

SYLLABUS FOR THE BATCH FROM THE YEAR 2024 TO YEAR 2027

Programme Code: BVSD

Programme Name: B.VOC (SOFTWARE DEVELOPMENT)

(Semester I-II)

Examinations: 2024-2027



P.G. Department of Computer Science & Applications

Khalsa College, Amritsar

Programme name: B.VOC (SOFTWARE DEVELOPMENT)
Programme code: BVSD
Programme Duration :3 years

Programme Objectives:

1.	The vocational educational programme mainly focuses on Job specific Skills rather than the board or council-based education.
2.	To provide vertical mobility to students coming out of 10+2 with vocational subjects.
3.	To provide mix of skills relating to a profession and appropriate content of General Education.
4.	To ensure that the students have adequate knowledge and skills, so that they are work ready at each exit point of the program.
5.	To provide flexibility to the students by means of predefined entry and multiple exit points.
6.	To enhance employability of the graduates and meet industry requirements.
7.	This program improves the skills of the candidates by concentrating on theoretical knowledge as well as practical training.

Program Specific Outcomes (PSO):

PSO-1.	Better acquaintance with latest technologies and working of Software industry.
PSO-2.	Creating new ideas in the field of software development and resolving problems related to this field
PSO-3.	Learning, designing and performing programs and projects in lab as per the concepts learn in course
PSO-4.	Better understanding by analysing and developing computer programs in the areas related to mobile application design and web design.
PSO-5.	Deliver a quality product by applying standard software engineering processes and strategies in software project development using open-source programming environment.
PSO-6.	Performing jobs or self-career in various fields like Software/Website Development, Graphic Designing.

BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)

Semester – I

SN	Course Code	Course Name	Distribution of The Marks				Lectures Per week			Credit Distribution			Total Credits L+T+P	Page No.
			Theory	Internal Assessment	Practical	Total	L	T	P	L	T	P		
1	BVSD 114 (Major)	Fundamentals of Information Technology	75	25	-	100	5	1	0	3	1	0	4	4-5
2	BVSD 115 (Major)	Web Technology	75	25	-	100	5	1	0	3	1	0	4	6-7
3	BVSD 116 (Major)	Programming using C Language	75	25	-	100	5	1	0	3	1	0	4	8-9
4	BVSD 117P	Lab I: Office Automation and Web Technology	0	13	37	50	0	0	6	0	0	2	2	16
5	BVSD 118P	Lab II: Programming in C Language	0	13	37	50	0	0	6	0	0	2	2	17
6	BCSV-1129	Communication Skills in English-I	60	25	15	100	4	0	2	3	0	1	4	10-11
7	BHPB-1101/ BPBI-1102/ BPHC-1104	Punjabi (Compulsory)/ *Basic Punjabi/ **Punjab History & Culture	75	25	-	100	6	0	0	4	0	0	4	12-15
8	ZDA111	***Drug Abuse: Problem, Management and Prevention(Compulsory paper)-I	-	-	-	25	2	0	0	1	0	0	1	18
							Total Credits=25							

*****Marks of Paper ZDA111 Drug Abuse: Problem, Management and Prevention (Compulsory Paper) will not be included in Grand Total.**

**BACHELOR OF VOCATION (B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I**

**BVSD 114: Fundamentals of Information Technology
Discipline Specific Course (DSC)**

Time: 3 Hrs.

Total Marks: 100

Credits		
L	T	P
3	1	0

Theory Marks: 75

Theory Internal Assessment Marks:25

Note for paper setter and students:

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 15 marks consisting of 8 short answer type questions carrying 2.5 mark each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 15 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

Course Objectives:

At the end of the course, the students will be able to:

1.	Understand working of computers and its components such as Input/output devices, hardware, software and other basic terminologies along with their classification.
2.	Make familiar with the part and function of computer, its types, how to use computer in our day-to-day life.
3.	Understand the various Development and Programming Tools.
4.	Learn how computer network hardware and software operate and will make them familiar with the latest and dominant network technologies.

UNIT-I

An overview of computer system: Block diagram of Computer, Components of Computers, and advantages of computer.

I/O and storage Devices: Keyboard, mouse, pens, touch screens, Bar Code reader, joystick, Monitor, printers, plotters, Primary storage (Storage addresses and capacity, type of memory), Secondary storage, Magnetic storage devices and optical storage devices

UNIT-II

Number System: decimal, binary, octal, hexadecimal numbers and their–conversions

Development Tools: Editors, Translators, Compilers, Interpreters, Linkers Loaders, Debuggers.

UNIT-III

Programming Tools: Problem Analysis, Program Constructs (Sequential, Decision, Loop), Algorithms, Flowcharts, Pseudo code, Decision table

UNIT-IV

Data Communications: Introduction to Data Communication, Network and its types, topologies, Transmission Media and modes.

References:

1. **V.K. Jain: Fundamentals of Information Technology, 2007.**
2. **Norton, Peter: Introduction to Computers, McGraw Hill, 7th Edition.**
3. **Computer Fundamentals, P.K. Sinha, 6th Edition**

Course Outcomes:

After completing this course, the student must demonstrate the knowledge and ability to:

CO-1.	Operate computer independently and professionally.
CO-2.	Use various programming and development tools.
CO-3.	Understand binary, hexadecimal and octal number systems and their arithmetic.
CO-4.	Independently understand basic computer network technology.
CO-5.	Understand and explain Data Communications System and its components.

**BACHELOR OF VOCATION (B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I**

**BVSD-115: Web Technology
Discipline Specific Course (DSC)**

Time: 3 Hrs.

Total Marks: 100

Credits		
L	T	P
3	1	0

Theory Marks: 75

Theory Internal Assessment Marks:25

Note for paper setter and students:

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 15 marks consisting of 8 short answer type questions carrying 2.5 mark each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 15 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

Course Objectives:

1.	Gain knowledge about the principles of web environment.
2.	Principles related to web design and transform these theories into practice.
3.	Ability to design static and dynamic web pages.
4.	Learn the web languages: HTML, Java script and CSS.
5.	Learn the concepts of domain, web space and website publishing.

UNIT-I

Introduction to Web Development

Webpage, Website, Static Website, Dynamic Website, Web Servers, Web Browsers

Introduction to HTML/DHTML

HTML Basics, HTML Elements (Tags), Structure of HTML Program, Attributes, Headings, Paragraphs, Formatting, Links, Images, Tables, Lists, Forms, Frames, Where to put Tables, Lists, Images, Forms, CSS in DHTML, Implementation of WebPages using CSS.

UNIT-II

Introduction to JavaScript:

How & Where to put the JavaScript Code, JavaScript Statements, Comments, Variables, Operators, Control Statements, Loops, Popup Boxes, Functions.

UNIT-III

Introduction to Dreamweaver: Understanding Workspace Layout, Managing Websites, Creating a Website, Using Dreamweaver Templates, Adding New Web Pages, Text and Page Format, Inserting Tables, Lists, Images, Adding Links.

UNIT-IV

Purchasing a Domain Name & Web Space

Domain Name & Web Space, Getting a Domain Name & Web Space (Purchase or Free), Uploading the Website to Remote Server.

References:

1. Web Enabled Commercial Application Development HTML (Ivan Bayross), 2005
2. JavaScript, a Beginner's Guide John Pollock, 3rd Edition
3. Dreamweaver CS5 for Dummies Janine C. Warner, Paperback Edition, 2010
4. The Essential Guide to Dreamweaver CS4 David Powers.

Course Outcomes (Cos):

At the end of this course student will be able to:

CO-	Gain knowledge of HTML and CSS code and using this knowledge, they are able to create websites.
CO-	Learn to write code using java script.
CO-	Able to create online forms.
CO-	Learn how to publish website to the web.

