Roll No. _____ NLCS/12/Computer Sc. (083)/17

Pre Board Exam 2025 – 2026

Time Allowed : 3 : 00 Hrs. **Maximum Marks : 70**

General Instructions:

- This question paper contains 37 questions
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions.
- The paper is divided into 5 Sections- A, B, C, D and E
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.
- In-case of MCQ, text of the correct answer should also be written.

SECTION A (1 × 21 = 21 Marks)

Q.1 Which of the following is **not** a valid data type in Python?
a) tuple b) string c) integer d) character

Q.2 What is the output of the following code?\
print("Python"[1:5:2])

Q.3 In SQL, which clause is used to rename a column temporarily in query output?

Q.4 _____ is a protocol used to send emails to a mail server.

Q.5 Identify the correct statement:
a) A router connects multiple networks. b) A switch connects computers wirelessly.
c) A hub filters traffic efficiently. d) A bridge is used for encryption.

Q.6 Which of these is a **client-side** web technology?
a) PHP b) HTML c) SQL d) Node.js

Q.7 Which of these is **not** a valid function call?
a) sum(3, 4) b) print("Hi") c) max([1,2,3]) d) return(5)

Q.8 Which statement is used to exit a function prematurely?
a) break b) exit c) return d) stop

Q.9 file.seek(0) does what?
a) Deletes file b) Moves file pointer to start c) Closes file d) Saves file

Q.10 A stack implemented using a list can be initialized by:
a) stack = () b) stack = {} c) stack = [] d) stack = set()

Q.11 Which operation is not applicable to stack?
a) push b) pop c) peek d) fetchall

Q.12 Which command is used to view all databases?
a) SHOW DATABASES; b) DISPLAY DATABASES;
c) LIST DATABASES; d) VIEW DB;

Q.13 What will this query do?
SELECT DISTINCT city FROM student;
a) Deletes duplicates b) Displays unique cities c) Sorts cities d) Counts cities

Q.14 Which function returns number of rows in a table?

a) COUNT() b) SUM() c) TOTAL() d) AVG()

Q.15 Which protocol is used to send email?

a) SMTP b) POP3 c) HTTP d) FTP

Q.16 Which method reads one line at a time?

a) read() b) readline() c) readlines() d) input()

Q.17 What is the default mode of open() in Python?

a) read ('r') b) write ('w') c) append ('a') d) binary ('rb')

Q.18 A function that does not return any value in Python returns:

a) Null b) 0 c) None d) False

Q.19 What is returned by len("Hello World")?

a) 11 b) 10 c) 12 d) Error

Q20 and Q21 are Assertion(A) and Reason(R) based questions. Mark the correct choice as:

a) Both A and R are True and R is the correct explanation for A.

b) Both A and R are True and R is not the correct explanation for A.

c) A is True but R is False.

d) A is False but R is True

Q.20 **Assertion (A)**: In Python, lists are mutable.

Reason (R): Elements of a list can be changed after creation.

Q.21 **Assertion (A)**: A foreign key can accept NULL values.

Reason (R): A foreign key refers to a primary key in another table and may not always have a matching value.

SECTION B (7 × 2 = 14 Marks)

Q.22 A Differentiate between local and global variables in Python with examples.

OR

B. Explain difference between is = and == operators with suitable examples.

Q.23 The code below has logical errors. Rewrite it correctly and underline the corrections.

```
def remove_mid(s):
        mid = len(s)/2
        return s[mid]
print(remove_mid("HELLO"))
```

Q.24 A. Using Python built-in functions only:

I. Write a command to convert all characters of a string txt to uppercase.

II. Write a statement to reverse a list nums.

OR

B. Predict the output:

```
msg = "AI will change future"
print(msg.find("change"))
print(msg.replace("AI", "ML"))
```

Q.25 A. Write a function search_item(L, item) to check if item exists in list L. If found, print its position; otherwise print “Not Found”.

OR

B. Write a Python function update_price(prod_dict, prod, price) that updates price of a product if it exists, otherwise adds it.

