

Roll No.

Total No. of Pages : 06

Total No. of Questions : 11

B.Com. (Hons) / B.Sc. (MLS / OTT) / BHMCT / BCA / M.Com (Sem.-1,2)

HUMAN VALUES, DE-ADDICTION & TRAFFIC RULES

Subject Code : HVPE101-18

M.Code : 75087

Date of Examination : 11-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is compulsory TEN questions one mark each.
2. SECTION-B contains FIVE questions of FIVE marks each attempt any FOUR.
3. SECTION-C contains FIVE questions with internal choice of SIX marks each attempt all.

SECTION-A

1. Answer the following:

- a) Explain Natural Acceptance.

ਸਹਜ ਸਵੀਕ੍ਰਿਤਿ ਸਮਝਾਓ।

ਕੁਦਰਤੀ ਮੰਜੂਰੀ ਸਮਝਾਓ।

- b) What do you mean by Respect?

ਆਪ ਕਾ ਸਮਮਾਨ ਸੇ ਕਧਾ ਸਤਲਬ ਹੈ?

ਤੁਹਾਡਾ ਆਦਰ ਦਾ ਕੀ ਮਤਲਬ ਹੈ?

- c) What is Animal Order?

ਜੀਵ ਆਦੇਸ਼ ਕਧਾ ਹੈ?

ਜੀਵ ਆਦੇਸ਼ ਕੀ ਹੈ?

- d) What is Mutual Fulfilment?

ਪਾਰਸਪਰਿਕ ਪੂਰਤਿ ਕਧਾ ਹੈ?

ਆਪਸ ਦਾ ਪੂਰਤੀ ਕੀ ਹੈ?

- e) What is Utility-Value?

ਉਪਯੋਗਿਤਾ-ਮੂਲ੍ਯ ਕਧਾ ਹੈ?

ਉਪਯੋਗਿਤਾ - ਮੁੱਲ ਕੀ ਹੈ?

- f) What is value of any Unit in the larger order?

ਬੜੇ ਆਦੇਸ਼ ਮੇਂ ਕਸੀ ਭੀ ਇਕਾਈ ਕਾ ਕਧਾ ਮੂਲ੍ਯ ਹੈ?

ਵੱਡੇ ਆਦੇਸ਼ ਵਿੱਚ ਕਿਸੇ ਵੀ ਇਕਾਈ ਦਾ ਕੀ ਮੁੱਲ ਹੈ?

- g) What is Holistic System?

ਸਮਗ੍ਰ ਪ੍ਰਣਾਲੀ ਕਧਾ ਹੈ?

ਸਰਬਭੌਮਿਕ ਪ੍ਰਣਾਲੀ ਕੀ ਹੈ?

- h) What is Perseverance?

ਅਟਲਤਾ ਕਧਾ ਹੈ?

ਧੀਰਜ ਕੀ ਹੈ?

- i) How the value "Guidance" is related with Self.

ਮੂਲ੍ਯ "ਸਾਗਦਰਸ਼ਨ" ਸਵਯੰ ਕੇ ਸਾਥ ਕੈਸੇ ਸੰਬੰਧਿਤਿ ਹੈ?

ਮੁੱਲ ਅਗਵਾਈ ਸਵੈ ਦੇ ਨਾਲ ਕਿਵੇਂ ਸਬੰਧਤ ਹੈ?

- j) What is innateness?

ਸਵਾਮਾਕਿਤਾ ਕਧਾ ਹੈ?

ਸਵਾਭਾਵਿਕਤਾ ਕੀ ਹੈ?

SECTION-B

2. What do you mean by values? How do they differ from skills? How values and skills are complementary?



ਮੂਲਾਂ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਉਹ ਹੁਨਰਾਂ ਤੋਂ ਕਿਵੇਂ ਵੱਖਰੇ ਹਨ? ਮੁੱਲ ਅਤੇ ਹੁਨਰ ਕਿਵੇਂ ਪੂਰਕ ਹਨ।

3. What is the difference between belief and understanding?

ਵਿਸ਼ਵਾਸ ਅਤੇ ਸਮਝ ਵਿੱਚ ਕੀ ਅੰਤਰ ਹੈ?

ਵਿਸ਼ਵਾਸ ਅਤੇ ਸਮਝ ਵਿੱਚ ਕੀ ਅੰਤਰ ਹੈ?

4. What do you mean by Animal Consciousness and Human Consciousness? How is the transformation possible from Animal Consciousness to human Consciousness?

ਆਪਕਾ ਪਸ਼ੂ ਚੇਤਨਾ ਅਤੇ ਮਨੁੱਖ ਚੇਤਨਾ ਕੀ ਮਤਲਬ ਹੈ? ਪਸ਼ੂ ਚੇਤਨਾ ਤੋਂ ਮਨੁੱਖ ਚੇਤਨਾ ਤੱਕ ਦੀ ਸੰਭਵ ਹੈ?

ਤੁਹਾਡਾ ਪਸ਼ੂ ਚੇਤਨਾ ਅਤੇ ਮਨੁੱਖ ਚੇਤਨਾ ਤੋਂ ਕੀ ਮਤਲਬ ਹੈ? ਪਸ਼ੂ ਚੇਤਨਾ ਤੋਂ ਮਨੁੱਖ ਚੇਤਨਾ ਤੱਕ ਦੀ ਤਬਦੀਲੀ ਕਿਸ ਤਰ੍ਹਾਂ ਸੰਭਵ ਹੈ?

5. Explain Competence in Professional-Ethics.

ਪੇਸ਼ੇਵਰ ਨੈਤਿਕਤਾ ਵਿੱਚ ਕੌਸ਼ਲਤਾ ਸਮਝਾਓ।

ਪੇਸ਼ੇਵਰ ਨੈਤਿਕਤਾ ਵਿੱਚ ਸਮਰੱਥਾ ਸਮਝਾਓ।

6. Self-exploration is a process of dialogue between 'What you are' and 'What you really want to be' explain and illustrate.

ਆਤਮ ਅਨੁਵੇਸ਼ਣ 'ਆਪ ਕੀ ਹੋ' ਅਤੇ 'ਆਪ ਵਾਸਤਵ ਵਿੱਚ ਕੀ ਬਣਨਾ ਚਾਹੁੰਦੇ ਹੋ' ਵਿੱਚ ਆਪਸ ਸੰਵਾਦ ਦੀ ਇੱਕ ਪ੍ਰਕਿਰਿਆ ਹੈ। ਸਪष्ट ਕਰੋ ਅਤੇ ਸਪष्ट ਕਰੋ।

ਸਵੈ-ਖੋਜ 'ਤੂੰਸੀਂ ਕੀ ਹੋ' ਅਤੇ 'ਤੂੰਸੀਂ ਅਸਲ ਵਿੱਚ ਕੀ ਬਣਨਾ ਚਾਹੁੰਦੇ ਹੋ' ਵਿੱਚ ਆਪਸ ਸੰਵਾਦ ਦੀ ਇੱਕ ਪ੍ਰਕਿਰਿਆ ਹੈ। ਸਮਝਾਓ ਅਤੇ ਵਿਆਖਿਆ ਕਰੋ।

SECTION-C

7. (a) What do you mean by holistic management model? List down a few specific characteristics of such a model.

ਸਮੱਗਰ ਪ੍ਰਬੰਧਨ ਮਾਡਲ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਉਸ ਮਾਡਲ ਦੀਆਂ ਕੁਝ ਵਿਸ਼ੇਸ਼ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦੀ ਸੂਚੀ ਬਣਾਓ।

ਸੰਪੂਰਨ ਪ੍ਰਬੰਧਨ ਮਾਡਲ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਅਜਿਹੇ ਮਾਡਲ ਦੀਆਂ ਕੁਝ ਖਾਸ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦੀ ਸੂਚੀ ਬਣਾਓ।

(b) What is the meaning and purpose of Self-Exploration?

ਸਵੈ-ਅਨੁਵੇਸ਼ਣ ਦਾ ਅਰਥ ਅਤੇ ਉਦੇਸ਼ ਕੀ ਹੈ?

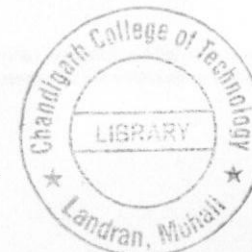
ਆਤਮ-ਅਧਿਐਨ ਦੇ ਮਤਲਬ ਅਤੇ ਉਦੇਸ਼ ਕੀ ਹੈ?

OR

8. (a) Describe basic human aspirations. What are the requirements to fulfill basic human aspirations?

ਭੁਨਿਆਦੀ ਮਾਨਵੀ ਆਕਾਂਸ਼ਾਵਾਂ ਕੀ ਹਨ? ਭੁਨਿਆਦੀ ਮਾਨਵੀ ਆਕਾਂਸ਼ਾਵਾਂ ਨੂੰ ਪੂਰਾ ਕਰਨ ਦੇ ਲਈ ਆਵਸ਼ਯਕਤਾਵਾਂ ਕੀ ਹਨ?

ਭੁਨਿਆਦੀ ਮਾਨਵੀ ਇੱਛਾਵਾਂ ਕੀ ਹਨ? ਭੁਨਿਆਦੀ ਮਾਨਵੀ ਇੱਛਾਵਾਂ ਨੂੰ ਪੂਰਾ ਕਰਨ ਲਈ ਜ਼ਰੂਰਤਾਂ ਦਾ ਵਰਣਨ ਕਰੋ।



(b) In what way, is the learning from the systems of nature and traditional practices useful in the development of holistic systems?

ਸਮਗਰ ਪ੍ਰਣਾਲੀਆਂ ਦੇ ਵਿਕਾਸ ਮੇਂ ਪ੍ਰਕ੍ਰਿਤੀ ਦੀ ਪ੍ਰਣਾਲੀਆਂ ਅਤੇ ਪਾਰੰਪਰਿਕ ਪ੍ਰਥਾਵਾਂ ਸੇ ਸੀਖਨਾ ਕਿਸ ਪ੍ਰਕਾਰ ਉਪਯੋਗੀ ਹੈ?

ਕਿਸ ਤਰੀਕੇ ਨਾਲ, ਕੁਦਰਤ ਦੀਆਂ ਪ੍ਰਣਾਲੀਆਂ ਅਤੇ ਪਰੰਪਰਾਗਤ ਅਭਿਆਸਾਂ ਤੋਂ ਸਿੱਖਣਾ ਸਮੁੱਚੇ ਪ੍ਰਣਾਲੀਆਂ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਉਪਯੋਗੀ ਹੈ?

9. (a) What are the inherent contradictions and dilemmas of professional ethics in the prevailing world view? How does right understanding resolve these issues?

ਪ੍ਰਚਲਿਤ ਵਿਸ਼ਵਦ੍ਰਿਸ਼ਟੀਕੋਣ ਮੇਂ ਪੇਸ਼ੇਵਰ ਨੈਤਿਕਤਾ ਦੇ ਅੰਤਰਿਨਿਹਿਤ ਵਿਰੋਧਾਭਾਸ ਅਤੇ ਫੁਰਕਾਏ ਕਧਾ ਹੈ? ਸਹੀ ਸਮਝ ਇਨ ਸੁਫ਼ੀ ਕੀ ਕੈਸੇ ਹਲ ਕਰਤੀ ਹੈ?

ਪ੍ਰਚਲਿਤ ਵਿਸ਼ਵ ਦ੍ਰਿਸ਼ਟੀਕੋਣ ਵਿੱਚ ਪੇਸ਼ੇਵਰ ਨੈਤਿਕਤਾ ਦੇ ਅੰਦਰੂਨੀ ਵਿਰੋਧਾਭਾਸ ਅਤੇ ਦੁਬਿਧਾਵਾਂ ਕੀ ਹਨ? ਸਹੀ ਸਮਝ ਇਨ੍ਹਾਂ ਮੁੱਦਿਆਂ ਨੂੰ ਕਿਵੇਂ ਹੱਲ ਕਰਦੀ ਹੈ?

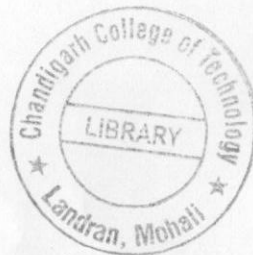
(b) What are the programmes to ensure Health?

ਸਿਹਤ ਨੂੰ ਠੀਕ ਰੱਖਣ ਲਈ ਕਿਹੜੇ ਕਿਹੜੇ ਤਰੀਕੇ ਹਨ ?

ਸਿਹਤ ਨੂੰ ਠੀਕ ਰੱਖਣ ਲਈ ਕਿਹੜੇ ਕਿਹੜੇ ਤਰੀਕੇ ਹਨ ?

OR

10. (a) Critically examine our state today in terms of fulfillment of relationships and physical facilities. What has gone wrong according to you? What is the solution?



ਰਿਸ਼ਤਿਆਂ ਦੀ ਪ੍ਰਤਿ ਅਤੇ ਭੌਤਿਕ ਸੁਵਿਧਾਵਾਂ ਦੀ ਵ੍ਰਤਿ ਸੇ ਆਜ਼ ਹਮਾਰੀ ਸ੍ਵਿਤਿ ਕਾ ਆਲੋਚਨਾਤਮਕ ਪਰੀਖਣ ਕਰੋ। ਆਪਕੇ ਅਨੁਸਾਰ ਕਧਾ ਗਲਤ ਹੁਆ ਹੈ? ਕਧਾ ਨਿਦਾਨ ਹੈ?

ਰਿਸ਼ਤਿਆਂ ਅਤੇ ਭੌਤਿਕ ਸਹੂਲਤਾਂ ਦੀ ਪੂਰਤੀ ਦੇ ਮਾਮਲੇ ਵਿੱਚ ਅੱਜ ਸਾਡੇ ਰਾਜ ਦੀ ਗੰਭੀਰਤਾ ਨਾਲ ਜਾਂਚ ਕਰੋ। ਤੁਹਾਡੇ ਅਨੁਸਾਰ ਕੀ ਗਲਤ ਹੋਇਆ ਹੈ? ਹੱਲ ਕੀ ਹੈ?

(b) What are the five dimensions of Human Endeavour in society?

ਸਮਾਜ ਮੇਂ ਮਾਨਵ ਪ੍ਰਯਾਸ ਦੇ ਪਾਂਚ ਆਧਾਮ ਕਧਾ ਹੈ?

ਸਮਾਜ ਵਿੱਚ ਮਨੁੱਖ ਕੋਸ਼ਿਸ਼ ਦੇ ਪੰਜ ਪਹਿਲੂ ਕੀ ਹਨ ?

11. (a) Explain self-organisation and health.

ਆਤਮ ਸੰਗਠਨ ਅਤੇ ਸਿਹਤ ਦੇ ਬਾਰੇ ਮੇਂ ਬਤਾਏ।

ਆਤਮ ਸੰਗਠਨ ਅਤੇ ਸਿਹਤ ਦੇ ਬਾਰੇ ਵਿੱਚ ਦੱਸੋ।

OR

(b) Compare the Four Orders in Nature on the basis of their salient aspects.

ਸੁਖ ਪਹਿਲੂਆਂ ਦੇ ਆਧਾਰ ਪਰ ਪ੍ਰਕ੍ਰਿਤ ਮੇਂ ਚਾਰ ਆਦੇਸ਼ਾਂ ਤੁਲਨਾ ਕਰੋ।

ਮੁੱਖ ਪਹਿਲੂਆਂ ਦੇ ਆਧਾਰ ਉੱਤੇ ਕੁਦਰਤ ਵਿੱਚ ਚਾਰ ਆਦੇਸ਼ਾਂ ਦੀ ਤੁਲਨਾ ਕਰੋ।

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

Roll No.

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Total No. of Pages: 02

Total No. of Questions: 07

BCA (Sem.-1)

COMPUTER ARCHITECTURE

Subject Code: UGCC-2502

M.Code: 95413

Date of Examination: 11-06-2026

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Answer the following questions:

- (a) What is the main purpose of a K-map?
- (b) What is the difference between SOP (Sum of Products) and POS (Product of Sums) forms?
- (c) What is a Parallel Binary Adder?
- (d) What is an Encoder?
- (e) Define a latch.
- (f) What is the difference between D flip-flop and T flip-flop?
- (g) What is the function of the Control Bus?
- (h) What is the Stored Program Concept?
- (i) What is an Instruction Format?
- (j) Write applications of Logic Gates.



SECTION-B

2. Explain various types of Logic Gates (AND, OR, NOT, NAND, NOR, XOR, XNOR) with neat circuit diagrams, Boolean expressions, and truth tables.
3. Discuss the process of Simplification of Boolean expression using Boolean Algebra.
4. Write a detailed note on following
 - (a) Full Adder
 - (b) Half Subtract of
5. Write a detailed note on Multiplexers and Demultiplexers.
6. Describe the construction and working of a JK Flip-Flop. What is the race-around condition? Explain how it can be removed using a Master-Slave JK Flip-Flop.
7. Write a detailed note on RISC and CISC architectures.



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Total No. of Pages: 02

Total No. of Questions: 07

BCA (Sem.-1)
ENVIRONMENTAL SCIENCE AND SUSTAINABILITY

Subject Code: UGVAC2501

M.Code: 95417

Date of Examination: 09-06-2026

Time: 3 Hrs.

Max. Marks: 60

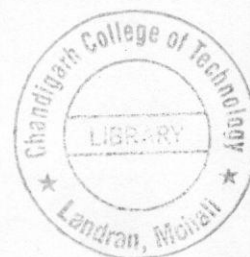
INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION A

1. Answer the following questions:

- (a) What is meant by resources?
- (b) Differentiate between deforestation and desertification.
- (c) Define ecosystem,
- (d) Differentiate between In-situ and Ex-situ conservation.
- (e) What do you mean by endemic species?
- (f) What do you understand by the term pollution and pollutants?
- (g) What are the various sources of marine pollution?
- (h) Differentiate between fog and smog.
- (i) How ozone layer protects us?
- (j) What are the various measures adopted to convert a unsustainable development to a sustainable development?



SECTION B

2. How individual efforts are helpful for resource conservation? What are the major causes of deforestation? Briefly explain the effects of deforestation on environment
3. Enumerate various structural features of an ecosystem.
4. Write an explanatory note on threats to biodiversity.
5. What is air pollution? What are its effects on human health? Discuss the measures used for controlling air pollution.
6. What are solid wastes? Discuss their types, effects and name the various methods used to dispose solid wastes. Explain any one with merits and demerits.
7. Enumerate salient features of The Environment (Protection) Act, 1986.



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Total No. of Pages : 02

Total No. of Questions : 05

**B.Com Hon/BA JAMC/ B.Sc(BT/GWD/IT/MLS)
B.Voc. BTA/ BHMCT / BTTM / BBA / BCA (Sem-1)**

ENGLISH

Subject Code : BTHU103-18

M.Code : 75085

Date of Examination : 13-06-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. All questions are **COMPULSORY**.
2. Q1, Q2 and Q3 carry **TEN** marks each.
3. Q4 and Q5 carry **FIFTEEN** marks each

1. Differentiate between the following:

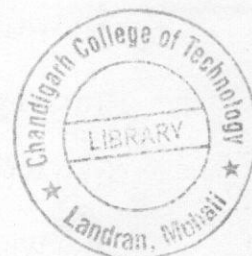
- (i) Spoken and written communication
- (ii) Summarizing and Paraphrasing
- (iii) Literary and Knowledge Texts
- (iv) Analysis and Interpretation
- (v) Intra-personal and Inter-personal Communication

2. Differentiate between personal, social and business communication.

3. Explain barriers to communication.

4. Read the following passage carefully and answer the questions that follow:

Sustainable development has emerged as a guiding principle for balancing economic growth with environmental protection and social well-being. Traditionally, economic development was measured primarily by indicators such as Gross Domestic Product (GDP), often ignoring environmental degradation and social inequality. However, this approach has proven to be shortsighted, as unchecked industrialization and resource exploitation have led to severe ecological damage and widening income disparities.



Sustainable development emphasizes the need to meet present needs without compromising the ability of future generations to meet their own. This requires a shift towards renewable energy sources, responsible consumption, and inclusive growth policies. Governments, businesses, and individuals all have a role to play in this transition. For instance, corporations are increasingly adopting environmentally responsible practices, not only due to regulatory pressures but also because consumers are becoming more conscious of sustainability issues. Despite these efforts, achieving sustainable development remains a complex challenge. Conflicts often arise between economic interests and environmental priorities. Developing countries, in particular, face the dilemma of pursuing rapid growth while minimizing environmental impact. Therefore, innovative solutions, international cooperation, and long-term planning are essential to ensure that development is both inclusive and sustainable.

