ORDINANCES
AND OUTLINES OF TESTS,
SYLLABI AND COURSES OF READING

FOR

BACHELOR OF COMPUTER APPLICATIONS (B.C.A)

(SEMESTER SYSTEM)

PART-III

(Semester 5th and 6th)

For 2016-17, 2017-18 & 2018-19 Sessions

PUNJABI   UNIVERSITY,
PATIALA – 147 002

OUTLINE OF PAPERS AND TESTS
for
B.C.A. Third Year(5th Semester)
For 2016-17, 2017-18 & 2018-19 Sessions

Code	Title of Paper	Hours per Week	University Examination	Internal Assessment	Max. Marks	Exam. Duration Hours
BCA-311	English Literary Skills – I	4	75	25*	100	3
BCA-312	System Analysis and Design	4	75	25	100	3
BCA-313	System Software	4	75	25	100	3
BCA-314	Java Programming	4	75	25	100	3
BCA-315	Web Designing using HTML and DHTML	4	75	25	100	3
BCA-316	Software Lab – IX (based on paper BCA-314: Java Programming)	4	35	15	50	3
BCA-317	Software Lab – X (based on paper BCA-315: Web Designing using HTML and DHTML)	4	35	15	50	3
BCA-318	Punjabi (Compulsory) or Punjabi Compulsory (Mudla Gyan) **	4	75	25	100	3
		Total	**520**	**180**	**700**	3

Note:

The break-up of marks for the practical will be as under:
  i.   Lab Record (Internal Assessment)   15 Marks
  ii.   Viva Voce (External Evaluation)   15 Marks
  iii.   Program Development and Execution(External Evaluation)   20 Marks

The break-up of marks for the internal assessment for theory papers except BCA-211 will be as under:
  i.   One or two tests out of which minimum one best will be   15 Marks
         considered for assessment.
  ii.   Attendance   5 Marks
  iii.   Class participation/behaviour/assignment   5 Marks

*The break-up of marks for the internal assessment for BCA-211: English Communication Skills – I will be as under:
  i.   Formal assessment through Interview/Self   10 Marks
         Introduction/Recitation etc.
  ii.   Conversation Skills (particularly listening and speaking to be   5 Marks
         evaluated through oral examination)
  iii.   Attendance   5 Marks
  iv.   Class participation/behavior/assignment   5 Marks

OUTLINE OF PAPERS AND TESTS
B.C.A. Third Year (6th Semester)
For 2016-17, 2017-18 & 2018-19 Sessions

Code	Title of Paper	Hours per Week	University Examination	Internal Assessment	Max. Marks	Exam. Duration Hours
BCA-321	English Literary Skills – II	4	75	25*	100	3
BCA-322	E-Commerce	4	75	25	100	3
BCA-323	Operating Systems	4	75	25	100	3
BCA-324	Software Engineering	4	75	25	100	3
BCA-325	Web Designing using ASP.NET	4	75	25	100	3
BCA-326	Software Lab – XI (More on Java based on BCA-314: Java Programming)	4	35	15	50	3
BCA-327	Software Lab – XII (based on BCA-325: Web Designing using ASP.NET)	4	35	15	50	3
BCA-328	Punjabi (Compulsory) or Punjabi Compulsory (Mudla Gyan) **	4	75	25	100	3
		Total	520	180	700	3

Note:

The break-up of marks for the practical will be as under:
i.	Lab Record (Internal Assessment)	15 Marks
ii.	Viva Voce (External Evaluation)	15 Marks
iii.	Program Development and Execution(External Evaluation)	20 Marks

The break-up of marks for the internal assessment for theory papers except BCA-211 will be as under:
i.	One or two tests out of which minimum one best will be considered for assessment.	15 Marks
ii.	Attendance	5 Marks
iii.	Class participation/behaviour/assignment	5 Marks

*The break-up of marks for the internal assessment for BCA-211: English Communication Skills – I will be as under:
i.	Formal assessment through Interview/Self Introduction/Recitation etc.	10 Marks
ii.	Conversation Skills (particularly listening and speaking to be evaluated through oral examination)	5 Marks
iii.	Attendance	5 Marks
iv.	Class participation/behavior/assignment	5 Marks

BCA-311: English Literary Skills – I

Max Marks: 75   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

English Literary Skills has been designed to develop interest of students in and appreciation of literature and to revise and reinforce structures already learnt.
Course contents:
One Literary Texts   35 marks
Composition   15 marks
Grammar and Vocabulary   25 marks

Text Prescribed:
1. Popular Short Stories (OUP)
   The following four stories are **NOT** to be studied:
   (i)   "The world Renowned Nose" by V.M. Basheer.
   (ii) "The Dying Detective" by Sir Arthur Canon Doyle
   (iii) "Monal Hunt" by ManoharMalgonkar
   (iv) "Old man at the Bridge" by Earnest Hemingway

Texts Prescribed for Grammar and Vocabulary:
2. W. Stannard Allan: Living English Structure (Orient Longman)
3. Wilford D. Best: The students' Companion (Rupa)

SECTION A: LITERARY   **35 Marks**
Q. 1. (a)   One essay type question with an internal alternative on theme, incident and character from popular Short Stories. The answer should not exceed 250 words.   10 marks
   (b)   5 short answer type questions to be the attempted out of the given eight from Popular Short Stories. (Word length 40-50 words)

                                                                               15 marks

Q.2. One comprehension passage from Popular Sort Stories with a variety of questions including 05 marks for vocabulary such as word formation and inferring meaning. The total range of the passage should be around 300-400 words.

                                                                               10 marks

SECTION B: COMPOSITION   **15 Marks**
Q.3. A paragraph of about 150 words on any one of the given three topics.   7.5 marks

Q.4. Translation from Punjabi/Hindi into English of a passage consisting of ten sentences.

                                     OR
                 (for those who do not know Punjabi/Hindi)

Paraphrase of a given poetry passage of about 10 lines.   7.5 marks
SECTION C: GRAMMAR and VOCABULARY   **25 Marks**

Q.5. The prescribed test Living English structure by W. Stannard Allen.
     The candidates should be examined on the material included in Exercise from 1.1 to No. 30.8. This material shall be divided into five parts, each carrying five marks as follows:
       (a)   Exercise 1.1 to Exercise 11.4

(b)   Exercise 12.1 to Exercise 19.20
(c)   Exercise 20.1 to Exercise 23.8
(d)   Exercise 24.1 to Exercise 27.6
(e)   Exercise 28.1 to Exercise 30.3   3 *5 = 15 marks

A candidate shall be required to attempt 10 sentences out of 15 in each part.