Q.26 Predict the output:

```
marks = {"A":85, "B":72, "C":95, "D":60}
selected = []
for name, m in marks.items():
    if m >= 80:
  selected.append(name)
print(selected)
```

Q.27 A. Write SQL commands for:

I. Display all database names.

II. Remove a database named school_db.

OR

B. Differentiate between TRUNCATE and DELETE commands with example.

Q.28 A. Define the following terms:

I. Firewall II. Bandwidth

OR

B. Expand the terms: IP and URL. Also, differentiate between modem and router.

SECTION C (3 × 3 = 9 Marks)

Q.29 A. Write a Python function to count how many lines in a text file notes.txt contain the word “Python”.

OR

B. Write a function to display all lines of data.txt that start with a digit.

Q.30 Write two functions using a stack (list):

I. push_even(L) – Push even numbers from list L into stack.

II. pop_stack() – Pop and print elements till stack becomes empty, otherwise display “Stack Empty”.

Q.31 Predict the output:

```
word = "Board25"
result = ""
for ch in word:
        if ch.isdigit():
```

```
            result += str(int(ch) + 2)
            else:
            result += ch.lower()
print(result)
```

OR

```
text = "CompSci24"
new = ""
for ch in text:
    if ch.isalpha():
        if ch.isupper():
            new += ch.lower()
        else:
            new += ch.upper()
    elif ch.isdigit():
        new += str(int(ch) - 1)
print(new)
```

SECTION D (4 × 4 = 16 Marks)

Q.32 Consider a table **ORDERS** with columns: (order_id, customer, item, quantity, price).

Write SQL queries for the following:

order_id	customer	item	quantity	price
101	Aman	Keyboard	2	800
102	Ravi	Mouse	1	400
103	Neha	Monitor	1	7000
104	Aman	Mouse	3	400
105	Kiran	Printer	1	9500
106	Ravi	Keyboard	1	800
107	Neha	Scanner	2	2500
108	Aman	Router	1	1500

I. Display total purchase value (quantity*price) for each customer.

II. Show names of customers who purchased more than 3 items.

III. Display distinct item names in ascending order.

IV. Display all records where item name ends with letter ‘r’.

OR

Predict the output of:

I SELECT customer, item, quantity*price AS Total_Amount FROM ORDERS WHERE price > 1000;

II SELECT item, AVG(price) AS Average_Price FROM ORDERS GROUP BY item HAVING AVG(price) > 1000;

III SELECT MAX(price) FROM ORDERS WHERE item='Keyboard';

IV SELECT COUNT(*), item FROM ORDERS WHERE price>500 GROUP BY item;

Q.33 A company maintains employee data in a CSV file Emp.csv with columns: EmpID, Name, Dept, Salary.

Write user-defined functions to:

I. Add a new employee record to the file.

II. Calculate and return the total salary of employees in the "HR" department.

Q.34 A college database has tables **Course(course_id, course_name, fee)** and **Student(roll, name, course_id)**.

Write SQL queries for:

I. Display all students enrolled in "BCA".

II. Display all course names having fee > 50000.

III. Delete students enrolled in "Diploma" course.

IV. Display student name along with corresponding course name using JOIN.

Q.35 In a database named **StoreDB**, a table **stock** (Code, Name, Qty, Rate) exists.

- Code: Item code(integer)
- Name : Name of product (String)
- Qty : Quantity of product (Integer)
- Rate : Cost of product (Integer)

Using Python-MySQL connectivity (username: root, password: store123, host: localhost), write a program to **update qty to 100** for code = 501.

SECTION E (2 × 5 = 10 Marks)

Q.36 A company maintains employee details in a binary file emp.dat containing records: empid, name, department, and salary.

Write functions to:

I. Append new records entered by the user.

II. Display all records where salary is greater than 50,000.

Q.37 XYZ Ltd. has offices in **Jaipur (HQ)** and a new branch in **Udaipur** with 4 departments: Admin, HR, Sales, and IT.

From	To	Distance (m)
Admin	HR	60
Admin	Sales	90
Admin	IT	120
HR	Sales	70
HR	IT	60
Sales	IT	80

Department	Computers
Admin	50
HR	30
Sales	40
IT	80

Answer the following:

I. Suggest the best location for the server with reason.

II. Suggest placement of switch and repeater.

III. Draw a suitable cable layout for the network.

IV. Suggest the most suitable transmission medium to connect Udaipur with Jaipur.

V. Name and justify which type of network (LAN/MAN/WAN) this represents.

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Roll No. _____ NLCS/12/Painting(049)/30

Pre Board Exam 2025 – 2026

Time: 2 : 00 Hrs. **M.M. : 30**

Genrel Instructions.

