| Seat No. | |
|---|---|

Set **P**

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025
# Office Automation Tools (G10-GE-OE-101)

Day & Date: Saturday, 10-01-2026 Max. Marks: 30
Time: 09:00 AM To 10:30 AM

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

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

1) Who is the father of Computers?
   a) James Gosling b) Charles Babbage
   c) Dennis Ritchie d) Bjarne Stroustrup

2) Microsoft word is _____ software.
   a) Application b) Compiler
   c) System d) Programming

3) Which is not in MS Word?
   a) Italic b) Magic tool
   c) Font d) Bold

4) What is the full form of CPU?
   a) Computer Processing Unit
   b) Computer Principle Unit
   c) Central Processing Unit
   d) Control Processing Unit

5) Which of the following software is used for making a resume?
   a) MS Excel b) MS Word
   c) Dev C d) Java

6) From which menu you can insert Header and Footer?
   a) Insert Menu b) View Menu
   c) Format menu d) Tools Menu

**Q.2 Answer the following. (Any Three)** **06**

**a)** Explain cut and copy.
**b)** Explain undo and redo.
**c)** Define hardware.
**d)** Define software.
**e)** Explain find option.

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

**a)** Define font style.
**b)** Define header.
**c)** Define bullets and numbering.

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

**a)** Explain types of software.
**b)** Explain input unit.
**c)** Explain output unit.

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

**a)** Explain Application of Computer.
**b)** Define characteristics of computer.

| Seat No. | |
|---|---|

Set **P**

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November- 2025
## English / English for communication (ENG-101)

Day & Date: Monday, 12-01-2026 Max. Marks: 30
Time: 09:00 AM To 10:30 AM

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

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

**1)** The English word 'communication' has been derived from the _____ word.
a) Greek b) Latin
c) British d) American

**2)** Preparation + _____ = successful interview.
a) Hard working b) Self-evaluation
c) Self-realisation d) Concentration

**3)** Think before you _____.
a) write b) look
c) speak d) listen

**4)** The last component of any successful communication is _____.
a) receiving b) decoding
c) acknowledging d) feedback

**5)** Communication is the action of conveying or exchanging _____ and ideas.
a) information b) performance
c) discussions d) components

**6)** _____ is a modern method of assessing students' personality.
a) Meeting b) Group discussion
c) Written exam d) Test

**Q.2 Answer the questions in brief. (Any Two)** **06**

**a)** What are the types of communication?
**b)** Write don'ts in group discussion.
**c)** What is the significance of communication?
**d)** How are you preparing yourself before the interview?

**Q.3 Write Short Answer. (Any One)** **06**

**a)** What are the barriers to effective communication? Explain with examples.

**b)** What are the 7 Cs of communication?

**Q.4** **a)** Write a script of Group Discussion on the topic “Impact of Social Media on Youth”, with advantages and disadvantages including introduction and concluding statement **12**

**OR**

**b)** Write a script of an interview for the post of ‘Clerk’ in ACB Company, Solapur.

| Seat No. | |
|---|---|

Set | P

# B.C.A. (सत्र - I) (नवीन) (NEP CBCS) परीक्षा: ऑक्टोबर / नोव्हेंबर – २०२५
## Constitution of India/Indian Constitution and Democracy (ICD-101)

वार, दिनांकः गुरूवार, १५-०१-२०२६ कमाल गुणः ३०
वेळः सकाळी ०९:०० ते १०:३०

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

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

१) भारतीय संविधान कोणत्या तारखेला स्विकारण्यात आले?
अ) १५ ऑगस्ट १९४७ ब) २६ जानेवारी १९५०
क) २६ नोव्हेंबर १९४९ ड) २ ऑक्टोंबर १९४७

२) भारतीय संविधानाचे जनक म्हणून कोणाला ओळखले जाते?
अ) जवाहरलाल नेहरू ब) डॉ. बाबासाहेब आंबेडकर
क) महात्मा गांधी ड) राजेंद्र प्रसाद

३) संविधानाचा कोणता भाग मूलभूत हक्कांशी संबंधीत आहे?
अ) भाग – १ ब) भाग – २
क) भाग – ३ ड) भाग – ४