Q6.   The prescribed text is the student's Companion by Wilford D. Best.
       The candidate shall be examined on the following material:
       (a)   Single words or phrases and sentences: 5 marks
              1.   Words denoting number
              2.   Words denoting places
              3.   Words denoting professions and trades
              4.   Name by which persons with certain characteristics are known.
              5.   Forms of Government
              6.   Words pertaining to the church
              7.   Words pertaining to marriage
              8.   Science and Arts
              9.   Words pertaining to the medical professions:

       (b)   Words commonly mis-spelt   2 marks
       (c)   Antonyms and synonyms   3marks

       The examiner shall restrict himself to the prescribed text In Part (a) the candidate shall respond to 10 out of 13 one-word/ one -line tests, each carrying half a mark.
       In part (b a candidate shall correct 4 out of 6 incorrectly spelt words.
       In part (c) a candidate shall give six synonyms or antonyms out of 8, each carrying half a mark.

IMPORTANT

The examiner shall also give a clear instruction to the candidates to attempt these questions only at the place and only once. Second or subsequent attempts, unless the earlier attempts have been crossed out, shall not be evaluated.

BCA-312: System Analysis and Design

Max Marks: 75   **Maximum Time: 3 Hrs.**
MinPass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER

The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

(B) INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.

SECTION-A
Systems concepts: Definition and characteristics of a system, Elements of a system, Types of systems. **The system development life cycle:** Introduction to various phases.
The role of the Systems Analyst: Qualifications of a systems analyst, various roles of the systems analyst.
Systems analysis: Initial investigation, needs identification, determining the user's information requirements, Information-gathering tools.

SECTION B
Structured analysis tools: Data flow diagram, Data dictionary, Decision tree, Structured English, Decision tables. **Feasibility study:** Feasibility considerations, Steps in Feasibility analysis. **Systems Design:** The process and stages of systems design, Input/output and forms design, Database design.
Implementation and software maintenance: Conversion, Post-implementation review. Software maintenance: maintenance or enhancement, Primary activities of a maintenance procedure.
Hardware and software selection: Procedure and major phases in selection.

Text Book:

1.   E. M. Awad: Systems Analysis and Design, Galgotia Publications (P) Ltd.

Reference Books:
   1. Systems Analysis and Design: Techniques, Methodologies, Approaches, And Architectures1st Edition **Author:** Hardgrave Bill C. , Siau Keng , Chiang Roger H. L. **Publisher:** M.E. Sharpe

BCA-313: Systems Software

Max Marks: 75   **Maximum Time: 3 Hrs.**
MinPass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER

The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

(B) INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.

SECTION – A

Introduction: Definition of system software, types of system software, features of system programming, system programming vs. application programming.
Language Processors: Introduction, Language processing activates, Fundamentals of Language Processing.
Assembler: Elements of Assembly Language Processing, A simple Assembly scheme, Pass structure of Assemblers, Design of a two pass assembler. A brief overview of single pass assembly and problem of forward references.
Linkers and Loaders: Definition of linker and loader Design of Absolute Loader, Re-locatable Loader.

SECTION –B

Compilers: Overview of Compilation Process, Scanning, Parsing (Top down and Bottom Up parsing), Intermediate code forms (variant I and II) intermediate code form for arithmetic expressions (postfix, prefix, triples, quadruples – concepts only), Code optimisation transformations (Compile time evaluation, Elimination of common sub-expression, Dead code elimination, Frequency reduction, strength reduction – concepts only), compiler vs. interpreter.
Software Tools: Software tools for program development, Editors, Debug monitors, Programming environments, User Interfaces.

Text Book:
1.   Dhamdhere D. M. "Systems Programming and Operating system", Tata McGraw-Hill Publishing Company Limited, New Delhi, Second Edition.
References:
1.   Donovan, "System programming". (McGraw-Hill), 1991
2.   Aho andUlman, "Principles of Compilers", Narosa Publishing House, 1986.
3.   Aho, A.V., Ullman Sethi R., I.D.: Compilers : Principles, Techniques and Tools, Addison-Wesley Publishing Co., 1988.

BCA-314: Java Programming

Max Marks: 75   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER

The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

(B) INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.

SECTION-A

Introduction to java: evolution, features, comparison with C and C++; Java program structure; tokens, keywords, constants, variables, data types, type casting, statements.
Operators and expressions: arithmetic, relational, logical, assignment, increment, decrement, conditional, bitwise and special operators. Operator precedence & associativity rules.
Control statements: if else, switch case, for, while, do while, break, continue, labeled loops.
Class: syntax, instance variable, class variables, methods, constructors, overloading of constructors and methods.

SECTION B

Inheritance: types of inheritance, use of super, method overriding, final class, abstract class, wrapper classes.
Arrays, Strings and Vectors, Packages and Interfaces, visibility controls
Errors and Exceptions: Types of errors, Exception classes, Exception handling in java, use of try, catch, finally, throw and throws. Taking user input, Command line arguments.
Multithreaded Programming: Creating Threads, Life cycle of thread, Thread priority, Thread synchronization, Inter-thread communication.

Text Book:
1.   Patrick Naughton and Herbert Schildt, "*The Complete Reference Java 2*", TMH
References:
2.   Horstmann, Cay S. and Gary Cornell, "*Core Java 2: Fundamentals Vol. 1*", Pearson Education.
3.   E. Balagurusamy "*Programming with Java*", TMH

BCA-315: Web Designing using HTML and DHTML

Max Marks: 75   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER

The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

(B) INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.

SECTION-A

Introduction to HTML: Basic HTML concepts, an overview of HTML markup.
What is good Web design; the process of Web publishing; implementation; the phases of Web site development; HTML's role in the Web; and issues facing HTML and the Web.
HTML overview: the structure of HTML documents; document types; the <HTML> element; the <HEAD> element; the <BODY> element;
Links and Addressing: Linking basics; what are URLs; linking in HTML; anchor attributes; images and anchors; image maps; semantic linking with the <LINK> element; meta-information;
HTML and Images: The role of images on the Web; image preliminaries; image downloading issues; obtaining images; HTML image basics; images as buttons; and image maps.
Introduction to Layout: Backgrounds, Colors, and Text; design requirements; HTML approach to Web design; fonts; colors in HTML; document-wide color attributes for <BODY>; and background images. Introduction to tables, LISTS; frames

SECTION-B

Style Sheets: style sheets basics; style sheet example; style sheet properties; positioning with style sheets;
Basic Interactivity and HTML: Forms form preliminaries; the <FORM> element; form controls;
Introduction to Server-Side Programming: This chapter covers: overview of client/server programming on the Web; server-side programming; common gateway interface (CGI);
Dynamic HTML (DHTML): dynamic HTML and document object model; HTML and scripting access; rollover buttons; moving objects with DHTML; and ramifications of DHTML.