**BACHELOR OF VOCATION (B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I**

**BVSD-116: Programming using C Language
Discipline Specific Course (DSC)**

Time: 3 Hrs.

Total Marks: 100

Credits		
L	T	P
3	1	0

Theory Marks: 75

Theory Internal Assessment Marks:25

Note for paper setter and students:

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 15 marks consisting of 8 short answer type questions carrying 2.5 mark each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 15 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

Course Objectives:

1.	The course is oriented to those who want to advance structured and procedural programming, understand and improve C programming skills.
2.	The major objective is to provide students with understanding of code organization and functional hierarchical decomposition using complex data types.

UNIT-I

C language preliminaries: Introduction to C, Identifiers and Key Words, Data types, Constants, Variables, Expressions, Statements.

Operators and I/O functions: Arithmetic operators, Unary operators, Relational Operators, Logical Operators, Assignment and Conditional Operators, getchar, putchar, printf, gets, puts

UNIT-II

Control Statements: While, Do-while and for statements, Nested loops, If-else, Switch, Break – Continue statements.

Functions: Brief overview, types, defining, accessing functions, passing arguments to function, specifying argument data types, function prototypes, recursion.

UNIT-III

Arrays and Pointers Defining, processing an array, passing arrays to a function, multi-dimensional arrays, Introduction to pointers, Operations on pointers, Pointers and array.

Structure and Union: A simple structure, specifying the structure, defining a structure variable Accessing Structure member, Structure within structure, union, difference between structure and union.

UNIT-IV

Data Files: Opening, closing, creating, processing and unformatted data files.

References:

1. Let Us C By Yashwant Kanetkar, BPB Publication, 14th Edition, 2017.
2. The Complete Reference by Herbert Schildt, indian edition 4th edition, 2017
3. Shcaum Outline Series: "ProgrammingwithC", 4th edition, 2018

Course Outcomes (COs):

CO-1.	On successful completion of this subject the students will gain the programming ability in C Language.
CO-2.	Students would be capable of developing various applications to solve real world problems.
CO-3.	Understanding a concept of object thinking within the framework of functional model.
CO-4.	They will be able to make system as well as application software.
CO-5.	Provide the ability to handle possible errors during program execution.

BACHELOR OF VOCATION (B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I
COMMUNICATION SKILLS IN ENGLISH-I
Code: BCSV-1129

L	T	P	Credits
3	1	0	4

Time: 3 Hours

Max. Marks: 100
Theory: 60
Practical: 15
Internal Assessment: 25

Instructions for the Paper Setters:-

Section A is compulsory. It will consist of Fifteen (15) questions of one mark each. The students will be required to attempt any Twelve (12). (12X1= 12 Marks)

Eight (8) questions of equal marks will be set from Section B-E, comprising 2 questions from the each above mentioned section. Candidates will be required to attempt Four (4) questions, selecting at least one question from each Section.

(4X12=48 Marks)

Course Objectives:

I: To develop competence in written communication.

II: To inculcate innovative and critical thinking among the students.

III: To enable them to grasp the application of communication theories.

IV: To acquire the knowledge of latest technology related with communication skills.

V: To provide knowledge of multifarious opportunities in the field of this programme.

The syllabus is divided in five sections as mentioned below:

Section- A

Grammar: Article, Conjunctions and Prepositions

Section-B

Reading Skills: Reading Tactics and strategies; Reading purposes-kinds of purposes and associated comprehension.

Section-C

Reading for understanding concepts, details, coherence.

Activities:

Short comprehension questions based on content and development of ideas

Section–D

Writing Skills: Writing styles for application, personal letter, official/ business letter.

Activities:

Formatting personal and business letters.

Section–E

Resume, memo and notices; outline and revision.

Activities:

Converting a biographical note into a sequenced resume or vice-versa

Writing notices for circulation/boards

Recommended Books:

Oxford Guide to Effective Writing and Speaking by John Seely.

English Grammar in Use (Fourth Edition) by Raymond Murphy, CUP

Course Outcomes:

The completion of this course enables students to:

1. Identify common errors in language and rectify them.
2. Develop and expand writing skills through controlled and guided activities.
3. Develop coherence, cohesion and competence in written discourse through intelligible pronunciation.
4. Develop the ability to handle the interview process confidently and learn the subtle nuances of an effective group discourse.
5. Communicate contextually in specific and professional situations with courtesy.

Practical Marks: 15

Course Contents:-

1. Assignment on selected topics in about 700-1000 words.
2. Reading dialogues
3. Rapid reading

BACHELOR OF VOCATION (B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I

Punjabi (Compulsory)-1

ਪੰਜਾਬੀ(ਲਾਜ਼ਮੀ)-1

Credit& Marks Distribution, Eligibility and Pre-Requisites of the Course

Course title & Code	Total Teaching Hours	Total Credits/ Hours per week	Credit distribution			Total Marks 100		Time Allowed in Exam	Eligibility criteria	Pre- requisite of the course (if any)
			L	T	P	Theory	IA			
ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)-1 BHPB- 1101	60	4	4	0	0	75	25	3 Hours	Class 12th pass in any stream	Studied Punjabi up to 10th Standard

<p>ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective</p> <ul style="list-style-type: none"> ਵਿਦਿਆਰਥੀਆਂ ਵਿਚ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਪੈਦਾ ਕਰਨਾ। ਆਲੋਚਨਾਤਮਕ ਰੁਚੀਆਂ ਵਿਕਸਤ ਕਰਨਾ। ਮਾਤ ਭਾਸ਼ਾ ਦੀ ਸਮਝ ਨੂੰ ਵਿਕਸਤ ਕਰਨਾ। 	<p>ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)</p> <ul style="list-style-type: none"> ਉਸ ਵਿਚ ਸਾਹਿਤ ਰੁਚੀਆਂ ਵਿਕਸਤ ਹੋਣਗੀਆਂ। ਉਸ ਵਿਚ ਸਾਹਿਤ ਸਿਰਜਣਾ ਦੀ ਸੰਭਾਵਨਾ ਵਧੇਗੀ। ਉਸ ਵਿਚ ਕਿਸੇ ਵੀ ਵਿਸ਼ੇ ਦਾ ਗਹਿਨ ਅਧਿਐਨ ਕਰਨ ਦਾ ਬੋਧ ਹੋਵੇਗਾ। ਉਹ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਨਿਕਾਸ ਤੇ ਵਿਕਾਸ ਬਾਰੇ ਗਿਆਨ ਹਾਸਲ ਕਰਨਗੇ
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ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 1.5-1.5 (ਫੇਢ-ਫੇਢ) ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ (Objective Type) 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਸਿਲੇਬਸ ਦੇ ਬਾਕੀ ਚਾਰ ਭਾਗਾਂ ਵਿਚ 02-02 ਲੇਖ ਨੁਮਾ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰੇਕ ਭਾਗ ਵਿਚੋਂ 01-01 ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੋਵੇਗਾ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 15 ਅੰਕ ਹੋਣਗੇ। ਪੇਪਰ ਸੈਂਟਰ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

