

2411000903011001
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATION
(NCF-NEP) (THIRD SEMESTER)
MAJOR-1-DATABASE HANDLING USING PYTHON(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 APPLICATION (NCF-NEP) (THIRD SEMESTER)**
 - b. Name of the Subject : **MAJOR-1-DATABASE HANDLING USING PYTHON(TH)**
 - c. Subject Code No : **2411000903011001**
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 5)

5

1. Which SQL command is used to permanently save changes made during a transaction?
A) ROLLBACK B) SAVEPOINT
C) COMMIT D) DISCARD

2. Which option below will create a file containing only the table structures (no data) of the entire SQLite database?
A) .schema B) .dump --schema
C) .dump|grep "CREATE" D) .backup --schema

3. Which of the following is true about packages in Python?
A) Packages are directories containing modules.
B) Packages must contain a special file named `__init__.py`.
C) Packages help organize modules into hierarchical structures.
D) All of the above.

4. Which of the following best describes a namespace in Python?
- A) A memory area to store variable names.
 - B) A module containing variables and functions.
 - C) A space where variables and functions have unique names.
 - D) A directory for storing Python scripts.
5. Which class in the csv module is used to read data into dictionaries where the keys are the column names?
- A) DictReader
 - B) DictWriter
 - C) reader
 - D) writer
6. Which of the following type can have 2-dimensional data?
- A) Numpy array
 - B) List
 - C) Data Frame
 - D) All of the above
7. With respect to Series object S what will be the output of S [0:4]?
- A) Elements from 0 to 3 will be selected
 - B) Elements from 1 to 4 will be selected
 - C) Elements from 0 to 4 will be selected
 - D) Elements from 1 to 3 will be selected

Q.2 [A] Explain Trigger and types of trigger with example **4**

OR

[A] Explain features and advantages of Sqlite **4**

[B] Explain how to import a CSV file into a table. **4**

OR

[B] How can you dump a specific table from a SQLite database into a file? **4**

Q.3 [A] How can you update existing data in a SQLite table using the execute() method? **4**

OR

[A] Explain fetchone (), fetchall () and fetchmany () methods with example. **4**

[B] How can you calculate the mean, median, and mode of a Data Frame Column using Pandas? **4**

OR

[B]How can you write data to a CSV file using DictWriter ()? **4**

Q.4 [A] Explain how to add a title and labels to the axes in a histogram using matplotlib. **4**

OR

[A] Describe how to create multiple plots in a single figure using subplot (). **4**

2411000903022001
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATION (NCF-NEP)
(THIRD SEMESTER)
MAJOR-2-OBJECT ORIENTED PROGRAMMING AND DATA
STRUCTURES(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 APPLICATION (NCF-NEP) (THIRD SEMESTER)**
 - b. Name of the Subject : **MAJOR-2-OBJECT ORIENTED PROGRAMMING AND DATA STRUCTURES(TH)**
 - c. Subject Code No : **2411000903022001**
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. Mention your options clearly.

Seat No:

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Student's Signature

Q.1 Choose the correct answer from given option (Any 5)

5

1. Which feature of OOP indicates code reusability?
 - a) Abstraction b) Polymorphism
 - c) Encapsulation d) Inheritance

2. Which among the following doesn't come under OOP concept?
 - a) Data hiding
 - b) Message passing
 - c) Platform independent
 - d) Data binding

3. Which of these allows compile-time polymorphism?
 - a) Method overloading b) Method overriding
 - c) Both d) None of the above

Q.3 (A) Answer the Question in Detail (Any 1) 4

1. What is polymorphism? Explain compile time polymorphism?
2. What is virtual function? When it is use explain with example.

(B) Answer the Question in Detail (Any 1) 4

1. What is data structure? Explain different types of data structure in detail.
2. What is Stack? List different application of Stack. Explain Recursion with example.

Q.4 Answer the Question in Detail (Any 1) 4

1. What is Queue? List out its types. Explain insertion operation on Simple Queue.
2. What is the advantage of Circular queue over simple queue? Explain deletion operation performed on circular queue.

