

Paper Code: 1105

Programme	Exam Code	Course Code
Bachelor of Arts	121201	BARL-1031
Bachelor of Science (Medical)	121301	BSML-1031
Bachelor of Science (Non-Medical)		BSNL-1031
Bachelor of Science (Computer Science)		BCSL-1031
Bachelor of Science (Economics)		BECL-1031
Bachelor of Science (Medical Laboratory Technology)	509701	BMLL-1031
Bachelor of Commerce	121101	BCRL-1031
Bachelor of Business Administration	121701	BBRL-1031
Bachelor of Business Administration (Airlines and Airport Management)	509501	BBML-1031
Bachelor of Arts (Journalism and Mass Communications)	116401	BJML-1031
Bachelor of Science (Fashion Designing)	119601	BFDL-1031
Bachelor of Science (Home Science)	119701	BHSL-1031
Bachelor of Computer Applications	117901	BCAL-1031
Bachelor of Science (Information Technology)	118001	BITL-1031
Bachelor of Science (Bio-Technology)	120601	BBTL-1031

Semester-I

Course Title: Basic Punjabi

(50)

Time Allowed: 3 Hours

Max Marks: 70

ਨੋਟ:- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰੇਕ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਅੰਕ 14 ਹਨ।

ਸੈਕਸ਼ਨ 1

1. ਲਗਾਂ ਮਾਤਰਾਵਾਂ ਤੋਂ ਕੀ ਭਾਵ ਹੈ ਸੰਖੇਪ ਜਾਣਕਾਰੀ ਦਿਓ।
2. ਲਗਾਖਰ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦੇ ਹੋਏ ਉਦਾਹਰਨਾਂ ਸਹਿਤ ਜਾਣਕਾਰੀ ਦਿਓ।

ਸੈਕਸ਼ਨ 2

3. ਸੰਯੁਕਤ ਸ਼ਬਦ ਤੋਂ ਕੀ ਭਾਵ ਹੈ ਉਦਾਹਰਣ ਸਹਿਤ ਬਿਆਨ ਕਰੋ।
4. ਪਿਛੇਤਰ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦੇ ਹੋਏ ਕੋਈ ਪੰਜ ਪਿਛੇਤਰ ਬਣਾਓ।

ਸੈਕਸ਼ਨ 3

5. ਵਪਾਰ ਨਾਲ ਸੰਬੰਧਿਤ ਕੋਈ 10 ਸ਼ਬਦ ਲਿਖੋ।
6. ਕੋਈ ਦਸ ਰਿਸ਼ਤਿਆਂ ਦੇ ਨਾਮ ਲਿਖੋ।

ਸੈਕਸ਼ਨ 4

7. ਹਫ਼ਤੇ ਦੇ ਸੱਤ ਦਿਨਾਂ ਦੇ ਨਾਮ ਲਿਖੋ।
8. ਰੁੱਤਾਂ ਦੇ ਨਾਮ ਲਿਖੋ।

Paper Code: 1108

Programme	Exam Code	Course Code
Bachelor of Arts	121201	BARL-1431
Bachelor of Science (Non-Medical)	121301	BSNL-1431
Bachelor of Science (Medical)		BSML-1431
Bachelor of Science (Economics)		BECL-1431
Bachelor of Science (Computer Science)		BCSL-1431
Bachelor of Science (Medical Laboratory Technology)	509701	BMLL-1431
Bachelor of Commerce	121101	BCRL-1431
Bachelor of Business Administration	121701	BBRL-1431
Bachelor of Business Administration (Airlines and Airport Management)	509501	BBML-1431
Bachelor of Arts (Journalism and Mass Communication)	116401	BJML-1431
Bachelor of Science (Fashion Designing)	119601	BFDL-1431
Bachelor of Science (Home Science)	119701	BHSL-1431
Bachelor of Computer Applications	117901	BCAL-1431
Bachelor of Science (Information Technology)	118001	BITL-1431
Bachelor of Science (Bio-Technology)	120601	BBTL-1431

Semester-I

**Course Title: Punjab History and Culture
(50)**

Time Allowed: 3 Hours

Max Marks: 70

Candidates shall attempt 5 questions in 800 words each by selecting atleast one question from each section and the 5th question may be attempted from any of the four Sections. Each question carries 14 marks.

Section-A

1. Discuss the physical features of the Punjab. What were social, economic and religious effects of those features?
2. Describe the literary and Archaeological sources of the ancient history of Punjab.

Section-B

3. Study the Social and economic life of people of Indus Valley People.
4. Discuss the various theories regarding original home of Aryans in Punjab.

Section-C

5. Briefly describe the religious life of people of Rig Vedic Age?
6. Briefly describe the economic life of people of Later Vedic Age?