Questions:

- (i) What is meant by sustainable development?
 - (ii) Why is GDP an incomplete measure of development?
 - (iii) What are the key components of sustainable development?
 - (iv) What challenges do developing countries face?
 - (v) Why are corporations adopting sustainable practices?
 - (vi) Find a word that means “use of resources” and make a sentence of your own.
 - (vii) What is the theme of this passage?
5. Write a letter to your friend about how wars affect the lives of common people.

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Total No. of Pages: 02

Total No. of Questions: 07

BCA (Sem.-1)

PROBLEM SOLVING TECHNIQUES

Subject Code: UGSEC2501

M.Code: 95411

Date of Examination: 13-06-2026

Time: 3 Hrs.

Max. Marks: 60

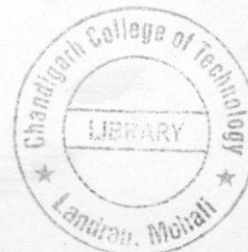
INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION A

1. Answer the following questions:

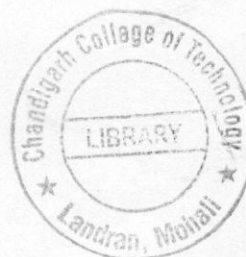
- (a) What is pseudo code?
- (b) Define a keyword. Give one example.
- (c) Write the syntax of a for loop.
- (d) What is the difference between while and do-while loops?
- (e) What is use of switch statement in C?
- (f) Define a function prototype.
- (g) What is a string in C?
- (h) Define array. Explain with suitable example how to declare and initialize ID array
- (i) Differentiate between structure and union.
- (j) What are file pointers?



SECTION B

2. Explain with examples how to develop an algorithm and flowchart for computing the factorial of a number.
3. What is operator and expression? Explain various types of operators available in C language.
4. Describe the formatted and unformatted input/output in detail.
5. Explain the concept of nested loops in C with a suitable example.
6. Write a detailed note on following
 - (a) Multidimensional arrays
 - (b) Passing Arrays to a function
7. Explain file handling in C. Write a program to read and write data to a file.

NOTE: Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.



Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-1)

PROBLEM SOLVING USING C

Subject Code : UGCA-1903

M.Code : 76963

Date of Examination : 16-06-2026

Time : 3 Hrs.

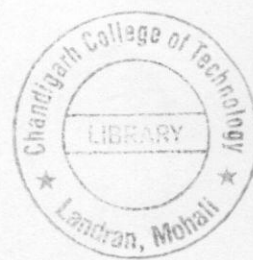
Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :
 - a) Define algorithm.
 - b) What are identifiers in C?
 - c) Define variable and constant.
 - d) Define expression in C.
 - e) What is formatted input/output?
 - f) Define loop and name its types in C.
 - g) What is a function prototype?
 - h) How is a string declared in C?
 - i) What is a pointer?
 - j) What is file handling in C?



SECTION-B

- 2.Explain data representation, flowcharts, and pseudocode with suitable examples.
- 3.Explain different operators in C with examples.
- 4.Explain the if-else and switch statements with syntax and examples.
- 5.Write a detailed note on functions in C, including function definition, function call, and recursion.
- 6.Explain arrays in C. Write a program to find the largest element in an array.
- 7.Explain structures and unions in C with examples.



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Roll No.

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-1)
MATHEMATICS

Subject Code : UGCC2501

M.Code : 95410

Date of Examination : 16-06-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION - A

1. Write briefly :

- (a) Is $A = \{x: x = x^2 - 1 = 0, x \in \mathbb{R}\}$ a null set?
- (b) Infinite set.
- (c) Power set of $\{1, \{4\}\}$
- (d) Disjoint sets.
- (e) Prove that $p \rightarrow q = (\sim p) \vee q$
- (f) Conjunction.
- (g) Scalar matrix.
- (h) Construct a 2×2 matrix where $a_{ij} = 2i + j$
- (i) Find 10th term of the series $12 + 10 + 8 + \dots$
- (j) Geometric Progression.



SECTION-B

2. If $A = \{x: x = 4n + 1, n \leq 5, n \in \mathbb{N}\}$ and $B = \{3n: n \leq 8, n \in \mathbb{N}\}$, find:

(i) $A \cup B$

(ii) $A \cap B$

(iii) $A \Delta B$

(iv) $A - (A \cap B)$

3. Prove that $[(p \rightarrow q) \wedge (q \rightarrow r)] \rightarrow (p \rightarrow r)$ is a tautology.

4. If $\begin{bmatrix} x - y & 2x + z \\ 2x - y & 3z + w \end{bmatrix} = \begin{bmatrix} -1 & 5 \\ 0 & 13 \end{bmatrix}$, find the values of x, y, z , and w .

5. If $A = \begin{bmatrix} 1 & -2 & 3 \\ -5 & 2 & 4 \end{bmatrix}$, $B = \begin{bmatrix} 2 & 3 \\ 5 & 4 \\ 2 & 1 \end{bmatrix}$, find AB and BA . Is $AB = BA$?

6. (a) Find the sum of the series $72 + 70 + 68 + \dots + 40$

(b) The p^{th} , q^{th} , and r^{th} terms of an A.P. are a, b , and c respectively. Show that $(q - r)a + (r - p)b + (p - q)c = 0$

7. (a) How many terms of the G.P. $3, 3^2, 3^3, \dots$ are needed to give the sum 120?

(b) Insert three numbers between 1 and 256 so that the resulting sequence is a G.P.



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Roll No.

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Total No. of Pages :02

Total No. of Questions : 07

B.Sc. (Graphics & Web Designing) /(IT)/BCA(Sem.-1)

FUNDAMENTALS OF COMPUTER AND IT

Subject Code :UGCA 1902

M.Code :76962

Date of Examination :19-06-2026

Time : 3 Hrs.

Max. Marks : 60

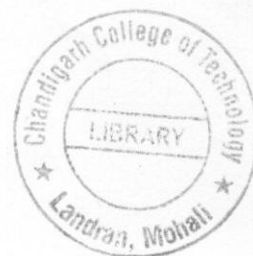
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION-A

1. Write briefly:

- (a) What is the difference between hardware and software?
- (b) Define cache memory.
- (c) What is the role of SMPS in a computer?
- (d) List two examples of input and output devices.
- (e) Convert (10101) into decimal.
- (f) Define operating system.
- (g) What is the use of mail-merge in MS Word?
- (h) Name two common spreadsheet functions.
- (i) What is IMPS in electronic payment systems?
- (j) Define Internet of Things (IoT) in one sentence.



SECTION-B

2. Explain the functional units of a computer system with a neat diagram. Discuss the role of CPU, system bus, and memory hierarchy.
3. What are primary, secondary, and cache memories? Compare them on speed, cost, and storage capacity.
4. Discuss different types of programming languages (machine, assembly, high-level). Give advantages and disadvantages of each.
5. Explain various types of charts and graphs in spreadsheets. Give examples of situations where each chart type is most useful.
6. Discuss different types of electronic payment systems (credit card, digital cash, UPI, cryptocurrency). What are their security challenges?
7. What is cloud computing? Explain its types (public, private, hybrid) and advantages for businesses.



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Total No. of Pages: 03

Total No. of Questions: 07

BCA (Sem.-1)

GENERAL ENGLISH-I

Subject Code: UGAEC2501

M.Code: 95415

Date of Examination: 19-06-2026

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Attempt all the questions:

- (a) Write synonym of fast, brave, happy, enemy
- (b) Form a word using each of the following suffix: -able, -est, -ing, -er
- (c) Use each of the following phrases in sentence: a hard nut to crack, all ears.
- (d) Punctuate the sentence: wait are you seriously telling me... this is the end
- (e) Correct the modifier: She nearly drove her kids to school every day.
- (f) Fill in the article:

1. I saw _____ elephant at the zoo yesterday.
2. She bought _____ new dress for the party.
- (g) **Transcribe the following words:** police, petrol
- (h) **Mark primary stress:** laughter, essentiality
- (i) Write five introductory lines of an essay on Politics in Student life.
- (j) What are the essential points of a concluding paragraph of an article/essay.



SECTION-B

2. Do as directed:

(a) Add suitable prefix to the following: necessary, mature, destructible, do, agree.

(b) Write the full form of the following: p.m., USSR, FAQ, UNO, CCTV.

3. What are the organising principles of paragraphs in documents?

4. Correct the following sentences:

(a) The teacher explain the lesson clearly to the students.

(b) A group of birds flies across the sky every evening.

(c) The children enjoys playing in the garden.

(d) The news are very surprising today.

(e) Each of the students have finished their homework.

(f) Everyone in the class should do their best.

(g) Somebody forgot to lock their locker.

(h) Either of the answers could be correct, but they must choose carefully.

(i) She is good in painting.

(j) I will meet you on the morning.

5. Write an essay on "Peace and War".

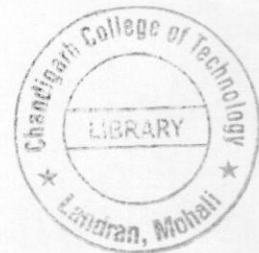
6. Write a precis of the following paragraph:

Climate change is one of the most serious challenges facing humanity today. The increasing levels of greenhouse gases, such as carbon dioxide and methane, are causing global temperatures to rise. This leads to melting glaciers, rising sea levels, and more frequent natural disasters like floods, hurricanes, and droughts. Human activities, including deforestation, industrial pollution, and excessive use of fossil fuels, are the



main contributors to this problem. It is crucial for governments, organizations, and individuals to take immediate action to reduce emissions, adopt sustainable practices, and protect the environment for future generations.

7. Draft a conversation of at least ten dialogues between a student and a teacher regarding some problem at the university.



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Roll No.