४) राज्य धोरणाचे निर्देशनात्मक तत्व (DPSP) ही संकल्पना कोणत्या देशाकडून घेतली गेली आहे?
अ) यु.एस.ए ब) आर्येलॅन्ड
क) युके ड) कॅनडा

५) भारतीय संविधानात सध्य किती मूलभूत कर्तव्य आहेत?
अ) १० ब) ११
क) १२ ड) ९

६) सुशासनाची संकल्पना भारतात कोणत्या साली अस्तित्वात आली?
अ) १९९० ब) १९९२
क) १९९५ ड) १९९१

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

**अ)** समता म्हणजे काय?

**ब)** स्वातंत्र्य म्हणजे काय?

**क)** लोकशाही म्हणजे काय?

**ड)** सुशासन म्हणजे काय?

**प्र.३ खालील प्रश्नाचे थोडक्यात उत्तर लिहा.** **०६**

भारतीय निवडणुक आयोगाचे अधिकार व कार्य स्पष्ट करा.

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

**अ)** भारतीय राज्यघटनेची ठळक वैशिष्टये स्पष्ट करा.

**किंवा**

**ब)** सुशासनाची ठळक वैशिष्टये स्पष्ट करा.

| Seat No. | |
|---|---|

Set **P**

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

Day & Date: Thursday, 15-01-2026 Max. Marks: 30
Time: 09:00 AM To 10:30 AM

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

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

**1)** The Indian constitution was adopted on which date?
a) 15th August 1947 b) 26th January 1950
c) 26th November 1949 d) 2nd October 1947

**2)** Who is in known as the “Father of the Indian Constitution’’?
a) Jawaharlal Nehru b) Dr. B. R. Ambedkar
c) Mahatma Gandhi d) Rajendra Prasad

**3)** Which part of the constitution deals with fundamental Rights?
a) Part I b) Part II
c) Part III d) Part IV

**4)** The concept of Directive principles of state policy (DPSP) was borrowed from which country?
a) USA b) Ireland
c) UK d) Canada

**5)** How many fundamental Duties are there at present in the Indian Constitution?
a) 10 b) 11
c) 12 d) 9

**6)** In which year did the concept of good governance come into existence in India?
a) 1990 b) 1992
c) 1995 d) 1991

**Q.2 Write short answers. (Any Two)** **06**

**a)** What is Equality?
**b)** What is Liberaty?
**c)** What is Democracy?
**d)** What is good Governance?

**Q.3 Write Short Answer / Short Note.** **06**

Explain the power and function of Election commission in India.

**Q.4 Answer the following question in detail. (Any One)** **12**

**a)** Explain the salient features of the Indian constitution.

**OR**

**b)** Explain the salient features of good governance.

| Seat No. | |
|---|---|

Set | P |

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025
# Indian Knowledge System/ General IKS (G10-IKS-101)

Day & Date: Friday, 16-01-2026 Max. Marks: 30
Time: 09:00 AM To 10:30 AM

**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) Which of the following is a feature of the Vedic philosophical systems?
   a) Rejection of rituals
   b) Emphasis on ethics alone
   c) Acceptance of the authority of the Vedas
   d) Focus on human-cantered philosophy

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 algebra 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 bases
   d) To serve as market places

**Q.2 Answer the following. (Any Three)** **06**

**a)** What were the main subjects taught at Takṣasśilā?
**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)** What was the significant contribution of the Bodhayana Sutra in ancient Indian mathematics?

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

**a)** Explain the role of sacred groves in ancient India.
**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 foundational concepts and characteristics of IKS.
**b)** Explain the concept of Sattvic food in Ayurveda and its importance for health.

| Seat No. | |
|---|---|

Set **P**

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025
# Programming using C – I (G10-0101)

Day & Date: Saturday, 17-01-2026 Max. Marks: 30
Time: 12:00 PM To 01:30 PM

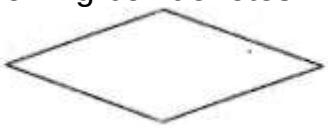
**Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.