**ਪਾਠ-ਕ੍ਰਮ
ਭਾਗ-ਪਹਿਲਾ**

ਕਾਵਿ ਕਥਾ, (ਕਵਿਤਾ ਅਤੇ ਕਹਾਣੀ) ਡਾ. ਮਹਿਲ ਸਿੰਘ (ਮੁੱਖ ਸੰਪਾਦਕ) ਅਤੇ ਡਾ. ਆਤਮ ਸਿੰਘ ਰੰਧਾਵਾ (ਸੰਪਾਦਕ), ਕਸਤੂਰੀ ਲਾਲ ਐਂਡ ਸਨਜ਼, ਅੰਮ੍ਰਿਤਸਰ।
(ਕਵਿਤਾ ਭਾਗ ਵਿਚੋਂ ਪ੍ਰਸ਼ੰਗ ਸਹਿਤ ਵਿਆਖਿਆ/ਕਵਿਤਾ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ। ਕਹਾਣੀ ਭਾਗ ਵਿਚੋਂ ਸਾਰ/ਵਿਸ਼ਾ-ਵਸਤੂ)

ਭਾਗ-ਦੂਜਾ

ਪੰਜਾਬ ਦੇ ਮਹਾਨ ਕਲਾਕਾਰ (ਬਲਵੰਤ ਗਾਰਗੀ)
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।
(ਅੰਮ੍ਰਿਤਾ ਸ਼ੇਰਗਿੱਲ ਤੋਂ ਭਾਈ ਸਮੁੰਦ ਸਿੰਘ ਤਕ)
(ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

ਭਾਗ-ਤੀਜਾ

(ੳ) ਪੈਰਾ ਰਚਨਾ (ਤਿੰਨਾਂ ਵਿਚੋਂ ਇਕ)
(ਅ) ਪੈਰਾ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ

ਭਾਗ-ਚੌਥਾ

(ੳ) ਭਾਸ਼ਾ ਵੰਨਗੀਆਂ: ਭਾਸ਼ਾ ਦਾ ਟਕਸਾਲੀ ਰੂਪ, ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਵਿਚਲਾ ਅੰਤਰ, ਪੰਜਾਬੀ ਉਪ-ਭਾਸ਼ਾਵਾਂ ਦੇ ਪਛਾਣ-ਚਿੰਨ੍ਹ।
(ਅ) ਪੰਜਾਬੀ ਭਾਸ਼ਾ: ਨਿਕਾਸ ਤੇ ਵਿਕਾਸ।

BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)

SEMESTER-I

Basic Punjabi-1

ਮੁਢਲੀ ਪੰਜਾਬੀ-1

(In Lieu of Compulsory Punjabi)

Credit & Marks Distribution, Eligibility and Pre-Requisites of the Course

Course title & Code	Total Teaching Hours	Total Credits/ Hours per week	Credit distribution			Total Marks 100		Time Allowed in Exam	Eligibility criteria	Pre- requisite of the course (if any)
			L	T	P	Theory	IA			
ਮੁਢਲੀ ਪੰਜਾਬੀ-1 BPBI-1102	60	4	4	0	0	75	25	3 Hours	Class 12th pass in any stream	NOT Studied Punjabi up to 10th Standard

ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective	ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)
<ul style="list-style-type: none"> ਵਿਦਿਆਰਥੀ ਨੂੰ ਗੁਰਮੁਖੀ ਲਿਪੀ ਤੋਂ ਜਾਣੂ ਕਰਾਉਣਾ। ਵਿਦਿਆਰਥੀ ਨੂੰ ਸ਼ੁੱਧ ਪੰਜਾਬੀ ਪੜ੍ਹਨਾ-ਲਿਖਣਾ ਸਿਖਾਉਣਾ। ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੀਆਂ ਵਿਆਕਰਨਕ ਬਾਰੀਕੀਆਂ ਤੋਂ ਜਾਣੂ ਕਰਾਉਣਾ। ਵਿਦਿਆਰਥੀ ਅੰਦਰ ਸ਼ੁੱਧ ਸੰਚਾਰ ਨੂੰ ਵਿਕਸਤ ਕਰਨਾ। 	<ul style="list-style-type: none"> ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਤੇ ਗੁਰਮੁਖੀ ਲਿਪੀ ਦੀ ਸਿਖਲਾਈ ਵਿਚ ਮੁਹਾਰਤ ਹਾਸਲ ਕਰਨਗੇ। ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਚ ਮੁਹਾਰਨੀ, ਲਗਾਂ-ਮਾਤਰਾਂ, ਸਵਰ ਅਤੇ ਵਿਅੰਜਨ ਅੱਖਰਾਂ ਦੀ ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ ਸਬੰਧੀ ਸਮਝ ਵਿਕਸਿਤ ਹੋਵੇਗੀ। ਵਿਦਿਆਰਥੀ ਸ਼ੁੱਧ ਪੰਜਾਬੀ ਲਿਖਣ-ਪੜ੍ਹਨ ਦੇ ਸਮਰੱਥ ਹੋਣਗੇ। ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਸ਼ੁੱਧ ਰੂਪਾਂ ਦੀ ਜਾਣਕਾਰੀ ਹਾਸਲ ਕਰਨਗੇ।

ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 01-01 ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ ਉੱਤਰ ਵਾਲੇ (Objective Type) 11 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਦੂਸਰੇ ਅਤੇ ਤੀਸਰੇ ਭਾਗ ਵਿਚ, ਸਿਲੇਬਸ ਦੇ ਪਹਿਲੇ ਅਤੇ ਦੂਸਰੇ ਭਾਗ ਵਿਚੋਂ 8-8 ਅੰਕਾਂ ਦੇ 3-3 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ ਕੋਈ 2-2 ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਇਸੇ ਤਰ੍ਹਾਂ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚੌਥੇ ਭਾਗ ਵਿਚ 4-4 ਅੰਕਾਂ ਦੇ 5 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ 4 ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਭਾਗ ਪੰਜਵੇਂ ਵਿਚ 2-2 ਅੰਕਾਂ ਦੇ 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ 8 ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ।

**ਪਾਠ-ਕ੍ਰਮ
ਭਾਗ-ਪਹਿਲਾ**

(ੳ) ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਤੇ ਗੁਰਮੁਖੀ ਲਿਪੀ:

ਨਾਮਕਰਣ ਤੇ ਸੰਖੇਪ ਜਾਣ-ਪਛਾਣ: ਗੁਰਮੁਖੀ ਵਰਣਮਾਲਾ, ਅੱਖਰ ਕ੍ਰਮ, ਸਵਰ ਵਾਹਕ (ੳ, ਅ, ਏ), ਲਗਾਂ-ਮਾਤਰਾਂ, ਪੈਰ ਵਿਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਨ, ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਨ, ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ

(ਅ) ਸਿਖਲਾਈ ਤੇ ਅਭਿਆਸ

ਭਾਗ-ਦੂਜਾ

ਗੁਰਮੁਖੀ ਆਰਥੋਗਰਾਫੀ ਅਤੇ ਉਚਾਰਨ:

ਸਵਰ, ਵਿਅੰਜਨ: ਮੁਢਲੀ ਜਾਣ-ਪਛਾਣ ਅਤੇ ਉਚਾਰਨ, ਮੁਹਾਰਨੀ, ਲਗਾਂ-ਮਾਤਰਾਂ ਦੀ ਪਛਾਣ

ਭਾਗ-ਤੀਜਾ

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਜੋੜ: ਮੁਕਤਾ (ਦੋ ਅੱਖਰਾਂ ਵਾਲੇ ਸ਼ਬਦ, ਤਿੰਨ ਅੱਖਰਾਂ ਵਾਲੇ ਸ਼ਬਦ), ਸਿਹਾਰੀ ਵਾਲੇ ਸ਼ਬਦ, ਬਿਹਾਰੀ ਵਾਲੇ ਸ਼ਬਦ, ਔਕੜ ਵਾਲੇ ਸ਼ਬਦ, ਦੁਲੈਂਕੜ ਵਾਲੇ ਸ਼ਬਦ, ਲਾਂ ਵਾਲੇ ਸ਼ਬਦ, ਦੁਲਾਵਾਂ ਵਾਲੇ ਸ਼ਬਦ, ਹੋੜੇ ਵਾਲੇ ਸ਼ਬਦ, ਕਨੌੜੇ ਵਾਲੇ ਸ਼ਬਦ, ਲਗਾਖਰ (ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ) ਵਾਲੇ ਸ਼ਬਦ