Total No. of Pages : 04

Total No. of Questions : 11

B.Voc. (Child Caregiver) / B.A.(JAMC) / BBA / BBA (SIM) / B.Com (Hons) / BCA / BHMCT / B.Sc. Hons. (Nutrition and Dietetics / Artificial Intelligence & Machine Learning / Bio Technology / Fashion Design / Graphics & Web Designing / Information Technology / Medical Lab Sciences / Operation Theatre Technology) / BTM / M.Com (Sem.-1,2)

HUMAN VALUES, DE-ADDICTION & TRAFFIC RULES

Subject Code : HVPE-101-18

M.Code : 93322

Date of Examination : 24-06-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

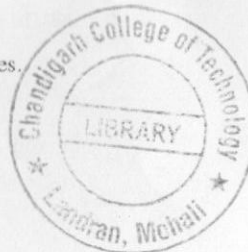
- SECTION-A is compulsory.
- SECTION-B contains FIVE questions. Each question carry FOUR marks. Attempt All.
- SECTION-C contains FIVE questions with internal choice. Each question carry SIX marks. Attempt All.

SECTION-A

(10 × 1 = 10)

1. Fill in the blanks. Write True/False :

- Animal order in nature contains..... and
प्रकृति में पशु आदेश में.....और होता है।
कुदरत ਵਿੱਚ ਪਸ਼ੂ ਆਦੇਸ਼ ਵਿੱਚ ਅਤੇ ਹੁੰਦਾ ਹੈ।
- To be in a state of liking is
ਪਸੰਦ ਦੇ ਹਿਸਾਬ ਸੇ ਏਕ ਅਵਸਥਾ ਮੇ ਹੋਨਾ.....ਹੈ।
ਪਸੰਦ ਦੇ ਹਿਸਾਬ ਵਲੋਂ ਇੱਕ ਦਸ਼ਾ ਵਿੱਚ ਹੋਣਾ.....ਹੈ।
- Physical facilities are necessary but for humans.
ਭੌਤਿਕ ਸੁਵਿਧਾओं ਸਨੁਘ ਕੇ ਲਿਏ ਆਵਸ਼ਯਕ ਹੈ, ਲੇਕਿਨ..... ਹਨ।
ਭੌਤਿਕ ਸਹੂਲਤਾਂ ਮਨੁੱਖ ਲਈ ਜ਼ਰੂਰੀ ਹਨ, ਲੇਕਿਨ.....ਹਨ।
- is a feeling of having more than required physical facilities.
.....ਆਵਸ਼ਯਕਤਾ ਸੇ ਅਧਿਕ ਭੌਤਿਕ ਸੁਵਿਧਾओं ਹੋਨੇ ਕੀ ਭਾਵਨਾ ਹੈ।
.....ਲੋੜ ਵਲੋਂ ਜ਼ਿਆਦਾ ਭੌਤਿਕ ਸਹੂਲਤਾਂ ਹੋਣ ਦੀ ਭਾਵਨਾ ਹੈ।
- is right evaluation.
..... ਸਹੀ ਮੁਲਾਂਕਨ ਹੈ।
..... ਠੀਕ ਲੇਖਾ ਜੋਖਾ ਹੈ।



93322

(S-17) 2757

- Holistics technologies should be eco-friendly and people-friendly.
ਸਮਗਰ ਪ੍ਰੋਗ੍ਰੇਸਿਵਿਕੀਓਂ ਪਰਿਆਵਰਣ ਕੇ ਅਨੁਕੂਲ ਆਰ ਲੋਗਾਂ ਕੇ ਅਨੁਕੂਲ ਹੋਨਾ ਚਾਹਿਏ।
ਸ਼ਰਥਾਂਗੀ ਤਕਨੀਕਾਂ ਪਰਿਆਵਰਣ ਦੇ ਅਨੁਕੂਲ ਅਤੇ ਲੋਕਾਂ ਦੇ ਅਨੁਕੂਲ ਹੋਣੀਆਂ ਚਾਹੀਦੀਆਂ ਹਨ।
- There is no self-regulation in nature.
ਪ੍ਰਕ੍ਰਿਤਿ ਮੇਂ ਕੋਈ ਆਤਮ-ਨਿਯਮਨ ਨਹੀਂ ਹੈ।
ਕੁਦਰਤ ਵਿੱਚ ਕੋਈ ਆਤਮ-ਨਿਯਮਤਾ ਨਹੀਂ ਹੈ।
- Developing ethical competence in individual ensures professional ethics.
ਵ्यक्ति में नैतिक क्षमता का विकास पेशेवर नैतिकता सुनिश्चित करता है।
ਵਿਅਕਤੀ ਵਿੱਚ ਨੈਤਿਕ ਸਮਰੱਥਾ ਦਾ ਵਿਕਾਸ ਪੇਸ਼ੇਵਰ ਨੈਤਿਕਤਾ ਪੱਕੀ ਕਰਦਾ ਹੈ।
- Existence is nature submerged in space.
अस्तित्व अंतरिक्ष में डूबे हुए प्रकृति है।
ਅਸਤੀਤਵ ਖਲਾਅ ਵਿੱਚ ਸਮਾਈ ਹੋਈ ਕੁਦਰਤ ਹੈ।
- The value "care" is related with body.
मूल्य "ध्यान" शरीर के साथ संबंधित है।
ਮੁੱਲ "ਧਿਆਨ" ਸਰੀਰ ਦੇ ਨਾਲ ਸਬੰਧਤ ਹੈ।

SECTION-B

(5 × 4 = 20)

- Differentiate between intention and competence. How do we come to confuse between the two?
इरादा और क्षमता के बीच क्या अंतर है? कैसे हम गलती करते हैं?
ਇਰਾਦਾ ਅਤੇ ਸਮਰੱਥਾ ਦੇ ਵਿੱਚ ਕੀ ਅੰਤਰ ਹੈ? ਕਿਵੇਂ ਅਸੀਂ ਗਲਤੀ ਕਰਦੇ ਹਾਂ?
- Explain harmony in family.
परिवार में तालमेल के बारे में बताएं।
ਪਰਿਵਾਰ ਵਿੱਚ ਤਾਲਮੇਲ ਦੇ ਬਾਰੇ ਵਿੱਚ ਦੱਸੋ।
- What are the basic guidelines of value education?
मूल्य शिक्षा की बुनियादी दिशानिर्देश क्या हैं?
ਮੁੱਲ ਸਿੱਖਿਆ ਦੀ ਬੁਨਿਆਦੀ ਦਿਸ਼ਾਨਿਰਦੇਸ਼ ਕੀ ਹਨ?
- What is prosperity? What is the difference between prosperity and wealth?
समृद्धि क्या है? समृद्धि और धन के बीच अंतर है?
ਖੁਸ਼ਹਾਲੀ ਕੀ ਹੈ? ਖੁਸ਼ਹਾਲੀ ਅਤੇ ਪੈਸੇ ਤ ਕੀ ਅੰਤਰ ਹੈ?
- Explain self-organisation and health.
आत्म संगठन और स्वास्थ्य के बारे में बताएं।
ਆਤਮ ਸੰਗਠਨ ਅਤੇ ਸਿਹਤ ਦੇ ਬਾਰੇ ਵਿੱਚ ਦੱਸੋ।

93322

(S-17) 2757

7. What do you mean by universal order? What could be your role in moving towards it?
 आप सार्वभौमिक मानवीय आदेश से क्या समझते हैं? इसमें अपनी भूमिका क्या हो सकती है?
- उसी सार्वभौमिक मानवीय आदेश को मँडते हैं? फिर फिर आपकी भूमिका क्या है?
- OR
- What are the five dimensions of human endeavour in society?
 समाज में मानव प्रयास के पाँच आयाम क्या हैं?
- मानव के पाँच आयाम क्या हैं?
 मानव के पाँच आयाम क्या हैं?
8. What are the broad holistic criteria for evaluation of technologies, management models and production systems?
 प्रौद्योगिकी, प्रबंधन मॉडल और उत्पादन प्रणालियों के मूल्यांकन के लिए व्यापक समग्र मानक क्या हैं?
- महावर्ती उद्योग, प्रबंधन मॉडल और उत्पादन प्रणालियों के मूल्यांकन के लिए व्यापक मानक क्या हैं?
- OR
- What is the need of Value-Education?
 मूल्य शिक्षा की क्या आवश्यकता है?
- मूल्य शिक्षा की क्या आवश्यकता है?
 मूल्य शिक्षा की क्या आवश्यकता है?
9. What are the four orders in nature? Explain briefly.
 प्रकृति में चार आदेश क्या हैं? संक्षेप समझाओ।
- ब्रह्म के चार आदेश क्या हैं? संक्षेप समझाओ।
- OR
- How there is Recyclability and Self-Regulation in Nature?
 प्रकृति में आत्म-नियमन और पुनर्चक्रण कैसे हैं?
- ब्रह्म के चार आदेश क्या हैं? संक्षेप समझाओ।
- OR
- What do you understand by competence in professional ethics? Elaborate.
 आप व्यावसायिक नैतिकता में दक्षता से क्या समझते हैं? समझाओ।
- उसी प्रश्न के नैतिकता के चार आदेश क्या हैं? संक्षेप समझाओ।
- OR
- What is the meaning and purpose of Self-Exploration?
 स्व-अन्वेषण का अर्थ और उद्देश्य क्या है?
- मानव-अन्वेषण का उद्देश्य और उद्देश्य क्या है?

SECTION-C

(6 × 5 = 30)

Note : Disclosure of Identity by writing Mobile No. or Making of Passing request on any page of Answer Sheet will lead to UMC against the Student.



11. What is happiness? What is the wrong notion about attaining happiness? What are the problems faced due to the wrong notions about happiness and prosperity? What could be your role in moving towards it?
 सुख क्या है? ख़ुशी को प्राप्त करने के बारे में गलत धारणा क्या है? सुख और समृद्धि के बारे में गलत धारणा के कारण क्या हो रही समस्याएँ क्या हैं?
- सुख की क्या है? सुखी के प्राप्त करने के बारे में गलत धारणा क्या है? सुख और समृद्धि के बारे में गलत धारणा के कारण क्या हो रही समस्याएँ क्या हैं?
- सुख की क्या है? सुखी के प्राप्त करने के बारे में गलत धारणा क्या है? सुख और समृद्धि के बारे में गलत धारणा के कारण क्या हो रही समस्याएँ क्या हैं?
- OR
- Describe in brief the salient value in human relationships.
 मानवीय रिश्तों में संक्षेप मुख्य मूल्यों का विवरण दें।
- मानवीय रिश्तों में संक्षेप मुख्य मूल्यों का विवरण दें।

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

B.Sc. (IT/Graphics & Web Designing) (BCA) (Sem.-1)

MATHEMATICS

Subject Code : UGCA1901

M.Code : 76961

Date of Examination : 26-06-2026

Time : 3 Hrs.