* Section. A → Attempt all Questions (Each part will carry 1 mark)
* Section-B → Attempt all Questions (Each part will Carry 2 marks)
* Section – C → Attempt any 2 Questions (Each will carry 6 marks)

Section-A

Q.1 Select the right answer from the given options (1×8)

(A) In which of the following school of Miniature painting , the painting of Shrinathji was made

1) Deccani 2) Nathdwara
3) Pahari 4) Mughal

(B) Which of the following area has no traces of paintings of Pahari School?

1) Guler. 2) Bikaner 3) Mandi. 4) chamba

(C) The Mughal style of miniature paintings were made in which dimensions.

1) Two-dimensional 2)Three dimensional
3) four dimensional 4) five-dimensional.

(D) In which category of the art Deccan school of miniature painting was placed

1 Iranian. 2) Indo-Iranian 3) Indo-Persian. 4) Persian

(E) Who among the following is known as father of Modern Indian Painting?

1) Abanindranath Tagore. 2) EB Havell
3) Abdul Rehman Chughtai 4) Nandalal Bose

(F) Mother Teresa was a painting developed using Modern styles. Name the painter who developed it.

1) Rabindranath Tagore 2) MF. Husain
3) Nand lal bose 4) jamini roy

(G) In the contemporary Indian graphics print _____ depicts emancipated human figures.

1) Devi 2) of walls 3) children 4) Man, woman and tree

(H) **Assertion - (A)** Indian artists were Influenced by European are through art magazines and through famous bauhau exhibition.

Reason-(R) The international trends of Cubism and Expressionism rejected academic realism and focused on abstraction art.

1). Both A and R are true and R is the Correct explanation of A
2). Both A and R are true but R is not correct explanation of A
3) A is true but R is false
4) R is false, but A is true

Section-B

(Short answer type questions)

Answer for this question is expected around 100 words

Q.2 What are Haripura posters?

OR

Which human life values and emotions are shown in Triumph of Labour (A sculpture)?

Q.3 Mention some important sub-schools of Rajasthani painting.

OR

Write some themes on which paintings of Rajasthani school are based.

Q.4 Briefly evaluate the compositional arrangement of artwork Cries Unheard a contemporary Indian sculpture.

OR

Write short note on etching and aquatint.

Q.5 In your opinion was the Mughal school of miniature painting secular? Substantiate your answer in short on the basis of Mughal miniature paintings included in your course of study.

OR

Sufi-saints of that time have also got a place in the paintings of Mughal and Deccan Schools. They are mainly shown to be absorbed in music and spiritual practices with their beloved disciples.

Identify such a painting included in your syllabus and throw light on its compositional arrangement.

Q.6 Which school of painting was a step towards creation of a nationalist school? Give reason.

OR

Define abstraction art form which became new trend among artists in 1960s and 1970s.

Section C

(Long answer type questions)

Attempt any 2 questions from the given options

Answer for this question is expected around 200 words

Q.7 Appreciate the painting of Krishna Lifting Mount Govardhan of Mughal school, duly based on its

a. Name of the painter/sub-school
b. Medium and technique
c. Subject matter
d. Composition

Q.8 Describe different schools of Rajasthani paintings and give example to support their characteristics.

Q.9 Write an essay on evolution of Indian National Flag and the symbolic significance of forms and colours used in it.

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Roll No. _____ NLCS/12/Physical Education (048)/54

Pre Board Exam 2025 – 2026

Time Allowed : 3 : 00 Hrs. **Maximum Marks : 70**

General instructions

Read the following instructions carefully and strictly follow them:

(1) The question paper consists of 5 Sections and 37 questions.
(2) Section A consists of questions 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
(3) Section B consists of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words attempt any 5.
(4) Section C consists of questions 25-30 carrying 3 marks each and is short answer types and should not exceed 100-150 words attempt any five.
(5) Section D consists of question 31-33 carrying 4 marks each and is case studies based.
(6) Section E consists of questions 34-37 carrying 5 marks each and is long answer types and should not exceed 200-300 words attempt any 3.

