**Seat No.**

**B.Sc. (E.C.S.) (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025**
**Office Automation (G06-GE-OE-101)**

Day & Date: Thursday, 06-11-2025                           Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
                       2) Figures to the right indicate full marks.

**Q.1   Multiple Choice Question.**                                                          **06**
   **1)**   _____ is Shortcut Key of Copy?
      a)  ctr+v                              b)  ctr+c
      c)  ctr+a                              d)  ctr+x

   **2)**   WWW Means _____.
      a)  World Wide WAN               b)  World Wide Web
      c)  World WAN Web                d)  World WAN WAN

   **3)**   The Key F12 Open a ____?
      a)  Save as dialog box           b)  Open as Dialog Box
      c)  Save Dialog Box               d)  Close dialog Box

   **4)**   What is the default file extension for all Word documents?
      a)  .txt                               b)  .doc
      c)  .xlml                             d)  .ppt

   **5)**   Which of the following is not a font style?
      a)  Bold                              b)  Italics
      c)  Regular                          d)  Superscript

   **6)**   _____ is Shortcut Key of Bold?
      a)  ctr+C                             b)  ctr+X
      c)  ctr+A                             d)  ctr+B

**Q.2   Answer the following question: (Any Four)**                              **06**
   **a)**   What is Software?
   **b)**   What is Computer?
   **c)**   List out Desktop Icons?
   **d)**   What is Ms-Word?
   **e)**   How can you add a new Excel worksheet?

**Q.3   Answer the following question: (Any Two)**                              **06**
   **a)**   Explain Hardware & Software?
   **b)**   Explain Mail Merge?
   **c)**   What is pivot table?

**Q.4  Answer the following question: (Any Two)**                    **06**
    **a)**  Explain any Four Short-Cut keys in MS-Word?
    **b)**  Explain Application Of Computer?
    **c)**  Explain Adding Graphics to the Presentation?

**Q.5  Answer the following question: (Any One)**                    **06**
    **a)**  Explain Block diagram of computer.
    **b)**  What is Ms-Excel? Explain Formatting Spreadsheets.

| Seat No. | |
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**B.Sc. (E.C.S.) (Semester - I) (New) (NEP CBCS) Examination: October/November – 2025**
**English/ English for communication (ENG-101)**

Day & Date: Friday, 07-11-2025        Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
             2) Figures to the right indicate full marks.

**Q.1 Choose the correct answers and rewrite the following.**     **06**
    **1)** \_\_\_\_\_ is the characteristic of effective communication.
       a) Clarity             b) Complexity
       c) Ambiguity         d) noise

    **2)** Non-verbal communication often happens \_\_\_\_\_.
       a) Carefully         b) purposely
       c) Intentionally      d) unintentionally

    **3)** The process of converting the message into a form that can be transmitted is called \_\_\_\_\_.
       a) Encoding        b) Decoding
       c) Feedback        d) Receiving

    **4)** \_\_\_\_\_ interviews are conducted at the end of the training programme.
       a) Structured       b) summative
       c) non-structured    d) non-summative

    **5)** \_\_\_\_\_ is important in a group discussion.
       a) Emotional stability    b) Hostility
       c) Ignorance        d) Aggressiveness

    **6)** In a group discussion, we must communicate with \_\_\_\_\_.
       a) Hostility         b) ignorance
       c) knowledge       d) complexity

**Q.2 Answer the questions in brief. (Any Two)**     **06**
    **a)** Comment on the 'Do's of an interview.
    **b)** What does mean by non-verbal communication?
    **c)** Define the concept of communication.
    **d)** What does mean by group discussion?

**Q.3 Write short answers to the questions. (Any one)** 06
   **a)** Discuss the significance of the communication.
   **b)** Comment on the 7Cs of communication

**Q.4 Answer the question. (Any one)** 12
   **a)** Write a script of an interview for the post of receptionist in the office.
                                    **OR**
   **b)** Write a script of a group discussion on Today's Education System.

Seat No.

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## B.Sc. (E.C.S.) (सत्र - I) (नवीन) (NEP CBCS) परीक्षाः
## ऑक्टोबर / नोव्हेंबर – २०२५
## Constitution of India/ Indian Constitution and Democracy (ICD-101)

वार, दिनांकः शनिवार, ०८-११-२०२५ कमाल गुणः ३०
वेळः दुपारी १२:०० ते १:३०

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.
२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** रिकाम्या जागा भरा. ०६

१) भारतीय राज्यघटना कधी लागू झाली?
अ) 15 ऑगस्ट 1947 ब) 26 जानेवारी 1950
क) 26 नोव्हेंबर 1949 ड) 2 ऑक्टोबर 1950

२) 'धर्मनिरपेक्ष' हा शब्द प्रस्तावनेत कोणत्या दुरूस्तीने समाविष्ट केला गेला?
अ) 42 वी ब) 44 वी
क) 52 वी ड) 73 वी

३) भारतीय राज्यघटनेने किती मूलभूत अधिकार हमी दिले आहेत?
अ) 5 ब) 6
क) 7 ड) 8

४) भारताची निवडणूक आयोग ही कोणत्या प्रकारची संस्था आहे?
अ) वैधानिक संस्था ब) खाजगी संस्था
क) घटनात्मक संस्था ड) सरकारी विभाग

५) सुशासनाचा भर कोणत्या गोष्टीवर असतो?
अ) कायद्याचे राज्य ब) पारदर्शकता
क) जबाबदारी ड) वरील सर्व

६) भारतात मतदानाबाबत जागरूकता कोणत्या मोहिमेद्वारे वाढवली जाते?
अ) बेटी बचाओ ब) मतदार ओळखपत्र मोहीम
क) SVEEP ड) नीति आयोग

**प्र.२** खालील प्रश्नांची उत्तरे लिहा. (कोणतेही तीन)    ०६
   १) भारतीय राज्यघटनेची कोणतीही दोन वैशिष्ट्ये लिहा.
   २) भारतीय नागरिकांचे कोणतेही दोन मूलभूत कर्तव्ये लिहा.
   ३) लोकशाहीची संक्षिप्त व्याख्या द्या.
   ४) भारताच्या निवडणूक आयोगाचे कोणतेही दोन अधिकार लिहा.
   ५) SVEEP कार्यक्रमाचे उद्दिष्ट काय आहे?

**प्र.३** खालील प्रश्नांची उत्तरे लिहा. (कोणतेही दोन)    ०६
   १) प्रस्तावनेचे महत्त्व स्पष्ट करा.
   २) लोकशाहीचे प्रकार वर्णन करा.
   ३) भारताच्या निवडणूक आयोगाची रचना सांगा.

**प्र.४** खालील प्रश्नांची उत्तरे लिहा. (कोणतेही दोन)    ०६
   १) सुशासनाची वैशिष्टये स्पष्ट करा.
   २) मूलभूत अधिकारांवर लघुनिबंध लिहा.
   ३) निवडणूक आयोगाच्या कार्यांचे वर्णन करा.

**प्र.५** खालील उत्तर द्या. (कोणताही एक)    ०६
   १) भारतीय नागरिकांच्या मूलभूत कर्तव्यांवर सविस्तर चर्चा करा.
   २) भारतातील लोकशाहीची वैशिष्ट्ये व महत्त्व स्पष्ट करा.

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## B.Sc. (E.C.S.) (Semester - I) (New) (NEP CBCS) Examination: October/November – 2025
## Constitution of India/ Indian Constitution and Democracy (ICD-101)

Day & Date: Saturday, 08-11-2025      Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
            2) Figures to the right indicate full marks.

**Q.1 Choose the correct alternative:**      **06**
  **1)** The Constitution of India came into force on: _____.
      a) 15th August 1947      b) 26th January 1950
      c) 26th November 1949      d) 2nd October 1950

  **2)** The term 'Secular' was added to the Preamble by which amendment?
      a) 42$^{nd}$      b) 44$^{th}$
      c) 52$^{nd}$      d) 73$^{rd}$

  **3)** How many fundamental rights are guaranteed by the Indian Constitution?
      a) 5      b) 6
      c) 7      d) 8

  **4)** The Election Commission of India is a/an: _____.
      a) Statutory body      b) Private body
      c) Constitutional body      d) Government department

  **5)** Good Governance emphasizes: _____.
      a) Rule of law      b) Transparency
      c) Accountability      d) All of these

  **6)** Voting awareness in India is promoted through which campaign?
      a) Beti Bachao      b) Voter ID Drive
      c) SVEEP      d) NITI Aayog

**Q.2 Answer the Following (Any Three)**      **06**
  **a)** State any two features of the Indian Constitution.
  **b)** Mention two fundamental duties of an Indian citizen.
  **c)** Define democracy in brief.
  **d)** Write any two powers of the Election Commission of India.
  **e)** What is the objective of the SVEEP program?

**Q.3  Answer the following. (Any Two)                                    06**
    **a)**  Explain the importance of the Preamble.
    **b)**  Describe the types of democracy.
    **c)**  State the structure of the Election Commission of India.

**Q.4  Answer the following. (Any Two)                                    06**
    **a)**  Explain the features of good governance.
    **b)**  Write a short note on fundamental rights.
    **c)**  Describe the functions of the Election Commission.

**Q.5  Answer the following. (Any One)                                    06**
    **a)**  Discuss in detail the fundamental duties of Indian citizens.
    **b)**  Explain the features and importance of democracy in India.

**Seat No.**

**Set** **P**

## B.Sc. (E.C.S.) (Semester - I) (New) (NEP CBCS) Examination: October/November – 2025
## Indian Knowledge System/ General IKS (G06-IKS-101)

Day & Date: Monday, 10-11-2025　　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the correct alternative:　　　　　　　　　　　　06**

**1)** Chanakya was an alumni of _____ university
　　a)　Takshshila　　　　　　b)　Vikramsinha
　　c)　Nalanda　　　　　　　d)　Vallabhi

**2)** Which philosophy emphasized non-violence (ahimsa) and self discipline for liberation?
　　a)　Jainism　　　　　　　b)　Buddhism
　　c)　Yoga　　　　　　　　d)　Nyaya

**3)** What was the significant contribution of the Bodhayana Sutra in ancient Indian mathematics?
　　a)　Development of geometry　b)　Calculation of square roots
　　c)　The concept of zero　　　d)　Introduction of calculus

**4)** Which traditional Indian medical system emphasizes the balance of bodily elements doshas?
　　a)　Unani　　　　　　　　b)　Ayurveda
　　c)　Homeopathy　　　　　d)　Naturopathy

**5)** What is one of the primary practices of sustainability in traditional Indian agriculture?
　　a)　Monocropping　　　　　b)　Crop rotation
　　c)　Use of chemical pesticides　d)　Large-scale mechanization

**6)** What was the role of sacred groves in ancient India?
　　a)　To serve as places of worship and environmental conservation
　　b)　To serve as agricultural fields
　　c)　To serve as military based
　　d)　To serve as market places

**Q.2　Answer the Following (Any Three)　　　　　　　　　　　06**
　　a)　What were the main subjects taught as Takṣaśsilā?
　　b)　Give any two Indian traditions in IKS?
　　c)　What is the first source of Indian knowledge tradition?

**d)** Which metal alloy was developed in India, known for its exceptional quality?

**e)** Where did Indus civilization originate?

**Q.3 Answer the following. (Any Two)** 06

**a)** Explain the innovations in ancient India in chemistry?

**b)** Discuss the significance of the concept of zero in Indian mathematics.

**c)** Describe the traditional Indian approach to water conservation and management

**Q.4 Answer the following. (Any Two)** 06

**a)** How does Ayurveda integrate the concept of balance in health with environmental sustainability

**b)** Discuss the role of ancient Indian practices in sustainable agriculture

**c)** Explain the role of guru-shishya tradition in the Indian Knowledge System

**Q.5 Answer the following. (Any One)** 06

**a)** Explain characteristic of Indian philosophical and IKS.

**b)** Explain the concept of Sattvic food in Ayurveda and its importance for health.

| Seat No. | |
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## B.Sc. (E.C.S.) (Semester - I) (NEP CBCS) Examination: October/November - 2025
## OOP'S with C++ - I (G06-0101)

Day & Date: Tuesday, 11-11-2025　　　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the Correct Alternative. (MCQ)　　　　　　　　　06**
**1)** When a function is defined inside a class, this function is called ____.
　　a)　Inside function　　　　　　b)　Class function
　　c)　Inline function　　　　　　d)　Interior function

**2)** The major goal of inheritance in C++ is _____.
　　a)　To facilitate the conversion of data types
　　b)　To help modular programming
　　c)　To facilitate the reusability of code
　　d)　To extend the capabilities of a class

**3)** The _____ Operator is known as an insertion operator.
　　a)　<<　　　　　　　　　　b)　>
　　c)　>>　　　　　　　　　　d)　<

**4)** A constructor that accepts no parameters is called the _____.
　　a)　Parameter less constructor　　b)　No parameter constructor
　　c)　Default constructor　　　　　d)　Argument less constructor

**5)** State whether the following statements are true about object-oriented programming in C++.
　　i)　Data is hidden and cannot be accessed by external functions.
　　ii)　Follows the top-bottom approach in program design.
　　iii)　Objects may communicate with each other through functions.
　　a)　True, True, False　　　　　b)　False, True, False
　　c)　True, False, True　　　　　d)　False, True, True

**6)** Which of the following keywords are used to control access to a class member?
　　a)　default　　　　　　　　b)　protected
　　c)　break　　　　　　　　　d)　goto

**Q.2 Answer the following questions. (Any Three)** 06
   **a)** What are the different access specifiers used in C++?
   **b)** State the rules for operator overloading.
   **c)** Draw a structure of C++ program.
   **d)** Define class and object.
   **e)** What are the advantages of OOP over POP?