Max. Marks : 60

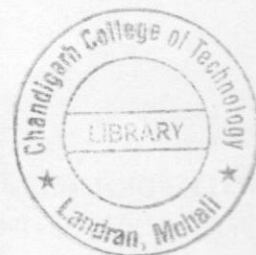
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

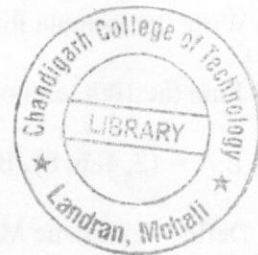
1. Attempt all questions

- Define universal set with an example.
- Write the difference between Union and Intersection of sets.
- Write a symbolic representation of: "If it rains, then the ground is wet."
- Define Diagonal Matrix with an example.
- If $A = \begin{bmatrix} 1 & -4 \\ -2 & 0 \end{bmatrix}$, find $3A$.
- Write the formula for the sum of first n terms of an Arithmetic Progression.
- Find the 10th term of the GP: 3, 6, 12 ...
- If $A = \{2, 4, 6, 8\}$, $B = \{6, 8, 10\}$, find $A \cap B$.
- Define Arithmetic Mean between two numbers.
- Construct the truth table for $(\neg(p \wedge q))$



SECTION-B

2. (a) Define Equivalent Set and Disjoint Set with examples.
(b) In a group of 100 students, 60 play Cricket, 45 play Football, and 20 play both. Find how many play neither game.
3. (a) Show using truth table: $(p \wedge q) \rightarrow p$ is always true.
(b) Define Logical Equivalence. Prove that $p \vee (q \wedge r) \equiv (p \vee q) \wedge (p \vee r)$.
4. (a) Define Square Matrix, Null Matrix, and Unit Matrix with examples.
(b) Compute AB where $A = \begin{bmatrix} 1 & 4 \\ 2 & 5 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 2 \\ 1 & 0 \end{bmatrix}$
5. (a) The sum of the first n terms of an AP is $S_n = \frac{(3n^2 + 5n)}{2}$. Find the first term and the nth term.
(b) Find the 12th term of an AP whose 4th term is 15 and 8th term is 27.
6. a) Find the sum of first 15 terms of GP: 1, 2, 4 _
b) If the 3rd term of a GP is 24 and 6th term is 192, find the first term and common ratio.
7. Define the following
a) Conjunction
b) Disjunction
c) Negation.



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Roll No.

Total No. of Pages: 02

Total No. of Questions: 07

BCA(Sem.-2)

COMPUTER SYSTEM ARCHITECTURE

Subject Code: UGCA-1908

M.Code: 77416

Date of Examination: 25-05-2026

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION-A

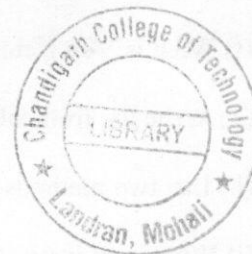
1. **Write briefly:**

- (a) Define a XOR gate and write its Boolean expression.
- (b) Write the truth table of a NAND gate. Why is it called a universal gate?
- (c) State the commutative law of Boolean algebra.
- (d) What is a half adder? State its limitation.
- (e) Define an encoder. Give one example of an encoder circuit.
- (f) What is Von Neumann architecture?
- (g) Write the truth table of a JK flip-flop.
- (h) List two methods to remove the race around condition.
- (i) What is an instruction format?
- (j) Define a bus system in a computer architecture. Differentiate between data bus and Address bus.



SECTION-B

2. Explain the working of basic logic gates AND, OR, and NOT with the help of logic symbols and truth tables. Also describe their practical applications in digital circuits.
3. Explain the operation of a Full Adder circuit. Derive the Boolean expressions for sum and carry and draw the logic diagram using basic gates.
4. What is a multiplexer? Design a combinational circuit using a 4-to-1 multiplexer to implement the Boolean function: $F(A, B, C) = \sum m(1, 2, 6, 7)$.
5. What are sequential logic circuits? Explain the operation of an R-S flip-flop. Draw its logic circuit, characteristic table, and characteristic equation. What is the invalid state of the circuit?
6. Explain the characteristics of RISC and CISC architectures. Compare their instruction sets, complexity, and performance.
7. What is a common bus system in computer organization? Describe the role of data bus, address bus, and control bus in data communication.



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Total No. of Pages :02

Total No. of Questions : 07

BCA(Bachelor of Computer Applications) (Sem.-2)

WEB TECHNOLOGIES

Subject Code : UGSEC 2505

M.Code : 95427

Date of Examination : 22-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and student has to attempt any FOUR questions.

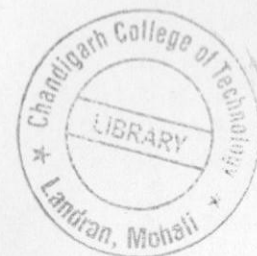
SECTION-A

- 1. Answer briefly :**

- Define internet and its basic components.
- Differentiate between client and server.
- State the purpose of HTML document structure.
- Outline text formatting tags in HTML.
- Define definition lists.
- Identify attributes of `<table>` tag.
- State the role of frames in HTML.
- Define JavaScript functions.
- Outline events in JavaScript.
- State the use of arrays in JavaScript.

SECTION-B

2. Present the structure of an HTML document, including commonly used tags and their functions.
3. Illustrate the use of images in HTML, including attributes such as width, height, border, align, and alt.
4. Present form handling in web pages, including input elements such as text, password, checkbox, radio, text area, and select.
5. Illustrate frames in HTML using `<frameset>` and `<frame>` tags, including targeting named frames.
6. Present JavaScript data types, operators, and control structures including loops and conditional statements.
7. Demonstrate JavaScript arrays and string handling, including methods and operations.



NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-2)
FUNDAMENTALS OF STATISTICS

Subject Code : UGCA-1907

M.Code : 77415

Date of Examination: 22-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly:

- a) Distrust of Statistics
- b) Sources of Collecting Primary Data
- c) Difference between discrete and continuous frequency distribution
- d) Types of table
- e) Merits and Demerits of preparing Bar Chart
- f) General rule for preparing a table
- g) Define Harmonic mean
- h) What is the relationship between mean, median and mode
- i) Formula for calculating range and its coefficient
- j) How Coefficient of Variation is calculated

SECTION-B

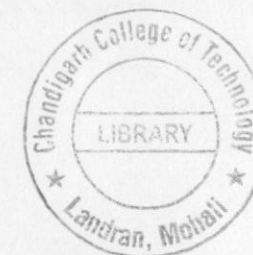
2. What do you understand by the term statistics? Explain its features and functions.
3. Discuss various methods of collecting data with their merits and demerits.
4. Discuss various graphical techniques of presentation of statistical data.
5. Calculate Mean and Median for the following data:

Class	Less than 10	10-20	20-30	30-40	40-50	50-60	60 and above
Frequency	10	20	29	44	29	16	8

6. Calculate Standard Deviation and Variance for the following data:

Class	50-59	60-69	70-79	80-89	90-99	100-109	110-119
Frequency	5	12	16	19	17	16	5

7. Explain various measures of dispersions with relevant examples.



NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-2)

ENVIRONMENTAL STUDIES

Subject Code : EVS-102-18

M.Code : 77421

Date of Examination : 19-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

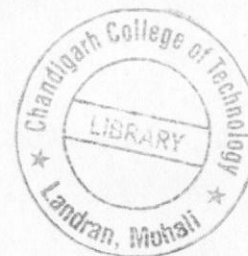
1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION - A

1. Write briefly :
- a) Mention any two objectives of studying Environmental Studies.
 - b) Define an ecosystem and name its major components.
 - c) What is a food chain? Give one example.
 - d) State two uses of forests.
 - e) Define biodiversity and its types.
 - f) What are endangered species? Give one example.
 - g) Write two causes of water pollution.
 - h) What are nuclear hazards? Give one example.
 - i) State two effects of global warming.
 - j) Mention two benefits of conducting field visits in Environmental Studies.

SECTION-B

2. Explain the need for public awareness and interdisciplinary approach in solving environmental problems.
3. Describe energy flow in an ecosystem with the help of food chain, food web, and ecological pyramid diagrams.
4. Discuss in detail renewable and non-renewable energy resources with suitable examples.
5. Elaborate on India as a mega-biodiversity nation. Explain biodiversity hotspots and endemic species.
6. Discuss major causes, effects, and control measures of global climate change.
7. Write detailed notes on:
 - (a) Environmental Laws and Acts in India.
 - (b) Fieldwork components prescribed under EVS (any two activities).



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Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-2)

OBJECT ORIENTED PROGRAMMING USING C++

Subject Code : UGSEC-2503

M.Code : 95425

Date of Examination : 19-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

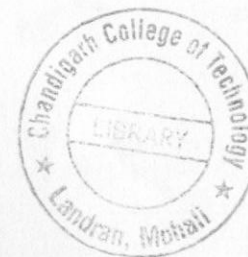
SECTION - A

1. Write briefly :

- a) Define Object Oriented Programming.
- b) What is a class?
- c) What is the use of scope resolution operator?
- d) What is use of protected access specifier?
- e) What is copy constructor?
- f) Define this pointer.
- g) What is private inheritance?
- h) Define function overloading.
- i) What is virtual function?
- j) What is file handling?

SECTION-B

2. Explain the basic features of object-oriented programming and compare it with procedural programming.
3. Describe classes and objects in detail. Explain access specifiers and array of objects with suitable examples.
4. Explain different types of constructors (default, parameterized, copy) and destructors with suitable examples.
5. Discuss different types of inheritance with examples and explain function overriding.
6. Write a program to demonstrate the concept of polymorphism. How static binding is different from dynamic binding.
7. Analyse a situation where multiple inheritance is used. Explain its advantages and possible issues (ambiguity problem).



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Roll No.

Total No. of Pages :02

Total No. of Questions : 07

BCA (Sem.-2)
OPERATING SYSTEM

Subject Code : BTBC-601-23

M.Code : 95423

Date of Examination : 15-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying TEN marks each and student has to attempt any FOUR questions.

