

2411000901022001
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS
(NCP-NEP) (FIRST SEMESTER)
MAJOR-105-DATA PROCESSING AND ANALYSIS (DPA) (TH)

[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 (NCP-NEP) (FIRST SEMESTER)**
- b. Name of the Subject : **MAJOR-105-DATA PROCESSING AND ANALYSIS (DPA) (TH)**
- c. Subject Code No : **2411000901022001**

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 Choose appropriate correct option. (Any 5)

5

1. What is the function of the "Format Painter"?
 - A. To change the content of cells
 - B. To copy formatting from one cell to another
 - C. To delete cell contents
 - D. To change the font size
2. Which of the following options allows you to format a number as currency?
 - A. General Format
 - B. Percentage Format
 - C. Currency Format
 - D. Text Format
3. Which of the following describes a derived attribute?
 - A. An attribute that cannot be null
 - B. An attribute that is calculated from other attributes
 - C. An attribute that has multiple values
 - D. An attribute that is a primary key

4. Which SQL datatype is used for variable-length strings?
 - A. CHAR
 - B. VARCHAR
 - C. NUMBER
 - D. INT
5. Which command is used to insert new row into a database table?
 - A. INSERT
 - B. UPDATE
 - C. DELETE
 - D. DROP
6. Which of following is not DML statement?
 - A. ALTER
 - B. DELETE
 - C. UPDATE
 - D. INSERT
7. Which operator would you use to combine multiple conditions in a SQL query?
 - A. NOT
 - B. AND
 - C. EXISTS
 - D. BETWEEN

Q.2 [A] What is Workbook? Explain its basic components. 4

OR

[A] Describe the different printing options available in worksheet. 4

[B] Explain mathematical functions of spreadsheet. 4

OR

[B] What is Chart? Explain its types. 4

Q.3 [A] Explain Super Key, Candidate Key and Primary key. 4

OR

[A] Draw an E-R Diagram of "College Management System". 4

[B] Explain DML statements with example. 4

OR

[B] Explain DDL statements with example. 4

Q.4 [A] Explain data filtering Where Clause in SQL. 4

OR

[A] Explain SQL aggregate functions. 4

2411000901011001
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP)
(FIRST SEMESTER)
MAJOR-104-COMPUTER PROGRAMMING &
PROGRAMMING METHODOLOGY (CPPM) (TH)

[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 (NCP-NEP) (FIRST SEMESTER)**
 - b. Name of the Subject : **MAJOR-104-COMPUTER PROGRAMMING & PROGRAMMING METHODOLOGY (CPPM) (TH)**
 - c. Subject Code No : **2411000901011001**
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 Answer Following (Any Five)

5

1. Which of the following is true for variable names in C?
 - a) They can contain alphanumeric characters as well as special characters
 - b) Use any keyword as a variable name.
 - c) Variable names cannot start with a digit
 - d) Variable name is not case sensitive.
2. What does the 'continue' statement do in a loop in C?
 - a) Terminates the loop immediately
 - b) Skips the current iteration and proceeds to the next iteration
 - c) Pauses the loop temporarily
 - d) None of the above

3. What is the main function of a compiler in programming?

- a) To convert source code to machine code
- b) To run code
- c) Find logical error
- d) all of above

4. What is the output of following code?

```
Void main()
{
  int a,b;
  a=10;
  b=20;
  printf ("%d %d %d %d", ++a, b--, a++, --b);
}
```

- a) 11,20,11,18
- b) 12,19,10,19
- c) 11,19,12,19
- d) error in code

5. How do you initialize an array in C?

- a) int arr[3] = {1,2,3};
- b) int arr(3) = {1,2,3};
- c) int arr[3] = {1,2,3};
- d) int arr(3) = (1,2,3);

6. How can we declare pointer variable that can store address of integer variable?

- a) int p;
- b) *int p;
- c) int *p
- d) ptr p;

7. Which of the following is not a branching statement in C?

- a) if
- b) switch
- c) while
- d) goto

Q.2 A. Explain difference between compiler and interpreter.

4

OR

A. Explain Structure of C program.

B. Explain switch case in detail.

4

OR

B. Explain nested if with example.

Q.3 A. Explain difference between while and do while loop.

4

OR

A. Explain for loop in detail.

B. What is array? Explain one dimensional numerical array.

4

OR

B. What is string? Explain one dimensional character array.

Q.4 A. What is pointer? Explain in detail.

