each and every subject to have an associated computer learning to equip a student with start-of-art technology to prove himself/herself a better candidate than those without computer knowledge.

COURSE OVERVIEW

Domestic IT Helpdesk Assistant requires the individual to have thorough knowledge of various technology trends. This job involves working on a computer, entering, retrieving and sharing data. He/she can assist a programmer or a database engineer. He/she can independently interact with customers. The individual should be result oriented and should be able to demonstrate logical thinking and interpersonal skills and should be willing to work at a desk based job. The person is responsible to maintain hardware and software systems according to company policies. Inspect, and Troubleshoot basic network, hardware and software components.

COURSE OUTCOMES

On completion of the course, students should be able to:

- ❖ Apply effective oral and written communication skills to interact with people and customers;

- ❖ Identify the principal components of a computer system; Demonstrate the basic skills of using computer;
- ❖ Identify the solution for small applications in the form of computer programmes
- ❖ Use the computer for the data entry process with speed and accuracy.
- ❖ Manage the database and handle queries.
- ❖ Understand basic cyber safety and security norms
- ❖ Will be able to troubleshoot the computer system

SALIENT FEATURES OF THE COURSE

The course will equip students with skills to analyze various problems and their trouble shooting. Content of the course has been designed as such to make students capable of independently working on a desktop and be able to develop applications to handle computations of small scale and record keeping.

Students will develop following skills:

- ❖ It will empower students with various skills required to work efficiently on computer.
- ❖ Understand basic functional and computational units.
- ❖ Understand networking and internet concepts
- ❖ Recognize various internet devices and threats to cyber security.
- ❖ Skills to work efficiently with basic office tools like word, spreadsheets, presentation
- ❖ Understand basics of databases and SQL to handle databases
- ❖ Develop programming skills in Java

Through this course students will not only gain knowledge about the basics of computer but will also develop confidence in developing small applications through programming.

SCHEME OF UNITS

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class XI opting for skill subject along with other education subjects.

The unit-wise distribution of hours and marks is given overleaf:

INFORMATION TECHNOLOGY (Code No. 802)**Class XII (Session 2021-22)****Total Marks: 100 (Theory-60 + Practical-40)**

	TERM	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory andPractical	
Part A	Employability Skills					
	TERM I	Unit 1 : Communication Skills- IV	10		5	
		Unit 2 : Self-Management Skills- IV	10			
		Unit 3 : ICT Skills- IV	10			
	TERM II	Unit 4 : Entrepreneurial Skills- IV	15			
		Unit 5 : Green Skills- IV	05			
		Total		50		10
Part B	Subject Specific Skills		Theory (In Hours)	Practical (In Hours)	Marks	
	TERM I	Unit -1 : Database Concepts – RDBMS Tool	30	45	15	
		Unit -2 : Operating Web Based Applications	15	20	10	
	TERM II	Unit-3: JAVA - Fundamentals of Java programming, Introduction to Java, Object Oriented Programming, Java Language Elements, Operators, Control Flow, Array, Class Design, Exception Handling, Assertions, Threads, Wrapper Classes, String Manipulation.	30	50	20	
		Unit-4: Work Integrated Learning IT – DMA	10	10	5	
		Total		85	125	50
	Part C	Practical Work:				
		Java Program			10	
		SQL Queries(Table Creation + 5 Queries)			10	
		Practical File Must contain minimum 15 Java Programs and minimum 15 queries in MySQL.			10	
		Viva			5	
		Total		35		
Part D			Project Work (Any Application made using Java Netbeans IDE)			5
		Total		5		
		GRAND TOTAL	260		100	

DETAILED CURRICULUM/TOPICS FOR CLASS XII:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration(in Hours)
1.	Unit 1: Communication Skills- IV	10
2.	Unit 2: Self-management Skills- IV	10
3.	Unit 3: Information and Communication Technology Skills- IV	10
4.	Unit 4: Entrepreneurial Skills- IV	15
5.	Unit 5: Green Skills- IV	05
TOTAL DURATION		50

NOTE: For Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

Part-B – SUBJECT SPECIFIC SKILLS

- Unit -1: Database Concepts – RDBMS tool
- Unit -2: Operating Web Based Applications
- Unit-3: JAVA - Fundamentals of Java programming, Introduction to Java, Object Oriented Programming, Java Language Elements, Operators, Control Flow, Array, Class Design, Exception Handling, Assertions, Threads, Wrapper Classes, String Manipulation.
- Unit-4: Work Integrated Learning IT – DMA

DETAILED CURRICULUM:

UNIT	TOPICS/ SUB-TOPICS	MARKS
UNIT 1	DATABASE CONCEPTS – RDBMS TOOL <ul style="list-style-type: none">• Basics of RDBMS.• SQL – Creating and Opening Database.• Creating and populating tables.• Modifying the content and structure of table.• Ordering and Grouping.• Operating with multiple tables.	15
UNIT 2	Operating Web Based Applications <ul style="list-style-type: none">• Online Reservation Systems.• E-Governance.• Online Shopping and Bill payments.• Online Tutorials and Tests.• Project Management – Web Based Application development.	10

UNIT	TOPICS/ SUB-TOPICS	MARKS
	<ul style="list-style-type: none"> • Project essentials and tips. • Case Study - Online Game. • Case Study - Online Quiz. • Case Study – Online Bill Calculator. 	
UNIT 3	Fundamentals of Java programming, Introduction to Java, Object <ul style="list-style-type: none"> • Oriented Programming, • Java Language Elements, • Operators, • Control Flow, • Array, • Class Design, • Exception Handling, • Assertions, • Threads, • Wrapper Classes, • String Manipulation 	20
UNIT 4	Work Integrated Learning IT – DMA <ul style="list-style-type: none"> • Identification of Work Areas. • Work Experience. 	5
	TOTAL	50

Practical:

40 Marks

DETAILS	MARKS
Practical Work: <ul style="list-style-type: none"> • Java Program • SQL Queries(Table Creation + 5 Queries) 	10 10
Practical File Must contain minimum 15 Java Programs and minimum 15 queries in MySQL.	10
Viva Voce	5
Project (Any Application made using Java Netbeans IDE)	5
Total	40

LIST OF EQUIPMENT AND SUPPORT MATERIAL:

The list given below is suggestive and an exhaustive list should be compiled by the teacher(s) teaching the subject. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

- computer/ laptop / tablet
- scanner
- projector
- printer
- software: OpenOffice, Java Netbeans, MySQL
- hub/switch
- Internet

Students should be exposed to various functional units, Office applications, Network security systems/ devices / field visits to gain knowledge and expertise.

CAREER OPPORTUNITIES:

- Customer Service Associate
- Customer Service Representative
- Customer Care Executive
- Customer Service Advisor
- Helpdesk Coordinator
- Customer Support Representative
- IT Support Specialist
- Documentation Assistant
- Programming Assistant

VERTICAL MOBILITY:

This course will assist the participating students to further update their career by vertically moving either to BA (programming) and other programming oriented applied undergraduate courses of different universities

They may also move to their corporate career by starting as a desktop data entry operator or small developer for desktop applications and move up to a corporate ladder in the role of software developer in different sectors.