SECTION-A

1. Answer briefly :

- List any two functions of an Operating System.
- What is the role of system programs?
- What are the generations of operating systems?
- Explain the concept of Multithreads.
- Define process scheduling.
- What is inter-process communication (IPC)?
- What is deadlock recovery?
- What is demand paging?
- Explain in brief about Disk Structure.
- Explain in brief about the term Compaction.

SECTION-B

2. Discuss the evolution and types of operating systems in detail.
3. Define a process. Explain process states and process control block (PCB) with diagram.
4. Write a detailed note on various Disk Scheduling Algorithms.
5. Discuss semaphores and monitors with examples.
6. Write a detailed note on Page Replacement Algorithms with suitable examples.
7. What is a deadlock? Explain deadlock characterization and methods of deadlock prevention and avoidance.



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Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-2)
OBJECT ORIENTED PROGRAMMING USING C++

Subject Code : UGCA-1909

M.Code : 77417

Date of Examination : 15-05-2026

Time : 3 Hrs.

Max. Marks : 60

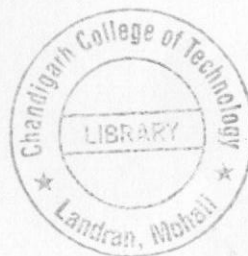
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION - A

1. Explain :

- a) Define the term abstraction. What are objects?
- b) Explain the concept of a class.
- c) What is function overloading?
- d) What are member functions?
- e) What are the implications of public, protected and private visibility modes?
- f) What is the purpose of the scope resolution operator?
- g) Can operator precedence be changed through operator overloading?
- h) Distinguish between single and multiple inheritances.
- i) Distinguish between a class and an object.



SECTION-B

2. What is object oriented programming? What are the objectives of this type of programming? Explain its advantages also.
3. What is inheritance? How will you call parameterized constructor and overridden method from parent class in sub-class?
4. Explain the following types of functions in detail:
 - (i) Local or private functions
 - (ii) Member functions
 - (iii) Friend functions
 - (iv) In-line functions
 - (v) Constructor functions
5. Create a class whose object represents a complex number (A complex number contains a real part and an imaginary part). Write a program so that it is possible to add two objects of this class and store the result in a third object.
6. What are virtual functions? What are the rules for virtual functions? What are the advantages of declaring a virtual function in a program? What are pure virtual functions? Explain.
7. Write a program in C++ to copy a text file to another file.

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Total No. of Questions : 07

DATA STRUCTURES-I

Subject Code : UGCC2506

M.Code : 95421

Date of Examination : 12-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

- INSTRUCTION TO CANDIDATES :**
- 1. SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
 - 2. SECTION-B** contains **SIX** questions carrying **TEN** marks each and student has to attempt any **FOUR** questions.

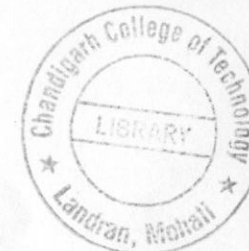
SECTION-A

1. Answer briefly :

- What is the difference between linear and non-linear data structures?
- What do you understand about the time-space trade-off in algorithm analysis?
- Discuss two advantages of linked lists over arrays.
- Explain a double linked list with an example.
- Write a short note on runtime stack.
- Define recursion with the help of an example.
- State two real-world applications of queues.
- Define a sparse matrix and explain its importance in memory optimization.
- Discuss the applications of stacks.
- Explain the LIFO principle in a stack.

SECTION-B

2. (a) Define algorithm complexity and explain best, average, and worst cases with an example.
(b) Explain multi-dimensional arrays and describe how they are represented in memory.
3. Explain insertion and deletion operations at the beginning, middle and end of a circular linked list.
4. Explain stack representation in detail using arrays and linked lists with the help of an example.
5. (a) Differentiate between double-ended queues and priority queues.
(b) Explain linked list-based representation of a queue with insertion and deletion algorithms.
6. (a) Write the algorithm to convert an infix expression to postfix using a stack.
(b) Explain the process of evaluating a postfix expression using a stack with a step-by-step example.
7. Explain the process of reversing a singly linked list using an iterative approach. Also, describe the header linked list and its advantages over a standard linked list.



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Roll No.

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Total No. of Questions : 07

Total No. of Pages : 02

BCA (Sem.-2)
Fundamental of Statistics
Subject Code : UGCC2504
M.Code : 95419
Date of Examination : 09-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write short notes on :

- Give two importance of Statistics.
- What do you mean by primary and secondary data?
- Define Statistical errors.
- What are the objectives of tabulation?
- Give one advantage and one disadvantage of Diagrammatic presentation.
- What are the characteristics of a good average?
- Find arithmetic mean for the given data: 10, 9, 20, 15, 40, 3, 12.
- From the given data of marks obtained by 100 students of a class, find mode and median:

Marks:	30	40	50	60	70	80
No. of students:	10	12	20	10	6	4

- Find the mean deviation about the mean for the data: 2, 4, 6, 8, 10.
- Determine the range of 12, 21, 9, 45, 32, and 40.

SECTION-B

2. Explain the scope and limitations of statistics. Distinguish between primary and secondary data with examples.
3. Explain methods of classification of data. Prepare a frequency distribution table for the data: 12, 15, 18, 20, 22, 25, 28, 30, 32, 35.
4. Explain tabular and graphical presentation of data. Draw a bar diagram for the data: 100, 150, 200, 250.
5. The following table shows the age of the students in a school.

Age (in yrs):	0-10	10-20	20-30	30-40	40-50	50-60
No. of students:	5	10	12	33	14	15

Find mean, median and mode of the given data.

6. Define median and mode. Find the median of: 5, 7, 9, 12, 15, 18, 20.
7. Explain standard deviation. Calculate the SD for: 2, 4, 6, 8, 10.



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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-3)
COMPUTER NETWORKS
Subject Code : UGCA-1913
M.Code : 78179

Date of Examination : 08-06-2026

Time : 3 Hrs.

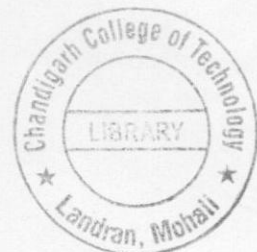
Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

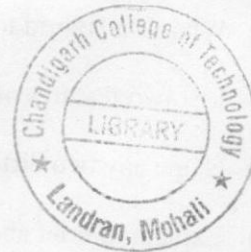
SECTION - A

1. Write briefly :
 - a) Define Parallel and Serial transmission.
 - b) What is a Hybrid topology?
 - c) List two features of Packet Switching.
 - d) Name any two differences between OSI and TCP/IP reference models.
 - e) Explain in brief about distortion in reference to Transmission impairments.
 - f) Expand the term PPP. Why is it used?
 - g) Differentiate between CSMA/CD and CSMA/CA.
 - h) What is Internetworking?
 - i) Define flow control in the Transport Layer.
 - j) Write any two uses of HTTP protocol.



SECTION-B

2. Discuss different types of networks – LAN, MAN, and WAN. Compare their features.
3. What are communication channels? Explain different wired transmission media (telephone lines, leased lines, coaxial cable, optical fiber).
4. Explain the OSI reference model in detail. Write the functions of each layer.
5. Explain various multiplexing techniques with suitable diagrams.
6. Explain IEEE 802.3 Ethernet and IEEE 802.5 Token Ring standards.
7. Write a detailed note on following in reference to the Application Layer: (a) Email (b) FTP (c) WWW



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Total No. of Pages : 02

Total No. of Questions : 07

B.Sc.(IT)/BCA (Sem.-3)
PROGRAMMING IN PYTHON

Subject Code : UGCA-1914

M.Code : 78180

Date of Examination : 10-06-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION - A

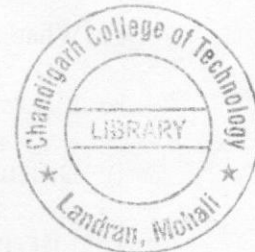
1. Write briefly :

- a) List any four key features of Python programming language.
- b) What is indentation in Python? Why is it important?
- c) List different types of operators in Python.
- d) What is a decision-making statement in Python?
- e) Differentiate between for loop and while loop.
- f) Define a function in Python and state any two advantages of using functions.
- g) What is an anonymous function in Python?
- h) List two advantages of using modules in Python.
- i) Differentiate between syntax error and exception.
- j) List any two features of OOP.



SECTION-B

2. (a) Explain the major applications of Python in different fields with examples.
(b) Write a note on variables, data types, and type conversion in Python.
3. Write a detailed note on different types of operators in Python with examples.
4. Explain (if, if-else, if-elif-else, nested if) decision-making statements in Python with syntax and suitable examples.
5. (a) What are built-in functions in Python? Explain any five commonly used built-in functions with examples.
(b) What is a module in Python? Explain the need and advantages of using modules.
6. (a) Write a Python program to write and read data from a file.
(b) What are exceptions in Python? Explain different types of built-in exceptions with examples.
7. Explain how objects are created and initialized in Python. For a class Employee with attributes name and salary, create two objects and display their details.



NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

Roll No.

Total No.of Pages : 02

Total No. of Questions : 07

BCA (Sem.-3)

PC ASSEMBLY & TROUBLESHOOTING

Subject Code : UGCA-1919

M.Code : 78185

Date of Examination : 15-06-2026

Time : 3 Hrs.

Max. Marks : 60

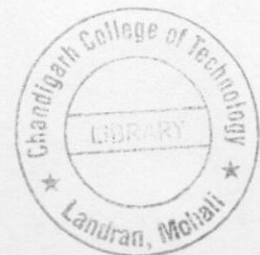
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION - A

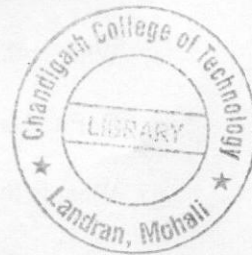
1. Write briefly :

- What is a Computer?
- What are the various components in a computer system?
- What is the importance of software in a computer?
- List the hardware components in a computer.
- What is the use of a Microprocessor in a computer?
- Define Microcomputer.
- What is the full form of USB?
- What is the need for troubleshooting in a computer?
- List the steps for troubleshooting a printer.
- What is the need for Booting in a computer?



SECTION-B

2. Describe the evolution of the computer on the basis of hardware.
3. What are the different modules of a computer? Explain the operation of different components of a computer system.
4. Describe the hardware and software requirements of motherboards. Discuss the need for installation and configuration in a computer.
5. Explain different types of motherboards. List the steps for selecting the right motherboard.
6. Explain the steps for the installation of printers and scanners in a computer system.
7. Explain the different approaches for installing and supporting input and output devices.



NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

B.Sc. (G&WD/IT)/ BCA (Sem.-3)

DATA STRUCTURES

Subject Code : UGCA 1915

M.Code : 78181

Date of Examination : 12-06-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- Define time complexity. Write the complexity of binary search.
- Differentiate between array and linked list.
- What is a pointer to structure?
- Define a string. Mention any two string library functions.
- List any two applications of stack in real life.
- Differentiate between linear queue and circular queue.
- Define AVL tree.
- What is a threaded binary tree?
- Define graph. Write two representations of graph.
- What is collision in hashing?



SECTION-B

2. Write an algorithm and program to search an element in a one-dimensional array using linear search.
3. Write a program to implement multiple stacks in a single array.
4. Write a program to implement a circular queue and perform enqueue and dequeue operations.
5. Write algorithms to insert and delete a node in a doubly linked list.
6. Explain merge sort algorithm and trace the sorting of the array [64, 25, 12, 22, 11].
7. Write Dijkstra's algorithm to find the shortest path in a weighted graph and explain with an example.



NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.

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Total No. of Questions : 07

DATABASE MANAGEMENT SYSTEMS

Subject Code : UGCA1922

M.Code : 79726

Date of Examination: 25-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

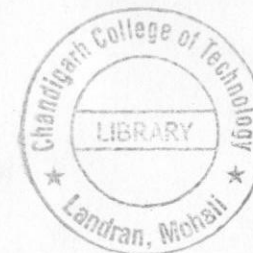
SECTION-A

1. Write briefly:

- Define a Relation, its attributes, and data types.
- Give different types of integrity constraints and their role in a DBMS.
- What is the difference between a primary key and a foreign key?
- Differentiate between the Network model and the Relational model.
- What is the role of data flattening in normalization?
- What is data redundancy?
- Give different integrity constraints.
- Discuss time-stamping.
- Why are locking techniques used?
- Differentiate between data security and data protection.

SECTION-B

2. How is a database designed and constructed? Consider any real-world scenario of your choice and design the architecture of a DBMS for the same using the three-level model. Draw neat and labeled E-R diagrams for the same.
3. What is the role of different normal forms in data integration? Consider any relation and apply the desired normal forms to organize the decomposed data integration.
4. What is the difference between DDL and DML statements? How are these used in a DBMS? Give suitable examples to justify your answer.
5. Why is DBMS security important and how is it implemented to secure any DBMS?
6. What are locking techniques and their importance? How are these used in concurrency control? Justify your answer with suitable examples.
7. Give one example of a distributed DBMS. What is its importance, advantages, and limitations?



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Total No. of Pages : 02

Total No. of Questions: 07

BCA (Sem-4)
SOFTWARE ENGINEERING
Subject Code: UGCA1921
M.Code: 79725
Date of Examination: 21-05-2026

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

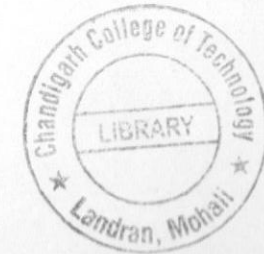
SECTION - A

1. Answer the following questions:

- a) How is the software engineering different from other engineering disciplines?
- b) What are the considerations in the feasibility study?
- c) What is prototyping?
- d) What are software metrics?
- e) What is system testing?
- f) Why should we test? Who should do the testing
- g) Compare Unit Testing and Integration Testing.
- h) What is coupling?
- i) What is the need of metric in software?
- j) Give important characteristics of a software process.

SECTION – B

2. What do you mean by Software Engineering? How is it different from other traditional engineering disciplines?
3. What are the phases in SDLC? What is the importance and need of each Phase? Explain in detail.
4. Explain the features of a design document in detail.
5. Discuss the characteristics and importance of the object oriented design in detail.
6. What are decision trees and decision tables? Explain with examples.
7. What are the various types of testing? Explain them in detail.



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Roll No.

Total No. of Pages : 03

Total No. of Questions : 07

B.Sc. (Information Technology) / (BCA) (Sem-4)

WEB DESIGNING

Subject Code : UGCA1927

M.Code : 79731

Date of Examination : 18-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Answer briefly:

- a) Internet
- b) IP Address
- c) HTTP Protocol
- d) Unordered List
- e) Alt Attribute (Images)
- f) Internal Document Reference
- g) DHTML
- h) JavaScript Function
- i) JavaScript Array
- j) RegExp in JavaScript



SECTION - B

2. Trace the evolution of HTML from its early versions to HTML5. Compare static and dynamic web pages. Also explain the structure of an HTML document covering the roles of `<!DOCTYPE>`, `<html>`, `<head>`, `<title>`, and `<body>` tags with a working example.
3. Construct an HTML page that demonstrates all three types of HTML lists with nesting:
 - (a) An unordered list of programming languages with bullet style customization
 - (b) An ordered list of steps to create a website using different numbering types (1, A, i)
 - (c) A definition list of 5 web-related terms with their meanings
4. Build an HTML page that incorporates images and hyperlinks:
 - (a) Insert an image with proper use of `src`, `alt`, `width`, `height`, and `border` attributes
 - (b) Create external and internal document links
 - (c) Use an image as a hyperlink to open a new tab
 - (d) Apply the `BGCOLOR` attribute to sections
 - (e) Add a clickable email link using `mailto`
5. Illustrate CSS (Cascading Style Sheets) in HTML. Write an HTML page that applies:
 - (a) Inline styles to format a heading
 - (b) An internal `<style>` block to style paragraphs, table borders, and a list

- (c) The DHTML Style Tag to change element appearance dynamically using JavaScript onclick events
 - (d) Font family, font size, color, background-color, and margin properties
6. Explain string and array methods in JavaScript. Write a JS program to:
- (a) Accept a string and find its length, convert it to uppercase, and reverse it
 - (b) Create an array of 5 numbers and perform sort, find maximum value, and display even numbers from the array
7. What is form validation in JavaScript? Create an HTML form with fields – Name, Email, and Mobile Number. Write JavaScript code to validate that:
- (a) No field is left empty
 - (b) Mobile number contains exactly 10 digits
 - (c) Display an alert message if any validation fails



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Total No. of Pages: 02

Total No. of Questions: 07

BCA (Sem.-5)
CLOUD COMPUTING

Subject Code: UGCA1936

M.Code: 90319

Date of Examination: 24-06-2026

Time: 3 Hrs.

Max. Marks: 60

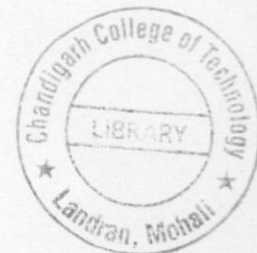
INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION A

1. Answer in brief:

- (a) What is grid computing?
- (b) Define cloud service provider.
- (c) What is PaaS?
- (d) What is multi-tenancy?
- (e) Define load balancing.
- (f) What is cloud storage?
- (g) What is SLA (Service Level Agreement)?
- (h) What is virtualization overhead?
- (i) What is hybrid cloud?
- (j) What is fault tolerance?



SECTION B

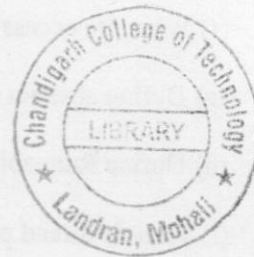
2. Explain the evolution of cloud computing from traditional computing.
3. Describe virtualization architecture and working of hypervisors.
4. Compare cloud computing with grid and distributed computing.
5. Explain the concept of Service Level Agreement (SLA) in cloud computing.
6. Discuss cloud security challenges and explain the steps to ensure security over cloud.
7. Describe the architecture and services offered by Amazon Web Services.



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SECTION-B

2. Explain polymorphism at compile time and run time with examples of overloading vs overriding.
3. Describe interfaces & packages with examples.
4. Explain multithreading detail and Describe thread synchronization mechanisms with small examples.
5. Give a detailed description of Java I/O: buffered streams, readers/writers, object serialization, random access file operations.
6. Write a function Accept marks of n students in an array; compute class average, median.
7. Explain Exception handling and Create a small package bank.util with a class that validates account numbers and throws checked exceptions for invalid input.



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Total No. of Pages :02

Total No. of Questions: 07

BCA (Sem.-5)
INTERNET OF THINGS

Subject Code: UGCA1933

M.Code: 90316

Date of Examination: 16-06-2026

Max. Marks: 60

Time: 3 Hrs.

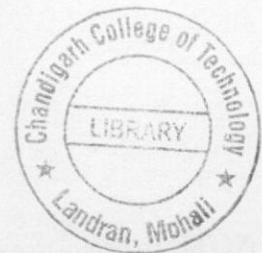
INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION – A

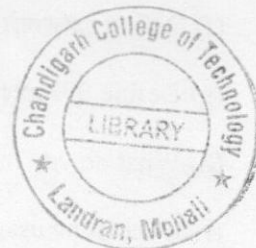
1. Answer the following questions:

- (a) Define CoAP
- (b) Define term embedded system.
- (c) What is the role of communication protocols in IoT systems?
- (d) Define role of cloud based applications in IoT system.
- (e) Explain role of IoT systems in home automation.
- (f) Define network management protocols.
- (g) Define SPI interface.
- (h) What do you mean by REST?
- (i) What is the usage of M2M gateway?
- (j) Define NETCONF.



SECTION-B

2. Explain different levels of IoT in detail with the help of suitable examples.
3. Explain Domain specific IoTs- City and Environment.
4. Explain the Raspberry Pi platform and its role in IoT applications.
5. Explain cloud storage models and communication APIs.
6. Explain Physical Design of IoT in detail.
7. Explain the technologies and applications of IoT.



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Roll No.

Total No. of Pages : 02

Total No. of Questions: 07

BCA(Sem.-5)

PROGRAMMING IN PHP

Subject Code: UGCA1929

M.Code: 90312

Date of Examination: 13-06-2026

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write short note on following:

- (a) Mention any two differences between PHP and other programming languages.
- (b) How do you test a specific data type in PHP?
- (c) What is the purpose of default arguments in a PHP function?
- (d) Name two functions used for string comparison in PHP.
- (e) Differentiate between indexed array and associative array.
- (f) Give an example of a super global array.
- (g) What is the use of \$_POST in PHP?
- (h) What is the use of the fclose() function in PHP?
- (i) Name any two DML commands used in SQL.
- (j) Which SQL command is used to update records in a database?