**Q.3 Answer the following questions. (Any Two)** 06
   **a)** Explain type casting with example.
   **b)** How we can pass object to a function as a parameter? Give one example.
   **c)** Write a C++ program to check a number is prime or not.

**Q.4 Answer the following questions. (Any Two)** 06
   **a)** Explain use of friend function with the help of suitable example.
   **b)** Explain copy constructor with one example.
   **c)** Write a C++ program that displays odd numbers between 1 to 10.

**Q.5 Answer the following question. (Any One)** 06
   **a)** What is an array of object? Write a program to illustrate the use of array of object.
   **b)** What do you mean by constructor? Write the characteristics of constructors. Write a program to illustrate the use of constructor in C++.

| Seat No. | | Set | P |
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### B.Sc. (E.C.S.) (Semester - I) (New) (NEP CBCS) Examination: October/November – 2025
### Python Programming - I (G06-0102)

Day & Date: Wednesday, 12-11-2025　　　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the Correct Alternative. (MCQ)　　　　　　　　　　06**

**1)** What will be the output of the following Python program?
```
z=set('abc')
z.add('san')
z.update(set(['p', 'q']))
print(z)
```
a) {'a', 'c', 'c', 'p', 'q', 's', 'a', 'n'}
b) {'abc', 'p', 'q', 'san'}
c) {'a', b, 'c', 'p', 'q', 'san'}
d) {'a', 'b', 'c', ['p', 'q'], 'san}

**2)** What arithmetic operators cannot be used with strings in Python?
a) *　　　　　　　　　　　　b) -
c) +　　　　　　　　　　　　d) All of the above

**3)** Which of the following is the use of id() function in python?
a) Every object in Python doesn't have a unique id
b) In Python Id function returns the identity of the object
c) None of the mentioned
d) All of the mentioned

**4)** What is an array in Python?
a) A collection of elements of different data types
b) A collection of elements of the same data type
c) A key-value pair collection
d) A collection of functions

**5)** What is the purpose of the return statement in a function?
a) To stop the execution of the function
b) To print a value to the console
c) To return a value to the caller
d) To define a recursive function

**6)** Which of these in not a core data type?
   a) Dictionary          b) List
   c) Tuple               d) Class

**Q.2** **Answer the following questions. (Any three)**          **06**
   **a)** What is python?
   **b)** What is array?
   **c)** Write the difference between list and tuple.
   **d)** What is anonymous function?

**Q.3** **Answer the following questions. (Any two)**          **06**
   **a)** What is literal? Explain types of literals.
   **b)** What is looping? Explain looping statements in python.
   **c)** What is list? Explain list methods with example.

**Q.4** **Answer the following questions. (Any two)**          **06**
   **a)** What is function? Explain lambda function with example.
   **b)** Write a python program to find out given number perfect or not.
   **c)** What is conversion? Explain types of conversion.

**Q.5** **Answer the following question. (Any one)**          **06**
   **a)** What is string? Explain string methods with example.
   **b)** What is argument? Explain types of arguments.

**Seat No.**

## B.Sc. (E.C.S.) (Semester - I) (New) (NEP CBCS) Examination: October/November – 2025
## Digital Electronics and Microprocessors (G06-0103)

Day & Date: Thursday, 13-11-2025        Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
               2) Draw neat diagrams and give equations wherever necessary.
               3) Figures to the right indicate full marks.
               4) Use of logarithmic table and calculator is allowed.
                     (At. Wts.: H=1, C=12, O=16, N=14, Na=23, Cl=35.5)

**Q.1 Multiple Choice Questions:**        **06**

     1) _____ basic gates.
         a) nand                  b) nor
         c) not                    d) all

     2) Capacity of flip flop to store _____ bit.
         a) 1                     b) 2
         c) 3                     d) 4

     3) HA consist _____ i/p and _____ o/p.
         a) 2,2                b) 3,2
         c) 3,3                d) 1,1

     4) Shift register consist of _____.
         a) all                   b) sr ffs
         c) jk ffs               d) d ffs

     5) Data bus of 8085 is _____ bit.
         a) All                  b) 14
         c) 8                     d) 16

     6) _____ Data transfer instruction.
         a) push              b) add
         c) inc                 d) none

**Q.2 Answer the following questions. (Any three)**        **06**
     **a)** Define Full Adder.
     **b)** Define Encoder.
     **c)** Define Asynchronous Counter.
     **d)** Define Shift Register.
     **e)** Define Addressing mode.

**Q.3**  **Write Shorts Notes. (Any two)**                                              **06**
    **a)**  Application of logic gates.
    **b)**  Application of mux.
    **c)**  Master-slave FF's.

**Q.4**  **Answer the following questions. (Any two)**                      **06**
    **a)**  Explain SISO shift register.
    **b)**  Write feature of 8085.
    **c)**  explain4:1 MUX.

**Q.5**  **Answer the following question. (Any one)**                      **06**
    **a)**  Draw symbol of and truth table of NAND, NOR logic gate.
    **b)**  Define and explain addressing mode with one example of 8085.

**B.Sc. (E.C.S.) (Semester - I) (NEP CBCS) Examination:**
**October/November – 2025**
**Numerical Methods (G06-0104)**

Day & Date: Thursday, 13-11-2025                                  Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
                      2) Figures to the right indicate full marks.

**Q.1   Choose the Correct Alternative. (MCQ)                                  06**

   **1)**  While doing the Division of two numbers in normalized floating point
         the exponent's should be _____.
         a)  added                          b)   Subtracted
         c)  Divided                         d)   Multiplied

   **2)**  If the data is equally spaced and interpolation is near the end of the
         data then _____ interpolation formula is used.
         a)  Newton's Forward Difference
         b)  Newton's Backward Difference
         c)  Newton's Divided Difference
         d)  Lagrange's

   **3)**  The equation $x + 2y = 6$ is _____ equation.
         a)  linear                          b)   Tangent
         c)  transcendental                  d)   none of these

   **4)**  A matrix having only one column is called as _____.
         a)  Row matrix                      b)   Column matrix
         c)  Scalar matrix                   d)   None of these

   **5)**  If F(a)>0, F(b)<0 then root lies between interval _____.
         a)  [0,1]                           b)   [a, b]
         c)  [-1, -2]                        d)   None of these

   **6)**  $\Delta K =$ _____ K is constant.
         a)  K                               b)   0
         c)  1                               d)   -1

**Q.2 Answer the following questions. (Any three)** 06

**a)** Prepare the forward difference table for following data:

| x | 2 | 4 | 6 | 8 | 10 |
|------|----|----|----|----|----|
| f(x) | 15 | 19 | 37 | 57 | 70 |

**b)** Find the interval in which root lies between of the equation $x^5 + 5x + 1 = 0$.

**c)** Define scalar matrix with example.

**d)** Define Linear Equation with one example.

**e)** Evaluate: $0.5247 \, E_6 \, x \, 0.6930 \, E_{-10}$

**Q.3 Answer the following questions. (Any two)** 06

**a)** Find the root of equation $x^3 - 4x + 1 = 0$ by using bisection method, performing only three interactions.

**b)** Evaluate:
a)   $1.4586E_{15} + 7.3254E_{15}$
b)   $1.215E_{-4} \div 4.5263E_{-4}$

**c)** Define matrix with suitable example.

**Q.4 Answer the following questions. (Any two)** 06

**a)** Define absolute error, relative error & percentage error.

**b)** If $f(1) = 5, f(2) = 11, f(5) = 29$, Then find $f(4)$ by Lagrange's interpolation formula.

**c)** Find the root of equation $x^3 - 2x - 5 = 0$ by using Regula Falsi method, performing only two interactions.

**Q.5 Answer the following question. (Any one)** 06

**a)** Estimate $f(12)$ by Newton's Backward difference interpolation formula using following data

| $x$: | 10 | 15 | 20 | 25 |
|------|----|----|----|----|
| $f(x)$: | 14 | 18 | 28 | 42 |

**b)** Solve following system by Jacobi's Iterative method perform only two interactions.
$27x + 6\,y - z = 85$
$6x + 15y + 2z + 72$
$x + y + 54z = 110.$

**Seat No.**

### B.Sc. (E.C.S.) (Semester - II) (New) (NEP CBCS) Examination: October/November – 2025
### Software Engineering (G06- GE-OE201)

Day & Date: Thursday, 06-11-2025      Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
             2) Figures to the right indicate full marks.

**Q.1 Choose the Correct Alternative.(MCQ)**      **06**

1) DFD is _____.
   a) Data Flow Diagram      b) Design flow diagram
   c) Both of them      d) None of them

2) What is the first step in the software development lifecycle?
   a) System Design
   b) Coding
   c) System Testing
   d) Preliminary Investigation and Analysis

3) What does RAD stand for?
   a) Rapid Application Document
   b) Rapid Application Development
   c) Relative Application Development
   d) None of the above

4) Model selection is based on _____.
   a) Requirements
   b) Development team & users             b)
   c) Project type & associated risk
   d) All of the above

5) Software maintenance costs are expensive in contrast to software development.
   a) True      b) False

6) Which of the following word correctly summarized the importance of software design?
   a) Quality      b) Complexity
   c) Efficiency      d) Accuracy

**Q.2  Answer the following questions. (Any three)**                                06
   **a)**  What are the qualities of software?
   **b)**  What is System analyst?
   **c)**  Define ERD.
   **d)**  What is decision tree?
   **e)**  What are the types of requirements.

**Q.3  Answer the following questions. (Any two)**                                 06
   **a)**  Explain flowchart with example.
   **b)**  Design DFD of banking system.
   **c)**  Explain spiral model in detail

**Q.4  Answer the following questions. (Any two)**                                 06
   **a)**  Explain system and user requirements in detail.
   **b)**  Explain characteristics of software.
   **c)**  Explain structured English with example.

**Q.5  Answer the following question. (Any one)**                                  06
   **a)**  Design ERD of admission process.
   **b)**  What is effort estimation and cost estimation?

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**Set** **P**

## B.Sc. (E.C.S.) (Semester - II) (New) (NEP CBCS) Examination: October/November – 2025
## English (ENG-201)

Day & Date: Friday, 07-11-2025          Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
                2) Figures to the right indicate full marks.

**Q.1 Choose the correct alternative from the following.**      **06**
    **1)** How does listening help in relationship?
       a) Building trust          b) Create confusion
       c) Encourage arguments      d) Reduce clarity

    **2)** Which tone shows certainty?
       a) Rising          b) Falling
       c) Both          d) None

    **3)** Which skill helps improve communication _____.
       a) Ignoring details          b) Active listening
       c) Speaking continuously      d) Multitasking

    **4)** Which of the following is NOT a type of formal writing?
       a) Formal letter          b) Newspaper report
       c) Personal diary entries      d) Emails

    **5)** What does CC stand for in an email _____.
       a) Copy contact          b) Carbon Copy
       c) Customer care          d) Complete Content

    **6)** Which elements makes a blog visually appealing?
       a) long paragraphs          b) Images and subheadings
       c) Lack of formatting          d) Complete Dense text blocks

**Q.2 Answer the following questions. (Any Two)**      **06**
    **a)** What is a formal letter? Explain its structure.
    **b)** What is a blog? Explain its purpose and different types.
    **c)** Explain the five stages of listening skill.
    **d)** Define rising and falling tone.

**Q.3 Write Short Notes. (Any One)**      **06**
    **a)** What are the common barriers to listening?
    **b)** What are the types of listening?