2411000903033001
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATION (NCF-NEP)
(THIRD SEMESTER)
MAJOR-3-WEB DESIGNING - I(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 APPLICATION (NCF-NEP) (THIRD SEMESTER)**
- b. Name of the Subject : **MAJOR-3-WEB DESIGNING - I(TH)**
- c. Subject Code No : **2411000903033001**

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. Illustrate your answer with necessary example if required.

Seat No:

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Student's Signature

Q.1 Answer the following

5

- 1) What is full form of CSS?
A) Cascading style sheet B) Cascade style sheets
C) Compare style sheet D) None of above

- 2) Which class is use to make table responsive in bootstrap.
A) Table-responsive B) Table-dark
C) Table-light D) Table-primary

- 3) What is output of this code: `var str="I learn wd";`
`document.write("output"+charAt(2))`
A) l B) Learn
C) wd D) e

4) What is full form of DOM?

- A) Document Objects Model
- B) Document Object Model
- C) Document Oriented Model
- D) Document Object Maker

5) What is output of `var str="bca college"; alert(str.indexOf(5))`

- A) c
- B) a
- C) o
- D) None of above

Q.2 Give Descriptive Answer:

[A] What is CSS? Explain it's types with examples. 4

OR

[A] Explain Audio and video tag with examples. 4

Give Descriptive Answer:

[B] Explain Form related bootstrap classes with example. 4

OR

[B] Explain grid structure of bootstrap. 4

Q.3 Give Descriptive Answer:

[A] Explain string functions of JavaScript with example. 4

OR

[A] What is client side scripting and give structure of JavaScript. 4

[B] Explain Date object with methods. 4

OR

[B] Explain DOM with example. 4

Q.4 Give Descriptive Answer:

[A] Explain Message Box (Any 2) in JavaScript. **4**

OR

[A] Write A JavaScript code for email validation. **4**

(note. Email id must contain @ and dot (.) and first character is not @ and dot (.) and first @ comes than dot (..))

*****END*****

2411000903033003
EXAMINATION MARCH 2025
BACHELOR OF COMPUTER APPLICATION (NCF-NEP)
(THIRD SEMESTER)
MAJOR-3-MOBILE APPLICATION DEVELOPMENT - I
(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 APPLICATION (NCF-NEP) (THIRD SEMESTER)**
- b. Name of the Subject : **MAJOR-3-MOBILE APPLICATION DEVELOPMENT - I (TH)**
- c. Subject Code No : **2411000903033003**

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. Mention your options clearly.

Seat No:

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Student's Signature

Q.1 MCQ (Any five)

5

1. In Android architecture, what does the Linux Kernel layer manage?
 - (a) User interface components
 - (b) Application development tools
 - (c) System resources like memory and process management
 - (d) Application frameworks and libraries

2. What is the role of the R.java file in an Android project?
 - (a) To define the application's runtime environment
 - (b) To manage network connectivity and services
 - (c) To provide resource IDs for accessing application resources programmatically
 - (d) To handle application lifecycle events

3. Which of the following is a valid XML declaration?
 - (a) `<?xml version="1.0" encoding="UTF-8"?>`
 - (b) `<xml version="1.0" encoding="UTF-8">`
 - (c) `<?xml version="1.1"?>`
 - (d) `<xml version="1.0"/>`

4. Which attributes are used to define the text displayed when a `ToggleButton` is in the "off" and "on" states?
 - (a) `textOff` and `textOn`
 - (b) `labelOff` and `labelOn`
 - (c) `offText` and `onText`
 - (d) `inactiveText` and `activeText`

5. Which method should you use to retrieve the currently selected item from a `Spinner`?
 - (a) `getSelectedItem()`
 - (b) `getItemAtPosition(position)`
 - (c) `getSelectedItemPosition()`
 - (d) `getCurrentItem()`

6. How to keep a comment in an XML file?
 - (a) `<!-- Comment -->`
 - (b) `// Comment`
 - (c) `# Comment`
 - (d) `/* Comment */`

7. What is the default value of `layout_width` and `layout_height` if not explicitly specified in a view's XML?
 - (a) `match_parent`
 - (b) `wrap_content`
 - (c) `0dp`
 - (d) `fill_parent`

Q.2 A) What are the main layers of the Android architecture and what role does each layer play in the overall software stack? **4**

OR

A) What is the Dalvik Virtual Machine (DVM) and how does it function within the Android operating system?

