



RAN-2411000901011002 - D

F.Y. B.C.A. (NEP) (Sem. - I) Examination December - 2025

Major - 104 : Computer Programming and Programming Methodology (Practical)

[Total Marks: 25

<p>સૂચના : / Instructions</p> <p>(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book.</p>	<p>Seat No.:</p> <table border="1"> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p style="text-align: center;">Student's Signature</p> </div>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Q. 1. Write a C Program to Find Simple Interest (08)

Q. 2. Write a C Program to Print the given Pattern. (12)

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*****
****
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Q. 2. VIVA (05)

RAN-2411000901011002-A

F.Y.B.CA. (NEP)(Sem. - I) Examination December - 2025

Major - 104 - C.P.P.M (PR) Practical

[Total Marks: 25

सूचना : / Instructions	Seat No.:
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- Q.1 [A] Write a c program to check whether a number is palindrome or not. 10
- [B] Write a Program to find the sum of the following series up to N terms given by 10
the user.
- Series: $1 + 4 + 9 + 16 + 25 + \dots$
- Q.2 VIVA & Files 05



RAN-2411000901011002 - B

F.Y. B.C.A. (NEP) (Sem. - I) Examination December - 2025

Major - 104 : Computer Programming and Programming Methodology (Practical)

[Total Marks: 25

<p>सूचना : / Instructions</p> <p>(1) उपरोक्त दशविल विगतो उत्तरवही पर अवश्य लभवी. Fill up strictly the above details on your answer book.</p>	<p>Seat No.:</p> <table border="1"> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Student's Signature</p> </div>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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- Q. 1. [A]** Write a Menu driven program to perform the following operations (10)
1. Area of a square
 2. Area of a rectangle
 3. exit
- [B]** Write a c program to find the length of the String without using built in Function. (10)
- Q. 2.** VIVA & Files (05)



RAN-2411000901022002-A

F.Y.B.C.A. (Sem. - I) Examination December - 2025

Practical - 105 (Data Processing Analysis)

[Total Marks: 25

<p>સૂચના : / Instructions</p> <p>(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book.</p>	<p>Seat No.:</p> <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; margin-top: 10px; text-align: center;"> <p>Student's Signature</p> </div>						

Q. 1. Prepare a spreadsheet name Deepak Stationery (Description, Quantity, Cost Per Item, Total Cost). **(10)**

Instruction:

- Enter 5 records.
- Calculate total cost=Quantity * Cost Per Item.
- Format Header row and freeze it.
- Draw Line Chart for the above given data and give Proper legends.
- Protect sheet from unauthorized access.

Q. 2. Create Employee table with appropriate constraint with following fields : **(10)**

EmpNo, Name,EMP_city, Email_jd, DOB, Dept, Salary

- Insert 5 records.
- Display all employees who are working in MARKETTING department and salary is greater than 35000.
- Change the department of employee service to key service.
- Display the detail of employee whose last character is 'i'.
- Delete the record of employee who belong to Department TESTING.

Q. 3. VIVA + JOURNAL. **(05)**



RAN-2411000901022002-B

F.Y.B.C.A. (Sem.- I) Examination December - 2025
Practical -105 (Data Processing Analysis)

[Total Marks: 25

सूचना : / Instructions

- (1) उपरोक्त दशविव विगतो उत्तरवही पर अवश्य लખवी.
Fill up strictly the above details on your answer book

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Student's Signature

Q.1. Create a worksheet as following and give name as Shreeji Medicals: 10

Medicine ID	Name	Price	Qty
M001	Combiflame	50	3
M002	Citrezin	15	2

Instruction:

- Enter 5 records.
- Calculate Total Prices = Price* Qty
- Display lowest price of medicine.
- Format cell with green background which have Qty price less than 50.
- Draw Column chart for above table and give proper legends.

Q.2. Create Sales table with appropriate constraint with following fields: 10

Sales_id, prod_name, Coiour, Qty, Date

- Insert 5 records.
- Display sales transactions between 01-01-2025 and 01-06-2025.
- Add new column Total.
- Change the value of Total with Qty * Price.
- Display the Products with Red colour
- Delete the all products details sold before date 01-01-2020.

Q.3. VIVA + JOURNAL. 05



RAN-2411000901022002 - D

F.Y.B.C.A. (Sem. - I) Examination December - 2025

105 - Data Processing Analysis (Practical)

[Total Marks: 25

<p>सूचना : / Instructions</p> <p>(1) उपरोक्त दृशविव विगतो उत्तरवही पर अवश्य लखवी. Fill up strictly the above details on your answer book.</p>	<p>Seat No.:</p> <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; margin-top: 10px; text-align: center;"> <p>Student's Signature</p> </div>						

Q. 1. Create a worksheet for following fields: (10)

Transaction Details

AccountNo	CustName	Balance	CreditAmt	DebitAmt
A1001	Rahul Patel	8000	10000	5000
A1002	Sumit Shah	15000	12000	7000

1. Insert at least 5 records.
2. Add one more column CurrentBalance and calculate CurrentBalance = (Balance+CreditAmt - DebitAmt)
3. Format cells with red color whose CurrentBalance is < 5000.
4. Sort data in ascending order by CustName.
5. Format header row and freeze it.
6. Protect Your sheet..