**Q.4  Answer the following questions. (Any One)**                    **12**

    **a)**  Write a letter inviting a famous writer to attend the Annual Prize Distribution function held in your college.

    **b)**  How is a newspaper report structured? Discuss the role of headline and the inverted pyramid style.

| Seat No. | | **Set** | **P** |
|---|---|---|---|

## B.Sc. (E.C.S.) (Semester - II) (New) (NEP CBCS) Examination: October/November – 2025
### Environmental Studies (ENS-24)

Day & Date: Saturday, 08-11-2025        Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
             2) Figures to the right indicate marks.

**Q.1 Choose the Correct Alternative:**      **06**
  **1)** The World Environment Day _____.
    a) 5th June          b) 5th May
    c) 5th October      d) 5th July

  **2)** The term "Ecosystem" was first introduced by _____.
    a) Robert hook        b) Watson
    c) A. G. Tansley      d) E. P. Odum

  **3)** Study of interrelationship between organism & environment is called ____.
    a) Ecology          b) Energy flow
    c) Food chain       d) Biodiversity

  **4)** Transfer of Food material from one organism to next organism is called as _____.
    a) Food Web        b) Food Chain
    c) Ecosystem       d) Ecology

  **5)** Green Plant is also called as _____.
    a) Autotrophic       b) Heterotrophic
    c) Chemotrophic     d) Consumer

  **6)** Bacteria, virus, fungi include in _____.
    a) Consumer        b) Decomposer
    c) Producer        d) Plant

**Q.2 Answer the following. (Any Three)**      **06**
  **a)** Define- Environment.
  **b)** Example of Food Chain.
  **c)** Types of Biodiversity.
  **d)** Causes of Noise Pollution.
  **e)** Types of Environments.

**Q.3  Answer the following. (Any Two)**                                   **06**
   **a)**  Explain detail causes of Air Pollution.
   **b)**  Explain-Types of Ecosystems.
   **c)**  Explain in detail Scope of Environment.

**Q.4  Answer the following. (Any Two)**                                   **06**
   **a)**  Explain Renewable Energy.
   **b)**  Explain- Causes & Effect of Soil Pollution.
   **c)**  Nature of Environment.

**Q.5  Answer the following. (Any One)**                                   **06**
   **a)**  Explain in detail term of Biodiversity.
   **b)**  Explain in detail Water Pollution -causes, effect, & control measure.

Seat No.

## B.Sc. (E.C.S.) (सत्र - II) (नवीन) (NEP CBCS) परीक्षाः
## ऑक्टोबर / नोव्हेंबर – २०२५
### Co-Curricular Course
### National Service Scheme (CC-201)

वार, दिनांकः सोमवार, १०-११-२०२५        कमाल गुणः ३0

वेळः दुपारी ०३:०० ते ०४:३०

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.

२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** खालील दिलेले योग्य पर्याय निवडून गाळलेल्या जागा भरा.     ०६

१) ––– हा दिवस राष्ट्रीय सेवा योजना दिन म्हणून साजरा केला जातो.

अ) २४ सप्टेंबर        ब) १२ जानेवारी

क) १५ ऑगस्ट        ड) २६ जून

२) एन. एस. एस प्रतीक चक्र हे ––– कडून घेतले आहे.

अ) लाल किल्ला        ब) अशोक चक्र

क) सूर्य मंदिर        ड) कुतुबमिनार

३) राष्ट्रीय सेवा योजनेची सुरूवात ––– या वर्षी झाली.

अ) १९७५        ब) १९५०

क) १९६९        ड) १९४७

४) राष्ट्रीय सेवा योजनेच्या एका वर्षात ––– तास काम करणे अपेक्षित असते.

अ) १००        ब) २४०

क) ८०        ड) १५०

५) रा.से.यो च्या विशेष शिबिराचे आयोजन ––– दिवस केले जाते.

अ) ७        ब) ८

क) ९        ड) १०

६) '' मी माझ्यासाठी नसून इतरांसाठी'' हे घोषवाक्य ––– चे आहे.

अ) राष्ट्रीय सेवा योजना        ब) रोजगार हमी योजना

क) एनजीओ        ड) स्वयं बचत गट

प्र.२   खालील प्रश्नांची उत्तरे लिहा. (कोणतेही तीन)                      ०६
   अ)   रा.से.या.कार्यक्रमाचे वर्गीकरण सांगा.
   ब)   रक्तदानाची आवश्यकता का आहे?
   क)   राष्ट्रीय सेवा योजनेची उद्दिष्टये लिहा.
   ड)   महिला सक्षमीकरणाची गरज का आहे?
   इ)   माय भारत पोर्टलची संकल्पना सांगा.

प्र.३   खालील प्रश्नांची थोडक्यात उत्तरे लिहा. (कोणतेही दोन)          ०६
   अ)   दत्तक खेड्यामध्ये नियमित उपक्रमावर चर्चा करा.
   ब)   विशेष शिबिर कार्यक्रमातील पूर्वतयारी लिहा.
   क)   रा.से.यो.चा इतिहास लिहा.

प्र.४   खालील प्रश्नाचे सविस्तर उत्तर लिहा. (कोणताही एक)             ०६
   अ)   रा.से.यो. चे महत्व स्पष्ट करा.
   ब)   मतदार जनजागृती आणि नावनोंदणी शिबीर यावर चर्चा करा

प्र.५   दीर्घोत्तरी प्रश्नाची उत्तरे लिहा.                                 ०६
   वृक्षरोपण आणि स्वच्छता मोहीम यावर वृंत्तात द्या.

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**B.Sc. (E.C.S.) (Semester-II) (New) (NEP CBCS) Examination: October/November - 2025**
**Co-Curricular Course**
**National Service Scheme (CC-201)**

Day & Date: Monday, 10-11-2025                     Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

**Q.1   Choose the correct alternative.                                        06**
**1)** _____ is celebrated as the N.S.S. day.
a)  24$^{th}$ September                    b)  12$^{th}$ January
c)  15$^{th}$ August                          d)  26$^{th}$ June

**2)** The N.S.S. emblem chakra has been taken from _____.
a)  Red Fort                              b)  Ashok Chakra
c)  Surya temple                       d)  Kutubminar

**3)** The National Service Scheme is started in the year of _____.
a)  1975                                     b)  1950
c)  1969                                     d)  1947

**4)** _____ is the number of hours the N.S.S. volunteers expected to work during the year.
a)  100                                      b)  240
c)  80                                        d)  150

**5)** The N.S.S. special camp is held for_____ days.
a)  7                                          b)  8
c)  9                                          d)  10

**6)** "Not me but you" is a motto of _____.
a)  N.S.S.
b)  Empolyment Guarantte Scheme
c)  N.G.O
d)  Self-Saving Group

**Q.2   Write answer of the following questions. (Any Three)          06**
**a)**  State the Classification of NSS Programme
**b)**  Why is important of Blood Donation.
**c)**  Write the Objective of NSS
**d)**  Why need is Women empowerment.
**e)**  State of Concept of My Bharat Portal.

**Q.3** **Write Short answers to questions. (Any Two)** **06**
  **a)** Discuss the Regular activities in Adopted Village
  **b)** Write the Preparation of Special Camping Programme
  **c)** Write the History of NSS

**Q.4** **Write answers to broad questions. (Any One)** **06**
  **a)** Explain the Importance of NSS.
                    **OR**
  **b)** Discuss the Voter Awareness and Registration Camp.

**Q.5** **Write answers to broad questions.** **06**
  Give account of a Tree Plantation and Cleanup drive.

**Seat No.**

Set **P**

### B.Sc. (E.C.S.) (सत्र - II) (नवीन) (NEP CBCS) परीक्षाः
### ऑक्टोबर / नोव्हेंबर – २०२५
### Co-Curricular Course
### National Cadet Corps (CC-202)

वार, दिनांकः सोमवार, १०-११-२०२५  कमाल गुण: १५

वेळः दुपारी ०३:०० ते ०४:३०

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.

२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** खालील दिलेल्या योग्य पर्याय निवडून गाळलेल्या जागा भरा.  ०४

१) काही ——— गुण बदलता येत नाहीत.

अ) नविन ब) दत्तक

क) जन्मजात ड) नैसर्गिक

२) एखाद्याला ——— मार्फत व्यक्त करता येते.

अ) तोंडी ब) हावभाव

क) लेखी ड) वरीलपैकी सर्व

३) व्यक्तिमत्व ——— नुसार बदलते.

अ) प्रत्येक व्यक्ती ब) वेळ

क) काम ड) वरीलपैकी कोणतेही नाही.

४) स्वतःला खुप वेगळे समजणे म्हणजे ———.

अ) अतिअहंकारी व्यक्तिमत्व ब) स्वयःप्रेरित

क) आनंदी ड) वास्तव

**प्र.२** खालील प्रश्नांची उत्तरे लिहा (कोणतेही दोन)  ०४

अ) व्यक्तिमत्व विकासासाठी कोणत्याही दोन टिप सांगा.

ब) व्यक्तिमत्व विकासासाठीचे कोणतेही दोन घटक सांगा.

क) 'समर्थन आणि आदर' ची उदाहरणे द्या.

ड) प्रामाणिकपणाची उदाहरणे द्या.

**प्र.३** चारित्र कसे सुधारावे? यावर टिप लिहा.  ०३

**प्र.४** व्यक्तिमत्व विकासामध्ये एन.सी.सी. कॅडेट ची भूमिका स्पष्ट करा.  ०४

किंवा

उत्तम नेतृत्वासाठी महत्वाची मूल्ये स्पष्ट करा.

| Seat No. | | Set | P |
|---|---|---|---|

**B.Sc. (E.C.S.) (Semester-II) (New) (NEP CBCS) Examination: October/November - 2025**
**Co-Curricular Course**
**National Cadet Corps (CC-202)**

Day & Date: Monday, 10-11-2025                     Max. Marks: 15
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
                          2) Figures to the right indicate full marks.

**Q.1  Choose the correct Alternative and fill in the blanks                     04**
   **1)**    Few _____ traits can not changed.
         a)  new                                    b)  adopted
         c)  inborn                                 d)  natural

   **2)**    One can express through _____.
         a)  oral                                   b)  gestures
         c)  written                                d)  all of the above

   **3)**    The personality vary as per _____.
         a)  Individuals                            b)  time
         c)  work                                   d)  None of these

   **4)**    Thinking oneself very different is _____.
         a)  superego                               b)  self motivation
         c)  pleasure                               d)  reality

**Q.2  Attempt of the following questions. (Any Two)                     04**
   **a)**    Mention any two tips for personality development
   **b)**    State any two factors for personality development
   **c)**    Give example of support & respect.
   **d)**    Give examples of honesty.

**Q.3  Write a note on How to improve character?                     03**

**Q.4  Explain role of NCC cadet in personality development                     04**
**OR**
Explain important values for a good leader.

Seat No.

**B.Sc. (E.C.S.) (सत्र - II) (नवीन) (NEP CBCS) परीक्षा:**
**ऑक्टोबर/नोव्हेंबर – २०२५**
**Co-Curricular Course**
**Sports (CC-203)**

वार, दिनांकः सोमवार, १०-११-२०२५        कमाल गुणः १५
वेळः दुपारी ०३:०० ते ०४:३०

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.
      २) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** खालील दिलेल्या योग्य पर्याय निवडून गाळलेल्या जागा भरा.     ०४

१) खेळामध्ये एक अद्वितीय ––– असतो.
   अ) तंत्राचा संच       ब) हालचालीचा संच
   क) तंत्राचा व हालचालीचा संच    ड) यापैकी काहीही नाही

२) सांघिक खेळासाठी ––– आवश्यक आहे.
   अ) समन्वय       ब) रणनिती
   क) सांघीक कार्य       ड) वरील सर्व

३) सचिन तेंडुलकर हा ––– खेळातील प्रसिद्ध खेळाडू आहे.
   अ) फुटबॉल       ब) टेनिस
   क) क्रिकेट       ड) हॉकी

४) खेळ हा ––– प्रकारचा उपक्रम आहे.
   अ) मानसिक       ब) शारिरीक
   क) सामाजिक       ड) वरील सर्व

**प्र.२** टिपा लिहा. (कोणत्याही तीन)     ०६
  अ) खेळाचे मानसिक फायदे
  ब) वैयक्तिक खेळाची यादी
  क) खेळाद्वारे शारिरीक विकास
  ड) खेळाचा आधुनिक इतिहास
  इ) खेळातील शारिरीक हालचाली

**प्र.३** खालील प्रश्नांची उत्तरे लिहा. (कोणताही एक)     ०५
  अ) खेळाची संकल्पना स्पष्ट करा.
  ब) सांघीक खेळाविषयी सविस्तर माहिती लिहा.

| Seat No. | |
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## B.Sc. (E.C.S.) (Semester-II) (New) (NEP CBCS) Examination: October/November – 2025
## Co-Curricular Course
## Sports (CC-203)

Day & Date: Monday, 10-11-2025　　　　　　　　　　　Max. Marks: 15
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the correct Alternative and fill in the blanks　　04**
**1)**　Sport involves a unique _____.
　　a)　set of techniques
　　b)　set of movements
　　c)　set of technique and movements
　　d)　none of These

**2)**　Team sport is requires _____.
　　a)　Coordination　　　　　　b)　Strategy
　　c)　teamwork　　　　　　　d)　Above all

**3)**　Sachin Tendulkar is popular sportsmen of _____ sports.
　　a)　Football　　　　　　　b)　Tennis
　　c)　Cricket　　　　　　　　d)　Hockey

**4)**　A sport is _____ Activity.
　　a)　Mental　　　　　　　b)　Physical
　　c)　Social　　　　　　　d)　Above all

**Q.2　Write short notes. (Any Three)　　　　06**
　　**a)**　Mental Benefits of sports.
　　**b)**　List of individual sports
　　**c)**　Physical Development in sports
　　**d)**　Modern History of sports
　　**e)**　Physical movements in sports.