ਭਾਗ-ਚੌਥਾ

ਸ਼ੁੱਧ-ਅਸ਼ੁੱਧ ਸ਼ਬਦ

BACHELOR OF VOCATION(B.VOC.) (SOFTWARE DEVELOPMENT)
SEMESTER-I
PUNJAB HISTORY & CULTURE(From Earliest Times to C 320)(Special Paper in lieu
of Punjabi compulsory)
(For those students who are not domicile of Punjab)
Course Code: BPHC-1104

Credit Hours(per week):04
L- T- P
04-0-0
Time:3Hours
TotalMarks:100
Theory:75
InternalAssessment:25

Instruction sfor the Paper Setters:

Question paper should consist of two sections—Section A and Section B. The paper setter must ensure that questions in Section–A do not cover more than one point, and questions in Section–B should cover at least 50 percent of the theme.

Section–A: The examiner will set 15 objective type questions out of which the candidate shall attempt any 10 questions, each carrying 1½ marks. The total weightage of this section will be 15 marks. Answer to each question should be in approximately one to two sentences.

Section–B: The examiner will set 8 questions, two from each Unit. The candidate will attempt 4 questions selecting one from each Unit in about 1000 words. Each question will carry 15 marks. The total weightage of this section will be 60 marks.

Note: The examiner is to set the question paper in two languages: English & Hindi.

Course Objectives: The main objective of this course is to educate the history and culture of the Ancient Punjab to the students who are not domicile of the Punjab. It aims to familiarize these students with the physical features of ancient Punjab and its impact on its history and culture. It also provides them information about the different sources to construct the history and culture of the ancient Punjab. The course intends to provide knowledge of social, economic, religious life of the Harappan civilization, Indo-Aryans, teachings and impact of Jainism and Buddhism in the Punjab.

Unit-I

1. Physical features of the Punjab and impact on history.
2. Sources of the ancient history of Punjab.

Unit-II

3. Harappan Civilization: Town planning; social, economic and religious life of the Indus Valley People.
4. The Indo-Aryans: Original home and settlement in Punjab.

Unit-III

5. Social, Religious and Economic life during Rig Vedic Age.
6. Social, Religious and Economic life during later Vedic Age.

Unit-IV

7. Teachings and impact of Buddhism.
8. Jainism in the Punjab.

Suggested Readings:-

L.Joshi(ed), *History and Culture of the Punjab*, Art-I, Patiala, 1989 (3rd edition)

L.M.Joshi and Fauja Singh(ed), *History of Punjab*, Vol. I, Patiala 1977.

Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.

B.N.Sharma, *Life in Northern India*, Delhi. 1966.

Course Outcomes:

On Completing the Course, the Students will be able to :

- CO-1** Learn the history and culture of the Ancient Punjab.
- CO-2** Study the physical features of ancient Punjab.
- CO-3** Understand about the sources of the history of the Punjab.
- CO-4** Analyse the social, economic, religious life of the Harappan civilization and Vedic-Aryans.
- CO-5** Learn the teachings and impact of Jainism and Buddhism in the Punjab

**BACHELOR OF VOCATION (B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I**

BVSD 117P : Lab – I: Office Automation and Web Technology

Time: 3 Hrs.

Total Marks: 50

Credits		
L	T	P
0	0	2

Practical Marks: 37

Practical Internal Assessment Marks:13

Course Objectives:

1.	Enable the students to create professional word documents, excel spreadsheets and PowerPoint presentations.
2.	Provides in-depth knowledge of various web languages: HTML and DHTML.
3.	Allow students to build and publish web pages.

Practical based on Office Automation and Web Technology

- **Office Automation:** MS Word, MS Excel, MS PowerPoint
- **Web Technology:** HTML, DHTML, Dreamweaver

Course Outcomes (Cos):

At the end of this course student will be able to:

CO-1.	Creating word documents and mail merge.
CO-2.	Acquire the required presentations skills and learn to perform accounting operations by using formulas.
CO-3.	Learn how to create and insert tables.
CO-4.	Learn to apply various formatting schemes.
CO-5.	Hands on practice to develop web pages using HTML and DHTML, and publish website using Dreamweaver.

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I**

BVSD 118P: Lab – II: Programming in C Language

Time: 3 Hrs.

Total Marks: 50

Credits		
L	T	P
0	0	2

Practical Marks: 37

Practical Internal Assessment Marks:13

Course Objectives:

1.	The course is oriented to those who want to advance structured and procedural programming understating and to improve C programming skills.
2.	The major objective is to provide students with understanding of code organization and functional hierarchical decomposition with using complex data types.

Practical based on Programming in C language

Course Outcomes:

CO-1.	Students would be capable to use the fundamentals of C programming in trivial problem solving.
CO-2.	Students can identify solution to a problem and apply control structures and user defined functions for solving the problems.
CO-3.	Understanding the concept of arrays and their different types.
CO-4.	Read, understand and trace the execution of programs.
CO-5.	Ability to handle possible syntax and run time errors at the time of program execution

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-I**

Course Code: ZDA111

**Course Title-Drug Abuse: Problem, Management and Prevention
(Compulsory for all Under Graduate Classes)**

Credit hrs./wk.:1

Max.Marks: 25

Time: 3 Hours

Instructions for the Paper Setters:

- 1) There will be two sections A and B.
- 2) Section A is compulsory and will be of 5 marks consisting of 8 short answer type questions carrying 1marks each covering the whole syllabus. The candidates are required to attempt 5 questions out of 8 short answer type questions. The answer should not exceed 50 words.
- 3) Candidates shall be required to attempt 4 questions from Section B, selecting one question from each unit and each question carries 5 marks. Preferably, the question should not be split into more than two sub-parts.

Course Objectives-The course aims to-

CO-1.	Generate the awareness against drug abuse.
CO-2.	Describe a variety of models and theories of addiction and other problems related to substance abuse.
CO-3.	Describe the behavioral, psycho logical, physical health and social impact of psycho active substances.
CO-4.	Provideculturallyrelevantformalandinformaleducationprogramsthatraiseawarenessand support for substance abuse prevention and the recovery process.
CO-5.	Describe factors that increase likelihood for an individual, community or group to beat risk of substance used is orders.

UNIT-I

• Meaning of Drug Abuse

Meaning of drug abuse

Nature and Extent of Drug Abuse: State and National Scenario

UNIT-II

• Consequences of Drug Abuse for

Individual: Education, Employment, Income.

Family: Violence.

Society: Crime.

Nation : Law and Order problem.

UNIT-III

- **Management of Drug Abuse**

Medical Management: Medication for treatment of different types of drug abuses.

Medication to reduce withdrawal effects.

UNIT-IV

- **Psychiatric Management:** Counselling, Behavioural and Cognitive therapy.

- **Social Management:** Family, Group therapy and Environmental Intervention.