4

OR

A. Explain array of pointer with example.

2311000901030001
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP)
(FIRST SEMESTER)
MINOR-103-INTRODUCTION TO COMPUTERS

[Time: As Per Schedule]

[Max. Marks:50]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP) (FIRST SEMESTER)**
 - b. Name of the Subject : **MINOR-103-INTRODUCTION TO COMPUTERS**
 - c. Subject Code No : **2311000901030001**
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) Attempt Any 5

5

1. Which of the following is not a part of CPU?
(A) Register (B) Memory Unit
(C) Control Unit (D) Arithmetic Logic Unit
2. Which component of a computer is considered a primary input device?
(A) Printer (B) Monitor
(C) Keyboard (D) Speaker
3. Which memory type is typically faster but more expensive?
(A) DRAM (B) SRAM
(C) ROM (D) EEPROM
4. Give the Full Form of ASCII.
(A) American Standard Code for Information Interchange
(B) American SQL Code for Information Interchange
(C) American Standard Code for intermediate Interchange
(D) American Super Code for Information Interchange

5. Which of the following is NOT considered a pointing device?
 (A) Mouse (B) Trackball
 (C) Joystick (D) Keyboard
6. In Hexadecimal number system C represents.
 (A) 10 (B) 13 (C) 12 (D) 14
7. Give the Full form of URL.
 (A) Universal Resource Locator
 (B) Unified Resource Locator
 (C) Unified Resources Locator
 (D) Uniform Resource Locator

(B) Attempt Any 5

5

1. Name the component responsible for connecting various parts of a computer system.
2. What does RAM stand for?
3. What is the binary equivalent of the decimal number 15?
4. Which of the following printer is use character printing in a form of pattern of Dots?
5. $(11)_2 = (?)_{10}$
6. Give the Full form of WiFi

Q.2

(A) Do As Directed

- (1) Explain in detail characteristics of the computer. 5
- (2) What is RAM? Explain different types of RAM 5

OR

- (1) Draw a block diagram of Computer and explain its functional units. 5
- (2) Explain Types of Processor 5

(B) Do As Directed

- (1) List of the types of input devices and explain any two. 3
- (2) State the Difference between Virtual memory and Cache memory 3

OR

- (1) What are the components of CPU? 3

- (2) Differentiate primary and secondary memory. 3

Q.3

(A) Do As Directed

- (1) Explain Concept of RFID and Application in Fast Tag and Benefits of RFID. 5
- (2) What is internet? Explain types of internet services with example. 5

OR

- (1) Explain Dot Matrix Printer, Laser Printer and Inkjet Printer with their Pros and Cons. 5
- (2) What do you mean by cloud? Explain various application of cloud. 5

(B) Do As Directed

- (1) Explain any two pointing devices. 3
- (2) Explain the uses of router. 3

OR

- (1) Explain optical scanner in short. 3
- (2) What are the uses of Fire-Stick? 3

Q.4 Attempt following (Any 4)

8

1. $(11010110)_2 + (11101110)_2 = (?)_2$
2. $(11101010)_2 - (10100)_2 = (?)_2$
3. $(957)_{10} = (?)_2$
4. $(ABC)_{16} = (?)_{10}$
5. $(1111000)_2 = (?)_2$
6. $(101101101)_2 = (?)_2$

2311000901040001
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP)
(FIRST SEMESTER)
MDC-102-MATHEMATICS

[Time: As Per Schedule]

[Max. Marks : 50]

Instructions:

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

- a. Name of the Examination : **BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP) (FIRST SEMESTER)**
- b. Name of the Subject : **MDC-102-MATHEMATICS**
- c. Subject Code No : **2311000901040001**

2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. Follow usual notations.
6. Use of non-programmable scientific calculator is allowed.

Seat No:

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Student's Signature

Q.1 Answer the following:

10

- 1] Define improper subset with illustration.
- 2] If $f(x) = 3x - 2$ and $D_f = \{3, 4, 5, 6\}$ then find R_f .
- 3] Prove that $\sim (p \wedge q) = (\sim p) \vee (\sim q)$
- 4] Write the dual statement of $x \cdot (y + z) = (x \cdot y) + (x \cdot z)$
- 5] If $A = \begin{bmatrix} 2 & 7 \\ -1 & -4 \end{bmatrix}$ then find $\det(A)$.