**Q.3　Answer the following questions. (Any One)　　05**
　　**a)**　Explain the concept of sports.
　　　　　　　　　　**OR**
　　**b)**　Explain about Team sports.

Seat No.

## B.Sc. (E.C.S.) (सत्र - II) (नवीन) (NEP CBCS) परीक्षाः
### ऑक्टोबर / नोव्हेंबर – २०२५
### Co-Curricular Course
### Culture (CC-204)

वार, दिनांकः सोमवार, १०-११-२०२५         कमाल गुणः ३०
वेळः दुपारी ०३:०० ते ०४:३०

सूचना : १) सर्व प्रश्न अनिवार्य आहेत.
       २) उजवीकडील अंक पूर्ण गुण दर्शवितात.

प्र.१   खालील दिलेले योग्य पर्याय निवडून गाळलेल्या जागा भरा.     ०६

    १)   संवाद न करता केवळ हावभाव याद्वारे अभिनय केला जातो त्यास ——— म्हणतात.
       अ) लावणी             ब) अभिनय
       क) मुकनाट्य           ड) एकांकी

    २)   अजिंठा येथे कोरलेल्या लेण्यया ——— प्रकारात येतात.
       अ) संगीत               ब) शिल्पकला
       क) नाट्यकला         ड) वास्तुकला

    ३)   ——— हे उत्कृष्ट तबलावादक म्हणून ओळखले जातात.
       अ) अजय अतुल        ब) उस्ताद जाकिरहुसेन
       क) राम कदम         ड) यापैकी नाही

    ४)   खालील वादय भजनात वापरले जाते नाही ———.
       अ) पखवाज            ब) हार्मोनियम
       क) टाळ                ड) गिटार

    ५)   ——— नाट्य प्रकार रस्त्यावर करता येतो.
       अ) एकांकिका         ब) लघुनाट्य
       क) पथनाट्य           ड) एकपात्री

    ६)   काव्य सादरीकरणास ——— म्हणतात.
       अ) कवितावाचन       ब) भजन
       क) मुकनाट्य           ड) लेखन

प्र.२ टिपा लिहा. (कोणत्याही दोन)                                                              ०६
   अ) संगीत या विषयाची व्याख्या लिहा.
   ब) तुम्हाला माहिती असलेल्या कोणत्याही चार शिल्पांची नावे लिहा.
   क) भारतातील कोणत्याही चार प्रसिद्ध गायकांची नावे लिहा.
   ड) भारतातील कोणत्याही चार प्रसिद्ध वादकांची नावे लिहा.

प्र.३ खालील प्रश्न सोडवा.                                                                      ०६
   भजनात वापरल्या जाणाऱ्या साहित्याचा नावे लिहा व तुम्हाला माहित असलेल्या
   एकादया भजनाचा (भक्तीगीत) सारांश लिहा.

प्र.४ खालील प्रश्नाचे उत्तर लिहा. (कोणताही एक)                                                १२
   अ) अभिनय म्हणजे काय सांगा व अभिनयाचे प्रकार सांगून सविस्तर उत्तर
      लिहा.
                                   किंवा
   ब) रांगोळी या कला प्रकाराचे भारतीय समाजातील स्थान लिहा व रांगोळी
      कोणत्या ठिकाणी व कोणत्या प्रसंगात काढली जाते सविस्तर उत्तर लिहा.

| Seat No. | | Set P |
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**B.Sc. (E.C.S.) (Semester-II) (New) (NEP CBCS) Examination: October/November - 2025**
**Co-Curricular Course**
**Culture (CC-204)**

Day & Date: Monday, 10-11-2025        Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
            2) Figures to the right indicate full marks.

**Q.1 Choose the correct alternative.**       **06**
**1)** Acting without dialogue is done only through gestures and is called _____
   a) Lavani            b) Acting
   c) Mute            d) Ekaanki

**2)** The caves carved at Ajanta are of _____ type
   a) Music            b) Sculpture
   c) Drama            d) Architecture

**3)** _____ He is Known as an excellent tabla player
   a) Ajay Atul            b) Ustad Zakir Hussain
   c) Ram Kadam            d) None of these

**4)** The following instrument is not used in Bhajan _____
   a) Pakhwaj            b) Harmonium
   c) Tal            d) Guitar

**5)** _____ Drama can be performed on the street.
   a) Ekaanki            b) Short play
   c) Pathanatthi            d) Ekapatri

**6)** Poetry presentation is called _____
   a) Poetry recitation            b) Bhajan
   c) Mute            d) Writing

**Q.2 Write Notes. (Any Two)**       **06**
   **a)** Write a definition of the subject of music.
   **b)** Write the names of any four sculptures that you know.
   **c)** Write the names of any four famous singers in India.
   **d)** Write the names of any four famous musicians in India.

**Q.3 Solve the following questions.**       **06**
Write the names of the materials used in Bhajans and write a summary of the Ekadaya Bhajan (Bhakti Geet) that you know.

**Q.4  Solve the following questions (Any One)**                                  **12**
    **a)**  Explain what is acting and write a detailed answer by mentioning the types of acting.

<div align="center"><strong>OR</strong></div>

    **b)**  Write the place of the art form Rangoli in Indian Society and write a detailed answer in which place and on which occasion Rangoli is drawn.

Seat No.

## B.Sc. (E.C.S.) (सत्र - II) (नवीन) (NEP CBCS) परीक्षाः
## ऑक्टोबर / नोव्हेंबर – २०२५
## Co-Curricular Course
## Health Wellness, Fitness (CC-205)

वार, दिनांकः सोमवार, १0-११-२०२५                          कमाल गुण: १५
वेळ: दुपारी 0३:00 ते 0४:३0

सूचना : १) सर्व प्रश्न अनिवार्य आहेत.
२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१    योग्य पर्याय लिहा.**                                                  ०४

१)    ––– हे रोगप्रतिकारक शक्तीचे प्राथमिक कार्य आहे?
अ)  शरीराचे तापमान नियंत्रित करणे
ब)  रक्तातील ऑक्सिजन वाहतूक चालणे.
क)  संसर्गजन्य रोगाविरूद्ध
ड)  वरील सर्व

२)    ––– जीवनसत्वा अभावी स्कर्वी हा रोग होतो.
अ)  क                                    ब)  ड
क)  ब                                    ड)  अ

३)    जागतिक आरोग्य संघटनेचे मुख्यालय ––– या ठिकाणी आहे.
अ)  ढाका                               ब)  कतार
क)  भोपाळ                             ड)  जिनेव्हा

४)    ––– याला वैयक्तिक स्वच्छता म्हणता येईल.
अ)  हात धुणे                          ब)  नखे काढणे
क)  दात घासणे                        ड)  वरील सर्व

**प्र.२   खालील प्रश्नांची थोडक्यात उत्तरे लिहा. (कोणतेही तीन)**                ०६
अ)  आरोग्याची व्याख्या लिहा.
ब)  शारीरिक तंदुरुस्तीचे घटक लिहा.
क)  वैयक्तिक स्वच्छता मधील दोन घटक लिहा.
ड)  एन. आय. एच. चे कार्य लिहा.

प्र.३  सविस्तर उत्तरे लिहा. (कोणताही एक)                                      ०५

अ)  समतोल आहार म्हणजे काय सविस्तर लिहा.

ब)  जागतिक आरोग्य संघटनेचे कार्य लिहा.

| Seat No. | | Set | P |
|---|---|---|---|

## B.Sc. (E.C.S.) (Semester - II) (New) (NEP CBCS) Examination: October/November - 2025
### Co-Curricular Course
### Health Wellness, Fitness (CC-205)

Day & Date: Monday, 10-11-2025 — Max. Marks: 15
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

**Q.1 Choose the correct alternative.** 04
**1)** _____ is the primary function of the immune system?
a) Regulating body temperature
b) Transporting oxygen in the blood
c) Fighting infectious diseases
d) All of the above.

**2)** _____ Vitamin deficiency causes scurvy.
a) C  b) D
c) B  d) A

**3)** The headquarter of the World Health Organization is located in ____.
a) Dhaka  b) Qatar
c) Bhopal  d) Geneva

**4)** _____ can be called personal hygiene.
a) Washing hands  b) Cutting nails
c) Brushing teeth  d) All of the above

**Q.2 Write short answers. (Any Three)** 06
a) Write the definition of Health.
b) Write the components of physical fitness.
c) Write two components of personal hygiene.
d) Write the functions of NIH.

**Q.3 Write the detail answer (Any One)** 05
a) Describe the balanced diet in detail?
b) Write the Functions of World Health Organization?

Seat No.

Set P

### B.Sc. (E.C.S.) (सत्र - II) (नवीन) (NEP CBCS) परीक्षाः
### ऑक्टोबर/नोव्हेंबर – २०२५
**Co-Curricular Course**
**Yoga Edu./Performing Arts (CC-206)**

वार, दिनांकः सोमवार, १०-११-२०२५ कमाल गुण: १५
वेळः दुपारी ०३:०० ते ०४:३०

सूचना : १) सर्व प्रश्न अनिवार्य आहेत.
२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

प्र.१ योग्य पर्याय लिहा. ०४

१) प्राणायाम ही क्रिया ––– यांच्याशी निगडित आहे.
अ) स्नायू संस्था ब) श्वसन संस्था
क) मज्जा संस्था ड) रक्ताभिसरण संस्था

२) ––– हे पोटावरील आसन आहे.
अ) भुजंगासन ब) पद्मासन
क) वक्रासन ड) शवासन

३) योग दिवस म्हणून खालीलपैकी कोणता दिवस साजरा केला जातो?
अ) ८ मार्च ब) १ मे
क) २१ जून ड) १५ ऑगस्ट

४) ––– हे बैठ्या स्थितीतील आसन आहे.
अ) पद्मासन ब) भुजंगासन
क) ताडासन ड) शवासन

प्र.२ खालील प्रश्नांची उत्तरे लिहा (कोणतेही तीन) ०६
अ) योग साधनेचे फायदे सांगा.
ब) योगाच्या व्याख्या लिहा
क) शीतली प्राणयाम कृती लिहा.
ड) वक्रासन या आसना विषयी कृती लिहा.

प्र.३ सविस्तर उत्तरे लिहा. (कोणताही एक) ०५
अ) कोणत्याही पाच आसनांची कृती लिहा व त्याचे फायदे सांगा.
**किंवा**
ब) प्राणयामाची व्याख्या देऊन माहिती लिहा.

| Seat No. | | **Set** | **P** |
|---|---|---|---|

**B.Sc. (E.C.S.) (Semester - II) (New) (NEP CBCS) Examination:**
**October/November - 2025**
**Co-Curricular Course**
**Yoga Edu./Performing Arts (CC-206)**

Day & Date: Monday, 10-11-2025          Max. Marks: 15
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

**Q.1  Choose the correct alternative.**                                        **04**
   **1)**  Pranayama is associated with the _____ system.
     a)  Muscular system       b)  Respiratory system
     c)  Nervous system        d)  Circulatory system

   **2)**  _____ is a posture done on the abdomen.
     a)  Bhujangasana        b)  Padmasana
     c)  Vakrasana           d)  Shavasana

   **3)**  Which of the following days is celebrated as Yoga Day?
     a)  8th March           b)  1st May
     c)  21st June           d)  15 th August

   **4)**  _____ is a seated posture.
     a)  Padmasana         b)  Bhujangasana
     c)  Tadasana           d)  Shavasana

**Q.2  Answers the following. (Any Three)**                                     **06**
   **a)**  Explain the benefits of yoga practice.
   **b)**  Write the definitions of yoga.
   **c)**  Write the procedure for Sheetali Pranayama.
   **d)**  Write the procedure of Vakrasana (twisting pose).