References:

1. Ahuja,Ram(2003),SocialProblemsin India, RawatPublication,Jaipur.
2. Extent,PatternandTrendofDrugUseinIndia, MinistryofSocialJusticeand Empowerment, Government of India, 2004.
3. Inciardi,J.A.1981. TheDrugCrimeConnection.BeverlyHills: SagePublications. 23
4. JasjitKaurRandhawa&SamreetRandhawa,“DrugAbuseProblem,Management& Prevention”, KLS, ISBN No. 978-81-936570-8-9, (2019).
5. Kapoor.T.(1985)DrugepidemicamongIndian Youth,NewDelhi:Mittal Pub.
6. Modi,IshwarandModi,Shalini(1997)Drugs:AddictionandPrevention,Jaipur:RawatPublication.
7. Sain,Bhim1991,DrugAddictionAlcoholism,SmokingobscenityNewDelhi:Mittal Publications.
8. Sandhu,RanvinderSingh,2009,DrugAddictioninPunjab:ASociologicalStudy. Amritsar. Guru Nanak Dev University.
9. Singh,C.P. 2000.Alcoholand DependenceamongIndustrial Workers:Delhi: Shipra.
10. Sussman,SandAmes,S.L.(2008).DrugAbuse:Concepts,PreventionandCessation, Cambridge University Press.
11. WorldDrugReport2011, UnitedNations officeof Drugand Crime.

Course Outcomes: The students will be able-

CO-1.	To describe issues of cultural identity, ethnic background, age and gender in prevention, treatment and recovery.
CO-2.	To describe warning sign, symptoms, and the course of substance used is orders.
CO-3.	To describe principles and philosophy of prevention, treatment and recovery.
CO-4.	Todescribecurrentandevidenced-basedapproachespracticedinthefieldofdrug addiction.

BACHELOR OF VOCATION (B.VOC.) (SOFTWARE DEVELOPMENT)
Semester – II

SN	Course Code	Course Name	Distribution of The Marks				Lectures			Credit Distribution			Total Credits L+T+P	Page No.
			Theory	Internal Assessment	Practical	Total	L	T	P	L	T	P		
1	BVSD 124 (Major)	Internet Applications	75	25	-	100	5	1	0	3	1	0	4	21-22
2	BVSD 125 (Major)	Data Structures	75	25	-	100	5	1	0	3	1	0	4	23-24
3	BVSD 126 (Major)	Object Oriented Programming	75	25	-	100	5	1	0	3	1	0	4	25-26
4	BVSD 127P	Lab I: Programming in C++	-	13	37	50	0	0	6	0	0	2	2	33
5	BVSD 128P	Lab II: Practical based on Data Structure	-	13	37	50	0	0	6	0	0	2	2	34
6	BCSV-1229	Communication Skills in English-II	60	25	15	100	4	0	2	3	0	1	4	27-28
7	BHPB-1201/ BPBI-1202/ BPHC-1204	Punjabi (Compulsory) / * Basic Punjabi / ** Punjab History & Culture.	75	25	-	100	6	0	0	4	0	0	4	29-32
8	ZDA121	***Drug Abuse: Problem, Management and Prevention (Compulsory paper)-II	-	-	-	25	2	0	0	1	0	0	1	35-36
							Total Credit=25							

*****Marks of Paper ZDA121 Drug Abuse: Problem, Management and Prevention (Compulsory Paper) will not be included in Grand Total.**

BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)

SEMESTER-II

BVSD 124: Internet Applications

Discipline Specific Course (DSC)

Time: 3 Hrs.

Total Marks: 100

Credits		
L	T	P
3	1	0

Theory Marks: 75

Theory Internal Assessment Marks:25

Note for paper setter and students:

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 15 marks consisting of 8 short answer type questions carrying 2.5 mark each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 15 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

Course Objectives:

1.	The elementary goal of this course is to provide full exposure regarding usage of internet along with working model of Internet.
2.	Providing in-depth knowledge of various internet protocols and their working.

UNIT-I

Introduction: About internet and its working, business use of internet, services offered by internet, evolution of internet, internet service provider (ISP), windows environment for dial up networking (connecting to internet), audio on internet, internet addressing (DNS) and IP addresses)

UNIT-II

E-Mail: Concept, Advantage and disadvantage, structure of an e-mail message, working of e-mail (sending and receiving messages), managing e-mail (creating new folder, deleting messages, forwarding messages, filtering messages) Implementation of outlook express.

Internet Protocol: Introduction, file transfer protocol (FTP), Gopher, Telnet, other protocols like HTTP and TCP/IP.

UNIT-III

WWW: Introduction, working of WWW, Web browsing (opening, viewing, saving and printing a web page and bookmark).

Intranet and Extranet Introduction, application of intranet, business value of intranet, working of intranet, role of extranet, working of extranet, difference between intranet and extranet.

UNIT-IV

Search Engine: About search engine, component of search engine, working of search engine, Difference between search engine and web directory.

News Group: Basic concepts of newsgroup, connecting to a news server, subscribing to newsgroup, organization of articles, reading messages, posting replies and new messages, managing newsgroup and messages.

References:

1. Internet and its Applications by Ackerman.
2. Internet – The Complete Reference, 2nd Edition.

Course Outcomes:

CO-1.	Students will completely know how to use internet effectively such as internet surfing, browsing etc.
CO-2.	Students become able to use all features of email facilities such as creating, sending, receiving, attachments, replying emails etc.
CO-3.	Students can opt website development field in well manner after studying this course.
CO-4.	Knowledge of Network topologies will also make able students to make career in networking field.
CO-5.	Developing ability in students to design basic to moderate web-sites in HTML.

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-II**

**BVSD 125: Data Structures
Discipline Specific Course (DSC)**

Time: 3 Hrs.

Total Marks: 100

Credits		
L	T	P
3	1	0

Theory Marks: 75

Theory Internal Assessment Marks:25

Note for paper setter and students:

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 15 marks consisting of 8 short answer type questions carrying 2.5 mark each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 15 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

Course Objectives:

1.	To Present the basic concepts of data structures and algorithms
2.	To provide practical base knowledge to students in this area.
3.	To teach structured memory management mechanisms of data for an easy access.
4.	To teach students the designing and implementation of various basic and advanced data structures.
5.	To introduce various techniques for representation of the data in the real world.
6.	To enhance the logical ability.

UNIT-I

Basic Data Structure: Introduction to Data Structure, Common Operations on Data Structures, Algorithm Complexity, Big O Notation, Time – Space trade off between Algorithms.

Arrays: Define Array, Representing Arrays in Memory, Various Operations on Linear Arrays, Linear Search and Binary Search

UNIT-II

Linked Lists: Types of Linked Lists, Representing Linked Lists in Memory, Advantages of using Linked Lists over Arrays, Various Operations on Linked Lists.

Stacks: Description of STACK structure, Implementation of Stack using Arrays and Linked Lists, Push and Pop operations of Stack, Applications of Stacks – Converting Arithmetic expression from infix notation to polish and their subsequent evaluation

UNIT-III

Queues: Description of queue structure, Implementation of queue using arrays and linked lists, Insertion and Deletion operations in Circular Queue, description of priorities of queues, dequeues.

Trees: Description of Tree Structure and its Terminology, Binary Trees and Binary Search trees and their representation in Memory

UNIT IV

Graphs: Description of Graph Structure, Implement Graphs in Memory using Adjacency Matrix and Adjacency list, BSF and DFS traversal of the graph

Sorting techniques: Sorting Algorithms, Bubble Sort, Insertion Sort, Selection Sort, Merge Sort

References:

1. Seymour Lipschutz, Theory and Problems of Data Structures, Schaum's Outline Series, McGraw Hill Company, 2017
2. Data Structures through C by Yashwant Kanetkar, BPB Publications, 3rd edition, 2017
3. Data Structures through C++ ,by Yashwant Kanetkar, BPB Publications 4th edition, 2018

Data Structures and Algorithms Made Easy By Narasimha Karumanchi 5th edition, 2016

Course Outcomes:

The students, after the completion of the course, are expected to:

CO-1.	Use data structures effectually to solve practical problems.
CO-2.	Implement effective programs that employ efficient algorithms.
CO-3.	Choose basic data structures and algorithms for realization of simple programs or program parts.
CO-4.	To debug the programs, recognize needed basic operations with data structures.