Q. 2. Create below table with appropriate constrains. (10)

Employee(Emp_No. Name, Job, Join_Date. Salary, commission, dept_no)

Write appropriate SQL statements for the following.

1. Insert minimum 5 records in table.
2. Find the employee name whose name length is 6 character.
3. List the Emp_No. Name,job, join_date of employee in Dept_No=5.
4. Select the name and salary of all employee who are "Manager".
5. List the employees whose salary are less than 5000.
6. List of employee whose commission is greater than their salary.

Q. 3. Viva + Journal (05)

2411000901011002-A
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS (FIRST SEMESTER)
BCA SEM-1 (PRACTICAL -104) CPPM
COMPUTER PROGRAMMING AND PROGRAMMING METHODOLOGY(PRACTICAL)

[Time: As Per Schedule]

[Max. Marks: 25]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : BACHELOR OF COMPUTER APPLICATIONS (FIRST SEMESTER)
 - b. Name of the Subject : BCA SEM-1 (PRACTICAL -104) CPPM COMPUTER PROGRAMMING AND PROGRAMMING METHODOLOGY (PRACTICAL)
 - c. Subject Code No : 2411000901011002-A
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1** A. Write a C program to print following pattern for given number N. **12**
e.g. N=3

```
1
9  25
49 81  121
```

- B. Write a C program that accept time in the form of minutes from input device and display it in HH:MM format. **08**
e.g Total Minutes :150
Result : 2 hours 30 minutes

- Q.2** VIVA & Journal **05**

2411000901022002-A
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS (FIRST SEMESTER)
BCA SEM-1 (PRACTICAL -105) DPA
DATA PROCESSING ANALYSIS

[Time: As Per Schedule]

[Max. Marks: 25]

Instructions:

1. Fill up strictly the following details on your answer book

a. Name of the Examination : BACHELOR OF COMPUTER APPLICATIONS (FIRST SEMESTER)

b. Name of the Subject : BCA SEM-1 (PRACTICAL -105) DPA DATA PROCESSING ANALYSIS

c. Subject Code No : 2411000901022002-A

2. Sketch neat and labelled diagram wherever necessary.

3. Figures to the right indicate full marks of the question.

4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 Create the spreadsheet with following fields.

10

Roll No	Name	Class	CS Marks	Maths Marks	IC Marks	CPPM Marks	DPA Marks
1001	Ravi	FYBCA-1	38	45	48	44	38
1002	Rahul	FYBCA-2	35	56	25	39	40
1003	Rohan	FYBCA-3	44	32	33	35	20
1004	Roshni	FYBCA-4	15	20	25	28	30

Perform the following tasks.

1. Insert at least 10 records in above database.
2. Calculate total marks for each student
3. Calculate percentage for each student
4. Find average marks obtained by each student.
5. Declare the result pass/fail. Passing criteria 18 out of 50.

Q.2 Create below table with appropriate constraints.

10

Book_mast (book_no, book_name, author, publisher,
purchase_date, no_of_copy)

Write appropriate SQL statements for the following.

1. Insert minimum 5 records in table.
2. Display all books whose publisher is "Pearse Education".
3. Display all book names which start with 'S'.
4. Display all books with no of copies greater than 10.
5. Display all book names which are purchased in 'MARCH'.

Q.3 VIVA + JOURNAL.

05



RAN-2311000901050001

F.Y.B.C.A. (Sem.- I) Examination November - 2025

AEC-101 Communication Skills

Time: 1 Hours]

[Total Marks: 25

<p>सूचना : / Instructions</p> <p>(1) उपरोक्त दशविव विगतो उत्तरवही पर अवश्य लपववी. Fill up strictly the above details on your answer book</p>	<p>Seat No.:</p> <table style="width: 100%; text-align: center;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> </tr> </table> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p style="text-align: center;">Student's Signature</p> </div>						