**Q.3  Write the detail answer. (Any One)**                                     **05**
   **a)**  Write the procedure and benefits of any five yoga postures.
                             **OR**
   **b)**  Give the definition of Pranayama and explain it.

| Seat No. | | Set | P |

**B.Sc. (E.C.S.) (Semester - II) (NEP CBCS) Examination:**
**October/November - 2025**
**OOP'S with C++ - II (G06-0201)**

Day & Date: Tuesday, 11-11-2025                    Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
                2) Figures to the right indicate full marks.

**Q.1  Choose the Correct Alternative. (MCQ)                    06**
**1)**  What is Inheritance in C++?
    a)  Wrapping of data into a single class
    b)  Deriving new classes from existing classes
    c)  Overloading of classes
    d)  Classes with same names

**2)**  class X, class Y and class Z are derived from class BASE. This is _____ inheritance.
    a)  Multiple              b)  Multilevel
    c)  Hierarchical          d)  Single

**3)**  If same message is passed to objects of several different classes and all of those can respond in a different way, what is this feature called?
    a)  Inheritance           b)  Overloading
    c)  Polymorphism          d)  Overriding

**4)**  By default, all the files in C++ are opened in _____ mode
    a)  Text                  b)  Binary
    c)  ISCII                 d)  VTC

**5)**  A base class contain pure virtual function is called as _____.
    a)  Private base class       b)  Abstract base class
    c)  Virtual function         d)  None of these

**6)**  Which header file is required to use file I/O operations?
    a)  <ifstream>            b)  <ostream>
    c)  <fstream>            d)  <iostream>

**Q.2 Answer the following questions. (Any three)**                      **06**
- **a)** Define Runtime Polymorphism?
- **b)** Write the syntax of Derived Class.
- **c)** State any four stream state member function.
- **d)** Define Exception handling.
- **e)** Define Template?

**Q.3 Answer the following questions. (Any two)**                        **06**
- **a)** Write a program in C++ to implement single inheritance.
- **b)** Explain compile time polymorphism with example.
- **c)** Explain multiple inheritance with example.

**Q.4 Answer the following questions. (Any two)**                        **06**
- **a)** Write a program in C++ to read a file and to count the number of vowels in that file.
- **b)** Explain try, throw and catch statement with example.
- **c)** Write a short note on "virtual base class".

**Q.5 Answer the following questions. (Any One)**                        **06**
- **a)** Explain stream classes used in C++? Write a program in C++ to copy one file into another file.
- **b)** Define pure virtual function, abstract base class? Explain with example.

| Seat No. | |
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### B.Sc. (E.C.S.) (Semester - II) (NEP CBCS) Examination: October/November – 2025
### Python Programming - II (G06-0202)

Day & Date: Wednesday, 12-11-2025　　　　　　　　　　Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the Correct Alternative.**　　　　　　　　　　　　　　　**06**

**1)** _____is used to create an object.
　　a) Class　　　　　　　　　b) constructor
　　c) function　　　　　　　　d) none of these

**2)** Which of the following is not a feature of OOP language.
　　a) instance　　　　　　　　b) message passing
　　c) inheritance　　　　　　　d) none of these

**3)** _____ holds the reference of its base class.
　　a) object　　　　　　　　　b) super()
　　c) base　　　　　　　　　　d) none of these

**4)** The default value of from-what is_____.
　　a) 0　　　　　　　　　　　b) 1
　　c) 2　　　　　　　　　　　d) 3

**5)** Which of the following is not a valid namespace?
　　a) global　　　　　　　　　b) local
　　c) public　　　　　　　　　d) built-in

**6)** What is the output of print(math.pow(4, 2))?
　　a) 16　　　　　　　　　　　b) 32
　　c) 16.0　　　　　　　　　　d) none of these

**Q.2　Answer the following questions. (Any three)**　　　　　　　　　　**06**
　　**a)** List out OOPs features.
　　**b)** Define exception handling.
　　**c)** Write down syntax and example for importing module.
　　**d)** Write down the use of the self-keyword.
　　**e)** Define constructor. List out its various types.

**Q.3** **Answer the following questions. (Any two)** **06**
    **a)** Write a note on Math module.
    **b)** Explain abstract class.
    **c)** Write a program to implement multithreading.

**Q.4** **Answer the following questions. (Any two)** **06**
    **a)** Differentiate compile time and run time polymorphism.
    **b)** Define file mode. Explain various file modes in python.
    **c)** Write a program to implement custom exception.

**Q.5** **Answer the following question. (Any one)** **06**
    **a)** Define directory. Explain any four methods of directory management.
    **b)** Define inheritance. Explain multilevel and multiple inheritance with example.

| Seat No. | | | **Set** | **P** |
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**B.Sc. (E.C.S.) (Semester - II) (NEP CBCS) Examination: October/November – 2025**
**Introduction to Microcontroller and Embedded System (G06-0203)**

Day & Date: Thursday, 13-11-2025            Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
2) Each question should only one correct option.
3) Figure to right indicate full marks.

**Q.1    Multiple Choice Question:                                                    06**
1)    8051 is _____ bit microcontroller.
a)  8                                              b)    16
c)  4                                              d)    19

2)    Maximum external memory can be connect to 8051_____.
a)  64k                                          b)    8k
c)  128 byte                                    d)    4k

3)    To access external memory pin EA connect to_____.
a)  gnd                                          b)    +vcc
c)  None                                         d)    Both a and b

4)    _____port required Pull-Up register.
a)  Port 0                                       b)    Port 1
c)  Port 2                                       d)    Port 3

5)    _____ port is a mono function port.
a)  0                                             b)    1
c)  2                                             d)    3

6)    _____ port used as lower address port.
a)  0                                             b)    1
c)  2                                             d)    3

**Q.2    Answer the following questions. (Any Three)                                06**
a)    Draw Basic architecture of embedded system.
b)    Define Addressing Mode.
c)    State application of 8051 embedded system.
d)    Write Data Transfer instructions of microcontroller.
e)    Write ALP to add two 8 bit numbers

**Q.3   Answer the following questions. (Any Two)**                    **06**
   **a)**   Alternative function of Port 3.
   **b)**   Internal memory of 8051.
   **c)**   Flash magic tools.

**Q.4   Answer the following questions. (Any Two)**                    **06**
   **a)**   Explain types of embedded system.
   **b)**   Differentiate between microprocessor and microcontroller.
   **c)**   Write features of 8051.

**Q.5   Answer the following question. (Any One)**                    **06**
   **a)**   Draw and explain a block diagram of 8051.
   **b)**   Write different Instruction types of microcontrollers and explain in detail.

| Seat No. | | Set | P |
|---|---|---|---|

**B.Sc. (E.C.S.) (Semester - II) (NEP CBCS) Examination:**
**October/November - 2025**
**Discrete Mathematics (G06-0204)**

Day & Date: Thursday, 13-11-2025                                     Max. Marks: 30
Time: 03:00 PM To 04:30 PM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Use of non-programmable any type of calculator is allowed.

**Q.1  Choose the Correct Alternative.**                                                    **06**

**1)** If $f(x) = 3x^2 + 4x - 12$ then $f(-2) =$ _____
   a)  -8                                              b)  8
   c)  0                                               d)  20

**2)** Order of recurrence $a_r - 4a_{r-3} + 3a_{r-2} = 0$ is _____
   a)  1                                               b)  2
   c)  3                                               d)  0

**3)** A relation $R$ which is reflexive, _____ and transitive is known as equivalence relation.
   a)  asymmetric                                      b)  partially
   c)  anti symmetric                                  d)  symmetric

**4)** If $|A| = 100, |B| = 94, |C| = 65, |A \cap B| = 32, |A \cap C| = 19,$
   $|B \cap C| = 41,$ and $|A \cap B \cap C| = 27$ then $|A \cup B \cup C| =$_____
   a)  194                                             b)  140
   c)  258                                             d)  190

**5)** If set $A$ has 3 elements and set $B$ has 4 elements then number of elements in $A \times B$ are _____ and number of possible relations from $A$ to $B$ are _____ respectively.
   a)  7 and $2^7$                                     b)  12 and $2^{12}$
   c)  7 and $2^{12}$                                  d)  $2^{12}$ and 12

**6)** If every element of set $A$ is related to unique element of set $B$ then such relation is called as _____ from the set $A$ to $B$.
   a)  void relation                                   b)  universal relation
   c)  function                                        d)  None of these

**Q.2  Attempt any three of the following.**                                        **06**

    **a)**   Write characteristic equation for the recurrence relation
       $a_r - 8a_{r-1} + 16a_{r-2} = 0$ Also find characteristic roots.

    **b)**   State principle of mutual inclusion - exclusion for three sets A, B and C.

    **c)**   Define one one function and bijective function.

    **d)**   Let $A = \{a, b, c, d\}$. Let
       $R = \{(a, a), (a, b), (b, d), (b, a), (c, a), (d, c), (c, b), (a, d), (d, d), (d, c), (c, d)\}$
       be the relation defined on the set $A$. Write $M(R)$, Also draw diagraph of $R$.

    **e)**   Let $A = \{1,2,3,4\}$ and $B = \{2,4,6,8\}$ then find $A \times B$ and $B \times A$. Is
       Cartesian product commutative?

**Q.3  Attempt any two of the following.**                                          **06**

    **a)**   Let $U = \{a, b, c, d, e, f, g, h, i, j, k, l, m, n\}$. Let $A = \{a, b, d, f, g, m, n\}$,
       $B = \{a, b, c, e, h, i, m\}$ be the subsets of $U$ then write the following sets
       and their cardinalities $A \cup B$, $A - B$ , $B - A$ and $B'$.

    **b)**   Let $f: Q \to Q$ be a function defined by $f(x) = \frac{5x-2}{7}$; for all $x \in Q$. Show
       that $f$ is bijective.

    **c)**   State and prove principle of mutual inclusion - exclusion for two sets.

**Q.4  Attempt any two of the following.**                                          **06**

    **a)**   Find homogeneous solution of the recurrence relation
       $a_n - 7a_{n-1} + 10\,a_{n-2} = 0$

    **b)**   Define equivalence relation, universal relation, and transitive relation.

    **c)**   How many integers between 1 to 798 which are divisible by either 3
       or 7?

**Q.5  Attempt any one of the following.**                                          **06**

    **a)**   Define transitive closure. Hence by using Warshall's algorithm find
       transitive closure of relation of relation
       $R = \{(a, c), (c, b), (b, a), (d, b), (d, d)\}$ defined on $A = \{a, b, c, d\}$

    **b)**   Define particular solution of a recurrence relation. Hence find the
       particular solution of the recurrence relation
       $a_r - 4\,a_{r-1} + 4\,a_{r-2} = 4^r$

Seat No.

## B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination: October/November - 2025
## Operating Systems (G06-GE-OE-0301)

Day & Date: Tuesday, 28-10-2025　　　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose correct alternative.**　　　　　　　　　　　　　　　　**06**
　**1)**　_____ scheduling algorithm is non-preemptive scheduling.
　　　a)　SJF Scheduling　　　　　b)　Round-robin scheduling
　　　c)　SRTF Scheduling　　　　　d)　MLFQ scheduling

　**2)**　Process synchronization can be done on _____.
　　　a)　hardware level
　　　b)　software level
　　　c)　both hardware and software level
　　　d)　Deadlock

　**3)**　The operating system where fixed time slot is allocated to each active process is _____.
　　　a)　Real time O.S.　　　　　b)　Multiprogramming O.S.
　　　c)　Batch O.S.　　　　　　d)　Time-sharing O.S.

　**4)**　_____ is the disadvantages of the priority scheduling algorithm.
　　　a)　it schedules in a very complex manner
　　　b)　its schedules take up a lot of time
　　　c)　it can lead to some low priority process waiting indefinitely for the CPU
　　　d)　All of these

　**5)**　The entry of all the PCBs of the current processes is in _____.
　　　a)　Program Counter　　　　b)　Process Register
　　　c)　Process Unit　　　　　　d)　Process Table

　**6)**　The number of processes completed per unit time is known as _____.
　　　a)　Output　　　　　　　　b)　Throughput
　　　c)　Efficiency　　　　　　　d)　Capacity

**Q.2　Answer the following. (Any Three)**　　　　　　　　　　　　**06**
　**a)**　Define Scheduler.
　**b)**　Define Semaphores.
　**c)**　Define Multiprogramming operating System.
　**d)**　What is Process Synchronization?
　**e)**　What is Operating system?