Text Book:

1.   Thomas A. Powell , "HTML: The Complete Reference", Osborne/McGraw-Hill

References:

1. Deitel, Deitel and Nieto : Internet & WWW. How to program, 2nd Edition, Pearson Education Asia.
2. E Stephen Mack, JananPlatt : HTML 4.0 , No Experience Required, 1998, BPB Publications.
3. "HTML Complete" by Sybex, BPB Publications, 2001.
4. Bayross, "Web Enabled Commercial Applications Development Using HTML, DHTML, Java Script, Perl CGI," Third Edition, BPB Publications.
5. Scott Mitchell, "Designing Active Server Pages, "O Relly, 2000.
6. Keith Morneau, Jill Batistick, "Active Server Pages", First Edition, Vikas Thomson Learning, 2000.
7. Smith, A. Eric, "Active Server Pages 3 Programming Bible", Wiley India, 2000.

BCA-316: Software Lab – IX
(Based on paper BCA-314: Java Programming)

Max Marks: 50   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Practical Sessions to be conducted: 40-50 Hrs**

This laboratory course will comprise as exercises to supplement what is learnt under paper BCA-314: Java Programming. Students are required to develop the following type of programs in Java language with internal documentation:

1. Write a *Class Date* that takes day, month, and year while creating an object of this class. Find a new date when the number of days is given.
2. Write a program to implement Boolean AND, OR, XOR, and NOT operations.
3. Write a program to Add, Subtract, Multiply two matrices using switch statement. The program must also validate the sizes of two matrices before performing any operation and should raise exception in case the operation cannot be performed.
4. Write a program to store and then prints sorted names of students according to their length of name using arrays with variable sized rows.
5. Write a program to find the *area of all types of triangles* using the principle of *constructor overloading and Inheritance* depending on the number of dimensions given in the input parameter list using *super* to call the super class constructor.
6. Write a program to find the *area of rectangle* using an *abstract super* class figure and also *override* method use to compute the area of the rectangle.
7. Write a program to implement grow able and shrinkable *Stack* that can support operations like- push, pop, and view the top item with concept of dynamic allocation using *finalize()* method. The program should also incorporate the concepts of *private and public* access methods to avoid accidental manipulations of stack.
8. Write a program to demonstrate *static variables, methods and blocks*.
9. Write a program to swap two items belonging to an object using *returning of object* by a function.
10. Write a program to count the frequency of each vowel in a given string.
11. Demonstrate the use of *static and non static nested* classes.
12. Create a package containing a class to print your (name, roll no, marks) and use this package in another program using *import* statement.

The break-up of marks for the practical will be as under

i.	**Lab Record (Internal Assessment)**	**15 Marks**
ii.	**Viva Voce (External Evaluation)**	**15 Marks**
iii.	**Program Development and Execution(External Evaluation)**	**20 Marks**

BCA-317: Software Lab – X
(Based on paper BCA-315: Web Designing using HTML and DHTML)

Max Marks: 50   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Practical Sessions to be conducted: 40-50 Hrs**

This laboratory course will comprise as exercises to supplement what is learnt under paper BCA-315: Web Designing using HTML and DHTML. Students are required to do at least 10 assignments based on the paper.

1. Create a web page to show the structure of HTML.
2. Show the use of formatting tags in HTML
3. Write HTML code to show the use of absolute and relative URL with anchor tag.
4. Show the use of image tag and show images as buttons.
5. Create a web page to show the use of image maps.
6. Create a table in which colspan and rowspan elements are used.
7. Create a webpage to show the use of different lists available in HTML.
8. Create a webpage to show the use of frame tag in HTML.
9. Create admission form for a college.
10. Create a webpage to show the use of different types of CSS.
11. Create a webpage to show the DHTML properties.

The break-up of marks for the practical will be as under

i.	**Lab Record (Internal Assessment)**	**15 Marks**
ii.	**Viva Voce (External Evaluation)**	**15 Marks**
iii.	**Program Development and Execution(External Evaluation)**	**20 Marks**

BCA-318 : ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ

ਬੀ. ਬੀ. ਏ./ਬੀ.ਸੀ. ਏ./ਬੀ.ਪੀ. ਏ. ਭਾਗ-ਤੀਜਾ (ਸਮੈਸਟਰ ਪੰਜਵਾਂ ਅਤੇ ਛੇਵਾਂ)
2016-17, 2017-18 ਅਤੇ 2018-19 ਸੈਸ਼ਨ ਲਈ
(ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ)

ਸਮੈਸਟਰ ਪੰਜਵਾਂ

ਕੁਲ ਅੰਕ : 100   ਵਿਸ਼ੇ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 35

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 25 ਅੰਕ   ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 09

ਬਾਹਰੀ ਪਰੀਖਿਆ: 75 ਅੰਕ   ਬਾਹਰੀ ਪਰੀਖਿਆ ਵਿੱਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 26

ਸਮਾਂ : 3 ਘੰਟੇ   ਅਧਿਆਪਨ: 50 ਪੀਰੀਅਡ

ਸਿਲੇਬਸ ਤੇ ਪਾਠ ਪੁਸਤਕਾਂ
ਭਾਗ-ੳ
ਲੋਕਧਾਰਾ ਦੀ ਭੂਮਿਕਾ, ਸੰਪਾਦਕ ਡਾ. ਭੁਪਿੰਦਰ ਸਿੰਘ ਖਹਿਰਾ ਅਤੇ ਡਾ. ਸੁਰਜੀਤ ਸਿੰਘ

ਭਾਗ-ਅ
(1) ਲੇਖ-ਰਚਨਾ : ਪੰਜਾਬ ਦੇ ਮੇਲਿਆਂ ਜਾਂ ਤਿਉਹਾਰਾ ਨਾਲ ਸਬੰਧਤ ਨਾਲ ਸਬੰਧਤਾ।

(2) ਵਿਆਕਰਨ   (ੳ) ਨਾਉਂ ਵਾਕੰਸ਼ : ਪਰਿਭਾਸ਼ਾ, ਬਣਤਰ ਅਤੇ ਪ੍ਰਕਾਰ

                        (ਅ) ਕਿਰਿਆ ਵਾਕੰਸ਼ : ਪਰਿਭਾਸ਼ਾ, ਬਣਤਰ ਅਤੇ ਪ੍ਰਕਾਰ

                        (ੲ) ਵਿਹਾਰਕ ਵਿਆਕਰਨਕ ਵਿਸ਼ਲੇਸਣ

ਭਾਗ-ੲ
ਭਾਗ-ੳ ਅਤੇ ਭਾਗ--ਅ ਦੇ ਵਿਆਕਰਨ ਵਾਲੇ ਭਾਗ ਵਿੱਚੋਂ ਸੰਖਿਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ।

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈਟਰ / ਪ੍ਰੀਖਿਆਆਰਥੀ ਲਈ ਹਦਾਇਤਾਂ