Q.2 Attempt any two

10

- (a) In usual notations prove that $A \cap (B \times C) = (A \cap B) \times (A \cap C)$
- (b) If $A = \{x/x \leq 3; x \in \mathbb{N}\}$, $B = \{x/1 < x \leq 5; x \in \mathbb{N}\}$ and $C = \{x/x \text{ is an even positive integer } < 10\}$ then verify that $A \cap (B - C) = (A \cap B) - (A \cap C)$

(c) If $A = \{x/x^2 - 17x + 16 = 0\}$; $B = \{y/y^2 - 7y + 12 = 0\}$
 $C = \{1,2,3,4\}$ then find

(i) $A - (B \cap C)$,

(ii) $(A \cup B) - (A \cap C)$

Q.3 Attempt any two

10

(a) If $f(x) = \frac{1}{x} + \frac{2}{x-3}$; $x \in \mathbb{R} - \{0, 3\}$ then find $f(1) + f(5)$, $f(1) - f(5)$

(b) If $f(x) = x(x+1)(2x+1)$ then prove that $f(x) - f(x+1) = 6x^2$.

(c) The fixed cost of a factory producing a particular type of pen is Rs. 7500 and the variable cost per pen is Rs. 150. If the selling price per pen is Rs. 300, find the number of pens to be produced for break even.

Q.4 Attempt any two

10

(a) Check the validity of the following argument:

Hypothesis $S_1: p \wedge (\sim q) \Rightarrow r$, $S_2: p \vee q$, $S_3: q \Rightarrow p$
Conclusion: $S: r$

(b) Using truth tables prove that (i) $p \wedge (p \vee q) = p$, (ii) $p \vee (p \wedge q) = p$.

(c) Show that $(D_9, +, \cdot, ', 1, 9)$ is not a Boolean Algebra $\forall x, y \in D_9$

$x + y = \text{LCM of } x, y$

$x \cdot y = \text{GCD of } x, y$

$x' = 9/x$

Q.5 Attempt any two

10

(a) $A = \begin{bmatrix} 0 & 4 & 3 \\ 1 & -3 & -3 \\ -1 & 4 & 4 \end{bmatrix}$ then prove that $A^2 = I$.

(b) Solve the following equations by Cramer's Rule:

$$\begin{vmatrix} x+2 & 3 \\ y+1 & 5 \end{vmatrix} = 8; \begin{vmatrix} x-1 & y-1 \\ 1 & 6 \end{vmatrix} = 4$$

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

2311000901050001
EXAMINATION NOVEMBER 2024
BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP)
(FIRST SEMESTER)
AEC-101-COMMUNICATION SKILLS

[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 (NCP-NEP) (FIRST SEMESTER)**
 - b. Name of the Subject : **AEC-101-COMMUNICATION SKILLS**
 - c. Subject Code No : **2311000901050001**
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 Answer the following (Any THREE)

6

1. What is Extra-personal communication?
2. What is Empathetic listening?
3. What is the difference between extensive and intensive reading?
4. List out different barriers to communication.

Q.2 Draft a resume for the post of an Assistant Professor of Computer to apply to MD Shastri College of Computer Application, Haryana.

7

OR

Neeta writes an Email to the Manager of Punjab National Bank requesting him to block her debit card as it has been stolen recently.

7

Q.3 Draft a group discussion amongst Rahul, Jatin, Tanmay and Vibha on the topic 'Impact of Technology on our Personal and Professional lives'. 7

OR

Draft a presentation with slides on 'Disadvantages of social media on Youngsters'. 7

Q.4 Read the passage and answer the questions given below. 5

Many great inventions are initially greeted with ridicule and disbelief. The invention of the airplane was no exception. Although many people who heard about the first powered flight on December 17, 1903 were excited and impressed, others reacted with peals of laughter. The idea of flying an aircraft was repulsive to some people. Such people called Wilbur and Orville Wright, the inventors of the first flying machine, impulsive fools. Negative reactions, however, did not stop the Wrights. Orville and Wilbur Wright had always had a compelling interest in aeronautics and mechanics. In 1900 and 1901, the Wrights tested numerous gliders and developed control techniques. The brothers' inability to obtain enough lift power for the gliders almost led them to abandon their efforts.