**Q.3  Answer the following. (Any Two)**                                                                06
  **a)**  Explain Types of Schedulers.
  **b)**  Explain the different Services provided by Operating System.
  **c)**  Explain Batch Operating System.

**Q.4  Answer the following. (Any Two)**                                                                06
  **a)**  Explain Dining Philosophers problem.
  **b)**  Explain Process Control Block with diagram.
  **c)**  Explain SJF Scheduling algorithms.

**Q.5  Answer the following. (Any One)**                                                                06
  **a)**  Consider the following set of processes, with the length of CPU- burst
       time given in milliseconds and priority of the process (consider 1 as
       highest priority):

| Process | Arrival time | Burst time | Priority |
|---------|--------------|------------|----------|
| P1      | 0            | 10         | 3        |
| P2      | 1            | 17         | 1        |
| P3      | 3            | 3          | 3        |
| P4      | 4            | 7          | 4        |
| P5      | 5            | 12         | 2        |

Solve the following questions:
  i)  Draw the 3 Gantt chart illustrating the execution of these process
      using SJF, priority and Round Robin (Quantum = 5).
  ii)  What is average waiting time for each process and average
      turnaround time in each scheduling algorithm?
  **b)**  Explain FCFS Scheduling Algorithms in detail.

<table>
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**B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination:
October/November - 2025
English (G06-ENG-301)**

Day & Date: Wednesday, 29-10-2025　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　A)　Multiple choice questions.　　　　　　　　　　06**
　　　1)　"The Ghagra in Spate" is poem written by _____.
　　　　　a)　Keki N. Daruwalla　　　　b)　R. Parthasarathy
　　　　　c)　Shiv K. Kumar　　　　　　d)　Toru Dutt

　　　2)　According to Gieve Patel the Process of Killing a Tree is _____.
　　　　　a)　Not simple　　　　　　　b)　Not difficult
　　　　　c)　Easy　　　　　　　　　　d)　None of these

　　　3)　The poem 'A Goodbye Party for Miss Pushpa T.S' is a _____ by Nissim Ezeikel.
　　　　　a)　love poem　　　　　　　b)　spiritual poem
　　　　　b)　satirical poem　　　　　d)　religious poem

　　　4)　Who is the author of the short story "The Doctor's Word"?
　　　　　a)　Ruskin Bond　　　　　　b)　Mulk Raj Anand
　　　　　c)　R. K. Narayan　　　　　d)　Khushwant Singh

　　　5)　What happens to the child at the fair?
　　　　　a)　He falls sick　　　　　　b)　He gets lost in the crowd
　　　　　c)　He meets a friend　　　　d)　He finds money

　　　6)　Who becomes the narrator's first friend in the story 'The Old Banyan Tree'?
　　　　　a)　A parrot　　　　　　　　b)　A red squirrel
　　　　　c)　A small grey squirrel　　d)　A monkey

**Q.2　Write short answers. (Any Two)　　　　　　　　　06**
　　**a)**　What is the occasion in the poem 'A Goodbye Party for Miss Pushpa T.S'?
　　**b)**　What ironic or satirical element does Daruwalla include?
　　**c)**　Where is the banyan tree located in the story?
　　**d)**　Who is Dr. Raman?

**Q.3** **Write short answers. (Any One)** 06
    **a)** What is the main theme of the poem "On Killing a Tree"?
    **b)** What philosophical conclusion does the poet Shiv Kumar reach about the need for pilgrimage?

**Q.4** **Write the detail answer. (Any One)** 12
    **a)** Describe the character of Dr. Raman in the R.K. Narayan's story 'The Doctor's World'.
    **b)** Describe the main theme of the short story 'The Lost Child' by Mulk Raj Anand in detail.

| Seat No. | | Set | P |
|---|---|---|---|

## B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination: October/November – 2025
## Data Structures using C++ (G06-DSC1-0301)

Day & Date: Thursday, 30-10-2025         Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
             2) Figures to the right indicate full marks.

**Q.1 Choose correct alternatives.**      **06**

1) The operation which is processing each element in a list is known as _____.
   a) Sorting            b) Merging
   c) Inserting          d) Traversing

2) A data structure in which elements can be inserted or deleted at/from both ends but not in the middle is _____.
   a) _Queue          b) Circular queue
   c) Dequeue        d) Priority queue

3) The type of expression in which operator succeeds its operands is _____.
   a) Infix Expression        b) Prefix Expression
   c) Postfix Expression     d) Both Prefix and Postfix Expressions

4) Which of these is not an application of a linked list?
   a) To implement file systems
   b) For separate chaining in hash-tables
   c) To implement non-binary trees
   d) Random Access of elements

5) Which of the following traversal strategy not used in binary tree?
   a) Preorder traversal      b) Inorder traversal
   c) Postorder traversal     d) Priority traversal

6) Which of the following concepts make extensive use of arrays?
   a) Binary trees         b) Scheduling of processes
   c) Caching            d) Expression validity

**Q.2 Answer the following. (Any Three)**      **06**
   a) State the applications of stack.
   b) What is Array? Write syntax to initialize one dimensional array.
   c) List out different applications of queue.
   d) What is searching? How binary search is better that linear search?
   e) Define the term: Complete Binary tree.

**Q.3** **Answer the following. (Any Two)** **06**
   **a)** Explain ADT of array.
   **b)** Differentiate between stack and queue.
   **c)** Explain reverse( ) operations of Circular Doubly Linked List with diagram.

**Q.4** **Answer the following (Any Two)** **06**
   **a)** What do you mean by Heap tree? Explain types of Heap tree.
   **b)** Write a menu driven program to implement singly linear linked list with following operations -
      1) Insert node at end.
      2) Search node.
      3) Count nodes.
   **c)** Write an algorithm for binary search method.

**Q.5** **Answer the following. (Any One)** **06**
   **a)** Write a C++ program to implement Queue using arrays.
   **b)** Write an algorithm of merge sort. And apply Merge Sort to sort given Series in descending order: 4, 9, 105, 74, 10, 85, 71, 101, 876, 143,39, 571,24.

**Seat No.**

## B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination: October/November – 2025
## Database Management Systems (G06-DSC1-0302)

Day & Date: Friday, 31-10-2025      Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
           2) Draw neat diagrams and give equations wherever necessary.
           3) Figures to the right indicate full marks.

**Q.1 Choose the correct alternative.**      **06**

**1)** In a 3-tier DBMS architecture, the middle layer is also called: _____.
    a) Internal level          b) External level
    c) Conceptual level       d) Physical level

**2)** Which normal form is concerned with multi-valued dependency?
    a) 3NF                b) 4NF
    c) 5NF                d) BCNF

**3)** Which command is used to remove all rows from a table but keep the structure?
    a) DROP             b) DELETE
    c) TRUNCATE       d) RENAME

**4)** Which type of JOIN returns all rows from both tables, combining matching rows?
    a) Inner Join         b) Left Join
    c) Right Join         d) Full Outer Join

**5)** What is the purpose of the FOREIGN KEY in a table?
    a) To uniquely identify a row
    b) To enforce referential integrity
    c) To speed up queries
    d) To store images

**6)** What happens when a base table used in a view is dropped?
    a) The view is automatically converted into a table
    b) The view becomes invalid
    c) The view remains active with old data
    d) Nothing happens

**Q.2** **Answer the following. (Any Three)** **06**
  **a)** Define Instance and scheme of database.
  **b)** List out built in string function.
  **c)** Define generalization and specialization in ER modeling.
  **d)** State any two disadvantages of file based system.
  **e)** Define Data -Independence.

**Q.3** **Answer the following. (Any Two)** **06**
  **a)** Differentiate DBMS and RDBMS.
  **b)** Discuss the purpose of rollback, commit, and savepoint in DCL.
  **c)** Explain group by clause with an example.

**Q.4** **Answer the following. (Any Two)** **06**
  **a)** Explain foreign key constraints with example.
  **b)** Explain special operator:
    1) IN.
    2) Between.
    3) Like.
  **c)** What is View? Explain View for DML operation.

**Q.5** **Answer the following. (Any One)** **06**
  **a)** Explain 1NF, 2NF, and 3NF with suitable examples.
  **b)** Consider the following **Sales table** and write queries:

| OrderID | Customer | Category | Sales | Profit | Region | Order Date |
|---|---|---|---|---|---|---|
| 101 | Jay | Furniture | 1500 | 300 | North | 2020-05-10 |
| 102 | Mahesh | Stationery | 500 | 120 | South | 2021-01-15 |
| 103 | Ramesh | Electronics | 2500 | 400 | East | 2020-08-20 |
| 104 | Priya | Furniture | 1200 | 200 | West | 2021-06-11 |
| 105 | Ankita | Stationery | 800 | 150 | North | 2021-09-05 |
| 106 | Dinesh | Furniture | 1700 | 250 | East | 2020-11-23 |

    1. Find total sales by region.
    2. Add new column which extracts the **Month** from Order Date.
    3. Count all orders which is in year 2021.
  Perform following queries on Emp and Sales table respectively.

| Emp ID | Name | DeptID | DeptID | DeptName |
|---|---|---|---|---|
| 1 | JayKumar | 10 | 10 | HR |
| 2 | Mangesh | 20 | 20 | Marketing |
| 3 | Aarati | Null | 30 | IT |

    4. Which join operation to perform that returns matching dept name.
    5. Returns all employees, even if no matching department.
    6. Returns all departments, even if no employee in it.

| Seat No. | | Set | **P** |
|---|---|---|---|

## B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination: October/November – 2025
## Statistics for Data Science – I (G06-DSC2-0303)

Day & Date: Saturday, 01-11-2025                    Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Use of log table and calculator is allowed.

**Q.1  Choose the Correct Alternative.**                                                        **06**

**1)** Karl Pearson's coefficient of correlation lies between _____.
   a)  -1 to 0                          b)  0 to 1
   c)  -1 to 1                          d)  None of these

**2)** Measures of central tendency that based on all observations is _____.
   a)  A.M.                            b)  Median
   c)  Mode                           d)  All of these

**3)** Line of regression X on Y is used to estimate _____.
   a)  X for known value of Y          b)  Y for known value of X
   c)  (A) and (B) both               d)  None of these

**4)** If all the observations are same in the given data then variance is _____.
   a)  Positive                        b)  Negative
   c)  Zero                            d)  None of these

**5)** Cumulative sum of frequencies from lowest class to highest class gives _____.
   a)  l.c.f.                          b)  g.c.f
   c)  relative frequency             d)  none of these

**6)** In _____ sampling method, same unit may be selected more than once.
   a)  SRS                            b)  SRSWOR
   c)  SRSWR                          d)  Stratified

**Q.2  Answer the following questions. (Any three)**                                             **06**
   **a)**  Define- class interval with example.
   **b)**  Find first Quartile for the data: 14,18, 20,11,17, 21, 24, 10
   **c)**  Define arithmetic mean.
   **d)**  If n=10, $\Sigma x=14$, $\Sigma x^2 =30$, find C.V.
   **e)**  Find regression coefficient y on x if r=0.5, $\sigma_x=4$, $\sigma_y=10$.

**Q.3** **Answer the following questions. (Any two)** **06**
- **a)** Explain systematic sampling method.
- **b)** Given: n=10, $\Sigma$ X=15, $\Sigma$ Y=20, $\Sigma$ XY=35, $\Sigma$ X$^2$=55, $\Sigma$ Y$^2$= 88 find 'r'.
- **c)** Explain scatter diagram method of studying correlation.

**Q.4** **Answer the following questions. (Any two)** **06**
- **a)** Write a note on lines of regression.
- **b)** Find c.v. for the following frequency distribution.

| X | 10 | 12 | 14 | 16 | 18 |
|---|----|----|----|----|----|
| f | 4 | 7 | 11 | 9 | 2 |

- **c)** Find median for the following grouped data.

| Class | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 |
|-------|------|-------|-------|-------|-------|
| f | 11 | 13 | 17 | 12 | 9 |

**Q.5** **Answer the following question. (Any one)** **06**
- **a)** Explain concept of measures of dispersion, state any two merits of S.D.
- **b)** Draw histogram to represent the following data and hence obtain mode.

| Class | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
|-------|-------|-------|-------|-------|-------|-------|
| f | 13 | 18 | 20 | 15 | 12 | 8 |

### B.Sc. (E.C.S.) (सत्र - III) (नवीन) (NEP CBCS) परीक्षा:
### ऑक्टोबर / नोव्हेंबर – २०२५
### Co-Curricular Course
### National Service Scheme (G06-CC-301)

वार, दिनांक: मंगळवार, ०४-११-२०२५  कमाल गुण: ३०

वेळ: दुपारी १२:०० ते ०१:३०

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.