- Q.1. Answer the following questions in brief (AnyThree) 6**
1. Define Communication
 2. Difference between Listening and Hearing
 3. What is extra personal Communication
 4. List out the steps involved in the communication process
- Q.2. Draft a resume for the post of front desk receptionist in NGO emphasizing a good communication skills 7**
- OR**
- Q.2. Though you have informed BSNL to change your address, but still you have been receiving your telephone bills at your old address for a long time. Write an email to administrative officer of BSNL about it. 7**
- Q.3. Prepare a PowerPoint presentation along with speech on Social Media addiction 7**
- OR**
- Q.3. Suresh, Parth, Arvind, Dishant and Maitry are discussing on online scams. Write down the transcript of the Discussion 5**
- Q.4. Prepare a Blog on Festivals of India 5**
- OR**
- Q.4. Read the following passage carefully and answer the following questions.**
- Education is an essential part of our life. It not only helps us acquire knowledge and skills but also helps in building our character and values. Education plays an important role in our personal and professional development and is an investment in our future. Education has many benefits. It helps us understand the world around us and think critically and creatively. It also gives us the skills we need to succeed in the workforce and contribute to our communities Education can open up new opportunities and give us a sense of accomplishment and self-satisfaction.
- Additionally, education helps promote equality and social mobility. It gives individuals the tools and knowledge they need to rise out of poverty and achieve their full potential. Education is also a key factor in reducing discrimination and promoting understanding and tolerance between different cultures and groups.
- Political education has many connotations. It may be defined as the preparation of a citizen to take well-informed, responsible and sustained action for participation

in the national struggle in order to achieve the socio-economic objectives of the country. The predominant socio-economic objectives in India are the abolition of poverty and the creation of a modern democratic, secular and socialist society in place of the present traditional, feudal, hierarchical and in egalitarian one. The situation will not change unless we take vigorous steps to provide genuine political education on an adequate scale. This is one of the major educational reforms we need, and if it is not carried out, mere linear expansion of the existing system of formal education will only support the status quo and hamper radical social transformation.

As the Indian Education System is facing so many problems, we need to come up with effective solutions so it improves and creates a brighter future for students. We can start by focusing on the skill development of the students. The schools and colleges must not only focus on the ranks and grades but on the analytical and creative skills of children. In addition, subjects must not be merely taught theoretically but with practical. This will help in a better understanding of the subject without them having to mug up the whole thing due to lack of practical knowledge.

In short, education is an important part of our lives and has the power to transform individuals and communities.

- 1) What is the importance of education in our lives?
- 2) Write some benefits of education.
- 3) How does education promote equality and social mobility?
- 4) How can education change individuals and communities?
- 5) What should be the main purpose of political education?



RAN-2411000901022001

F.Y.B.C.A. (Sem.- I) Examination November - 2025
Data Processing and Analysis (DPA)(TH) (Major-105)

Time: 1 Hour]

[Total Marks: 25

सूचना : / Instructions

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Q.1. (A) Choose appropriate correct option (Any Four)

[4]

- In a worksheet, the intersection of row and column called?
 - Cell
 - Range
 - Address
 - Formula
- Which of the following anomalies is removed by 3NF?
 - Insertion
 - Update
 - Transitive Dependency
 - Deletion
- Which of the following component is responsible for managing disk space and storage?
 - Transaction Manager
 - Query Processor
 - Report Generator
 - DDL Compiler
- Which SQL clause is used to arrange data in ascending/descending order?
 - Where
 - Order By
 - Group By
 - Having
- What type of view allows users to update the underlying table through the view?
 - Read-only View
 - Materialized View
 - Updatable View
 - Virtual View

(B) Answer in Short (Any Four)

[4]

- What is Schema?
- Which chart type is best suited for showing percentage distribution?
- How do you reference cell A1 in Excel?
- Which constraint ensures that a column cannot have duplicate values?
- What does SQL stand for?

Q.2. Answer the following:

- A. What is Workbook? Explain its Structure.

[5]

OR

- A. What are the different options available for inserting objects in a worksheet? Explain with example.

B. What are the different types of charts in spreadsheets?
Compare Column, Line, and Pie charts. [4]

Q.3. Answer the following (Any 2) [8]

- A. Write a short note on Database Models.
 - B. Write a Short note on DML.
 - C. Draw an E-R diagram for a College Management System
-



RAN-2411000901011001

B.C.A. (Sem. I) Examination November - 2025

Major - 104 Computer Programming & Programming Methodology (CPPM) (TH)

Time: 1 Hours]

[Total Marks: 25

सूचना : / Instructions

(1) उपरोक्त दृशावेल विगतो उत्तरवही पर अवश्य लभवी.

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Student's Signature

Q-1. [A] Answer the following (Any Four)

[04]

- Which of the following is type of translator for language C?
 (A) compiler (B) interpreter
 (C) assembler (D) none
- Which of the following is valid identifier name in C?
 (A) float (B) flaut
 (C) 1 float (D) +float
- In C,
 a=0,b=0;
 b=a++;
 printf("%d %d", b, a); will give output as _____
 (A) 0 1 (B) 1 0
 (C) 0 0 (D) 1 1
- In C, which of the following function(s) can be used to copy one string to another
 (A) strcpy() (B) strcopy()
 (C) strduplicate() (D) none
- In C, *Continue* keyword can be used to _____
 (A) omit rest of statement in if statement
 (B) omit rest of statement of for loop
 (C) omit rest of statement of while loop
 (D) both B and C

Q-1. [B] Answer the following (Any Four)

[04]

- Differentiate = and == with example.
- Explain purpose of *break* statement.
- Describe modulus operator % with example.
- Explain strcat() string function.
- How to retrieve fifth element value of array *age* [5]?