Section (A)

Multiple Choice Questions – All Questions are compulsory : **1×18=18**

Q.1 Identify the asanas



(a) Halasana (b) Pachimuttasana (c) Tadasana (d) Bhujangasana

Q.2 A disease associated with respiratory tracts is known as

(a) Diabetes (b) Asthma (c) Obesity (d) Hypertension

Q.3 If N=29 than how many boys will be there in knock out

(a) 5 (b) 4 (c) 3 (d) 2

Q.4 …….. is also called Round Robin

(a) Knock out (b) League (c) Step (d) League cum League

Q.5 Disorder eating includes

(a) Anorexia nervosa (b) Bulimia nervosa (c) Both (a) and (b) (d) None of them

Q.6 Lordosis is a problem of

(a) Lower back (b) Middle back (c) Upper back (d) Shoulders

Q.7 The international Paralympics committee was founded in the year

(a) 1960 (b) 1948 (c) 1900 (d) 1989

Q.8 Identify the picture shown below and choose the correct alternative



(a) Special Olympics (b) Deaflympic

(c) Paralympic flag (d) None of the above

Q.9 Match the following

Column 1	column 2
1 Create antibodies	(a) Fat
2 Protects internal organs	(b) Calcium
3 Essential for bones and teeth	(c) Iron
4 Essential for creating hemoglobin	(d) Protein

(a) (i)-C, (ii) (D), (iii)-(A), (iv)-(C) (b) (i)-(O), (ii) (A), (iii) (B), (iv) (B)

(c) (i) (B), (ii) (C), (iii) (D), (iv) (A) (d) (i) (D), (ii) (C), (iii) (A), (iv) (B)

Q.10 Read the given statement-Assertion (A) Reason (R) and choose the correct alternative from the options given below

***Assertion* (A)-:** To measure upper chest and shoulder strength we must do pushups.

Reason (R) -: This is because Elbow bend to 90 Degrees and then extend fully to develop strength

(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)

(B) Both Assertion (A) and Reason (R) are the true but Reason (R) is not the correct explanation of Assertion (A)

(C) Assertion (A) is the true but Reason (R) is false

(D) Assertion (A) is false but Reason (R) is true

Q.11 Kwashiorkor and marasmus diseases are caused due deficiency of

(a) Fat (b) Minerals (c) Proteins (d) Carbohydrates

Q.12 Rock port one mile test is conducted to measure

(a) Cardio vascular (b) Senior citizen's fitness (c) Vital Capacity (d) Muscular Strength

Q.13 Name the test to determine fitness of senior citizen

(a) Queen moray test (b) Rikil and Jones test

(c) Barrow motor ability test (d) Harvard step test

Q.14 What is the dimension of sit and reach box in Khelo India Test?

(a) 12*12 (sides), 12"*10" (Front Back), 12"*21" (top)

(b) 12"*12" (Front Back), 12"*11" (Sides), 12"*21" (top)

(c) 12"*21" (Top), 12"*11 (Front Back), 12"*10" (Sides)

(d) None of these

Q.15 The effect of exercise on Muscular System are

(a) Cardiac output (b) Hypertrophy of muscles (c) Tidal Volume (d) I.R.V

Q.16 The skin has actually cut through its full thickness with sharp edges

(a) Sprain (b) Strain (c) Contusion (d) Laceration

Q.17 Javelin an discuss throw are the examples of which Newton's Law

(a) 3rd Law (b) 2nd Law (c) 1st Law (d) None of these

Q.18 The force of friction depends upon.

(a) Nature of surface (b) Material of objects in contact

(c) Both (c) and (b) (d) None of these

Section B

Answer in 60–90 words. Attempt Any Five : 2×5=10

Q.19 What is flexibility? Example its type

Q.20 What is friction? Write its advantage

Q.21 Define staffing. How is it important

Q.22 What do you mean by oxygen intake and oxygen uptake?

Q.23 What is greenstick fracture? Elucidate its treatment

Q.24 Discuss the types of equilibrium.

Section C

Answer in 100–150 words. Attempt Any Five : 3×5=15

Q.25 What do you understand by female athlete tried to give suggestions to prevent osteoporosis?