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-II**

**BVSD 126: Object Oriented Programming
Discipline Specific Course (DSC)**

Time: 3 Hrs.

Total Marks: 100

Credits		
L	T	P
3	1	0

Theory Marks: 75

Theory Internal Assessment Marks:25

Note for paper setter and students:

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 15 marks consisting of 8 short answer type questions carrying 2.5 mark each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 15 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

Course Objective:

1.	The objective of the course is to develop programming skills of students, using object oriented programming concepts.
2.	Learn the concept of class and object using C++ and develop classes for simple applications.

UNIT-I

Object-Oriented Programming Concepts: Introduction, comparison between procedural programming paradigm and object-oriented programming paradigm, basic concepts of object-oriented programming, Data Types, Operators and Control Structures.

Standard Input/output: Concept of streams, hierarchy of console stream classes, input/output using cin (>>) and cout (<<), formatting output using ios class functions, flags and manipulators.

Functions: Defining and accessing function, passing arguments to functions, inline functions, static function and storage classes.

UNIT-II

Classes and Objects: Specifying a class, creating class objects, accessing class members, access specifiers, static members, friend function, empty classes and nested classes.

Pointers and Dynamic Memory Management: dynamic memory management using *new* and *delete* operators, pointer to an object, *this* pointer, pointer related problems - dangling/wild pointers, null pointer, memory leak and allocation failures.

UNIT-III

Constructors and Destructors: Need for constructors and destructors, Default Constructor, Parameter Constructor and Copy Constructor, destructors, constructors and destructors with static members.

Inheritance: Introduction, defining derived classes, types of inheritance: Multiple, Multilevel, Hybrid and Hierarchical Inheritance, virtual base class, overriding member functions,

UNIT-IV

Operator Overloading: Overloading operators, rules for overloading operators, overloading of various operators: unary and binary operators, type conversion: implicit and Explicit.

Polymorphism: Concept of binding - early binding and late binding, function overloading, virtual functions, pure virtual functions, abstract classes, virtual destructors.

References:

1. C++ & Graphics by Vijay Mukhi's, BPB Publications, Vol V, 1992.
2. Turbo C++ by Robert Lafore, Galgotia Publications, 1991
3. C++ Programming Language by Schaum's outline series, McGraw Hill LLC, 2nd Edition, 2000
4. Object –Oriented Programming with C++ by E. Balagursamy, Mc Graw Hill Education, 8th Edition, 2021.
5. C++, The Complete Reference by Herbert Schildt, Mc Graw Hill Education, 5th Edition, 2012.

Course Outcome (Cos):

CO-1.	Describe the procedural and object-oriented paradigm with concepts of streams, classes, functions, data and objects.
CO-2.	Understand dynamic memory management techniques using pointers, constructors, destructors, etc
CO-3.	Describe the concept of function overloading, operator overloading, virtual functions and polymorphism.
CO-4.	Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.
CO-5.	Demonstrate the use of various OOPs concepts with the help of programs.

BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-II
COMMUNICATION SKILLS IN ENGLISH-II
BCSV-1229

L	T	P	Credits
3	1	0	4

Time: 3 Hours

Max. Marks: 100
Theory: 60
Practical: 15
Internal Assessment: 25

Instructions for the Paper Setters:-

Section A is compulsory. It will consist of Fifteen (15) questions of one mark each. The students will be required to attempt any Twelve (12). (12X1= 12 Marks)

Eight (8) questions of equal marks will be set from Section B-E, comprising 2 questions from the each above mentioned section. Candidates will be required to attempt Four (4) questions, selecting at least one question from each Section.

(4X12=48 Marks)

Course Objectives:

- I: To develop competence in oral and visual communication.
- II: To inculcate innovative and critical thinking among the students.
- III: To enable them to grasp the application of communication theories.
- IV: To acquire the knowledge of latest technology related with communication skills.
- V: To provide knowledge of multifarious opportunities in the field of this programme.

The syllabus is divided in five sections as mentioned below:

Course Contents:

SECTION-A

Grammar: Tenses and Change of Voice

SECTION-B

Listening Skills: Barriers to listening; effective listening skills.

Activities: Listening exercises- News and TV reports

SECTION-C

Attending telephone calls; note making.

Activities: Taking notes on a speech/lecture

SECTION–D

Speaking and Conversational Skills: Components of a meaningful and easy conversation; understanding the cue and making appropriate responses; forms of polite speech; asking and providing information on general topics.

Activities: 1) Making conversation and taking turns

2) Oral description or explanation of a common object, situation or concept

SECTION–E

Situation based Conversation in English, Essentials of Spoken English

Activities: Giving Interviews

Recommended Books:

Oxford Guide to Effective Writing and Speaking by John Seely.

English Grammar in Use (Fourth Edition) by Raymond Murphy, CUP

Course Outcomes:

The completion of this course enables students to:

1. Identify common errors in language and rectify them.
2. Develop and expand writing skills through controlled and guided activities.
3. Develop coherence, cohesion and competence in oral discourse through intelligible pronunciation.
4. Develop the ability to handle the interview process confidently and learn the subtle nuances of an effective group discourse.
5. Communicate contextually in specific and professional situations with courtesy.

Practical Marks: 15

Course Contents:-

1. Oral Presentation
2. Group Discussion
3. Mock Interview

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-II**

Punjabi (Compulsory)-2

ਪੰਜਾਬੀ(ਲਾਜ਼ਮੀ)-2

Credit& Marks Distribution and Pre-Requisites of the Course

Course title & Code	Total Teaching Hours	Total Credits/ Hours per week	Credit distribution			Total Marks 100		Time Allowed in Exam
			L	T	P	Theory	IA	
ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)-2 BHPB-1201	60	4	4	0	0	75	25	3 Hours

<p>ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective</p> <ul style="list-style-type: none"> ▪ ਵਿਦਿਆਰਥੀਆਂ ਵਿਚ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਪੈਦਾ ਕਰਨਾ। ▪ ਆਲੋਚਨਾਤਮਕ ਰੁਚੀਆਂ ਨੂੰ ਵਿਕਸਤ ਕਰਨਾ। ▪ ਵਿਦਿਆਰਥੀ ਨੂੰ ਦਫਤਰੀ ਅਤੇ ਘਰੇਲੂ ਚਿੱਠੀ ਪੱਤਰ ਤੋਂ ਜਾਣੂ ਕਰਵਾਉਣਾ। ▪ ਭਾਸ਼ਾਈ ਗਿਆਨ ਵਿਚ ਵਾਧਾ ਕਰਨਾ। 	<p>ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)</p> <ul style="list-style-type: none"> ▪ ਉਸ ਅੰਦਰ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਪ੍ਰਫੁੱਲਿਤ ਹੋਣਗੀਆਂ। ▪ ਉਸ ਅੰਦਰ ਸਾਹਿਤ ਸਿਰਜਣਾ ਦੀ ਸੰਭਾਵਨਾ ਵਧੇਗੀ। ▪ ਵਿਦਿਆਰਥੀ ਚਿੱਠੀ-ਪੱਤਰ ਦੀ ਲਿਖਣ ਸ਼ੈਲੀ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ। ▪ ਉਹ ਭਾਸ਼ਾਈ ਬਣਤਰ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।
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ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 1.5-1.5 (ਡੇਢ-ਡੇਢ) ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ (Objective Type) 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਸਿਲੇਬਸ ਦੇ ਬਾਕੀ ਚਾਰ ਭਾਗਾਂ ਵਿਚ 02-02 ਲੇਖ ਨੁਮਾ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰੇਕ ਭਾਗ ਵਿਚੋਂ 01-01 ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੋਵੇਗਾ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 15 ਅੰਕ ਹੋਣਗੇ। ਪੇਪਰ ਸੈੱਟਰ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