Q-2. [A]. Explain arithmetic operators with example.

[05]

OR

Q-2. [A] Describe program structure of 'C' with proper example.

Q-2. [B] Differentiate compiler and interpreter with example.

[04]

Q-3. **Write answer for following questions (Any Two)**

[08]

1. Explain Do While loop and While loop with example.
 2. Explain 'switch ... case' statement with proper example.
 3. What is pointer? Explain with proper example in 'C'
-



RAN-2311000901040001

F.Y.B.C.A. (Sem. - I) Examination November - 2025

MDC - 102 : Mathematics

[Total Marks: 50

<p>सूचना : / Instructions</p> <p>(1) उपरोक्त दशविल विगतो उत्तरवही पर अवश्य लजवी. Fill up strictly the above details on your answer book.</p> <p>(2) All questions are compulsory.</p> <p>(3) Figures to the right indicate marks of the corresponding question.</p>	<p>Seat No.:</p> <table style="width: 100%; border: 1px solid black; text-align: center;"> <tr> <td style="width: 20px; height: 20px;"> </td> <td style="width: 20px; height: 20px;"> </td> <td style="width: 20px; height: 20px;"> </td> <td style="width: 20px; height: 20px;"> </td> <td style="width: 20px; height: 20px;"> </td> <td style="width: 20px; height: 20px;"> </td> </tr> </table> <div style="border: 1px solid black; height: 80px; margin-top: 10px; display: flex; align-items: center; justify-content: center;"> <p>Student's Signature</p> </div>						

Q. 1. Answer the following. (10)

- (1) If $A = \{1, 2, 3, 4\}$ and $B = \{2, 3, 4\}$ then $n(A \times B) = \underline{\hspace{2cm}}$
- (2) If $f(x) = 2x^2$ then $f(-1) - f(2) + f(1) = \underline{\hspace{2cm}}$
- (3) If $A = \begin{bmatrix} 4 & 7 \\ -1 & 3 \end{bmatrix}$ then $\det(A) = \underline{\hspace{2cm}}$
- (4) Define Composite statement, give an illustration.
- (5) State associative property for ' \cdot ' in Boolean algebra, give an illustration.

Q. 2. Answer the following. (Any Two) (10)

- (1) In usual notation prove that $A - (B \cap C) = (A - B) \cup (A - C)$
- (2) If $A = \{x: x \in \mathbb{N}, x < 6\}$, $B = \{x: x \in \mathbb{N}, 3 < x < 9\}$ and $C = \{1, 4, 5, 7\}$ the verify $(A \cup B) \cap C = (A \cap C) \cup (B \cap C)$
- (3) Verify that $A \times (B \cup C) = (A \times B) \cup (A \times C)$ for $A = \{2, 3, 5\}$; $B = \{3, 7\}$; $C = \{3, 8\}$.

Q. 3. Answer the following. (Any Two) (10)

- (1) If the demand function is $d = f(p) = 4000 - 2p^2$ then find the demand when $p = 22$ and find p when $d = 6$.
- (2) If $f(x) = \frac{1}{x+1}$, $x \in \mathbb{Z} - \{-1, 1\}$ then prove that $f(-x) - f(x) = \frac{2}{1-x^2}$
- (3) If $f(x) = 2x^2 - 1$ and $g(x) = 2x - 1$; where $D_f = D_g = \{0, 1, 2\}$. Is $f = g$? Justify your answer.

Q. 4. Answer the following. (Any Two) (10)

- (1) Using truth-table prove that the argument is logically valid:
Hypothesis: $S_1: p \wedge q, S_2: \sim p$.
Conclusion: $S: q$
- (2) Construct the input / output table for
 - (i) $f(x_1, x_2) = (x_1 \cdot x_2)' + x_2$
 - (ii) $f(x_1, x_2, x_3) = (x_1 \cdot x_2') \cdot x_3$

(3) Show that D_6 is a Boolean Algebra; $\forall a, b \in D_6$

$$a + b = \text{L.C.M. of } a, b$$

$$a \cdot b = \text{G.C.D. of } a, b \text{ and } a' = \frac{6}{a}$$

Q. 5. Answer the following. (Any Two)

(10)

(1) If $A = \begin{bmatrix} 4 & -2 & 9 \\ 0 & -2 & -1 \\ 2 & 3 & 7 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 1 & -4 \\ 1 & 3 & -2 \\ 1 & 3 & -2 \end{bmatrix}$ then show that $(AB)^T = B^T A^T$

(2) Find inverse of the matrix $A = \begin{bmatrix} 2 & 1 & -1 \\ 1 & 0 & -1 \\ 1 & 1 & 2 \end{bmatrix}$

(3) Solve the following equations using Cramer's rule:

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

$$2x + y + z = 7,$$

$$5x + 2y + z = 12$$



RAN-2311000901030001

F.Y.B.C.A. (Sem. I) Examination November - 2025

Minor - 103 - Introduction to Computers

Time: 2 Hours]

[Total Marks: 50

<p>सूचना : / Instructions</p> <p>(1) उपरोक्त दृशविल विगतो उत्तरवली पर अवश्य लभवी. Fill up strictly the above details on your answer book</p>	<p>Seat No.:</p> <table border="1"> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table> <div style="border: 1px solid black; height: 80px; width: 100%; margin-top: 10px;"></div> <p style="text-align: center;">Student's Signature</p>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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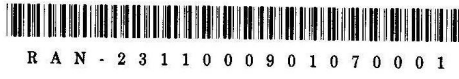
Q.1 [A] Choose the correct option. (Any Five) [05]

1. Which of the following best describes the "Accuracy" characteristic of computers?
 - a) Performing tasks quickly
 - b) Storing large amounts of data
 - c) Producing results with minimal errors
 - d) Connecting to the internet
2. CRT stands for
 - a) Cathode right tube
 - b) Cathode ray table
 - c) Cathode ray tube
 - d) Cathode ray task
3. What is the primary purpose of cache memory?
 - a) To store data permanently
 - b) To increase the capacity of main memory
 - c) To speedup data access by storing frequently used data
 - d) To provide backup power
4. What is the primary function of a URL?
 - a) To send emails
 - b) To search for files on a computer
 - c) To locate and access resources on the internet
 - d) To store data
5. How is the number 15 represented in binary?
 - a) 1111
 - b) 1000
 - c) 1010
 - d) 1100
6. _____ is a technology that uses remote servers on the internet to store, manage, and access data online rather than local drives.
 - a) Cloud
 - b) Router
 - c) URL
 - d) Domain
7. Which of the following is an example of an output device used for audio?
 - a) Speaker
 - b) Headphones
 - c) Both A and B
 - d) None of the above

Q.1 [B] Write Answer in short. (05)

1. What is System Software?
2. What is Volatile Memory?
3. What is base in any Number System?
4. Give the Full Form of LED, OLED.
5. What is the Use of router?

- Q.2 [A] (1) Explain Various types of Computers. [05]
 (2) Explain various storage Devices. [05]
OR
- Q.2. [A] (1) Explain Block diagram of computer system with its functional units [05]
 (2) Explain Various types of memory in computer system. [05]
- Q.2. [B] (1) Discuss the various characteristics of Computer. [03]
 (2) Differentiate Virtual Memory and Cache Memory [03]
OR
- Q.2. [B] (1) Explain Adress Bus and Data Bus. [03]
 (2) Write a Note on Applications of Computer. [03]
- Q.3. [A] (1) Explain different types of pointing devices. [05]
 (2) What do you mean by cloud? Explain Various Application of Cloud. [05]
 Discuss various Advantages and Disadvantages of cloud.
OR
- Q.3. [A] (1) What are the different types of printers, and how do they vary in terms of [05]
 technology and application?
 (2) What do you mean by Web Browser? List out the names of Web browser. [05]
 Discuss the various terminologies of web browser.
- Q.3. [B] (1) Explain OCR and OMR. [03]
 (2) hat is Internet? Explain the types of internet services with Example. [03]
OR
- Q.3. [B] (1) Write a short note on Working of FAST Tag. [03]
 (2) Write a short note on Online Data Backup [03]
- Q.4. . **Answer the following (Any Four)** [08]
- (1) $(101011001)_2 = (?)_{10}$
 - (2) $(1452)_{10} = (?)_2$
 - (3) Add binary numbers $(10110101)_2$ and $(1101001)_2$
 - (4) Subtract: $(10101)_2$ from $(101011)_2$
 - (5) $(10110101)_2 = (?)_{10}$
 - (6) $(501)_{10} = (?)_2$.



RAN-2311000901070001

B.C.A. (Sem. - 1) Examination November - 2025

Computer Application

IKS Bharatiya Knowledge Systems - An Introduction

Time: 1 Hours]