Section-D

7. What is the contribution of Mahatma Buddha.
8. Discuss the contribution of Mahavir Swami.

Hindi Version

भाग-1

1. पंजाब की भौतिक विशेषताओं पर चर्चा करें। उन विशेषताओं के सामाजिक, आर्थिक और धार्मिक प्रभाव क्या थे?
2. पंजाब के प्राचीन इतिहास की साक्षरता एवं पुरातात्विक स्त्रोतों का वर्णन करें।

भाग-2

3. सिंधु घाटी के लोगों के सामाजिक और आर्थिक जीवन का अध्ययन करें।
4. पंजाब में आर्यों के मूल निवास स्थान के संबंध में विभिन्न सिद्धांतों पर चर्चा करें।

भाग-3

5. ऋग्वैदिक युग के लोगों के धार्मिक जीवन का संक्षेप में वर्णन करें?
6. उत्तर वैदिक युग के लोगों के आर्थिक जीवन का संक्षेप में वर्णन करें?

भाग-4

7. महात्मा बुद्ध का योगदान क्या है?
8. महावीर स्वामी के योगदान की चर्चा करें।

Exam Code: 117901

Paper Code: 9109

Bachelor of Computer Applications Semester - I

Course Title: Communication Skills in English

Course Code: BCAL-1102

Examination Time: 3 Hrs

Marks: 80

Note: Attempt five questions in all selecting atleast one question from each section and the fifth question can be attempted from any section. Each question carries equal (16) marks.

Section-A

1. What do you mean by Reading Skills? Explain.
2. What do you understand by Skimming and Scanning Skills? (Marks:16)

Section-B

3. Read the following paragraph and answer the questions that follow :

Money can be abused just as any other thing can be abused. Money in our day means power, and if a man uses that power to buy off men so that they may betray their homes, their friends or their country, or if a man uses his money for purely selfish purposes, he is abusing his power. All young people want money but money to be worthwhile must be earned. A person who inherits money or gets money from gambling or profiteering or in any other way in which he does not earn it, never knows the real value and purpose of

money. Often he abuses it rather than use it. What are the uses of money ? Money is a medium of exchange.

It is one of the mediums we use that helps us to live together. It is to be used for food, clothing, shelter, education, amusement and recreation. It is to be saved not hoarded, for sickness, old age, investment and service to others. It is to be given away to relieve suffering, for study, for mission, for welfare work, for anything that will make the world a better and happier place to live in.

Questions :

1. What does money mean in our day ?
2. Who does not know the real value of money ?
3. What are the uses of money ?

How can money be used to make the world a better place for living ?

(Marks 16)

4. Read the following paragraph and answer the questions that follow:

Many people in Europe think that they are very civilised and the people of Asia are quite barbarous.

Is this because the people of Europe put on more clothes than the people of Asia and Africa? But clothes depend on the climate. In a cold climate men put on more clothes than in a hot climate. Or is it because the man with a gun is stronger than the man without a weapon and is therefore more civilised than him ?

Whether he is more civilised or not, the man who is weak dare not tell him that he is not or else he might get shot! You know that only a few years ago there was a great war. Most of the countries of the world were in it, and everyone of them was trying to kill as many people on the other side as possible. Millions of people were killed in this war and many thousands were maimed for life. Do you think it was civilised or sensible thing for people to kill each other like this ? It is just like two savages fighting in the jungles.

And if the savages are called barbarous, how much more barbarous are the countries that behave in that way ? So it is not easy to understand what civilisation means. Fine buildings, fine pictures and books and everything that is beautiful are certainly signs of civilisation. But an even better sign is a fine man who is unselfish and works with others for the good of all.

Questions:

1. What price a weak man may have to pay for expressing his views freely and frankly ?
2. Who according to the writer is a civilised person ?
3. The passage is :
 - i. Argumentative
 - ii. descriptive
 - iii. narrative
4. Maimed means :
 - i. imprisoned
 - ii. handicapped
 - iii. wounded

Section-C

5. Write a letter to your friend inviting him to spend his holidays with you.
6. Write a letter to the Superintendent of Police complaining about the rude behaviour of a policeman.
(Marks-16)

Section-D

7. Draft a resume for the post of a Football Coach in a reputed institution.
8. You are the Sales Manager of a firm. Write a memo to Managing Director informing about sales position.
(Marks-16)

Exam Code: 117901

Paper Code: 9108

Bachelor of Computer Applications Semester I

Course Title: Digital Electronics

Course Code: BCAL-1113 ✓

Time Allowed: 3 Hours

Max. Marks: 80

Note: Attempt five questions, selecting one question from each section. The fifth question may be attempted from any section. All questions carry 16 marks. Use of Simple calculator is allowed.

(Section A)

Q1) a) $(6B)_{16} = (?)_8$

b) $(101110010110)_2 = (?)_{\text{Gray Code}}$

c) $(78.125)_{10} = (?)_2$

d) $(172.5)_8 = (?)_{10}$

Q2) a) subtract 10100101 from 10011010 using 2's complement subtraction method.

b) How two BCD digits are added? Explain with an example.

c) Represent $-(47)_{10}$ in 8-bit 2's Complement Representation.

d) What do you mean by non-weighted number system? Explain with an example.

(Section B)

Q3) a) Why NOR gate is termed as universal gate? Explain in detail.

b) Minimize $F(A,B,C,D) = \Pi(0,4,8,12)$. Also draw the Boolean circuit of minimized expression.