B) Explain the lifecycle of an Activity in Android? **4**

OR

B) What is the role and purpose of the AndroidManifest.xml file in an Android application?

Q.3 A) What are the key characteristics of XML? **4**

OR

A) Explain the structure of an XML document and the key components involved.

B) Discuss Button onClick event with suitable example. **4**

OR

B) How do you use the setChecked() method with a ToggleButton in Android?

Q.4 A) What is the purpose of a Spinner in Android, and how is it typically used? **4**

OR

A) Explain CheckBox with appropriate example.

2. Explain difference between Sample and Population in statistics? **5**

OR

A) 1. What is Mean in statistics? Explain the types of Mean in detail. **5**

2. What are histograms, and how are they used to represent data? **5**

B) 1. What are variables in statistics? Explain categorical and numerical variables with examples. **3**

2. Explain Binomial Distribution. **3**

OR

B) 1. From the following data find the value of median: **3**

Income (Rs)	1000	1500	800	2000	2500	1800
No of Person	24	26	16	20	6	30

2. Explain Bell Curve. **3**

Q.3 A) 1. How to import a data into dataframe from CSV and Excel file format in R language. **5**

2. What is subsetting? Explain various methods for it. **5**

OR

A) 1. How to read and view a data frame in R. **5**

2. How to identify and handle the missing value in R? **5**

B) 1. Explain various data type and how to assign a variable in R. **3**

2. How to add, remove and rename variable and attribute in R? **3**

OR

B) 1. How to import a data from CSV file? **3**

2. Explain filtering in R with proper example. **3**

Q.4 A) Explain different types of join using two data frames in R? **5**

OR

A) Explain the process of creating one-way and two-way frequency tables in R using the table() function. **5**

B) How do you calculate the transpose of a matrix in R? **3**

OR

B) Explain use of reshape() function in R. **3**

2411000903070001
EXAMINATION MAR-APR - 2025
BACHELOR OF COMPUTER APPLICATIONS (NCP-NEP)
(THIRD SEMESTER)
VAC-BHARATIYA GYAN PARAMPARA

[Time: As Per Schedule]

[Max. Marks: 25]

Instructions:

1. नीचे दशविव विगतो उत्तरवडी पर अवश्य लभवी.

Fill up strictly the following details on your answer book

- a. Name of the examination : **B.C.A. (NCP-NEP) (SEM. III)**
b. Name of the Subject : **VAC-BHARATIYA GYAN
PARAMPARA**
c. Subject Code No : **2411000903070001**
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)

1. What does the principle of Saptanga include?

(A) Ruler, Ministers, Territory and People, Fort, Treasury, Army, and Allies

(B) Ruler, Fort, Treasury, Trade, Diplomacy, Army, and Citizens

(C) Ruler, Ministers, Territory, Economy, Religion, Culture, and Allies

(D) Ministers, Territory, Treasury, Education, Trade, Army, and Diplomacy

2. What name is used in Indian tradition to refer to the concept of the Lord of Infinite Universes?
- (A) Anant Koti Brahmandanayaka (B) Vishvarupa
(C) Mahavishnu (D) Brahma
3. What does Parashara Rishi predict when the Moon rules a year?
- (A) Less rainfall and hardships
(B) Rain, plant growth, and good health
(C) Calamities everywhere
(D) Drought conditions
4. How many plays of Bhasa were found in the monastery in Travancore state?
- (A) 5 (B) 10
(C) 13 (D) 20
5. Which Indian deity is associated with music and the veena?
- (A) Lakshmi (B) Durga
(C) Saraswati (D) Parvati
6. Which texts in Indian literature are considered as the most ancient and are called Shruti texts?
- (A) Puranas (B) Vedas
(C) Upanishads (D) Epics
7. Who is credited with composing the Puranas?
- (A) Yaska Acharya (B) Maharishi Vyasa
(C) Maharishi Gautama (D) Rishi Jaimini