[Total Marks: 25

<p>સૂચના : / Instructions</p> <p>(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book</p>	<p>Seat No.:</p> <table border="1"> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </table> <p>Student's Signature</p>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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- પ્ર. 1** નીચેનામાંથી કોઈપણ પાંચ પ્રશ્નોના ઉત્તર આપો. (10)
- “ભારત” શબ્દનો ઉલ્લેખ સૌ પ્રથમ કયા ગ્રંથમાં મળે છે?
 - મહાભારત
 - ઋગ્વેદ
 - મનુસ્મૃતિ
 - ઉપનિષદ
 - “ભારત” શબ્દનો અર્થ શું છે?
 - સંપત્તિ ધરાવનાર દેશ
 - પ્રકાશ (જ્ઞાન અથવા પ્રબોધન) માં રત દેશ
 - યુદ્ધપ્રિય દેશ
 - શાંતિપ્રિય દેશ
 - ભારતીય જ્ઞાન પરંપરાનો આધાર સ્ત્રોત જણાવો?
 - ઉપનિષદ
 - વૈદિક સાહિત્ય
 - પુરાણ
 - રામાયણ
 - ભારતીય જ્ઞાન પરંપરાની ભાષા કઈ હતી?
 - હિન્દી
 - સંસ્કૃત
 - પાલી
 - તમિલ
 - સિંધુ સંસ્કૃતિ મુખ્યત્વે કઈ નદીકાંઠે વિકસેલી હતી?
 - ગંગા
 - સિંધુ
 - ગોદાવરી
 - નર્મદા
 - ભારતીય સંસ્કૃતિનું મુખ્ય લક્ષણ શું છે?
 - ભૌતિકતાવાદ
 - અધ્યાત્મવાદ
 - આધુનિકતા
 - વિદેશી પ્રભાવ
 - ભારતીય જીવનદર્શનનો આધાર શું છે?
 - ધર્મ
 - સંપત્તિ
 - વિજ્ઞાન
 - આધુનિકતા

- પ્ર. 2 (ક)** નીચેનામાંથી કોઈ પણ એક પ્રશ્નનો સંક્ષિપ્ત ઉત્તર આપો. (5)
- “ભારતનો સ્વ નો સાક્ષાત્કાર” વિચારને સમજાવો
 - કર્મનો સિદ્ધાંત અને પાપ-પુણ્યના વિચાર વિશે તમારા વિચારો વ્યક્ત કરો.

- પ્ર. 2 (ખ) નીચેનામાંથી કોઈ પણ એક પ્રશ્નનો સંક્ષિપ્ત ઉત્તર આપો. (5)
1. “ભા” અને “રત” શબ્દો દ્વારા બનેલા “ભારત” શબ્દના અર્થને સમજાવો
 2. મોક્ષના વિચારને સમજાવો.
- પ્ર. 2 (ઘ) નીચેનામાંથી કોઈ પણ એક પ્રશ્નનો સંક્ષિપ્ત ઉત્તર આપો. (5)
1. ચાર પુરુષાર્થો – ધર્મ, અર્થ, કામ અને મોક્ષ – ને હિન્દુ ધર્મશાસ્ત્રોના આધારે સમજાવો
 2. ચતુર્વેદોનું ભારતીય જ્ઞાન પરંપરામાં મહત્વ સમજાવો.

ENGLISH VERSION

- Q. 1 Answer any five of the following questions. (10)**
1. In which book is the word “India” first mentioned?
 - A) Mahabharata
 - B) Rigveda
 - C) Manusmriti
 - D) Upanishads
 2. What is the meaning of the word “India”?
 - A) A country possessing wealth
 - B) A country devoted to light (knowledge or enlightenment)
 - C) A war-loving country
 - D) A peace-loving country
 3. What is the main source of Indian knowledge tradition?
 - A) Upanishads
 - B) Vedic literature
 - C) Puranas
 - D) Ramayana
 4. What was the language of the Indian knowledge tradition?
 - A) Hindi
 - B) Sanskrit
 - C) Pali
 - D) Tamil
 5. The Indus Valley Civilization developed mainly on the banks of which river?
 - A) Ganges
 - B) Indus
 - C) Godavari
 - D) Narmada
 6. What is the main feature of Indian culture?
 - A) Materialism
 - B) Spiritualism
 - C) Modernity
 - D) Foreign influence
 7. What is the basis of Indian philosophy of life?
 - A) Religion
 - B) Wealth
 - C) Science
 - D) Modernity
- Q. 2 (A) Give a brief answer to any one of the following questions. (5)**
1. Explain the idea of “Self-realization of India”
 2. Express your thoughts on the principle of Karma and the idea of Pap-puny
- Q. 2 (B) Give a brief answer to any one of the following questions. (5)**
1. Explain the meaning of the word “Bharat” formed by the words “Bha” and “Rat”
 2. Explain the idea of Moksha
- Q. 2 (C) Give a brief answer to any one of the following questions. (5)**
1. Explain the four purusharthas — dharma, artha, kama and moksha — based on Hindu religious scriptures
 2. Explain the importance of Chaturveda in the Indian knowledge tradition

UNIVERSITY EXAMINATION 2025-26
BACHELOR OF COMPUTER APPLICATION
(FIRST SEMESTER)
106 - SKILL ENHANCEMENT COURSE
SUBJECT : FUNDAMENTALS OF GOOGLE DOCS
Question Set 1

Time : 1 Hours

Total Marks:25

(1) Why are Google apps considered essential in modern productivity?

Options (1) They are only available offline (2) They are subscription-based only (3) They promote real-time collaboration (4) They have limited functionality

(2) Which feature allows multiple users to work on the same Google sheet?