Q4) a) Minimize $F = A\bar{B}C + \bar{A}BC + \overline{AB} + C$. Also draw the Boolean circuit of minimized expression.

b) State and prove distributive law of Boolean algebra.

(Section C)

- Q5) a) What do you mean by Priority encoder? Explain with an example.
b) What is full subtractor? Explain its truth table and internal structure.
- Q6) We need to derive a main memory of size 256×4 from chips of size 128×1 .
- a) How many chips will be needed to build main memory?
 - b) How many chip select lines are used?
 - c) What will be the size of decoder?
 - d) Draw the memory interconnections.

(Section D)

- Q7) a) Explain the working of JK flip-flop with truth and excitation table.
b) Explain timing diagram of T-flip flop for different operations.
- Q8) a) What do you mean by SIPO registers? Explain.
b) Explain the working of Modulo-16 Counter in detail.

Paper Code: 9111

(for Reappear Candidates
(2023-24))

**Programme: Bachelor of Computer Applications
Semester-I**

Exam Code: 117901

Course Code: BCAL-1114

Course Title: Introduction to Programming – C

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions. Each question carries equal 16 marks. Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

SECTION-A

1. Write a note on the following:
 - a. Symbolic Constants
 - b. Variables
 - c. Character Set
 - d. Expression

2. What is the data type? Explain basic and derived data types with the help of a program.

SECTION-B

3. Explain all storage classes in detail and discuss their scope, lifetime, initial value and storage.
4. a) What do you mean by control statements? Explain the switch statement and its syntax with the help of example.
b) Explain for-loop with the help of syntax, flowchart and example.

SECTION-C

5. What do you mean by function? What are the different types of functions available in C? How can you create your own functions? illustrate with a program.
6. a) What is the necessity of an Array? How 1D and 2D Array is represented in memory?
b) Write a Program in C to check whether a string is palindrome or not?

SECTION-D

7. What is structure? How can you define a structure and also explain how structure elements can be accessed using the dot operator?
8. What do you mean by pointers? How can a pointer be declared and used in a program? Write a program in C to swap two number using pointers.

Exam Code: 117901

Paper Code: 1268

Bachelor of Computer Applications - Semester I

Course Title: Introduction to Computer and Information Technology

Course Code: BCAL-1115 ✓

Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

SECTION A

Q1) Explain the main Components of a Computer System, explaining the function of each one.

Q2) What do you mean by Software? Explain various types of Software.

SECTION B

Q3) What are Printers? Explain different types of Printers.

Q4) Explain:-

(a) Ribbon (b) Quick Access Toolbar (c) Office button (d) Status bar

SECTION C

Q5) Explain:-

(a) Creation and working of Tables (b) Spellchecker

Q6) What do you know about Themes, Formatting and Multimedia in context to slides.

SECTION D

Q7) Explain different types of Graphs and the steps to create the graphs with examples.

Q.8. Discuss:-

(a) Data Sorting (b) Filtering the data (c) Auto calculate (d) Date functions

(For Reappear Candidates only (2023-24))

Exam Code: 117901

Paper Code: 9113

Bachelor of Computer Applications (Semester-I)

Course Title: Introduction to Computer and Information Technology

Course Code: BCAL-1115

Time: 3 Hours

Max. Marks: 80

Note: Attempt five questions in all, selecting atleast one question from each section. The fifth question can be attempted from any section. Each question carries 16 marks.

Section-A

- Q1) Explain the main Components of a Computer System, explaining the function of each one.
- Q2) What do you mean by Software? Explain various types of Software.

Section-B

- Q3) What are Printers? Explain different types of Printers.
- Q4) Explain:-
- (a) Ribbon
 - (b) Quick Access Toolbar
 - (c) Office button
 - (d) Status bar

Section-C

- Q5) Explain:-
- (a) Creation and working of Tables
 - (b) Spellchecker
- Q6) What do you know about Themes, Formatting and Multimedia in context to slides.

Section-D

- Q7) Explain different types of Graphs and the steps to create the graphs with examples.
- Q.8. Discuss:-
- (a) Data Sorting
 - (b) Filtering the data
 - (c) Auto calculate
 - (d) Date functions

Exam Code: 117901

Paper Code: 9114

Bachelor of Computer Applications, Semester-I
Course Title - Punjabi (Compulsory)
Course Code: BCAL -1421

Time Allowed -3hours

Maximum Marks -80

ਨੋਟ- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹੋਣਗੇ। ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 16 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-I

1. ਪ੍ਰੋਫੈਸਰ ਮੋਹਨ ਸਿੰਘ ਦੀ ਕਵਿਤਾ 'ਖਨਗਾਹੀ ਦੀਵਾ ਬਾਲਦੀਏ' ਦਾ ਸਾਰ ਲਿਖੋ
2. ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ ਦੀ ਕਵਿਤਾ 'ਆਖਾਂ ਵਾਰਿਸ ਸ਼ਾਹ ਨੂੰ' ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ ? (16)