1.   ਸਿਲੇਬਸ ਦੇ ਸਾਰੇ ਭਾਗਾਂ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2.   ਪੇਪਰ ਨੂੰ ਤਿੰਨ ਭਾਗਾਂ ੳ, ਅ ਅਤੇ ੲ ਵਿੱਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।
3.   ਭਾਗ ੳ ਵਿੱਚ L ਕਿਸੇ ਲੇਖ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ   (ਤਿੰਨ ਵਿੱਚੋਂ ਇੱਕ) 12 ਅੰਕ
4.   ਭਾਗ ੳ ਵਿੱਚੋਂ ਕਿਸੇ ਲੇਖ ਸਬੰਧੀ ਛੋਟਾ ਪ੍ਰਸ਼ਨ.   (ਤਿੰਨ ਵਿੱਚੋਂ ਇੱਕ) 08 ਅੰਕ
5.   ਭਾਗ ਅ- 2ਕਿਸੇ ਵਿਸ਼ੇ ਤੇ ਲੇਖ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ   (ਇਕ ਤਿੰਨ ਵਿੱਚ) 09 ਅੰਕ
6.   ਪਾਠ ਪੁਸਤਕ ਵਿੱਚੋਂ ਚਾਰ ਵਾਕਾਂ ਦਾ ਵਿਹਾਰਕ ਵਿਆਕਰਨਕ ਵਿਸ਼ਲੇਸ਼ਣ ਕਰਨ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। ਇਹ ਵਿਸ਼ਲੇਸ਼ਣ ਵਿਆਕਰਨ ਵਾਲੇ ਸਿਲੇਬਸ
       ਅਨੁਸਾਰ ਕਰਨਾ ਹੋਵੇਗਾ। $4x1=04$ ਅੰਕ

2-ਅ .7 ਦੇ ਦੋਵਾਂ ਭਾਗਾਂ ਵਿੱਚੋਂ ਇਕ-ਇਕ ਪ੍ਰਸ਼ਨ ਪੁੱਛਿਆ ਜਾਵੇਗਾ ਅਤੇ ਵਿਦਿਆਰਥੀ ਨੇ ਦੋਵਾਂ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਹੋਵੇਗਾ। ਅੰਕ 12

.8 ਭਾਗ –ੲ ਵਿਚ **ਲੋਕ ਧਾਰਾ ਦੀ ਭੂਮਿਕਾ** ਅਤੇ **ਵਿਆਕਰਨ** ਵਾਲੇ ਭਾਗ ਵਿੱਚੋਂ ਸੰਖਿਪ ਉੱਤਰਾਂ ਵਾਲੇ 15 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।ਵਿਦਿਆਰਥੀ ਨੇ
ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖਿਪ ਉੱਤਰ ਦੇਣੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ । $15x2=30$ ਅੰਕ

ਸਹਾਇਕ ਪਾਠ-ਸਮੱਗਰੀ

1. ਹਰਕੀਰਤ ਸਿੰਘ, ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਪੰਜਾਬੀ ਭਾਸ਼ਾ, ਬਾਹਰੀ ਪਬਲਿਸ਼ਰਜ਼, ਦਿੱਲੀ, 1973.

2. ਬਲਦੇਵ ਸਿੰਘ ਚੀਮਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਵਿਆਕਰਨ (ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਦਾ ਵਿਸ਼ਾ ਕੋਸ਼),

ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2000.

3. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ, ਪੰਜਾਬੀ ਵਿਆਕਰਨ : ਸਿਧਾਂਤ ਤੇ ਵਿਹਾਰ, ਚੇਤਨਾ ਪ੍ਰਕਾਸ਼ਨ, ਲੁਧਿਆਣਾ, 2008.

4. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਸਿਧਾਂਤਕ ਭਾਸ਼ਾ ਵਿਗਿਆਨ, ਮਦਾਨ ਪਬਲਿਸ਼ਰਜ਼, ਪਟਿਆਲਾ, 2002.

5. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਸ੍ਰੋਤ ਤੇ ਬਣਤਰ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1996.

6. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਰੂਪ ਵਿਗਿਆਨ, ਮਦਾਨ ਪਬਲਿਸ਼ਰਜ਼, ਪਟਿਆਲਾ, 2002.

7. ਜੋਗਿੰਦਰ ਸਿੰਘ ਪੁਆਰ ਅਤੇ ਹੋਰ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਨ, (I,II ਅਤੇ III), ਪੰਜਾਬੀ ਭਾਸ਼ਾ

ਅਕਾਦਮੀ, ਜਲੰਧਰ।

8. ਸੁਖਵਿੰਦਰ ਸਿੰਘ ਸੰਘਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ, ਜਲੰਧਰ, 1999.

BCA-318 : ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ (ਮੁੱਢਲਾ ਗਿਆਨ)

ਬੀ.ਸੀ.ਏ. ਭਾਗ ਤੀਜਾ ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ (ਮੁੱਢਲਾ ਗਿਆਨ) (ਸਮੈਸਟਰ)
2016-17, 2017-18 ਅਤੇ 2018-19 ਸੈਸ਼ਨ ਲਈ

ਸਮੈਸਟਰ ਪੰਜਵਾਂ

ਕੁਲ ਅੰਕ : 100   ਵਿਸ਼ੇ ਵਿਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 35

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 25 ਅੰਕ   ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 09

ਬਾਹਰੀ ਪਰੀਖਿਆ: 75ਅੰਕ   ਬਾਹਰੀ ਪਰੀਖਿਆ ਵਿਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 26

ਸਮਾਂ : 3 ਘੰਟੇ   (ਅਧਿਆਪਨ: 50 ਪੀਰੀਅਡ)

ਸਿਲੇਬਸ ਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

ਭਾਗ -ੳ

ਪੰਜਾਬੀ ਮੁੱਢਲਾ ਗਿਆਨ ਭਾਗ-III, ਸੰਪਾ. ਪ੍ਰੋ. ਲਖਵੀਰ ਸਿੰਘ, ਡਾ. ਸੁਰਜੀਤ ਸਿੰਘ, ਪ੍ਰੋ. ਬਲਬੀਰ ਸਿੰਘ

ਪਬਲੀਕੇਸ਼ਨ ਬਿਓਰੋ,ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ,ਪਟਿਆਲਾ।

ਪੰਜਾਬੀ ਮੁੱਢਲਾ ਗਿਆਨ ਭਾਗ-III ਦੇ **ਇੱਕ ਤੋਂ ਪੰਜ ਤੱਕ ਲੇਖ**।

ਭਾਗ -ਅ

1. ਲੇਖ (400 ਸ਼ਬਦ) ਵਾਤਾਵਰਣ, ਸਮਾਜਕ ਜਾਂ ਸਭਿਆਚਾਰਕ ਵਿਸ਼ੇ ਨਾਲ ਸਬੰਧਤ।

      II. ਮੁਹਾਵਰੇ (ਉਪਰੋਕਤ ਪਾਠ ਪੁਸਤਕ ਵਿਚ ਦਰਜ)

ਭਾਗ -ੲ

ਉਪਰੋਕਤ ਪਾਠ ਪੁਸਤਕ ਵਿਚੋਂ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ।   15x2=30 ਅੰਕ