Options (1) Password protection (2) Comments (3) Conditional formatting (4) Sharing

(3) What is the use of the "Collect email addresses" option in Google Forms?

Options (1) To send email notifications to respondents (2) To automatically collect email addresses from respondents (3) To track email opens (4) To validate email formats

(4) Which of the following is used for add a comment to a slide?

Options (1) Click on the slide and select "Comment" (2) Format -> Comment (3) Insert -> Comment (4) Tools -> Comment

(5) Which function in Google Sheets calculates the sum of a range of cells?

Options (1) COUNT (2) AVERAGE (3) MAX (4) SUM

(6) What is the function of the "Add-ons" feature in Google Forms?

Options (1) To add more questions (2) To add extra functionalities or integrations with other tools (3) To change form color (4) To create new forms

(7) The Google search engine was initially named_____.

Options (1) Backrub (2) Googleplex (3) PageRank (4) Webcrawler

(8) How do you add a new slide to a presentation in Google Slides?

Options (1) File -> New slide (2) Slide -> New slide (3) Edit -> New slide (4) View -> New slide

(9) What type of data does the "Short Answer" question type collect?

Options (1) Numerical responses (2) Multiple choice options (3) A long textual response (4) A brief textual response

(10) How can you add a bookmark to a Google Docs document?

Options (1) Insert -> Bookmark (2) Edit -> Bookmark (3) Format -> Bookmark (4) Tools -> Bookmark

(11) Which Google service helps in finding local businesses?

Options (1) Google Scholar (2) Google Maps (3) Google Drive (4) Google Photos

(12) Which of the following is a text formatting option in Google Docs?

Options (1) Font size (2) Font color (3) Text alignment (4) All of the above

(13) How can you apply a filter to data in Google Sheets?

Options (1) Data -> Create a filter (2) View -> Filter (3) Format -> Filter (4) Tools -> Filter

(14) Which setting hides the correct answers from respondents?

Options (1) Shuffle questions (2) Limit to 1 response (3) Release grade manually (4) Confirm message

UNIVERSITY EXAMINATION 2025-26

Question Set 1

(15) How do you create a drop-down list in Google Sheets?

Options (1) Insert -> Drop-down (2) Format ->validation -> Drop-down (3) Tools -> Drop-down (4) Data -> Data validation -> List

(16) How do you enable response validation for a question?

Options (1) Go to "Settings" and choose "Response Validation" (2) Select the question and click on "Validation" (3) Click on "More options" and select "Response validation" (4) Use the "Add-ons" feature to enable validation

(17) How do you add speaker notes to a slide in Google Slides?

Options (1) View -> Show speaker notes (2) Insert -> Speaker notes (3) Format -> Speaker notes (4) Tools -> Notes

(18) Which question type allows respondents to select more than one option?

Options (1) Multiple choice (2) Dropdown (3) Linear scale (4) Checkboxes

(19) What is the primary purpose of Google Drive?

Options (1) Email communication (2) Photo and Video editing (3) Antivirus protection (4) Cloud storage and collaboration

(20) How can you change the background color of a form?

Options (1) Preview window (2) Settings tab (3) Customize Theme (4) Question editor

(21) Which of the following is used for create a chart in Google Sheets?

Options (1) View -> Chart (2) Insert -> Chart (3) Data -> Chart (4) Tools -> Chart

(22) How can you share a file with someone who does not have a Google account?

Options (1) By sending a physical copy (2) By using a different cloud service (3) By inviting them via email (4) By creating a public link

(23) Which of the following is used to view the document's word count in Google Docs?

Options (1) Tools -> Word count (2) File -> Document stats (3) Edit -> Count words (4) File -> Document stats

(24) _____ shortcut key starts the slideshow from the beginning in Google Slides?

Options (1) Ctrl + P (2) Ctrl + F5 (3) Shift + F5 (4) Alt + Enter

(25) How do you remove formatting from selected text in Google Docs?

Options (1) Format -> Clear formatting (2) Format -> Reset formatting (3) Ctrl + Shift + N (4) Edit -> Remove formatting

UNIVERSITY EXAMINATION 2025-26
BACHELOR OF COMPUTER APPLICATION
(FIRST SEMESTER)
CERTIFICATE COURSE
SUBJECT : CERTIFICATE COURSE ON USE OF GENERATIVE AI
Question Set 1