ਸੈਕਸ਼ਨ-II

3. ਪ੍ਰੀਤਮ ਸਿੰਘ ਦੇ ਰੇਖਾ ਚਿੱਤਰ 'ਗੰਡਾ ਸਿੰਘ' ਦਾ ਸਾਰ ਲਿਖੋ ?
4. ਅਜੀਤ ਕੌਰ ਦੁਆਰਾ ਰਚਿਤ ਰੇਖਾ ਚਿੱਤਰ 'ਨਿੱਕੀ ਕਹਾਣੀ ਦਾ ਬਾਦਸ਼ਾਹ' ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ? (16)

ਸੈਕਸ਼ਨ-III

5. ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ ਤੇ ਪੈਰਾਂ ਰਚਨਾ ਕਰੋ

(ੳ) ਅਖਬਾਰਾਂ ਦੇ ਲਾਭ ਤੇ ਹਾਨੀਆਂ

(ਅ) ਪੜ੍ਹਾਈ ਵਿੱਚ ਖੇਡਾਂ ਦੀ ਮਹੱਤਤਾ

(ੲ) ਮੋਬਾਈਲ ਫੋਨ

6. ਹੇਠ ਲਿਖੇ ਪੈਰੇ ਨੂੰ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਲਿਖੋ-

ਜ਼ਿੰਦਗੀ ਦਾ ਆਦਰਸ਼ ਰੂਹਾਨੀ ਤੇ ਸਰੀਰਕ ਪੂਰਨਤਾ ਹੋਣਾ ਚਾਹੀਦਾ ਹੈ। ਇਸ ਦਾ ਭਾਵ ਇਹ ਹੈ ਕਿ ਸਰੀਰ ਜਵਾਨ ਹੋ ਕੇ ਵੀ ਪੂਰੇ ਜੇਬਨ ਉੱਤੇ ਪਹੁੰਚਣ ਤੋਂ ਬਾਅਦ ਮੁੱਦਤਾਂ ਤੱਕ ਚੁਮਤ ਅਤੇ ਤਕੜੀ ਸਿਹਤ ਵਿੱਚ ਰਹੇ। ਸਾਰੇ ਅੰਗ ਚੰਗੀ ਤਰ੍ਹਾਂ ਕੰਮ ਕਰਦੇ ਰਹਿਣ ਤੇ ਅੰਤ ਸਮੇਂ ਜ਼ਿੰਦਗੀ ਵੱਲੋਂ ਰੁਝੇਵਾਂ ਜਿਹਾ ਮਨ ਵਿੱਚ ਪੈਦਾ ਹੋ ਜਾਵੇ ਤੇ ਮੌਤ ਕੋਲੋਂ ਡਰਨ ਦੀ ਥਾਂ ਮੌਤ ਦੀ ਚਾਹ ਜਿਹੀ ਪੈਦਾ ਹੋ ਜਾਵੇ ਤੇ ਜਿਸ ਵੇਲੇ ਮੌਤ ਆਵੇ ਮਨ ਭਾਰਾ ਹੋਣਦੀ ਥਾਂ ਹੌਲਾ ਜਿਹਾ ਹੋ ਜਾਵੇ।

1. ਸਰੀਰਕ ਪੂਰਨਤਾ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?
2. ਮੌਤ ਦੇ ਡਰ ਤੋਂ ਕਿਵੇਂ ਬਚਿਆ ਜਾ ਸਕਦਾ ਹੈ?
3. ਮੌਤ ਦੀ ਚਾਹ ਪੈਦਾ ਹੋਣ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?
4. ਪੈਰੇ ਦਾ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਲਿਖੋ। (16)

ਸੈਕਸ਼ਨ-V

7. ਉਚਾਰਣ ਅੰਗਾਂ ਤੇ ਨੋਟ ਲਿਖੋ?
8. ਸਵਰ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਇਸ ਦੇ ਵਰਗੀਕਰਨ ਤੇ ਨੋਟ ਲਿਖੋ? (16)

Programme	Course Code	Exam Code
Bachelor of Computer Applications Semester I	BCAL-1113	117901
Bachelor of Science (Information Technology) Semester I	BITL-1113	118001

Course Title: Digital Electronics**Time Allowed: 3 Hours****Max. Marks: 70**

Note: Attempt five questions, selecting one question from each section. The fifth question may be attempted from any section. All questions carry 14 marks. Use of Simple calculator is allowed.

(Section A)Q1) a) $(6B)_{16} = (?)_8$ b) $(101110010110)_2 = (?)_{\text{Gray Code}}$ c) $(78.125)_{10} = (?)_2$ d) $(172.5)_8 = (?)_{10}$ Q2) a) subtract 10100101 from 10011010 using 2's complement subtraction method.

b) How two BCD digits are added? Explain with an example.

c) Represent $-(47)_{10}$ in 8-bit 2's Complement Representation.

d) What do you mean by non-weighted number system? Explain with an example.

(Section B)

Q3) a) Why NOR gate is termed as universal gate? Explain in detail.

b) Minimize $F(A,B,C,D) = \Pi(0,4,8,12)$. Also draw the Boolean circuit of minimized expression.Q4) a) Minimize $F = A\bar{B}C + \bar{A}BC + \bar{\bar{A}B} + C$. Also draw the Boolean circuit of minimized expression.

b) State and prove distributive law of Boolean algebra.