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈੱਟਰ ਲਈ ਹਦਾਇਤਾਂ

1. ਸਾਰੇ ਸਿਲੇਬਸ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

2. ਪਾਠ ਪੁਸਤਕ ਵਿਚੋਂ ਕਿਸੇ ਲੇਖ ਦਾ ਵਿਸ਼ਾ/ਸੰਖੇਪ ਸਾਰ ਜਾਂ ਲੇਖ ਵਿੱਚੋਂ ਕੋਈ ਹੋਰ ਸਰਲ ਪ੍ਰਸ਼ਨ   (ਪੰਜ ਵਿੱਚੋਂ ਦੋ) 2x8=16 ਅੰਕ

3. ਲੇਖ (ਵਾਤਾਵਰਣ,ਸਮਾਜਕ ਜਾਂ ਸਭਿਆਚਾਰਕ ਵਿਸ਼ੇ ਤੇ)   (ਤਿੰਨ ਵਿੱਚੋਂ ਇੱਕ)   09 ਅੰਕ

4. ਪੰਜਾਬੀ ਮੁੱਢਲਾ ਗਿਆਨ ਪੁਸਤਕ ਵਿਚੋਂ 15 ਮੁਹਾਵਰੇ ਦੇ ਕੇ10 ਦੇ ਅਰਥ ਦੱਸ ਕੇ ਵਾਕਾਂ ਵਿੱਚ ਵਰਤਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ10x2=20 ਅੰਕ

5. ਪਾਠ ਪੁਸਤਕ ਤੇ ਆਧਾਰ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 15 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਵਿਦਿਆਰਥੀ ਨੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦੇਣੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ

      ਦੇ 2 ਅੰਕ ਹੋਣਗੇ।   15x2=30 ਅੰਕ

BCA-321: English Literary Skills – II

Max Marks: 75   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

English Literary Skills has been designed to develop interest of students in and appreciation of literature and to revise and reinforce structures already learnt.

Course Contents:

Two Literary Texts	35
Composition	15
Grammar and Vocabulary	25

16

Text Prescribed:
  1. JagdishChander (OUP) (ed.): Short plays

Texts Prescribed for Grammar and Vocabulary:
  2. W. Standard Allen: Living English Structure (Orient Longman)
  3. Wilford D. Best: The Student's Companion (Rupa)

Instructions for Paper setting:

SECTION A: LITERARY   **35 Marks**

Q.1.(a)   One essay type question with an internal alternative on theme. Narrative, Incident or character from Short Plays.   10 marks

(b)   Five short notes to be attempted out of the given eight Short Plays. Each Note to be attempted in 50 words.   15 marks

Q.2. One comprehension passage from Short palyswith a variety of questions including 05 marks for vocabulary such as word formation and inferring meaning. The total range of the passage, should be around 300-400 words.

                10 marks

SECTION B: COMPOSITION   **15 Marks**

Q.3. A paragraph of about 150 words on any one of the given three topics.   7.5 marks

Q.4. Making a précis of a given passage of about 250 words and providing a suitable title.

                7.5 marks

SECTION C: GRAMMAR and VOCABULARY   **25 Marks**

Q.5. The prescribed text is W. Standard Allen: Living English Structure (Orient Longman).

The candidate shall be examined on the material included in Exercise from 31.1 to 46.10. This will carry 12 marks. They will also be examined on the material studied in B.C.A. Part-I. This will carry 3 marks. The whole material shall be divided into five parts each carrying three marks as follows.   15 marks

(a)   Exercise 1.1 to 30.3 (B.C.A. Part-I Revision)
(b)   Exercise 31.1 to Exercise 32.4
(c)   Exercise 33.1 to Exercise 38.4
(d)   Exercise 39.1 to Exercise 44.10
(e)   Exercise 45.1 to Exercise 46.10

Candidate shall be required to attempt 10 sentence out of the given in each part. Each sentence shall carry half a mark.

Q.6. ThePrescribed text is Wilfred D. Best: The student's Companion (Rupa).

The candidates shall be examined on the following material:
(a)   Single Words or phrases and groups of words:
    1)   Words pertaining to death
    2)   Words pertaining to Nature Study
    3)   Opposites
    4)   Negatives
    5)   Scientific Instruments

6)   War Words
7)   Literary
8)   Miscellaneous   5 marks

(b)   Formation of nouns. Adjectives.Verbs and Adverbs.

                         5 marks

The examiner shall restrict himself to the prescribed text, in Part (a) the candidate shall respond to 10 out of 15 one-word/one-line tests, each carrying half a mark.

In Part (b) the candidates shall complete 10 out of 15 sentences with appropriate part of speech of a word given in brackets at the end of each sentence. Each response will carry half a mark.

IMPORTANT

The examiner shall also give a clear instruction to the candidates to attempt these questions only at one only place and only once. Second or subsequent attempts unless earlier attempts have been crossed out, shall not be evaluated.

BCA-322: E-Commerce

Max Marks: 75   **Maximum Time: 3 Hrs.**
MinPass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER
The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

(B) INSTRUCTIONS FOR THE CANDIDATES
Candidates are required to attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.

SECTION – A
Introduction to E-commerce: Definition of E-commerce, Advantages and disadvantages of E-commerce, E-commerce versus traditional commerce.
Internet and WWW, Electronic commerce framework, Electronic commerce and media convergence, The anatomy of E-commerce applications.
Architectural framework for E-commerce, World Wide Web as the architecture, Web background: Hypertext publishing, Security and the Web.
Consumer-oriented E-commerce: Consumer-oriented applications, Mercantile Process Models – consumer's perspective, Merchant's perspective.

SECTION-B
Advertising and Marketing on the Internet: The new age information based marketing, Advertising on the Internet – Active or push-based advertising models, Passive or pull-based advertising models. Guidelines for Internet advertising.Online marketing process.
Types of Electronic Payment Systems, Digital token-based electronic payment systems, Smart cards and electronic payment systems, Credit card-based electronic payment systems, Risk and electronic payment systems.
Electronic Data Interchange and its applications in business.
Legal, Ethical and other public policy issues related to e-commerce.

Text Book:
1.   Ravi Kalakota, Andrew B. Whinston: Frontiers of Electronic Commerce, Addison Wesley.
References:
1.   EfraimTurbon, Jae Le, David King, Chung: Electronic Commerce- A managerial perspective, Prentice-Hall International.

2.   Gary P. Schneider, James T. Perry: Electronic Commerce

BCA-323: Operating System

Max Marks: 75   **Maximum Time: 3 Hrs**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER

The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

(B) INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.

SECTION-A

Operating System – Definition, Need, Services, Types of operating systems: simple batch system, multi programmed batch system, time sharing system, parallel system, distributed system, real time system, personal computer system. Operating system components, operating system services, system calls.