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

**1)** Flowcharts and Algorithms are used for _____.
a) Better _Programming b) Easy testing and Debugging
c) Efficient Coding d) All

**2)** In computer science, algorithm refers to a pictorial representation of a flowchart.
a) True b) False

**3)** The following box denotes.



a) Decision b) Initiation
c) Initialization d) I/O

**4)** Developer of 'C' language is _____.
a) Dennis Richie b) Bill Gates
c) Ken Thompson d) Peter Norton

**5)** Which symbol is used for pre-processor statement?
a) ! b) #
c) ~ d) ;

**6)** The operator && is used for _____.
a) Value assignment b) Logical comparison
c) Increment by 1 d) Condition Checking

**Q.2 Answer the following. (Any Three)** **06**

**a)** Explain printf() function.
**b)** Define variable.
**c)** Define constant.
**d)** Define pseudo code.
**e)** Define stdio.h header file.

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

**a)** Define Algorithm with example.
**b)** Define conditional operator.
**c)** Explain characteristics of pseudo code.

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

**a)** Explain types of logic.
**b)** Draw a flowchart of greater number between two numbers.
**c)** Explain if else statement.

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

**a)** Write a program to check a given number is perfect or not.
**b)** Define Symbols of flowchart.

| Seat No. | |
|---|---|

Set **P**

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025
# Python – I (G10-0102)

Day & Date: Monday, 19-01-2026 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)** _____ of the following it not a numeric data type.
a) int b) real
c) float d) complex

**2)** PVM stands for _____.
a) Python Vector Machine b) Python Virtual Machine
c) Python Vector Module d) Python Virtual Module

**3)** Comments in python can be given by using _____ symbol.
a) # b) //
c) $ d) &

**4)** In python bool datatype represent _____ values.
a) True b) False
c) Both a and b d) None of these

**5)** The element in the _____ can be modified.
a) List b) Tuple
c) Bytes d) None of these

**6)** _____ function/method used to sort the group of strings.
a) append() b) sorted()
c) slice() d) sort()

**Q.2 Answer the following. (Any Three)** **06**

**a)** Define List. Give its Example.
**b)** Define Dictionary. Give it Example.
**c)** Define array. Write syntax to create an array.
**d)** Define anonymous functions or lambdas with example.
**e)** Define local and global variables.

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

**a)** Explain the different Features of Python.
**b)** Explain different manipulating operations on list.
**c)** Explain while loop with suitable example.

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

**a)** Write a program to display numbers from 1 to 20 using for loop.

**b)** Define tuple. Write the different operations on tuple.

**c)** Write a function that returns the sum of two numbers.

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

**a)** Write a program to demonstrate indexing and slicing in array.

**b)** Explain different types of operators used in a python.

| Seat No. | |
|---|---|

Set **P**

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025
# Basics of Mathematics (G10-0103)

Day & Date: Tuesday, 20-01-2026 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 scientific calculator is allowed.

**Q.1 Choose the correct alternative for each of the following.** **06**

**1)** If $|A| = 836, |B| = 503, |C| = 430, |A \cap B| = 328, |A \cap C| = 248, |B \cap C| = 197$, and $|A \cap B \cap C| = 112$ then $|A \cup B \cup C| =$ _____.
a) 1108 b) 884
c) 2654 d) 1118

**2)** Let $A$ be a matrix of order $p \times q$ and $B$ be a matrix of order $m \times n$ then product $A.B$ is possible if and only if _____.
a) $m = n$ b) $p = m$
c) $q = m$ d) N one of these

**3)** If set $A$ has $3$ elements and set $B$ has $4$ elements, then number of elements in $AXB$ are _____ and number of 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

**4)** The square matrix in which all $a_{ij} = 0$; for all $i > j$ is called as _____ matrix.
a) lower triangular b) upper triangular
c) symmetric d) diagonal

**5)** DeMorgan's Law of logic is $\sim(p\ V\ q) =$ _____.
a) $\sim p \vee \sim q$ b) $\sim q \vee \sim p$
c) $\sim p \wedge q$ d) $\sim p \wedge \sim q$

**6)** The conditional statement $\sim q \rightarrow \sim p$ is _____ form of conditional statement $p \rightarrow q$.
a) contrapositive b) inverse
c) converse d) bi-conditional