(Section C)

Q5) a) What do you mean by Priority encoder? Explain with an example.

b) What is full subtractor? Explain its truth table and internal structure.

Q6) We need to derive a main memory of size 256×4 from chips of size 128×1 .

- a) How many chips will be needed to build main memory?
- b) How many chip select lines are used?
- c) What will be the size of decoder?
- d) Draw the memory interconnections.

(Section D)

Q7) a) Explain the working of JK flip-flop with truth and excitation table.

b) Explain timing diagram of T-flip flop for different operations.

Q8) a) What do you mean by SIPO registers? Explain.

b) Explain the working of Modulo-16 Counter in detail.

**Paper Code: 1271
(100)**

**Programme: Bachelor of Science (Information Technology)
Semester-I**

**Exam Code: 118001
Course Code: BITL-1114** ✓

**Programme: Bachelor of Computer Applications
Semester-I**

**Exam Code: 117901
Course Code: BCAL-1114** ✓

Course Title: Introduction to Programming – C

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions. Each question carries equal 14 marks. Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

SECTION-A

1. Write a note on the following: (4x3.5=14)
- Symbolic Constants
 - Variables
 - Character Set
 - Expression

2. What is the data type? Explain basic and derived data types with the help of a program. (14)

SECTION-B

3. Explain all storage classes in detail and discuss their scope, lifetime, initial value and storage. (14)
4. a) What do you mean by control statements? Explain the switch statement and its syntax with the help of example.
b) Explain for-loop with the help of syntax, flowchart and example. (2*7=14)

SECTION-C

5. What do you mean by function? What are the different types of functions available in C? How can you create your own functions? illustrate with a program. (14)
6. a) What is the necessity of an Array? How 1D and 2D Array is represented in memory?
b) Write a Program in C to check whether a string is palindrome or not? (2*7=14)

SECTION-D

7. What is structure? How can you define a structure and also explain how structure elements can be accessed using the dot operator?

(14)

8. What do you mean by pointers? How can a pointer be declared and used in a program? Write a program in C to swap two number using pointers.

(14)

Paper Code: 9116 (BSc-IT)
9110 (BCA)

Programme: Bachelor of Science (Information Technology)
Semester-I

Exam Code: 118001
Course Code: BITM-1114 ✓

Programme: Bachelor of Computer Applications
Semester-I

Exam Code: 117901
Course Code: BCAM-1114 ✓

Course Title: Introduction to Programming – C

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions. Each question carries equal 10 marks. Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

SECTION-A

1. Write a note on the following:
 - a. Symbolic Constants
 - b. Variables
 - c. Character Set
 - d. Expression

2. What is the data type? Explain basic and derived data types with the help of a program.

SECTION-B

3. Explain all storage classes in detail and discuss their scope, lifetime, initial value and storage.
4. a) What do you mean by control statements? Explain the switch statement and its syntax with the help of example.
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SECTION-C

5. What do you mean by function? What are the different types of functions available in C? How can you create your own functions? illustrate with a program.
6. a) What is the necessity of an Array? How 1D and 2D Array is represented in memory?
b) Write a Program in C to check whether a string is palindrome or not?

SECTION-D

7. What is structure? How can you define a structure and also explain how structure elements can be accessed using the dot operator?
8. What do you mean by pointers? How can a pointer be declared and used in a program? Write a program in C to swap two number using pointers.

For Reappear Candidates Only (Session 2022-23)

Programme:	Course Code:	Exam Code	Paper Code
Bachelor of Computer Applications (Semester I)	BCAL-1333	117901	9107
Bachelor of Science (Information Technology (Semester I)	BITL-1333	118001	9115

Course Title: Applied and Discrete Mathematics

Time Allowed: 3 Hours

Max. Marks: 80

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 16 marks. Use of Simple calculator is allowed.

(Section A)

- Q1) a) Find set builder form for $A = \{2, 4, 6, 8, 10, \dots\}$.
- b) If $A = \{x | x \in \mathbb{N}, x \text{ is multiple of } 3\}$, $B = \{x | x \in \mathbb{Z}\}$ and $C = \{x | x \in \mathbb{N}, x \text{ is odd}\}$ then find $A \cap B \cup C$. Also find $A \cup B - C$.
- c) State and prove Distributive law of set theory.
- d) Find Dual of $A \cap \Phi \cup A^c = X - A$.

(4 X 4 = 16)

- Q2) a) In a survey of 1000 people, 350 admits they are suffering from high Arthritis, 505 admits they have Migraine and 240 persons are fully fit. How many people suffers from both diseases? How many Arthritis patients do not have Migraine?
- b) Let $R = \{(x, y) | x \neq y\}$ defined on $A = \{3, 6, 9, 12\}$. Find domain and range of relation. Also, represent relation using digraph. Is it an equivalence relation? Justify your answer.
- c) In $\mathbb{N} \times \mathbb{N}$, show that the relation defined by $(a, b) R (c, d)$ if $ad = bc$ is an equivalence relation.