Q.26 Enlist all the postural deformities of the spine explain any two of these deformities

Q.27 Compose the injuries caused by abrasion and incision

Q.28 Write a short note on how Paralympics started

OR

Explain in detail about Special Olympics

Q.29 Make a knock out fixture for 21 teams

Q.30 Write the functions of vitamin D and vitamin K and mention their sources

Section D

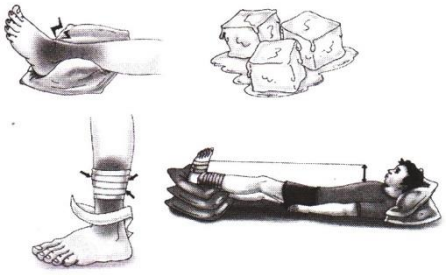
Q.31 Observe the given picture and answer the questions

(a) Which type of injury is illustrated above?

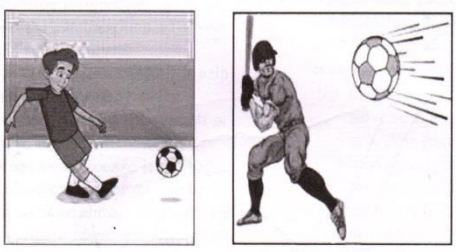
(b) Recognize the type of facture is illustrated above

(c) In which of the fracture bone Breaks diagonally

(d) What is the first aid of above fracture



Q.32 The teacher as well as coaches always make their best efforts to improve the performance of their students in various competitive games and sports they can help to improve the performance of students if they adequate knowledge of biomechanics.



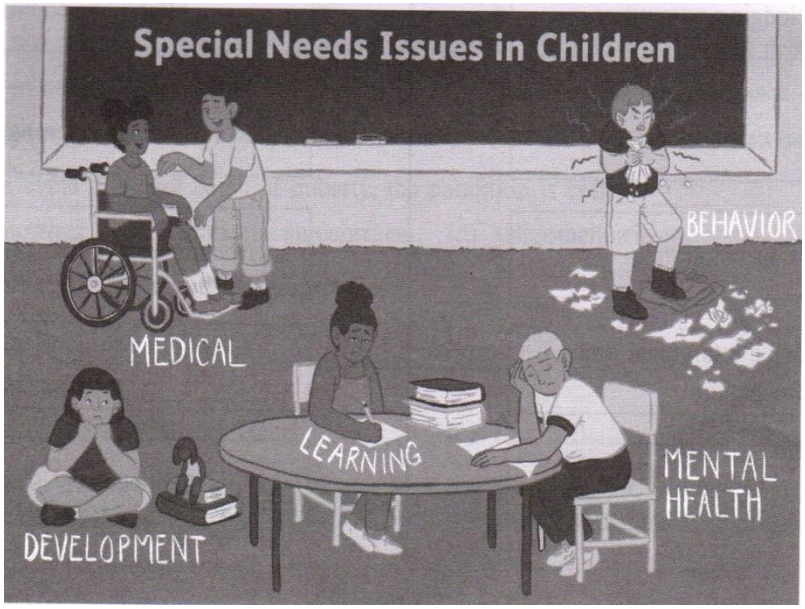
(a) The move force one exerts on the downward bounce the higher the ball bounces into the air. Which Law is this statement being referred to?

(b) Among the above given pictures, Newton's 3rd law is depicted in……

(c) Newton's second Law is also known as……..

(d) The study of human movement is called.

Q.33 School management needs to recognize the essential place of physical activity in the education of children with special needs. In order to develop lifelong habits for fitness and to provide them with many opportunities to socialization school need to understand that physical education is not a secondary subject but it is just as important as other skill.



On the basis of above given picture answer the following questions

(a) Development of gross motor and fine motor skills is benefits which are port of…….

(b) Graded activities as strategy for effective inclusive physical education program includes

(c) ……for activities should be disturbance free (noise, heat cold, texture of flour extra etc.

(d) The activities that include running, jumping, hopping, galloping, rolling, leaping, dodging, Horizontal jump slide……..

Section E

Answer in 200–300 words. Attempt Any Three : 5×3=15

Q.34 Discuss any three factors affecting projectile trajectory in detail

Q.35 Define strength and explain methods to develop strength

Q.36 Discuss the asanas helpful for suffering from hypertension. Write down the procedure and contra indication of sarala matsyasana in detail.

Q.37 Make a table of test items listed under fitness teat by SAI (Age group 9-18) Explain the procedure and scoring of 50 MTS run and partial curl up test.

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