२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** खालील दिलेले योग्य पर्याय निवडून गाळलेल्या जागा भरा.  ०६

१) ——— हा राष्ट्रीय सेवा योजनेचा केंद्रबिंदू असतो.

अ) प्राचार्य  ब) स्वयंसेवक

क) कार्यक्रम अधिकारी  ड) मुख्याध्यापक

२) ——— म्हणजे व्यक्ती किंवा गटांना समान उद्दिष्टे साध्य करण्यासाठी मार्गदर्शन करण्याची, आणि प्रेरित करण्याची क्षमता होय.

अ) नेतृत्त्व  ब) प्रशिक्षण

क) नियोजन  ड) मुलाखत

३) ——— यामध्ये एक पद्धतशीर प्रक्रिया समाविष्ट असते. ज्यामुळे ती इच्छित माहिती प्रभावीपणे गोळा करते.

अ) प्रश्नावली  ब) प्रशिक्षण

क) नियोजन  ड) मुलाखत

४) भारतात दर ——— वर्षांनी जनगणना केली जाते.

अ) १२  ब) १०

क) ०५  ड) ०८

५) संवाद कौशल्याचे मुख्य प्रकार मौखिक, अशाब्दिक, लेखी आणि ——— अशा चार प्रकारांमध्ये विभागले गेले आहेत.

अ) अदृश्य  ब) अलेखी

क) दृश्य  ड) अमौखिक

**Seat No.**

## B.Sc. (E.C.S.) (Semester-III) (New) (NEP CBCS) Examination: October/November - 2025
### Co-Curricular Course
### National Service Scheme (G06-CC-301)

Day & Date: Tuesday, 04-11-2025　　　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the correct alternatives from the options.　　　06**

**1)** _____ is the focus of N.S.S..
- a) Principal
- b) Volunteers
- c) Programme Officer
- d) Headmaster

**2)** _____ means the ability to guide, inspire, and motivate individuals or groups to achieve common goals.
- a) Leadership
- b) Training
- c) Planning
- d) Interview

**3)** _____ it involves a systematic process that effectively collects the desired information.
- a) Questionnaire
- b) Training
- c) Planning
- d) Interview

**4)** Census is conducted in India every _____ year.
- a) 12
- b) 10
- c) 05
- d) 08

**5)** The main types of communication skills are divided into four categories: verbal, nonverbal, written, and _____.
- a) Invisible
- b) Non-written
- c) Visual
- d) Non-verbal

**6)** _____ is main work to conduct socio-economic surveys in India and collect statistics in various sectors.
- a) National Sample Survey Organization
- b) National Family Health Survey
- c) Socio-Economic Survey
- d) Census

**Q.2　Answer the following questions. (Any Two)　　　06**
- a) Write the Concept of Volunteerism.
- b) State the characteristics of Strategic planning.
- c) Write the Need of Social- Economics survey.
- d) State the Objective of National Family Health Survey.

**Q.3  Write Short answer to questions. (Any One)**                    **06**
    **a)**  Write the Role Models of Volunteerism in India.
    **b)**  Write the Process of Social- Economics survey.

**Q.4  Broad Question. (Any One)**                    **12**
    **a)**  Explain the type of Communication Skills.
    **b)**  Discuss the National Sample Survey Organization.

**Seat No.**

Set **P**

## B.Sc. (E.C.S.) (सत्र - III) (नवीन) (NEP CBCS) परीक्षाः
## ऑक्टोबर/नोव्हेंबर – २०२५
## Co-Curricular Course
## National Cadet Corps (G06-CC-302)

वार, दिनांकः मंगळवार, ०४-११-२०२५      कमाल गुण: १५

वेळः दुपारी १२:०० ते ०१:००

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.

२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** योग्य पर्याय निवडा.      ०४

१) ——— हे नविन निर्माण झालेले एन्. सी. सी. डायरेक्टरेट आहे.

   अ) उत्तरांचल      ब) महाराष्ट्र

   क) राजस्थान      ड) यापैकी एकही नाही

२) 'जय जवान, जय किसान' घोषणा ——— यांनी दिली.

   अ) जवाहरलाल नेहरु      ब) लाल बहादूर शास्त्री

   क) महात्मा गांधी      ड) यापैकी एकही नाही

३) वृक्षारोपण हा ——— चा एक भाग आहे.

   अ) ड्रिल      ब) वेपन ट्रेनिंग

   क) समाजसेवा      ड) यापैकी एकही नाही

४) भारतात एकूण ——— एन्. सी. सी. डायरेक्टरेट्स आहेत.

   अ) १४      ब) १५

   क) १६      ड) १७

**प्र.२** खालील प्रश्नांची उत्तरे लिहा. (कोणतेही दोन)      ०४

अ) रक्तदानासाठी आवश्यक असणारी पात्रता लिहा.

ब) समाजसेवेची उद्देश लिहा.

क) एन्. सी. सी. मधील कॅम्पची नावे लिहा.

**प्र.३** टिप लिहा.      ०३

एन्. सी. सी. मध्ये केली जाणारी समाजसेवेची कामे.

**प्र.४** नेतृत्वाचे मूलभूत गुणसविस्तर लिहा.      ०४

किंवा

आदर्श नागरिकाची कर्तव्ये आणि अधिकार सविस्तर लिहा.

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**B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination:**
**October/November – 2025**
**Co-Curricular Course**
**National Cadet Corps (G06-CC-302)**

Day & Date: Tuesday, 04-11-2025                          Max. Marks: 15
Time: 12:00 PM To 01:00 PM

**Instructions:** 1) All questions are compulsory.
2) Right side number indicates marks.

**Q.1  Multiple choice questions.**                                             **04**
**1)**      _____ is a newly raised N.C.C. directorate.
    a)  Uttaranchal              b)  Maharashtra
    c)  Rajasthan                d)  None of these

**2)**      _____ gave the slogan, 'Jai Jawan, Jai Kisan'.
    a)  Jawaharlal Nehru         b)  Lal Bahadur Shastri
    c)  Mahatma Gandhi           d)  None of these

**3)**      Tree plantation is a part of _____.
    a)  drill                    b)  weapon training
    c)  social service           d)  None of these

**4)**      There are _____ NCC directorates in India.
    a)  14                       b)  15
    c)  16                       d)  17

**Q.2  Short Answer Type Question. (Any Two)**                                  **04**
**a)**    Write down the eligibility conditions for blood donation.
**b)**    Write down the aims of social service.
**c)**    Write down the names of camps in NCC.

**Q.3  Write a short note.**                                                    **03**
      Social service activities done in N.C.C

**Q.4**  Describe the basic leadership traits.                                  **04**
                              **OR**
      Describe the duties & rights of an ideal citizen.

Seat No.

**B.Sc. (E.C.S.) (सत्र - III) (नवीन) (NEP CBCS) परीक्षा:**
**ऑक्टोबर / नोव्हेंबर – २०२५**
**Co-Curricular Course**
**Sports (G06-CC-303)**

वार, दिनांकः मंगळवार, ०४-११-२०२५                                    कमाल गुण: १५
वेळः दुपारी १२:०० ते ०१:००

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.
          २) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१  योग्य पर्याय निवडा.**                                                    ०४

१)  पहिली आधुनिक ऑलिंपिक स्पर्धा ––– झाली.
    अ) पॅरीस                     ब) ग्रीस
    क) रोम                      ड) लंडन

२)  पुरुषांसाठी गोळाफेकसाठी ––– कि. ग्रॅ. वजनाचा गोळा असतो.
    अ) ७.२६                    ब) ५
    क) ८.२६                    ड) ४

३)  ऑलिंपिक ध्वजावर ––– वर्तुळे आहेत.
    अ) तीन                      ब) चार
    क) पाच                      ड) सहा

४)  पुरुषांसाठी हर्डल्स ही स्पर्धा ––– मीटर असते.
    अ) १००                     ब) ११०
    क) १२०                     ड) १३०

**प्र.२  टीपा लिहा. (कोणत्याही तीन)**                                           ०६
    अ) ऑलिंपिक ध्वज
    ब) आंतरराष्ट्रीय ऑलिंपिक समिती.
    क) लांब उडी
    ड) ऑलिंपिक ज्योत

**प्र.३  खालील प्रश्नांची सविस्तर उत्तरे लिहा.  (कोणतेही एक)**                     ०५
    अ) ट्रॅक इव्हेंट्स म्हणजे काय? त्याचे मुख्य प्रकार लिहा.
    ब) गोळा फेक बद्दल माहिती लिहा.

| Seat No. | |
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**B.Sc. (E.C.S.) (Semester-III) (New) (NEP CBCS) Examination:**
**October/November - 2025**
**Co-Curricular Course**
**Sports (G06-CC-303)**

Day & Date: Tuesday, 04-11-2025     Max. Marks: 15
Time: 12:00 PM To 01:00 PM

**Instructions:** 1) All questions are compulsory.
    2) Right side number indicates marks.

**Q.1 Multiple choice questions.**     **04**
**1)** The first modern Olympic Gaines were held in _____
   a) Paris         b) Greece
   c) Rome          d) London

**2)** The shot-put is _____ k.g. for men.
   a) 7.26          b) 5
   c) 8.26          d) 4

**3)** The Olympic flag has _____ circles.
   a) Three         b) Four
   c) Five          d) Six

**4)** Hurdles for men is a competition of _____ meters.
   a) 100           b) 110
   c) 120           d) 130

**Q.2 Short Notes. (Any Three)**     **06**
   **a)** Olympic flag
   **b)** International Olympic Committee
   **c)** Long jump
   **d)** Olympic flame/Torch

**Q.3 Write the detail answer (any one)**     **05**
   **a)** What is Track event? Write main types of Track event.
   **b)** Explain shot-put.

### B.Sc. (E.C.S.) (सत्र - III) (नवीन) (NEP CBCS) परीक्षाः
### ऑक्टोबर / नोव्हेंबर – २०२५
### Co-Curricular Course
### Health, Wellness and Fitness (G06-CC-304)

वार, दिनांकः मंगळवार, ०४-११-२०२५        कमाल गुणः १५
वेळः दुपारी १२:०० ते ०१:००

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.
२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** खालील दिलेले योग्य पर्याय निवडून गाळलेल्या जागा भरा.     ०४

१) ––– म्हणजे शारीरिक, मानसिक आणि आध्यात्मिक कल्याणाच्या अवस्थांचे संपूर्ण एकत्रीकरण
   अ) तंदुरुस्ती          ब) निरोगीपणा
   क) प्रशिक्षण          ड) वरीलपैकी नाही

२) निसर्गाप्रमाणे दुखापतींचे ––– प्रकार आहेत
   अ) दोन            ब) एक
   क) तीन            ड) पाच

३) ––– ही आपत्कालीन जीवनरक्षक पध्दत आहे.
   अ) HWR         ब) VSR
   क) ARR          ड) CPR

४) ––– निरोगीपणा, ज्याला बौध्दिक निरोगीपणा असेही म्हणतात.
   अ) भावनिक        ब) शारीरिक
   क) मानसिक        ड) सामाजिक

**प्र.२** खालील प्रश्नांची थोडक्यात उत्तरे लिहा. (कोणतेही तीन)     ०६
अ) कोणत्याही दोन मोबाईल फिटनेस ॲप्लिकेशनबद्दल लिहा.
ब) प्रथमोपचार स्पष्ट करा.
क) ध्यानाचा मूलभूत नियम स्पष्ट करा.
ड) व्यायाम करताना होणाऱ्या सामान्य दुखापतींची यादी करा.
इ) मानसिक आरोग्याचे प्रमुख पैलू स्पष्ट करा.

प्र.३ दीर्घ उत्तर लिहा. (कोणताही एक) ०५

अ) निरोगीपणाचे घटक स्पष्ट करा.