(6, 6, 4)

(Section B)

- Q3) a) Find converse and contrapositive of "If it is Tuesday, Geeta will fast whole day."
- b) Find the validity of argument "If Rosesh gets a professional degree, he will become a rich. Rosesh will get professional degree. only if he is studies. Rosesh does not study. So, he is not a rich."

(8 X 2 = 16)

Q4) a) Let $W(x)$ be “x has wings”, $T(x)$ be “x is thick” and $F(x)$ be “x can fly” over the universe of birds. Then what will be the formula for some birds that are thick cannot fly. Also find statement for $(\exists x) (\sim W(x) \rightarrow T(x))$.

b) Over the universe of positive integers find truth set for

$$p(n): n^2 + 5n = 10$$

$$q(n): n \text{ is a perfect cube, } n < 50$$

(8 X 2 = 16)

(Section C)

Q5) a) Find atoms of D_{70} . Also express all non-zero elements as sum of atoms. Also draw the Hasse diagram for it. Find all the subalgebras of it.

b) Simplify $AB + \bar{A}B + \bar{B}\bar{C}$ using laws of Boolean algebra.

(10, 6)

Q6) a) Convert $F(A, B, C, D) = (\bar{A} + \bar{B} + C).(\bar{A} + B + \bar{C}).(\bar{A} + D).(A + C + \bar{D})$ into canonical form.

b) Simply $F(A, B, C, D) = \Sigma(2,3,4,5,6,9,10,11,13,15) \cup X(7,14)$.

(8 X 2 = 16)

(Section D)

Q7) a) let $A = \begin{bmatrix} 4 & -3 & 0 \\ 2 & 1 & -4 \\ 8 & 9 & 6 \end{bmatrix}$. Show that $(AB)' = B'A'$

b) Show matrix $A = \begin{bmatrix} 4 & 1 & 3 \\ 1 & -1 & -5 \\ 3 & 2 & 0 \end{bmatrix}$ as sum of Hermitian and skew Hermitian matrix.

(8 X 2 = 16)

Q8) Solve the following equations:-

$$x + 2y + 3z = 14$$

$$5x - 2y = 8$$

$$2x + 3y - 4z = 12$$

(16)

Paper Code: 1272 (40)

Programme: Bachelor of Science (Information Technology)

Semester-I

Exam Code: 118001

Course Code: BITL-1118 ✓

Programme: Bachelor of Computer Applications

Semester-I

Exam Code: 117901

Course Code: BCAL-1118 ✓

Course Title: Computational Data Science

Time Allowed: 3 Hours

Max Marks: 70

Note: There are eight questions of equal marks (14 marks each). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

Section A

1. a) What do you mean by preprocessing and cleaning of data? (7)
- b) Explain types of data in detail. (7)

2. What is data science? Explain its application areas.

(14)

Section B

3. What do you mean by function? Explain its types.

(14)

4. Solve Equations with Factorization and Quadratic Formula

(a) $x^2 + 2x = 15$

(b) $x^2 + 5x + 6 = 0$

(2x7=14)

Section C

5. Explain addition and multiplication algorithms on polynomials.

(14)

6. a) What do you mean by X-intercepts? Explain with example.

(7)

b) Divide ($6x^3 - x^2 - 10x - 3$) by ($2x - 3$)

(7)

Section D

7. (A) Calculate missing frequency, if mean is 52

Classes	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	3	4	?	2	6	13

(B) By using all 3 methods find out mean from the following data

X	16	8	40	24	48	56	72	64	80	72
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(2x7=14)

8. Explain the following

a) Median

b) Permutation Vs Combination

c) Mode

d) Factorials

(4x3.5=14)

Exam Code: BSc (IT) – 118001
BCA- 117901

Paper Code: 1273

Programme: Bachelor of Computer Applications/Bachelor of Science (Information Technology)

Semester: I

Course Title: Introduction to ^{the} Internet

Course Code: BCAM/BITM - 1110

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries eight marks.

Section A

- Q1: Discuss the impact of the Internet on the society. (8)
- Q2 a) Explain the hardware and software requirements of the Internet. (6)
- b) Differentiate between website and web page. (2)

Section B

- Q3: What best practices should you use in email communication? (8)
- Q4: a) Discuss the various search techniques. (5)
- b) What are various operators that can be used in searches. Give examples. (3)

Section C

- Q5: Compare and contrast any two cloud storage and file management tools. (8)
- Q6: Discuss the effective virtual meeting strategies. (8)

Section D

- Q7: a) Explain digital footprints. (4)
- b) Write steps to create professional online profile. (4)
- Q8: Write a note on the following (4*2 = 8)
- a) Digital portfolio
 - b) Online reputation
 - c) Personal branding
 - d) Screen time

Programme

Bachelor of Arts

Bachelor of Computer Applications

Bachelor of Commerce

Exam Code

121101

117901

121101

Course Code

AECD-1161

AECD-1161

AECD-1161

Course Title: Drug Abuse: Problem, Management and Prevention (Compulsory)

Time Allowed: 3 Hours

Marks: 40

Note: Attempt Five questions in all, selecting atleast one question from each section. The fifth question can be attempted from any section. Each question carries 8 marks.