ਪਾਠ-ਕ੍ਰਮ

ਭਾਗ-ਪਹਿਲਾ

ਵਾਰਤਕ ਦੇ ਰੰਗ, (ਨਿਬੰਧ ਅਤੇ ਰੇਖਾ-ਚਿਤਰ) (ਸੰਪਾਦਕ) ਡਾ. ਮਹਿਲ ਸਿੰਘ, ਕਸਤੂਰੀ ਲਾਲ ਐਂਡ ਸਨਜ਼, ਅੰਮ੍ਰਿਤਸਰ।
(ਨਿਬੰਧ ਭਾਗ ਵਿਚੋਂ ਸਾਰ/ਵਿਸ਼ਾ-ਵਸਤੂ। ਰੇਖਾ-ਚਿਤਰ ਭਾਗ ਵਿਚੋਂ ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

ਭਾਗ-ਦੂਜਾ

ਪੰਜਾਬ ਦੇ ਮਹਾਨ ਕਲਾਕਾਰ (ਬਲਵੰਤ ਗਾਰਗੀ)
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।
(ਸਤੀਸ਼ ਗੁਜਰਾਲ ਤੋਂ ਸੁਰਿੰਦਰ ਕੌਰ ਤਕ)
(ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

ਭਾਗ-ਤੀਜਾ

(ੳ) ਦਫਤਰੀ ਚਿੱਠੀ ਪੱਤਰ
(ਅ) ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

ਭਾਗ-ਚੌਥਾ

(ੳ) ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ-ਰਚਨਾ - ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਮੁਢਲੇ ਸੰਕਲਪ
(ਅ) ਸ਼ਬਦ-ਸ਼੍ਰੇਣੀਆਂ

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-II**

Basic Punjabi-2

ਮੁਢਲੀ ਪੰਜਾਬੀ-2

(In Lieu of Compulsory Punjabi)

Credit & Marks Distribution and Pre-Requisites of the Course

Course title & Code	Total Teaching Hours	Total Credits/ Hours per week	Credit distribution			Total Marks 100		Time Allowed in Exam
			L	T	P	Theory	IA	
ਮੁਢਲੀ ਪੰਜਾਬੀ-2 BPBI-1202	60	4	4	0	0	75	25	3 Hours

<p>ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective</p> <ul style="list-style-type: none"> ਵਿਦਿਆਰਥੀ ਅੰਦਰ ਸ਼ਬਦ ਬਣਤਰ ਦੀ ਸਮਝ ਵਿਕਸਤ ਕਰਨਾ। ਵਿਦਿਆਰਥੀ ਨੂੰ ਸ਼ਬਦ ਪ੍ਰਕਾਰ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਦਾਨ ਕਰਨਾ। ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਵਿਆਕਰਨਕ ਪ੍ਰਬੰਧ ਸਬੰਧੀ ਗਿਆਨ ਕਰਾਉਣਾ। ਸਿਖਲਾਈ ਤੇ ਅਭਿਆਸ ਦੁਆਰਾ ਪੰਜਾਬੀ ਸ਼ਬਦ ਭੰਡਾਰ ਵਧਾਉਣਾ। 	<p>ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)</p> <ul style="list-style-type: none"> ਉਹ ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ ਦੀ ਜਾਣਕਾਰੀ ਹਾਸਲ ਕਰਕੇ ਭਾਸ਼ਾਈ ਗਿਆਨ ਨੂੰ ਵਿਕਸਿਤ ਕਰਨਗੇ। ਪੰਜਾਬੀ ਸ਼ਬਦ-ਰਚਨਾ ਸਬੰਧੀ ਮੁਹਾਰਤ ਹਾਸਲ ਕਰਨਗੇ। ਵਿਦਿਆਰਥੀ ਸ਼ਬਦਾਂ ਦੀਆਂ ਭਿੰਨ-ਭਿੰਨ ਕਿਸਮਾਂ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ। ਵਿਦਿਆਰਥੀਆਂ 'ਚ ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਭੰਡਾਰ 'ਚ ਵਾਧਾ ਹੋਵੇਗਾ।
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ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 01-01 ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ ਉੱਤਰ ਵਾਲੇ (Objective Type) 11 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਦੂਸਰੇ ਅਤੇ ਤੀਸਰੇ ਭਾਗ ਵਿਚ, ਸਿਲੇਬਸ ਦੇ ਪਹਿਲੇ ਅਤੇ ਦੂਸਰੇ ਭਾਗ ਵਿਚੋਂ 8-8 ਅੰਕਾਂ ਦੇ 3-3 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ ਕੋਈ 2-2 ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਇਸੇ ਤਰ੍ਹਾਂ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚੌਥੇ ਭਾਗ ਵਿਚ 4-4 ਅੰਕਾਂ ਦੇ 5 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ 4 ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਭਾਗ ਪੰਜਵੇਂ ਵਿਚ 8-8 ਅੰਕਾਂ ਦੇ 3 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਵਿਦਿਆਰਥੀ ਨੇ 2 ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ।

**ਪਾਠ-ਕ੍ਰਮ
ਭਾਗ-ਪਹਿਲਾ**

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ:

ਧਾਤੂ, ਵਧੇਤਰ (ਅਗੇਤਰ, ਮਧੇਤਰ, ਪਿਛੇਤਰ), ਪੰਜਾਬੀ ਕੋਸ਼ਗਤ ਸ਼ਬਦ ਅਤੇ ਵਿਆਕਰਨਕ ਸ਼ਬਦ

ਭਾਗ-ਦੂਜਾ

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਪ੍ਰਕਾਰ:

(ੳ) ਸੰਯੁਕਤ ਸ਼ਬਦ, ਸਮਾਸੀ ਸ਼ਬਦ, ਦੋਜਾਤੀ ਸ਼ਬਦ, ਦੋਹਰੇ/ਦੁਹਰੁਕਤੀ ਸ਼ਬਦ ਅਤੇ ਮਿਸ਼ਰਤ ਸ਼ਬਦ

(ਅ) ਸਿਖਲਾਈ ਤੇ ਅਭਿਆਸ

ਭਾਗ-ਤੀਜਾ

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਰਚਨਾ:

ਇਕ-ਵਚਨ/ਬਹੁ-ਵਚਨ, ਲਿੰਗ-ਪੁਲਿੰਗ, ਬਹੁਅਰਥਕ ਸ਼ਬਦ, ਸਮਾਨਅਰਥਕ ਸ਼ਬਦ, ਬਹੁਤੇ ਸ਼ਬਦਾਂ ਲਈ ਇਕ ਸ਼ਬਦ, ਸ਼ਬਦ ਜੁੱਟ, ਵਿਰੋਧਅਰਥਕ ਸ਼ਬਦ, ਸਮਨਾਮੀ ਸ਼ਬਦ

ਭਾਗ-ਚੌਥਾ

ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ

ਖਾਣ-ਪੀਣ, ਸਾਕਾਦਾਰੀ, ਰੁੱਤਾਂ, ਮਹੀਨਿਆਂ, ਗਿਣਤੀ, ਮੌਸਮ, ਬਜ਼ਾਰ, ਵਪਾਰ, ਪੰਦਿਆਂ ਨਾਲ ਸੰਬੰਧਿਤ

**BACHELOR OF VOCATION (B.VOC.) (SOFTWARE DEVELOPMENT)
SEMESTER-II**

PUNJAB HISTORY & CULTURE (C321 TO 1000 A.D.)