**Q.2 Answer the following. (Any Three)** **06**

**a)** 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 = {a,b,c,d}. Write M(R), Also draw diagraph of R.

**b)** Define power set. Hence write power set of set $A = \{ p , q, r\}$.

**c)** Define cardinality of a set. Hence find cardinality of set $A = \{ x \mid x$ is an odd number and $5 < x \leq 15\}$

**d)** Define diagonal matrix and scalar matrix with suitable example.

**e)** State both of the distributive laws and associative laws in logic.

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

**a)** $Let\ A = \begin{pmatrix} -2 & 4 & -3 \\ 5 & -6 & 4 \\ 3 & 1 & 9 \end{pmatrix}_{3\times 3}$ and $B = \begin{pmatrix} 4 & -5 & -4 \\ -1 & 0 & -3 \\ 8 & -10 & 5 \end{pmatrix}_{3\times 3}$

Find the matrix $5A + 3B\ and\ 4A - 5B$.

**b)** Determine whether the following statement is of tautology or contradiction or neither.

$[\sim(p \leftrightarrow \sim q) \rightarrow (p \wedge \sim q)\ ] \vee [p \vee q]$

**c)** Define symmetric relation, anti symmetric relation and partial ordering relation.

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

**a)** Let $A = \{ 1,2,3,4,5\}$. Let $R$ be the relation defined on the set $Aby\ xRy$ if and only if $| x - y | \leq 2\ ;\ x , y \in A$. Write elements of relation R. Draw diagraph of relation $R$. Also write in-degree and out-degree of every element of set A.

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

**c)** State and prove principle of inclusion - exclusion for two sets $A$ and $B$.

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

**a)** Define transitive closure. Hence find transitive closure $R^*$ of the relation $R$ defined on the set $A = \{ p, q , r, s \}$ given by $R = \{ (p , q), ( p , r), (r, s), ( s , p ), (q , p ), ( q , s), (s , s), ( s, r)\}$ by using Warshall's algorithm. Also draw diagraph of $R^*$

**b)** State and prove both the DeMorgan's laws in logic.

| Seat No. | |
|---|---|

**Set P**

# B.C.A. (Semester - I) (New) (NEP CBCS) Examination: October/November - 2025
# Descriptive Statistics (G10-0104)

Day & Date: Tuesday, 20-01-2026 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 Questions.** **06**

**1)** _____ divides the data into two equal parts.
a) Mean b) Median
c) Mode d) None of these

**2)** The measure of central tendency that based on all the observations.
a) A. M. b) Median
c) Mode d) All of these

**3)** Empirical relation between mean, median & mode is _____.
a) Mode = 3 Median – 2 Mean
b) Mode = 3 Median
c) Mode = 3 Median + 2 Mean
d) None of these

**4)** The two-regression line intersects at, _____.
a) $(0,0)$ b) $(\bar{x}, \bar{y})$
c) $(\sigma_x, \sigma_y)$ d) None of these

**5)** For perfect negative correlation the value of $r$ is _____.
a) 1 b) -1
c) 0.75 d) -0.75

**6)** From histogram we can obtain _____.
a) Mean b) Median
c) Mode d) All of these

**Q.2 Answer the following. (Any Three)** **06**

**a)** Define sample with example.
**b)** Define Attribute.
**c)** Define Arithmetic mean.
**d)** Define coefficient of variation.
**e)** Calculate A.M. for the following data
20, 25, 23, 27, 20, 23, 22, 28, 22, 20

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

**a)** Write down the properties of regression coefficient.

**b)** Write a short note on stratified random sampling.

**c)** Write a short note on cumulative frequency.

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

**a)** Find variance for the following observations.
8, 7, 5, 3, 2

**b)** Given - $n = 10, \sum x = 35, \sum y = 55, \sum x^2 = 165$
$\sum y^2 = 375, \sum xy = 225$ Find correlation coefficient.

**c)** Calculate A.M. for the following data.

| X | 2 | 4 | 6 | 8 | 10 |
|---|---|---|---|---|---|
| F | 7 | 15 | 17 | 19 | 8 |

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

**a)** Define correlation & explain it's types.

**b)** Draw histogram from the following data & hence find the mode.

| Class | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 |
|---|---|---|---|---|---|---|---|---|---|
| Frequency | 5 | 11 | 14 | 20 | 25 | 22 | 13 | 9 | 3 |