Process Management – process definition, process state, process scheduling, operations on processes, Basic concepts of thread, Difference between process and thread.

CPU Scheduling – Basic concepts, scheduling criteria, scheduling algorithms – FCFS, SJF, Round Robin and Multilevel queue scheduling.

SECTION-B

Deadlocks – Characteristics of deadlocks, methods for handling deadlocks, deadlock prevention, deadlock avoidance

Memory Management – Logical versus Physical address space, swapping, contiguous allocation, Paging, Concept of Virtual memory, Implementation by Demand Paging, Page replacement algorithms – FIFO, Optimal, LRU, Concept of thrashing .

File Management – Allocation methods: contiguous allocation, linked allocation and indexed allocation;

Device Management – Disk Scheduling: FCFS, SSTF, SCAN, C-SCAN, LOOK.

Text Book:

1.   Abraham Silberschatz, Peter B. Galvin, Operating Sytem Concepts, Addison –Wesley Publishing Co. Engineering, Third Edition 2005 ,PankajJalote, Narosa Publications. 5th Edition

BCA-324: Software Engineering

Max Marks: 75   **Maximum Time: 3 Hrs**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER
The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

SECTION – A
Introduction – The Problem Domain, Software Engg.Challenges, Software Engg.Approach. Software development life cycle, its phases**, Software development process models :**Waterfall, Prototyping, Iterative;
Software Process- Characteristics of software process, Project management process, Software configuration management process.
Project Planning – activities, COCOMO model.**Software Metrics** – Definition, Importance, Categories of metrics. **Software Quality** – Attributes,Cyclomatic complexity metric.
Software Requirements Analysis – Need for SRS, Data flow diagrams, Data Dictionary, entity relationship diagram, Characteristics and components of SRS, validation, metrics

SECTION-B
Software Design – Design principles, Module-level concepts, Structure Chart and Structured Design methodology,, verification, metrics : network metrics, information flow metrics.
Coding – Programming Principles and Guidelines, Verification- code inspections, static analysis.**Software Testing** – testing fundamentals, Black Box Testing : Equivalence class partitioning, Boundary value analysis, cause-effect graphing; White Box Testing : Control flow and Data flow based testing, mutation testing; levels of testing, test plan, test case specification, test case execution and analysis,
Software maintenance – Categories of maintenance.**Software Reliability** – Definition, uses of reliability studies

Text Book:
1. An Integrated approach to Software Engineering, Third Edition 2005 ,PankajJalote, Narosa Publications.

References:
1. Software Engineering , Revised Second Edition , K.K. Aggarwal, Yogesh Singh, New Age International Publishers.
2. Software Engineering – A Practitioner's Approach, Fifth Edition, Roger. S. Pressman, McGraw Hill

BCA-325: Web designing using ASP.NET

Max Marks: 75   **Maximum Time: 3 Hrs**
Min Pass Marks: 35%   **Lectures to be delivered: 45-55 Hrs**

(A) INSTRUCTION FOR THE PAPER SETTER

The question paper will consist of *three sections A, B and C.* Section A and B will have four questions from the respective section of the syllabus carrying 15 marks for each question. Section C will consist of 5-10 short answer type questions carrying a total of 15 marks, which will cover the entire syllabus uniformly. . Candidates are required to *attempt five questions in all by selecting at least two questions each from the section A and B. Section C is compulsory.*

SECTION-A

Introduction to .net framework: - Genesis of.NET, Features, Advantages and disadvantages of .net framework. Common Language Runtime:-Common Type System, Common Language Specification, .Net binaries, Microsoft Intermediate Language, Meta Data, .Net types and .net namespaces.

Basics of ASP. NET: - Introducing ASP .NET– Creating ASP .NET applications using command line compiler and visual studio .net IDE.

Introduction to c#:- variables, Constants, Data Types, Operators, Control Structures and loops, Arrays, events.

Introduction to Classes and objects

Web forms, Standard Controls: - Display information, Accepting user input, Submitting form data, displaying images, using the panel control, using the hyperlink control.

Validation Controls: required field validation control, range validator Control, compare validator control, regular expression validator control, custom validator control, validation summary controls.

SECTION-B

Rich Web Controls: -Accepting file uploads, displaying a calendar, Displaying advertisement, displaying different page views, displaying a wizard. List Controls: Dropdown list control, Radio button, list controls. Grid View Controls: Grid view control fundamentals, using field with the grid view control, working with grid view control events extending the grid view control. Debugging, caching and deploying ASP .NET pages.

Master pages: - Designing Website with Master Pages: Creating master pages, Modifying master page content, Loading master page dynamically. ASP.NET security, localizing ASP .NET applications.

ADO.NET:- Changes from ADO to ADO.NET, ADO .NET Managed Providers – OleDb and SQL Managed Providers – OleDb Data Adapter Type. SQL Data Source Control: Creating database connections, executing database commands, Using

ASP.NET parameters with the SQL data source controls, programmatically executing SQL data source commands, Caching database data with the SQL data Source controls.

References:

1. ASP.NET 3.5: Stephen Walther, Pearson Education, 2005
2. Andrew Troelsen – "C# and the .Net Platform" – Apress – 2001.(Unit I and II)
3. David S. Platt – "Introducing .Net" – Microsoft Press – 2002
4. ASP.NET Bible" – MridulaParihar – Wiley-Dreamtech India Pvt. Ltd
5. Visual Basic .net Comprehensive Concepts and Techniques' Shelly, cashman, QuasneyCengage learning, 2012
6. Murach's Beginning Visual Basic .NET Anne Prince Murach

BCA-326: Software Lab – XI
(More on Java based on paper BCA-314: Java Programming)

Max Marks: 50   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Practical Sessions to be conducted: 40-50 Hrs**

This laboratory course will comprise as advance exercises to what is learnt in the previous semester under paper BCA-314: Java Programming. Students are required to perform following activities

Activity 1: Select any one basic project idea for implementation that involves GUI forms, data to be stored at back end, Retrieval of data from database, generating reports i.e. involving the requirement of database connectivity. (1-2 page overview about this in your assignment)

Activity 2: Plan and Design GUI forms for interaction with user and templates for displaying the reports generated from data stored requested by end users. (Snapshots of all Forms to be attached along with their code)

Activity 3: Write code for event handling, database connectivity and report generation. (Full working to be explained as algorithm and then implementation in Java based on events)

The breakup of marks for the practical will be as under
i.	**Lab Record (Internal Assessment)**	**15 Marks**
ii.	**Viva Voce (External Evaluation)**	**15 Marks**
iii.	**Program Development and Execution(External Evaluation)**	**20 Marks**

BCA-327: Software Lab – XII
(Based on paper BCA-325: Web designing using ASP.NET)

Max Marks: 50   **Maximum Time: 3 Hrs.**
Min Pass Marks: 35%   **Practical Sessions to be conducted: 40-50 Hrs**

This laboratory course will comprise as exercises to supplement what is learnt under paper BCA-325: Web designing using ASP.NET. Students are required to do at least 10 assignments based on the paper.