Q.2. Write Following Answers (15)

Q.2. (a) Short Notes (Any 1 out of 2) (05)

1. Explain Charakrishi's classification of animals.
2. Gravity

Q.2. (b) Short Notes (Any 1 out of 2) (05)

1. Ancient Indian Dance
2. Briefly discuss the six Vedangas of India.

Q.2. (c) Short Notes (Any 1 out of 2) (05)

1. Zoology in Indian Tradition
2. Speed of light

પ્ર.૧. 7 – MCQ (દરેકનો ૨ માર્ક્સ) (૭ માંથી કોઈ પણ ૫) (10)

1. સપ્તંગના સિક્કાંતમાં શું શામેલ છે?
 - (A) શાસક, પ્રધાનો, પ્રદેશ અને લોકો, કિલ્લો, ટ્રેઝરી, આર્મી અને સાથી
 - (B) શાસક, કિલ્લો, તિજોરી, વેપાર, મુત્સદીગીરી, લશ્કર અને નાગરિકો
 - (C) શાસક, પ્રધાનો, પ્રદેશ, અર્થતંત્ર, ધર્મ, સંસ્કૃતિ અને સાથી
 - (D) મંત્રીઓ, પ્રદેશ, ટ્રેઝરી, શિક્ષણ, વેપાર, આર્મી અને મુત્સદીગીરી

2. અનંત બ્રહ્માંડના ભગવાનની વિભાવના સંદર્ભે ભારતીય પરંપરામાં કયા નામનો ઉપયોગ થાય છે?

(A) અનંત કોટી બ્રહ્માંડનાયક	(B) વિશ્વરૂપા
(C) મહાવિષ્ણુ	(D) બ્રહ્મા

3. જ્યારે ચંદ્ર વર્ષમાં શાસન કરે છે ત્યારે પરાશર ઋષિ શું આગાહી કરે છે?
 - (A) ઓછો વરસાદ અને મુશ્કેલીઓ
 - (B) વરસાદ, છોડની વૃદ્ધિ અને સારું સ્વાસ્થ્ય
 - (C) સર્વત્ર આફતો
 - (D) દુષ્કાળની સ્થિતિ

4. ત્રાવણકોર રાજ્યના મઠમાં ભાસના કેટલા નાટકો જોવા મળ્યા?
 (A) 5 (B) 10
 (C) 13 (D) 20
5. સંગીત અને વીણા સાથે કયા ભારતીય દેવી સંકળાયેલા છે?
 (A) લક્ષ્મી (B) દુર્ગા
 (C) સરસ્વતી (D) પાર્વતી
6. ભારતીય સાહિત્યમાં કયા ગ્રંથોને સૌથી પ્રાચીન ગણવામાં આવે છે અને તેને શ્રુતિ ગ્રંથો કહેવામાં આવે છે?
 (A) પુરાણ (B) વેદ
 (C) ઉપનિષદ (D) મહાકાવ્યો
7. પુરાણોની રચનાનો શ્રેય કોને આપવામાં આવે છે?
 (A) યસ્કાચાર્ય (B) મહર્ષિ વ્યાસ
 (C) મહર્ષિ ગૌતમ (D) ઋષિ જૈમિની

પ્ર.ર. નીચેના જવાબો લખો (15)

પ્ર.ર. (અ) ટૂંકનોંધ લખો (૨ માંથી કોઈ પણ ૧) (05)

1. ચરકઋષિનું પ્રાણીઓનું વર્ગીકરણ સમજાવો.
2. ગુરુત્વાકર્ષણ

પ્ર.ર. (બ) ટૂંકનોંધ લખો (૨ માંથી કોઈ પણ ૧) (05)

1. પ્રાચીન ભારતીય નૃત્યકળા
2. ભારતના છ વેદાંગની સંક્ષિપ્તમાં ચર્ચા કરો.

પ્ર.ર. (ક) ટૂંકનોંધ લખો (૨ માંથી કોઈ પણ ૧) (05)

1. ભારતીય પરંપરામાં પ્રાણીવિજ્ઞાન
2. પ્રકાશની ગતિ

***** END *****