Section-A

Q1: Discuss in detail the nature of drug abuse in Punjab?

ਪੰਜਾਬ ਮੇਂ ਨਸ਼ੀਲੀ ਦਵਾओं के दुरुपयोग की प्रकृति पर विस्तार से चर्चा करें?

ਪੰਜਾਬ ਵਿੱਚ ਨਸ਼ਿਆਂ ਦੀ ਦੁਰਵਰਤੋਂ ਬਾਰੇ ਵਿਸਥਾਰ ਵਿੱਚ ਚਰਚਾ ਕਰੋ?

Q2. Drug abuse has devastating effects on an individual's physical, mental, and emotional well-being. Explain in detail.

ਨਸ਼ੀਲੀ ਦਵਾओं के दुरुपयोग का किसी व्यक्ति के शारीरिक, मानसिक और भावनात्मक स्वास्थ्य पर विनाशकारी प्रभाव पड़ता है। विस्तार से व्याख्या।

ਨਸ਼ੀਲੇ ਪਦਾਰਥਾਂ ਦੀ ਦੁਰਵਰਤੋਂ ਦਾ ਇੱਕ ਵਿਅਕਤੀ ਦੀ ਸਰੀਰਕ, ਮਾਨਸਿਕ, ਅਤੇ ਭਾਵਨਾਤਮਕ ਤੰਦਰੁਸਤੀ 'ਤੇ ਵਿਨਾਸ਼ਕਾਰੀ ਪ੍ਰਭਾਵ ਪੈਂਦਾ ਹੈ। ਵਿਸਥਾਰ ਵਿੱਚ ਸਮਝਾਓ।

Section-B

Q3. What role is played by family in preventing drug abuse?

ਨਸ਼ੀਲੀ ਦਵਾओं के दुरुपयोग को रोकने में परिवार की क्या भूमिका है?

ਨਸ਼ੇ ਦੀ ਦੁਰਵਰਤੋਂ ਨੂੰ ਰੋਕਣ ਵਿੱਚ ਪਰਿਵਾਰ ਦੁਆਰਾ ਕੀ ਭੂਮਿਕਾ ਨਿਭਾਈ ਜਾਂਦੀ ਹੈ?

Q4: What role does media play in shaping public perception and behavior towards drug abuse?

ਨਸ਼ੀਲੀ ਦਵਾओं के दुरुपयोग के प्रति सार्वजनिक धारणा और व्यवहार को आकार देने में मीडिया क्या भूमिका निभाता है?

ਨਸ਼ਿਆਂ ਦੀ ਦੁਰਵਰਤੋਂ ਪ੍ਰਤੀ ਜਨਤਕ ਧਾਰਨਾ ਅਤੇ ਵਿਵਹਾਰ ਨੂੰ ਆਕਾਰ ਦੇਣ ਵਿੱਚ ਮੀਡੀਆ ਕੀ ਭੂਮਿਕਾ ਨਿਭਾਉਂਦਾ ਹੈ?

Section-C

Q 5: What is meant by Management of drug abuse? How difficult it is to manage an addicted person.

ਨਸ਼ੀਲੀ ਦਵਾओं के दुरुपयोग के प्रबंधन से क्या तात्पर्य है? नशे की लत वाले इंसान को संभਾਲना कितना मुश्किल होता है।

ਨਸ਼ਾਖੋਰੀ ਦੇ ਪ੍ਰਬੰਧਨ ਤੋਂ ਕੀ ਭਾਵ ਹੈ? ਇੱਕ ਆਦੀ ਵਿਅਕਤੀ ਨੂੰ ਸੰਭਾਲਣਾ ਕਿੰਨਾ ਔਖਾ ਹੈ।

Q6: Why is relapse management often considered the most critical and difficult stage of addiction recovery?

पुनरावृत्ति प्रबंधन को अक्सर लत से उबरने का सबसे महत्वपूर्ण और कठिन चरण क्यों माना जाता है?

ਰੀਲੈਪਸ ਪ੍ਰਬੰਧਨ ਨੂੰ ਅਕਸਰ ਨਸ਼ਾ ਛੁਡਾਉਣ ਦਾ ਸਭ ਤੋਂ ਨਾਜ਼ੁਕ ਅਤੇ ਮੁਸ਼ਕਲ ਪੜਾਅ ਕਿਉਂ ਮੰਨਿਆ ਜਾਂਦਾ ਹੈ?

Section-D

Q 7:- What will be the minimum standards of services in India for Drug Prevention?

ਡਰੱਗ ਦੀ ਰੋਕਥਾਮ ਲਈ ਭਾਰਤ ਵਿੱਚ ਸੇਵਾਵਾਂ ਦੇ ਘੱਟੋ-ਘੱਟ ਮਾਪਦੰਡ ਕੀ ਹੋਣਗੇ?