After further study, the Wright brothers concluded that the published tables of air pressure on curved surfaces must be wrong. They set up a wind tunnel and began a series of experiments with model wings. Because of their efforts, the old tables were repealed in time and replaced by the first reliable figures for air pressure on curved surfaces. This work, in turn, made it possible for the brothers to design a machine that would fly. In 1903 the Wrights built their first airplane, which cost less than \$1,000. When they started the engine on December 17, the airplane pulsated wildly before taking off. The plane managed to stay aloft for 12 seconds, however, and it flew 120 feet. By 1905, the Wrights had perfected the first airplane that could turn, circle, and remain airborne for half an hour at a time. Others had flown in balloons and hang gliders, but the Wright brothers were the first to build a full-size machine that could fly under its own power. As the contributors of one of the most outstanding engineering achievements in history, the Wright brothers are accurately called the fathers of aviation.

1. What was the reaction of people towards the efforts of Wright brothers to build an airplane?

2. How did the Wright brothers manage to design a machine which would fly?
3. Describe the first flight of the airplane made by Wright brothers.
4. What was the cost of the first airplane built by Wright brothers?
5. Find synonym of the word 'precisely' from the passage.

OR

Write a blog on 'My favourite travel place'. 5

7. સારી પદ્ધતિ, પરંપરા, સારાવર્તન અને સદભાવનાને નીચેનામાંથી કયા નામથી ઓળખવામાં આવે છે?
- (A) પ્રકૃતિ (B) વિકૃતિ
(C) સંસ્કૃતિ (D) નિવૃતિ
- પ્ર.૨. નીચેના જવાબો લખો (15)
- પ્ર.૨. (અ) સવિસ્તાર પ્રશ્ન (૨ માંથી કોઈ પણ ૧) (05)
- ભારતીય જ્ઞાન પરંપરાનાં ભવિષ્યની આવશ્યકતા સમજાવો.
 - મોક્ષ પુરુષાર્થ વિશે સમજૂતી આપો.
- પ્ર.૨. (બ) સવિસ્તાર પ્રશ્ન (૨ માંથી કોઈ પણ ૧) (05)
- ભારતનાં સ્વનો સાક્ષાત્કાર કેવી રીતે થયો? આ પરંપરા સમજાવો.
 - વિશ્વની પ્રથમ સભ્યતા તરીકે ભારતીય સભ્યતાની ચર્ચા કરો.
- પ્ર.૨. (ક) ટૂંકનોંધ લખો (૨ માંથી કોઈ પણ ૧) (05)
- ભારતીય કુટુંબનું માળખું
 - ભારતીય જ્ઞાનમાં તર્ક અને પ્રયોગોની શ્રદ્ધા.

***** END *****

2311000901070001

[4 of 4]

X211Y03C916X211Y03C916X211Y03C916X211Y03C916

2311000901070001
EXAMINATION NOV-DEC - 2024
BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP)
(FIRST SEMESTER)
VAC-IKS-BHARATIYA KNOWLEDGE SYSTEMS -
AN INTRODUCTION

[Time: As Per Schedule]

[Max. Marks: 25]

Instructions:

- નીચે દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the following details on your answer book
- a. Name of the examination : B.C.A. (NCP-NEP) (SEM. I)
- b. Name of the Subject : VAC-IKS-BHARATIYA KNOWLEDGE SYSTEMS - AN INTRODUCTION
- c. Subject Code No : 2311000901070001
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

English Version

[Max. Marks: 25]

Q.1. 7 – MCQ (2 Marks each) (Any 5 out of 7) (10)

- Which medical treatment technique is the one of the ancient Indian medicinal technique?
(A) Allopathy (B) Naturopathy
(C) Ayurveda (D) Jivan
- According to Indian tradition, which Purushartha is preferred in Grihastha Ashram?
(A) Dharma (B) Artha
(C) Kama (D) Moksha
- What is the worldwide rank of India in population?
(A) First (B) Second
(C) Third (D) Fourth
- According to the Indian knowledge system, which law governs all existence?
(A) reincarnation (B) marriage
(C) Addiction (D) None of the above

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[1 of 4]

X211Y03C916X211Y03C916X211Y03C916X211Y03C916

5. Which architectural design is one of Indian seven wonders?
(A) Lal Killa (B) Ranki Vaav
(C) Gate Way of India (D) Taj Mahal
6. Maharshi Karnad, the first nuclear scientist, composed which book?
(A) SankhyaDarshan (B) YogaDarshan
(C) VaisheshikaDarshan (D) Nyaya Darshan
7. Good method, traditional behavior and civic sense should be known by which of the following names?
(A) Prakruti (B) Vikruti
(C) Sanskruti (D) Niyrti

Q.2. Write Following Answers

(15)

Q.2. (a) Answer in Detail (Any 1 out of 2)

(05)

1. Explain the futuristic importance of the Indian knowledge tradition.
2. Explain about Moksha Purushartha.

Q.2. (b) Answer in Detail (Any 1 out of 2)

(05)

1. How India's self was realized? Explain this tradition.
2. Discuss Indian civilization as the first civilization of the world.