   PRACTICAL ASSIGNMENTS:-
   1. Write a program to show the use of standard controls in a web form.
   2. Write a program containing the list controls and its functions:
   3. Write a program to show the use of file upload and calendar control.
   4. Write a program to display advertisement on a web page.
   5. Write a program to create an admission form for a college.
   6. Write a program to demonstrate the master page.
   7. Write a program to create login page which accepts user name and password,
      Then check for authentication of the user.
   8. Write a program that demonstrates a textbox for a user input name and validate it with RequiredField Validation.
    9. Write a program that demonstrates different validation controls.
    10. Create a user control that displays the current date and time. Include it in a Web Form and refresh it each time a button is clicked.
    11. Write a program to demonstrate ADO.NET controls and connectivity with database.
    12. Write a program to demonstrate submits data in database by using the ado.net controls.

The breakup of marks for the practical will be as under
   i.   **Lab Record (Internal Assessment)**   **15 Marks**
   ii.   **Viva Voce (External Evaluation)**   **15 Marks**
   iii.   **Program Development and Execution(External**   **20 Marks**
          Evaluation)

BCA-328 : Punjabi (Compulsory)

ਬੀ.ਬੀ.ਏ./ਬੀ.ਸੀ.ਏ./ਬੀ.ਪੀ.ਏ. ਭਾਗ-ਤੀਜਾ (ਸਮੈਸਟਰ ਪੰਜਵਾਂ ਅਤੇ ਛੇਵਾਂ)
2016-17, 2017-18 ਅਤੇ 2018-19 ਸੈਸ਼ਨ ਲਈ
(ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ)

ਸਮੈਸਟਰ ਛੇਵਾਂ

ਕੁਲ ਅੰਕ : 100   ਵਿਸ਼ੇ ਵਿਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 35

ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 25 ਅੰਕ   ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 09

ਬਾਹਰੀ ਪਰੀਖਿਆ: 75 ਅੰਕ   ਬਾਹਰੀ ਪਰੀਖਿਆ ਵਿਚੋਂ ਪਾਸ ਹੋਣ ਲਈ ਅੰਕ : 26

ਸਮਾਂ : 3 ਘੰਟੇ   ਅਧਿਆਪਨ: 50 ਪੀਰੀਅਡ

ਸਿਲੇਬਸ ਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

ਭਾਗ-ੳ

ਸਮਕਾਲੀ ਪੰਜਾਬੀ ਨਾਟਕ (1960 ਤੋਂ ਪਿਛੋਂ ਦੇ ਇਕਾਂਗੀਆਂ ਦਾ ਸੰਗ੍ਰਹਿ) ਸੰਪਾਦਕ, ਡਾ. ਮਨਜੀਤ ਪਾਲ ਕੌਰ ਅਤੇ

ਜਸਵਿੰਦਰ ਸਿੰਘ ਸੈਟੀ ਡਾ

ਭਾਗ-ਅ

1 ਅਨੁਵਾਦ: ਅੰਗ੍ਰੇਜ਼ੀ ਤੋ ਪੰਜਾਬੀ (ਵਾਕਾਂ ਜਾਂ ਪੈਰ੍ਹੇ ਦਾ)

2 ਵਿਆਕਰਣ

   (i) ਵਾਕ : ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਕਿਸਮਾਂ

   (ii) ਕਾਰਕ ਅਤੇ ਕਾਰਕੀ ਸੰਬੰਧ

   (iii) ਵਾਕਾਤਮਕ ਜੁਗਤਾਂ : ਮੇਲ ਅਤੇ ਅਧਿਕਾਰ

       (iv) ਵਿਹਾਰਕ ਵਿਆਕਰਨਕ ਵਿਸ਼ਲੇਸ਼ਨ

ਭਾਗ - ੲ

ਉਪਰੋਕਤ ਸਿਲੇਬਸ ਤੇ ਅਧਾਰਤ ਸੰਖੇਪ ਉਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ।

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈੱਟਰ/ਪ੍ਰੀਖਿਆਰਥੀ ਲਈ ਹਦਾਇਤਾਂ

1. ਸਿਲੇਬਸ ਦੇ ਸਾਰੇ ਭਾਗਾਂ ਵਿਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

2. ਪੇਪਰ ਨੂੰ ਤਿੰਨ ਭਾਗਾਂ ੳ, ਅ ਅਤੇ ੲ ਵਿਚ ਵੰਡਿਆ ਜਾਵੇਗਾ।

3. ਭਾਗ ੳ ਵਿਚੋਂ (i) ਕਿਸੇ ਇਕ ਇਕਾਂਗੀ ਦਾ ਵਿਸ਼ਾ/ਸਾਰ/ਇਕਾਂਗੀ ਕਲਾ ਬਾਰੇ ਪ੍ਰਸ਼ਨ **12 ਇਕ ਤਿੰਨ ਵਿਚੋਂ** ਅੰਕ

4.   ਭਾਗ ੳ ਵਿਚੋਂ ਕਿਸੇ ਇਕਾਂਗੀ ਦੇ ਪਾਤਰਾਂ ਦਾ ਪਾਤਰ ਚਿਤਰਨ **ਇਕ ਤਿੰਨ ਵਿਚੋਂ**   ਅੰਕ 08

5. ਭਾਗ ਅ1- ਵਾਕਾਂ ਜਾਂ ਪੈਰ੍ਹੇ ਦਾ ਅੰਗ੍ਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿਚ ਅਨੁਵਾਦ 09 ਅੰਕ

6. ਅ2- ਦੇ ਤਿੰਨ ਭਾਗਾਂ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਪ੍ਰੀਖਿਆਰਥੀ ਨੇ ਇਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਹੋਵੇਗਾ। 12 ਅੰਕ

7. ਭਾਗ ੳ ਦੀ ਪਾਠ ਪੁਸਤਕ ਵਿਚੋਂ ਚਾਰ ਵਾਕਾਂ ਦਾ ਵਿਆਕਰਨਕ ਵਿਸ਼ਲੇਸ਼ਨ ਕਰਨਾ ਹੋਵੇਗਾ। ਇਹ ਵਿਸ਼ਲੇਸ਼ਨ ਭਾਗ ਅ ਦੇ ਵਿਆਕਰਨ ਵਾਲੇ

   ਸਿਲੇਬਸ ਅਨੁਸਾਰ ਕਰਨਾ ਹੋਵੇਗਾ।   ਅੰਕ 04

8.   ਭਾਗ ੲ ਵਿਚ ਪਾਠ ਪੁਸਤਕ ਸਮਕਾਲੀ ਪੰਜਾਬੀ ਨਾਟਕ ਅਤੇ ਵਿਆਕਰਨ ਵਾਲੇ ਭਾਗ ਵਿਚੋਂ ਸੰਖੇਪ ਉਤਰਾਂ ਵਾਲੇ 15 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।

   ਪ੍ਰੀਖਿਆਰਥੀ ਨੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉਤਰ ਦੇਣੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ।   15x2=30 ਅੰਕ

ਸਹਾਇਕ ਪਾਠ-ਸਮੱਗਰੀ

1. ਹਰਕੀਰਤ ਸਿੰਘ, ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਪੰਜਾਬੀ ਭਾਸ਼ਾ, ਬਾਹਰੀ ਪਬਲਿਸ਼ਰਜ਼, ਦਿੱਲੀ, 1973.