ब) दुखापती टाळण्यासाठी कोणते प्रतिबंधात्मक उपाय आहेत ते स्पष्ट करा.

| Seat No. | | Set | P |
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### B.Sc. (E.C.S.) (Semester-III) (New) (NEP CBCS) Examination: October/November – 2025
### Co-Curricular Course
### Health, Wellness and Fitness (G06-CC-304)

Day & Date: Tuesday, 04-11-2025          Max. Marks: 15
Time: 12:00 PM To 01:00 PM

**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

**Q.1  Choose the correct alternative.**                                         **04**
**1)**  _____ is the full integration of states of physical, mental, and spiritual well-being.
a)  Fitness                     b)  Wellness
c)  Training                    d)  None of above

**2)**  There are _____ Forms of injuries, as per nature.
a)  Two                         b)  One
c)  Three                       d)  Five

**3)**  _____ is an emergency lifesaving method.
a)  HWR                         b)  VSR
c)  ARR                         d)  CPR

**4)**  _____ wellness, also known as intellectual wellness.
a)  Emotional                   b)  Physical
c)  Mental                      d)  Social

**Q.2  Write short notes. (Any Three)**                                          **06**
a)  Write about any two mobile fitness application.
b)  Explain first aids
c)  Explain the basic rule of meditation?
d)  List the common injuries doing exercise?
e)  Explain Key Aspects of Mental Health.

**Q.3  Long answer question. (Any One)**                                         **05**
a)  Explain Components of wellness.
b)  What are the preventive measures for avoid injuries? Explain it.

Seat No.

**B.Sc. (E.C.S.) (सत्र - III) (नवीन) (NEP CBCS) परीक्षा:**
**ऑक्टोबर / नोव्हेंबर – २०२५**
**Co-Curricular Course**
**Yoga Education (G06-CC-305)**

वार, दिनांकः मंगळवार, ०४-११-२०२५                    कमाल गुणः १५
वेळः दुपारी १२:०० ते ०१:००

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.
२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१   योग्य पर्याय निवडा.**                                                      ०४

१)   योगाचा मुख्य उद्देश काय आहे.
     अ)  शरीर सौष्ठव
     ब)  लवचिकता
     क)  शरीर मन आणि आत्म्याचा मिलन
     ड)  स्पर्धात्मक यश

२)   ध्यान या शब्दाचा अर्थ काय.
     अ)  शिस्त                      ब)  शारीरिक स्थिती
     क)  एकाग्रता                   ड)  ध्यान धारणा

३)   आंतरराष्ट्रीय योग दिन कधी साजरा केला जातो.
     अ)  १ जून                     ब)  १० जून
     क)  २१ जून                    ड)  २१ जुलै

४)   योग सूत्रांचे संकलक कोण आहे.
     अ)  व्यास                      ब)  पतंजली
     क)  कपिला                     ड)  चरक

**प्र.२   टीपा लिहा. (कोणत्याही तीन)**                                          ०६
अ)  तणाव व्यवस्थापनात योगाची भूमिका.
ब)  योगा विषयीचे गैरसमज स्पष्ट करा.
क)  योगा संपूर्ण आरोग्यास कसा हातभार लावतो याबद्दल माहिती द्या.
ड)  योगासनाचे महत्त्व
इ)  योगा मानसिक आरोग्य सुधारण्यात कसा मदत करतो हे स्पष्ट करा.

प्र.३  खालील प्रश्नांची सविस्तर उत्तरे लिहा.  (कोणतेही एक)  ०५
   अ)  योगाची भूमिका–आंतरराष्ट्रीय योग दिन सविस्तरणे स्पष्ट करा.
   ब)  योगाचा शारीरिक आरोग्यावर होणारा परिणाम स्पष्ट करा.

| Seat No. | | Set | P |
|---|---|---|---|

### B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination: October/November - 2025
### Co-Curricular Course
### Yoga Education (G06-CC-305)

Day & Date: Tuesday, 04-11-2025　　　　　　　　　　Max. Marks: 15
Time: 12:00 PM To 01:00 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　 2) Right side number indicates marks.

**Q.1　Multiple choice questions.**　　　　　　　　　　　　　　**04**
　**1)**　What is the main aim of yoga
　　　　a)　Bodybuilding
　　　　b)　Flexibility
　　　　c)　Union of body mind and soul
　　　　d)　Competitive success

　**2)**　What is the meaning of dhyana in Yoga.
　　　　a)　Discipline　　　　　　b)　Posture
　　　　c)　Concentration　　　　d)　Meditation

　**3)**　International Day of yoga is celebrated on
　　　　a)　1 June　　　　　　　b)　10 June
　　　　c)　21 June　　　　　　d)　21 July

　**4)**　Who is the compiler of yoga sutras
　　　　a)　Vyasa　　　　　　　b)　Patanjali
　　　　c)　Kapila　　　　　　　d)　Charaka

**Q.2　Short Notes. (Any Three)**　　　　　　　　　　　　　　**06**
　**a)**　Role of yoga in stress management
　**b)**　Misconceptions about yoga
　**c)**　How does yoga contribute to over all well being
　**d)**　Importance of yogasana
　**e)**　How does yoga help in improving mental health

**Q.3　Write the detail answer (Any One)**　　　　　　　　　　**05**
　**a)**　Role of yoga - International Yoga Day explain in detail.
　**b)**　Explain the impact of yoga on physical health

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**Set** | **P**

**B.Sc. (E.C.S.) (Semester - III) (New) (NEP CBCS) Examination: October/November - 2025**
**Advanced Python Programming (G06-DSC2-0304)**

Day & Date: Monday, 03-11-2025       Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
           2) Figures to the right indicate full marks.

**Q.1 Choose the Correct Alternative.**      **06**

1) In Python, what does *args allow in a function definition?
    a) Keyword-only arguments.
    b) A variable number of positional arguments.
    c) Default argument values.
    d) Only keyword arguments

2) Which re module function returns all non-overlapping matches of a pattern in a string as a list?
    a) search()            b) split()
    c) sub()              d) findall()

3) What is the difference between shallow copy and deep copy in Python?
    a) Shallow copy copies nested objects recursively; deep copy doesn't.
    b) Shallow copy doesn't copy nested objects; deep copy does recursively.
    c) Shallow copy is faster than deep copy always.
    d) Deep copy is used for immutable objects only

4) How do you convert a Python dictionary to a JSON string?
    a) json.load(dictionary)       b) json.dump(dictionary)
    c) json.dumps(dictionary)      d) json.read(dictionary)

5) Which Python library is commonly used for reading and writing Excel files (.xlsx)?
    a) openpyxl           b) csv
    c) xlrd              d) pandas

6) What is a closure in Python?
    a) A function defined inside another function retaining outer scope variables.
    b) A global variable is accessible everywhere.
    c) A built-in Python data structure.
    d) A class method.

**Q.2  Answer the following questions. (Any three)**                          **06**
   **a)** Differentiate between global and nonlocal keywords in Python functions.
   **b)** What is the purpose of the pillow module when working with Excel
        files in Python?
   **c)** What is the benefit of using the with statement for file handling in Python?
   **d)** What is garbage collection in python?
   **e)** What is the difference between a workbook and a worksheet in Excel
        terminology?

**Q.3  Answer the following questions. (Any two)**                            **06**
   **a)** Explain the concept of closures in Python with an example.
   **b)** Explain the use of \d, \w, and \s sequence characters in Reg. Ex with
        illustrative patterns.
   **c)** How can you manage (add, remove, rename) sheets in an Excel
        workbook using openpyxl?

**Q.4  Answer the following questions. (Any two)**                            **06**
   **a)** What are the steps to create a bar chart in an Excel spreadsheet
        using openpyxl?
   **b)** Explain the use of grouping () in regular expressions with an example.
   **c)** Explain type hinting in Python with an example. What are its benefits?

**Q.5  Answer the following question. (Any one)**                             **06**
   **a)** Explain the process of serialization and deserialization of data using
        the json module in Python. Provide examples of converting Python
        dictionaries to JSON strings and files, and vice versa.
   **b)** Describe the concepts of iterables, iterators, and generators in
        Python. Provide examples illustrating their differences

Seat No.

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### B.Sc. (E.C.S.) (सत्र - III) (नवीन) (NEP CBCS) परीक्षाः
### ऑक्टोबर / नोव्हेंबर – २०२५
### Cultural (G06-CC-306)

वार, दिनांकः मंगळवार, ०४-११-२०२५                                                    कमाल गुणः ३०
वेळः दुपारी १२:०० ते ०१:३०

**सूचना :** १) सर्व प्रश्न अनिवार्य आहेत.
२) उजवीकडील अंक पूर्ण गुण दर्शवितात.

**प्र.१** खालील दिलेले योग्य पर्याय निवडून गाळलेल्या जागा भरा.                    ०६

१)    गायन हा ——— या ललित कलेशी संबंधित कला प्रकार आहे.
अ) नाट्य                                ब) साहित्य
क) चित्रकला                            ड) संगीत

२)    खालील ——— हा ग्रंथ नाट्य या ललित कलेशी संबंधित आहे.
अ) चरक संहिता                      ब) नाट्यशास्त्र
क) गीता                                ड) महाभारत

३)    दृश्यकला यामध्ये खालील कलेचा प्रामुख्याने समावेश करता येईल.
अ) नाट्य                                ब) साहित्य
क) चित्रकला                            ड) संगीत

४)    बालवयात ——— या ललित कलेचे संस्कार मानसिक आरोग्य चांगले राखण्यास मदत करतात.
अ) संगीत                                ब) शिल्पकला
क) मातीकाम                          ड) खेळ

५)    ——— हे सोलापूर जिल्यातील भारतीय चित्रकलेतील जगप्रसिद्ध व्यक्तिमत्व आहे.
अ) अजय गोगावले                    ब) एम. एफ. हुसेन
क) श्रेया घोषाल                        ड) जाकिर हुसेन

६)    ——— हे प्रसिद्ध भारतीय वाद्य आहे.
अ) तबला                                ब) गिटार
क) पियानो                              ड) तावील

प्र.२ खालील प्रश्नांची थोडक्यात उत्तरे लिहा. (कोणतेही तीन) ०६

अ) ललितकलांमध्ये येणाऱ्या चार कलांची नावे सांगा?

ब) संगीतातील चार प्रसिद्ध कलाकारांची नावे लिहा.

क) शिल्पकला म्हणजे काय थोडक्यात लिहा?

ड) मुकनाट्य म्हणजे काय? संकल्पना स्पष्ट करा.

प्र.३ टिप्पणी लिहा. ०६

पथनाट्य म्हणजे काय सांगून त्याचे समाजातील महत्व स्पष्ट करा.

प्र.४ खालील प्रश्नाचे सविस्तर उत्तर लिहा. (कोणताही एक) १२

अ) अभिनयाची संकल्पना स्पष्ट करा.

<div align="center">किंवा</div>

ब) ललितकलांची संकल्पना प्रकार आणि महत्व स्पष्ट करा.

| Seat No. | |
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### B.Sc. (E.C.S.) (Semester-III) (New) (NEP CBCS) Examination: October/November – 2025
### Cultural (G06-CC-306)

Day & Date: Tuesday, 04-11-2025　　　　　　　　　　　Max. Marks: 30
Time: 12:00 PM To 01:30 PM

**Instructions:** 1) All questions are compulsory.
　　　　　　　　2) Figures to the right indicate full marks.

**Q.1　Choose the correct alternative.　　　　　　　　　　　　　　06**
　**1)**　Singing is a form of _____.
　　　a)　Theater　　　　　　　　　b)　Literature
　　　c)　Painting　　　　　　　　　d)　Music

　**2)**　The following _____ book is related to Drama.
　　　a)　Charak Samhita　　　　　b)　Natyashastra
　　　c)　Geeta　　　　　　　　　　d)　Mahabharat

　**3)**　Visual arts can mainly include the following art _____.
　　　a)　Theater　　　　　　　　　b)　Literature
　　　c)　Painting　　　　　　　　　d)　Music

　**4)**　Which fine art practices help maintain good mental health in childhood?
　　　a)　Music　　　　　　　　　　b)　Sculpture
　　　c)　Pottery　　　　　　　　　d)　Sports

　**5)**　Identify the world famous personality in Indian painting from the following.
　　　a)　Ajay Gogawale　　　　　b)　M. F. Hussain
　　　c)　Shreya Ghoshal　　　　　d)　Zakir Hussain

　**6)**　Which of the following is a famous Indian musical instrument?.
　　　a)　Tabla　　　　　　　　　　b)　Guitar
　　　c)　Piano　　　　　　　　　　d)　Tawil

**Q.2　Write short answers. (Any Three)　　　　　　　　　　　　06**
　**a)**　Name four arts that come under the category of fine arts.
　**b)**　Write the names of four famous artists in music.
　**c)**　Briefly write what Sculpture is.
　**d)**　What is the Mime Act? Explain the concept

**Q.3　Write a comment in short.　　　　　　　　　　　　　　　06**
　　Explain what Street Play is and its importance in society.

**Q.4** **Answer the following question. (Any One)** **12**
  **a)** Explain the concept of acting
  **b)** Explain the concept, types and importance of fine arts.