(Special Paper in lieu of Punjabi compulsory)

(For those students who are not domicile of Punjab)

Course Code: BPHC-1204

Credit Hours (per week): 04

L- T- P

04-0-0

Time: 3 Hours

Total Marks: 100

Theory: 75

Internal Assessment: 25

Instructions for the Paper Setters:

Question paper should consist of two sections—Section A and Section B. The paper setter must ensure that questions in Section–A do not cover more than one point, and questions in Section–B should cover at least 50 percent of the theme.

Section–A: The examiner will set 15 objective type questions out of which the candidate shall attempt any 10 questions, each carrying 1½ marks. The total weightage of this section will be 15 marks. Answer to each question should be in approximately one to two sentences.

Section–B: The examiner will set 8 questions, two from each Unit. The candidate will attempt 4 questions selecting one from each Unit in about 1000 words. Each question will carry 15 marks. The total weightage of this section will be 60 marks.

Note: The examiners to set the question paper in two languages: English & Hindi.

Course Objectives: The main objective of this course is to educate the students who are not domicile of the Punjab about the history and culture of the Ancient Punjab. It is to provide them knowledge about the social, economic, religious, cultural and political life of the people of the Punjab during the rule of various dynasties such as The Mauryans, The Kushans, The Guptas, The Vardhanas and other ancient ruling dynasties of the period under study.

Unit-I

1. The Punjab under Chandra gupta Maurya and Ashoka.
2. The Kushans and their Contribution to the Punjab.

Unit-II

3. The Punjab under the Gupta Emperors.
4. The Punjab under the Vardhana Emperors

Unit-III

5. Political Developments 7th Century to 1000 A.D.
6. Socio-cultural History of Punjab from 7th Century to 1000 A.D.

Unit-IV

7. Development of languages and Literature.
8. Development of art & Architecture.

Suggested Readings:-

L. Joshi (ed.), *History and Culture of the Punjab*, Part-I, Patiala, 1989 (3rd edition).

L.M. Joshi and Fauja Singh (ed), *History of Punjab*, Vol. I, Patiala 1977.

Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.

B.N. Sharma, *Life in Northern India*, Delhi. 1966.

Course Outcomes:

On completing the course, the students will be able to:

- CO-1** Understand the history and culture of the Punjab in Ancient Period.
- CO-2** Analyse social, economic, religious, cultural and political life of Ancient India and dynasties.
- CO-3** Study about the political developments from 7th century to 1000 AD.
- CO-4** Understand socio-cultural history of the Punjab from 7th century to 1000 AD.
- CO-5** Analyse language, literature, art and architecture of Ancient Punjab.

**BACHELOR OF VOCATION (B.VOC.)
(SOFTWARE DEVELOPMENT)
SEMESTER-II
BVSD 127P: Lab – I: Programming in C++**

Time: 3 Hrs.

Total Marks: 50

Credits		
L	T	P
0	0	2

Practical Marks: 37

Practical Internal Assessment Marks: 13

Course Objectives:

	The primary goal is to understand the structured and procedural programming.
	To understand code organization.
	To learn problem solving Techniques.
	To learn to break large problem into smaller parts, writing each part as a module.

Practical based on Programming in C++

Course Outcomes:

CO-1.	Enhance skill on Problem Solving by constructing algorithms.
CO-2.	Demonstrate the use of Strings and String Handling Functions.
CO-3.	Ability to work with textual information, characters and strings.
CO-4.	Ability to work with arrays.
CO-5.	Ability to write diversified solutions using C language.

**BACHELOR OF VOCATION(B.VOC.) (SOFTWAREDEVELOPMENT)
SEMESTER-II**

BVSD 128P: Lab – II: Practical based on Data Structures

Time: 3 Hrs.

Total Marks: 50

Credits		
L	T	P
0	0	2

Practical Marks: 37

Practical Internal Assessment Marks:13

Course Objective:

1.	To provide the knowledge of basic data structures and their implementations.
2.	To understand importance of data structures in contest of writing efficient programs.
3.	To implement stack, queue, linked list, tree and graph data structures.

Practical based on Data Structure

Course Outcome: At the end of this course student will:

CO-1.	Able to learn the basic types of data structures, implementation and applications.
CO-2.	Able to use linear and non-linear data structure like stacks, queues, linked list etc.
CO-3.	Implement various searching and sorting algorithms
CO-4.	Handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
CO-5.	Develop programming skills which require solving given problems.

**BACHELOR OF VOCATION (B.VOC.) (SOFTWARE DEVELOPMENT)
SEMESTER-II**

Course Code: ZDA121

**Course Title-DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION-II
(Compulsory for all Under Graduate Classes)**

Credits/wk.: 1

Time: 3 Hours

Max.

Marks: 25

Instructions for the Paper Setters:

- 1) There will be two sections A and B.
- 2) Section A is compulsory and will be of 5 marks consisting of 8 short answer type questions carrying 1 mark each covering the whole syllabus. The candidates are required to attempt 5 questions out of 8 short answer type questions. The answer should not exceed 50 words.
- 3) Candidates shall be required to attempt 4 questions from Section B, selecting one question from each unit and each question carries 5 marks. Preferably, the question should not be split into more than two sub-parts.

Course Objectives: The course aim is to-

CO-1.	Describe the role of family in the prevention of drug abuse.
CO-2.	Describe the role of school and teachers in the prevention of drug abuse.
CO-3.	Emphasize the role of media and educational and awareness program.
CO-4.	Provide knowhow about various legislation and Acts against drug abuse.

UNIT-I

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

UNIT-II

School: Counselling, Teacher as role-model.

Parent-Teacher-Health Professional Coordination, Random testing on students.

UNIT-III

Controlling Drug Abuse: Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program

UNIT-IV

Legislation: NDPS act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

References:

1. Ahuja, Ram (2003), Social Problems in India, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. The Drug Crime Connection. Beverly Hills: Sage Publications.
4. Jasjit Kaur Randhawa & Samreet Randhawa, "Drug Abuse Problem, Management & Prevention", KLS, ISBN No. 978-81-936570-8-9, (2019).
5. Kapoor, T. (1985) Drug epidemic among Indian Youth, New Delhi: Mittal Pub.
6. Modi, Ishwar and Modi, Shalini (1997) Drugs: Addiction and Prevention, Jaipur: Rawat Publication.
7. Sain, Bhim 1991, Drug Addiction Alcoholism, Smoking obscenity New Delhi: Mittal Publications.
8. Sandhu, Ranvinder Singh, 2009, Drug Addiction in Punjab: A Sociological Study. Amritsar. Guru Nanak Dev University.
9. Singh, C.P. 2000. Alcohol and Dependence among Industrial Workers: Delhi: Shipra.
10. Sussman, Sand Ames, S.L. (2008). Drug Abuse: Concepts, Prevention and Cessation, Cambridge University Press.
11. World Drug Report 2011, United Nations office of Drug and Crime.

Course Outcomes: The students will be able to-

CO-1.	Understand the importance of family and its role in drug abuse prevention.
CO-2.	Understand the role of support systems especially in schools and inter-relationships between students, parents and teachers.
CO-3.	Understand impact of media on substance abuse prevention.
CO-4.	Understand the role of awareness drives, campaigns etc. in drug abuse management.
CO-5	Learn about the Legislations and Acts governing drug trafficking and Abuse in India.