2. ਬਲਦੇਵ ਸਿੰਘ ਚੀਮਾ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਗਿਆਨ ਅਤੇ ਵਿਆਕਰਨ (ਤਕਨੀਕੀ ਸ਼ਬਦਾਵਲੀ ਦਾ ਵਿਸ਼ਾ ਕੋਸ਼),

ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2000.

3. ਬੂਟਾ ਸਿੰਘ ਬਰਾੜ, ਪੰਜਾਬੀ ਵਿਆਕਰਨ : ਸਿਧਾਂਤ ਤੇ ਵਿਹਾਰ, ਚੇਤਨਾ ਪ੍ਰਕਾਸ਼ਨ, ਲੁਧਿਆਣਾ, 2008.

4. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਸਿਧਾਂਤਕ ਭਾਸ਼ਾ ਵਿਗਿਆਨ, ਮਦਾਨ ਪਬਲਿਸ਼ਰਜ਼, ਪਟਿਆਲਾ, 2002.

5. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਸ੍ਰੋਤ ਤੇ ਬਣਤਰ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1996.

6. ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼ ਸਿੰਘ, ਰੂਪ ਵਿਗਿਆਨ, ਮਦਾਨ ਪਬਲਿਸ਼ਰਜ਼, ਪਟਿਆਲਾ, 2002.

7. ਜੋਗਿੰਦਰ ਸਿੰਘ ਪੁਆਰ ਅਤੇ ਹੋਰ, ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦਾ ਵਿਆਕਰਨ, (I,II ਅਤੇ III), ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਕਾਦਮੀ,ਜਲੰਧਰ।

ਬੀ.ਸੀ.ਏ.ਭਾਗ ਤੀਜਾ ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ (ਮੁੱਢਲਾ ਗਿਆਨ) (ਸਮੈਸਟਰ)
2016-17, 2017-18 ਅਤੇ 2018-19 ਸੈਸ਼ਨ ਲਈ

ਸਮੈਸਟਰ ਛੇਵਾਂ

ਕੁਲ ਅੰਕ : 100   ਵਿਸ਼ੇ ਵਿਚੋਂ ਪਾਸ
ਹੋਣ ਲਈਅੰਕ : 35
ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ : 25 ਅੰਕ   ਅੰਦਰੂਨੀ ਮੁਲਾਂਕਣ ਵਿਚੋਂ ਪਾਸ
ਹੋਣ ਲਈਅੰਕ : 09
ਬਾਹਰੀ ਪਰੀਖਿਆ : 75ਅੰਕ   ਬਾਹਰੀ ਪਰੀਖਿਆ ਵਿਚੋਂ ਪਾਸ
ਹੋਣ ਲਈਅੰਕ : 26
ਸਮਾਂ : 3 ਘੰਟੇ   (ਅਧਿਆਪਨ : 50 ਪੀਰੀਅਡ)

ਸਿਲੇਬਸ ਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

ਭਾਗ -ੳ

ਪੰਜਾਬੀ ਮੁੱਢਲਾ ਗਿਆਨ ਭਾਗ -III, ਸੰਪਾ . ਪ੍ਰੋ . ਲਖਵੀਰ ਸਿੰਘ , ਡਾ . ਸੁਰਜੀਤ ਸਿੰਘ , ਪ੍ਰੋ . ਬਲਬੀਰ ਸਿੰਘ

ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ ,ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ ,ਪਟਿਆਲਾ ।

ਪੰਜਾਬੀ ਮੁੱਢਲਾ ਗਿਆਨ ਭਾਗ -III ਦੇ **ਛੇ ਤੋਂ ਦਸ ਤੱਕ ਲੇਖ** ।

ਭਾਗ -ਅ

   I ਚਿੱਠੀ -ਪੱਤਰ (ਨਿੱਜੀ ਜਾਂ ਕਾਰੋਬਾਰੀ)।
     II ਬਹੁਤੇ ਸ਼ਬਦਾਂ ਦੀ ਥਾਂ ਇੱਕ ਸ਼ਬਦ ।(ਉਪਰੋਕਤ ਪਾਠ ਪੁਸਤਕ ਵਿਚੋਂ)

ਭਾਗ -ੲ

   ਉਪਰੋਕਤ ਪਾਠ ਪੁਸਤਕ ਵਿਚੋਂਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ।

ਅੰਕ ਵੰਡ ਅਤੇ ਪੇਪਰ ਸੈੱਟਰ /ਪ੍ਰੀਖਿਆਰਥੀ ਲਈਹਦਾਇਤਾਂ

1. ਸਾਰੇ ਸਿਲੇਬਸ ਵਿੱਚੋਂ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ।
2. ਪਾਠ ਪੁਸਤਕ ਵਿੱਚੋਂ ਕਿਸੇ ਲੇਖ ਦਾ ਵਿਸ਼ਾ /ਸੰਖੇਪ ਸਾਰ ਜਾਂ ਲੇਖ ਵਿੱਚੋਂ ਕੋਈ ਹੋਰ ਸਰਲ ਪ੍ਰਸ਼ਨ (ਪੰਜ ਵਿੱਚੋਂ ਦੋ) 2x08=16 ਅੰਕ
3. ਨਿੱਜੀ ਜਾਂ ਕਾਰੋਬਾਰੀ ਚਿੱਠੀ ।
(ਤਿੰਨ ਵਿੱਚੋਂ ਇੱਕ) 09 ਅੰਕ
4. ਪੰਜਾਬੀ ਮੁਢਲਾ ਗਿਆਨ ਭਾਗ iii ਪੁਸਤਕ ਵਿਚ ਦਰਜ ਬਹੁਤੇ ਸਬਦਾਂ ਦੀ ਥਾਂ ਇਕ ਸਬਦ ।
(25ਵਿੱਚੋਂ 20) 20x1=20 ਅੰਕ
5. ਪੰਜਾਬੀ ਮੁਢਲਾ ਗਿਆਨ ਭਾਗ iii ਪਾਠ ਪੁਸਤਕ ਤੇ ਆਧਾਰ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 15 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ । ਵਿਦਿਆਰਥੀ ਨੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ
ਦੇ ਉੱਤਰ ਦੇਣੇ ਹੋਣਗੇ । ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ ।
15x2=30 ਅੰਕ