Time : 1 Hours

Total Marks:25

- (1) **Who is considered the father of Artificial Intelligence?**
Options (1) Alan Turing (2) John McCarthy (3) Marvin Minsky (4) Geoffrey Hinton
- (2) **In what year was the term "Artificial Intelligence" first coined?**
Options (1) 1945 (2) 1956 (3) 1963 (4) 1972
- (3) **The concept of "neural networks" in AI was inspired by:**
Options (1) Biological neurons in the brain (2) The structure of computer circuits (3) The way machines calculate numbers (4) Human-written programs
- (4) **What was the name of the AI program that defeated the world chess champion Garry Kasparov in 1997?**
Options (1) Watson (2) DeepBlue (3) AlphaGo (4) ChessBot
- (5) **Which programming language was specifically developed for AI research in the 1950s?**
Options (1) Python (2) Lisp (3) Java (4) C++
- (6) **What is the primary function of Generative AI?**
Options (1) To recognize patterns in data (2) To generate new content based on existing data (3) To classify data into categories (4) To optimize mathematical models
- (7) **Which type of neural network is commonly used in Generative AI for creating new content?**
Options (1) Convolutional Neural Network (CNN) (2) Recurrent Neural Network (RNN) (3) Generative Adversarial Network (GAN) (4) Long Short-Term Memory (LSTM)
- (8) **Which of the following is a common application of Generative AI?**
Options (1) Image generation (2) Data encryption (3) Spam email filtering (4) Predictive maintenance
- (9) **Which of the following is one of the earliest AI programs developed in the 1950s?**
Options (1) DeepBlue (2) ELIZA (3) AlphaGo (4) IBM Watson
- (10) **What is the full form of SEO?**
Options (1) Search Engine Optimization (2) Social Engagement Optimization (3) Software Engine Operation (4) Systematic Engagement Operation
- (11) **In the early history of AI, what kind of problem-solving approach did many researchers focus on?**
Options (1) Neural network-based learning (2) Symbolic reasoning and rule-based systems (3) Data-driven models (4) Evolutionary algorithms
- (12) **Which of the following is NOT a type of content that Generative AI can create?**
Options (1) Images (2) Music (3) Text (4) Biological DNA sequences
- (13) **What is the main feature of ChatGemini?**
Options (1) It is a language model focused on visual recognition. (2) It is a conversational AI system for generating text and images. (3) It is a tool for analyzing scientific papers. (4) It is a video generation platform.
- (14) **Which of the following is an advantage of AI in industries like healthcare?**
Options (1) AI can replace human doctors completely (2) AI can analyze large amounts of data quickly and accurately (3) AI reduces the need for human intervention entirely (4) AI always makes perfect decisions without errors
- (15) **Which type of AI is specifically designed to perform a single task with high efficiency?**
Options (1) Narrow AI (2) General AI (3) Reactive AI (4) Superintelligent AI
- (16) **What is a major limitation of AI in decision-making?**
Options (1) AI can make unbiased decisions without any input from humans (2) AI can analyze vast amounts of data and make better decisions than humans (3) AI is limited by the quality of the data it is trained on (4) AI always makes decisions faster than humans
- (17) **Which of the following modern technologies relies heavily on AI for development?**
Options (1) Quantum computing (2) Blockchain (3) Autonomous vehicles (4) 3D printing

UNIVERSITY EXAMINATION 2025-26
BACHELOR OF COMPUTER APPLICATION
(FIRST SEMESTER)
CERTIFICATE COURSE
SUBJECT : CERTIFICATE COURSE ON USE OF GENERATIVE AI
Question Set 1

Time : 1 Hours

Total Marks:25

(18) Which organization developed ChatGPT?

Options (1) Google (2) Microsoft (3) OpenAI (4) Apple

(19) Which of the following AI advancements has greatly impacted natural language processing (NLP)?

Options (1) Genetic algorithms (2) Deep learning and neural networks (3) Quantum computing
(4) Blockchain technology

(20) What is the primary purpose of prompting in Generative AI?

Options (1) To train the AI model (2) To generate text, images, or other content based on user input
(3) To filter data for training (4) To evaluate the AI model's performance

(21) What can be the result of using an overly complex or detailed prompt in Generative AI?

Options (1) The AI will always provide a more accurate and focused answer (2) The AI may generate an irrelevant or confused output (3) The AI will perform the task faster (4) The AI will ignore the prompt and create random content

(22) What is a "zero-shot prompt" in Generative AI?

Options (1) A prompt with no input, expecting the AI to generate content from scratch (2) A prompt with no examples, where the AI is expected to perform the task without prior context (3) A prompt that requires extensive training data to function (4) A prompt with random text

(23) Which of the following best describes "contextual prompting"?

Options (1) Providing specific instructions based on the model's limitations (2) Including additional background information in the prompt to improve the AI's response (3) Giving random input to see what the AI produces (4) Using only one word as input for the AI

(24) Which of these techniques helps improve the quality of the response generated by AI when using a prompt?

Options (1) Making the prompt as short as possible (2) Adding more irrelevant details to confuse the AI
(3) Giving the AI clear and specific instructions (4) Using only technical jargon in the prompt

(25) Why is "iteration" important when working with prompts in Generative AI?

Options (1) It helps refine the prompt and improve the accuracy of the output (2) It increases the AI's ability to handle complex tasks (3) It speeds up the AI's response time (4) It is unnecessary as a single prompt is enough to generate the perfect result