भारत में नशीली दवाओं की रोकथाम के लिए सेवाओं के न्यूनतम मानक क्या होंगे? होंगे?

Q8: What are the environmental strategies in the prevention of drug abuse?

ਨਸ਼ੀਲੀ ਦਵਾओं के दुरुपयोग की रोकथाम में पर्यावरणीय रणनीतियाँ क्या हैं?

ਨਸ਼ਿਆਂ ਦੀ ਦੁਰਵਰਤੋਂ ਦੀ ਰੋਕਥਾਮ ਲਈ ਵਾਤਾਵਰਣ ਸੰਬੰਧੀ ਰਣਨੀਤੀਆਂ ਕੀ ਹਨ?

Paper Code: 1114

Programme	Exam Code	Course Code
Bachelor of Arts (Journalism and Mass Communication)	116401	BJMM-1102
Bachelor of Science (Fashion Designing)	119601	BFDM-1102 ✓
Bachelor of Science (Home Science)	119701	BHSM-1102
Bachelor of Computer Applications	117901	BCAM-1102 ✓
Bachelor of Science (Information Technology)	118001	BITM-1102 ✓
Bachelor of Science (Bio-Technology)	120601	BBTM-1102
Bachelor of Science (Medical Laboratory Technology)	509701	BMLM-1102
Bachelor of Vocation (Retail Management)	122001	BVRM-1102 ✓
Bachelor of Vocation (Animation)	112801	BVAM-1102 ✓
Bachelor of Vocation (Nutrition and Dietetics)	510011	BVNM-1102 ✓
Bachelor of Vocation (Beauty and Wellness)	112601	BVBM-1102 ✓
Bachelor of Vocation (Artificial Intelligence and Data Science)	112901	BVIM-1102 ✓
Bachelor of Vocation (Hospitality and Tourism)	113001	BVHM-1102 ✓

Semester I

**Course Title: Communication Skills in English
(400)**

Time Allowed: 3 Hours

Total Marks: 50

Note: The candidates will have to attempt five questions in all selecting one from each section and the fifth question from any of the four sections. Each question will carry 10 marks.

Section – A

1. Describe the PSQ5R model of reading.
2. Describe the three different kinds of purposes of reading.

Section – B

3. Read the following passage and answer the questions in multiple choice form mark (Tick) in front of the right answer:

In the workplace, the relationship between a mentor and a mentee is much like that between a teacher and a student. Mentors play a crucial role not just by sharing knowledge, but also by guiding mentees through their

career paths, much like teachers guide students through their education. A good mentor helps a mentee develop professionally and personally, offering support and advice based on their own experiences. This support is critical, as it can determine the success or failure of the mentee in their professional life. Like good teachers, successful mentors need to have strong personal qualities—they need to be understanding, patient, and empathetic. These traits allow them to be not just instructors, but also role models.

1. Mentors are important to mentees because they:

- A. Provide only technical knowledge.
- B. Focus solely on professional growth.
- C. Support both personal and professional development.
- D. Function as administrative figures.

2. The central idea of the passage is that:

- A. Mentorship and knowledge sharing are unrelated.
- B. A mentor's personal qualities significantly impact their effectiveness.
- C. Professional development does not require personal support.
- D. Mentors are similar to corporate leaders.

3. Why does the passage emphasize the mentor's personal qualities?

- A. Because it ensures a higher salary.
- B. Because it makes the mentor more authoritative.
- C. Because it affects the mentor's ability to guide effectively.

D. Because it is less important than professional knowledge.

4. According to the passage, what role does a mentor fulfill that is similar to a teacher's?

A. Giving lectures and presentations.

B. Guiding and shaping the mentee's career and character.

C. Evaluating performance strictly.

D. Setting professional standards.

5. Give a suitable title.

4. Read the following passage carefully and answer the question the follow:

A woman entered a bustling coffee shop dressed in a business suit and was immediately greeted warmly by a server who assumed she was a high-profile business

executive. She was promptly shown to the best seat in the house and given the special menu reserved for VIP guests. She browsed the menu but ordered only a coffee. As she sat sipping her drink, she observed the staff bustling about, largely ignoring other customers who were dressed more casually.

After some time, she called over the manager and asked why there was a difference in how customers were treated based on their attire. She explained that she had visited the same coffee shop a few days earlier wearing casual clothes and had received quite indifferent service. Her purpose today was to see if her dressing would influence the service she received. Upon making her point clear, she left a generous tip for the server but chose not to purchase more than a coffee.

1. Why did the server immediately greet the woman warmly?

2. Why was she given the special menu?
3. Why did the woman question the manager about the service?
4. What was the woman's reason for visiting the coffee shop again in a business suit?
5. What is the moral of the story?

Section – C

5. Write a letter to a store manager complaining about a pair of shoes you recently bought. Ask for a refund on the purchase.
6. Write a letter to thank your aunt for the thoughtful birthday gift she sent you. Express how much you liked the gift and how you plan to use it.

Section – D

7. Compose a notice to inform students about a guest lecture on Interview Skills.

8. Draft the minutes for a meeting where teachers discussed an upcoming college event and assigned tasks to different students.