Q.2. (c) Write a short note (Any 1 out of 2)

(05)

1. Indian Family Structure
2. A vision of logic and experimentation in Indian knowledge system.

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[2 of 4]

X211Y03C916X211Y03C916X211Y03C916X211Y03C916

Gujarati Version

[Max. Marks: 25]

પ્ર.૧.

7 - MCQ (દરેકનો ૨ માર્ક્સ) (૭ માંથી કોઈ પણ ૫)

(10)

1. કઈ તબીબી સારવાર પદ્ધતિ પ્રાચીન ભારતીય ઔષધીય પદ્ધતિઓમાંની એક છે?
(A) એલોપથી (B) નેચરોપેથી
(C) આયુર્વેદ (D) જીવન
2. ભારતીય પરંપરા મુજબ ગૃહસ્થાશ્રમમાં કયા પુરુષાર્થનું પ્રાધાન્ય છે?
(A) ધર્મ (B) અર્થ
(C) કામ (D) મોક્ષ
3. વસ્તીમાં ભારતનો વિશ્વમાં કેટલામો ક્રમ ગણાય છે?
(A) પ્રથમ (B) બીજો
(C) ત્રીજો (D) ચોથો
4. ભારતીય જ્ઞાનપરંપરા મુજબ કયો કાયદો તમામ અસ્તિત્વને નિયંત્રિત કરે છે?
(A) પુનર્જન્મ (B) લલ્ન
(C) નશાબંધી (D) ઉપર પૈકી કોઈપણ નહિ
5. ભારતનું કયુ સ્થાપત્ય વિશ્વની સાત અજાયબીઓમાંનું એક છે?
(A) લાલ કિલ્લા (B) રાણકી વાવ
(C) ગેટ વે ઓફ ઇન્ડિયા (D) તાજમહેલ
6. પ્રથમ પરમાણુ વિજ્ઞાની મહત્તિ કરાંદે કયા ગ્રંથની રચના કરી છે?
(A) સોપ્યદર્શન (B) યોગદર્શન
(C) વૈશેષિકદર્શન (D) ન્યાય દર્શન

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X211Y03C916X211Y03C916X211Y03C916X211Y03C916

UNIVERSITY EXAMINATION: 2024-25

F.Y. B.C.A (Semester :1)

Subject: SEC-Fundamental Digital Skilling-106 (Practical)

Time: As per the schedule

Total Marks: 12

Instructions: 1. Figures to the right indicate total marks of a question.	
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Q-1: Create a MS-Word file on "World Yoga Day and Advantages of Yoga" with following formatting/ facilities: [07]

- 1) Font Family "Tahoma" with font size "13" and Justify alignment
- 2) Use find and replace facility to replace word "Month" with "Day"
- 3) Use numbering feature for listing advantages of Yoga
- 4) Change the background color of the page
- 5) Insert diagonal water mark in each page
- 6) Insert at least one image/video
- 7) Insert at least one shape/graph

Q-2: Journal + Viva [05]

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Seat No. _____

UNIVERSITY EXAMINATION: 2024-25

F.Y. B.C.A (Semester :1)

Subject: SEC-Fundamental Digital Skilling-106 (Practical)

Time: As per the schedule

Total Marks: 12

Instructions: 1. Figures to the right indicate total marks of a question.	
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Q-1: Create a power point presentation on "Festivals of India" with at least 5 slides by considering following requirements: [07]

- 1) Use any inbuilt template or design
- 2) Use at least two transition and animation effects in each slide
- 3) Use at least 3 different types of slides
- 4) Use stylish effects font/color/shapes etc. to make it attractive
- 5) Change the background color of first slide as "Pink"
- 6) Use bullet for listing different festivals
- 7) Record a slide show

Q-2: Journal + Viva [05]

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