SECTION-B

2. Explain the evolution of PHP. Compare PHP with other programming languages in terms of features and usage.
3. Explain control statements in PHP with suitable examples: if, elseif, switch, while, do-while, and for loop.
4. How can HTML and PHP be combined to handle form data? Explain with an example program that imports, processes, and displays user input.
5. Discuss file uploading and downloading in PHP with example code. Also explain how directories can be managed using PHP functions.
6. Explain the steps for connecting PHP with a MySQL database. Write a PHP program to insert and display data from a table.
7. Explain the working of forms in PHP. Discuss the use of super global variables (\$_GET, \$_POST, \$_REQUEST) with examples.



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Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-5)

LINUX OPERATING SYSTEM

Subject Code : UGCA1935

M.Code : 90318

Date of Examination : 11-06-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

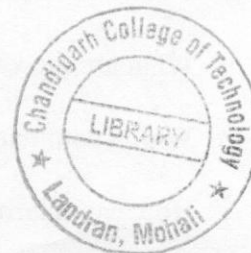
1. Write briefly :

- What is the Linux Kernel?
- What are the two modes of the vi editor?
- What are the various types of shells in Linux?
- What is the purpose of utilities?
- Write down the command to print the current working directory path.
- Define GNOME.
- What are the various types of shell variables?
- Which command is used to change permissions in Linux?
- How can internet and network services be used in Linux?
- What is Backup management in Linux?



SECTION-B

2. Discuss various features and characteristics of the Linux operating system.
3. Describe various types of shells in the Linux operating system in detail.
4. Explain the working of variables in Linux in detail.
5. Write down various commands used for managing files and directories in Linux.
6. Discuss various types of users and user management in Linux.
7. Write down the history and evolution of the Linux operating system.



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Roll No.

Total No. of Pages :02

Total No. of Questions : 07

Bachelor of Computer Applications (Sem.-5)

COMPUTER GRAPHICS

Subject Code :UGCA1934

M.Code :90317

Date of Examination : 09-06-2026

Time : 3 Hrs.

Max. Marks : 60

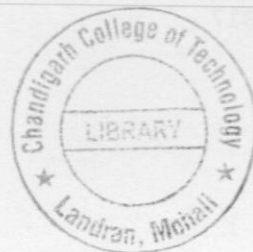
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- List any four major applications of Computer Graphics in the modern industry.
- What is the primary function of a Data Glove in a Virtual Reality environment?
- Define the term 'Aspect Ratio' in the context of video display devices.
- Explain the basic concept of the Beam Penetration technique for color CRTs.
- What do you understand by the term 'Scan Conversion'?
- Mention the two common methods used for Character Generation.
- Why do we need a Homogeneous Coordinate System in 2D transformations?
- Define 'Shearing' as a geometric transformation.
- What is the difference between Parallel Projection and Perspective Projection?
- Briefly explain what 'Morphing' means in 3D graphics.



SECTION-B

2. Compare and contrast Raster Scan Displays with Random Scan Displays, highlighting their working mechanisms and performance.
3. Derive and explain the Bresenham's Line Drawing Algorithm for a line with a positive slope less than one.
4. Describe the Midpoint Ellipse Algorithm in detail and discuss its advantages over the direct method.
5. Explain the 2D Rotation transformation and derive the composite transformation matrix for rotating an object about an arbitrary point (x_p, y_p) .
6. Discuss the Cohen-Sutherland Line Clipping algorithm with the help of region codes and the clipping process.
7. Explain the 3D Geometric Transformations of Translation and Rotation along with their respective mathematical matrices.



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Total No. of Questions : 07

Total No. of Pages : 02

BCA (Sem.-06)

SOFTWARE PROJECT MANAGEMENT

Subject Code : UGCA1957

M.Code : 93688

Date of Examination : 02-06-2026

Time : 3 Hrs.

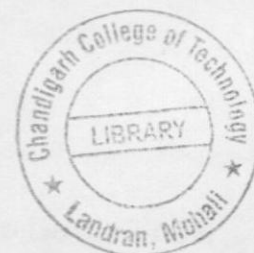
Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

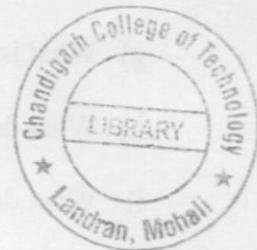
SECTION - A

1. **Write briefly :**
- a) What is the concept of measurements?
 - b) What are Project assets?
 - c) What is effort estimation?
 - d) What is Team management?
 - e) What is risk control?
 - f) What is Project monitoring?
 - g) What is Project scheduling?
 - h) What do you understand by software quality?
 - i) What do you mean by change control?
 - j) Explain software configuration management.



SECTION – B

2. Explain the Project management and CMM concepts.
3. Explain effort estimation and scheduling in detail.
4. Explain the Risk management concept in detail.
5. What are the activities in Process Monitoring and audit?
6. What is quantitative quality management planning? Explain.
7. What is the relationship between change management and configuration management?
Explain.



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Total No. of Pages : 02

Total No. of Questions : 07

Bachelor of Computer Applications (Sem.-6)

CYBER LAWS & IPR

Subject Code : UGCA1949

M.Code : 91696

Date of Examination : 30-05-2026

Time : 3 Hrs.

Max. Marks : 60

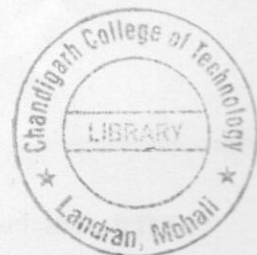
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) Explain the use of web technology in Cyberspace.
- b) What are Law issues of Jurisdiction in Cyberspace?
- c) Define the term Cyber Harassment.
- d) What is Sliding Scale Theory?
- e) What do you mean by Hacking?
- f) What is Data Protection?
- g) What do you mean by Identity Theft?
- h) What do you understand from Rights of Patent?
- i) Explain the use of Trademark.
- j) List the steps to Register the Trademark.



SECTION-B

2. Explain in detail the types of Jurisdictions under IT Act 2000.
3. Define the terms trademark, types of trademark and explain how the trademark is protected.
4. What are different types of IPRs in India and abroad? Explain in detail.
5. What do you mean by privacy on Internet? Explain the self-regulation approach to privacy.
6. Define the term Digital forgery. Explain the ethics and Etiquettes of cyberspace.
7. Explain the different forms of Cyber Defamation and Cyber Terrorism.



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Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA(Sem.-6)
MACHINE LEARNING
Subject Code : UGCA1950
M.Code : 91697

Date of Examination : 21-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :
- (a) Confusion Matrix
 - (b) Random search
 - (c) Decision tree
 - (d) Classification
 - (e) SVM
 - (f) Unsupervised learning
 - (g) C-means
 - (h) MDP
 - (i) Reinforcement learning
 - (j) Q-values and V-values

SECTION-B

2. Differentiate between k-means and k-medoids algorithms.
3. Write a note on perfect decision tree and confusion matrix.
4. How is SVM implemented for classification?
5. Write a note on hyperparameter optimization.
6. Define clustering and its use case methods.
7. Write a note on Markov Decision Process.



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Total No. of Questions: 07

Total No. of Pages: 02

BCA (Sem.-6)
INFORMATION SECURITY
 Subject Code: UGCA-1948
 M.Code: 91695
 Date of Examination: 16-05-202

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

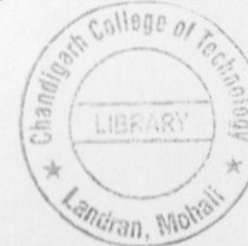
SECTION-A

1. Short answer type questions:

- (a) Differentiate between symmetric key cryptography and asymmetric key cryptography.
- (b) Explain the role of encryption in protecting data confidentiality.
- (c) What is the difference between substitution cipher and transposition cipher?
- (d) Explain the importance of authentication in operating system security.
- (e) How do computer viruses affect system security?
- (f) Explain the role of firewalls in protecting network systems.
- (g) What is meant by inferential control in database security?
- (h) How does a digital signature ensure data integrity and authentication?
- (i) Explain the purpose of intrusion detection systems (IDS) in network security.
- (j) Why is risk analysis important in security planning?

SECTION-B

2. (a) Explain the security problems in computing and discuss the major types of computer criminals.
(b) Describe the methods used to defend against computer attacks.
3. (a) Explain the working of substitution and transposition ciphers with examples.
(b) Discuss the characteristics of a good encryption algorithm.
4. (a) Explain the DES (Data Encryption Standard) algorithm with its structure.
(b) Compare symmetric key cryptography and asymmetric key cryptography.
5. (a) Explain different types of malicious programs such as viruses, worms, and Trojan horses.
(b) Discuss control mechanisms to protect systems from malicious code.
6. (a) Explain the concept of security policies and models of security in operating systems.
(b) Describe the design and importance of a trusted operating system.
7. (a) Explain database security and the concept of inferential control.
(b) Discuss network security controls, including firewalls and intrusion detection systems.



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Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-06)
DIGITAL MARKETING
Subject Code : UGCA-1947
M.Code :91691

Date of Examination : 14-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

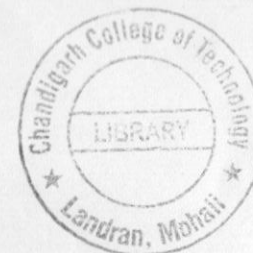
SECTION-A

1. Write briefly:

- a) State two characteristics of content marketing.
- b) What is the difference between traditional marketing and digital marketing?
- c) What is PPC?
- d) State two objectives of mobile marketing.
- e) What is outbound marketing? Mention any two techniques.
- f) Explain the role of blogs in digital marketing.
- g) State any three drawbacks of email marketing.
- h) What is SMM? Why is it important for businesses?
- i) What are keywords? Why are they important in SEO?
- j) What is content marketing strategy?

SECTION - B

2. Explain the evolution of Digital Marketing. Discuss the roles of inbound and outbound marketing, and evaluate how online marketing channels (SEO, social media, email, blogs, forums) contribute to business growth.
3. Explain how to build a strong Web Presence. Discuss methods to increase online traffic including search engines, keywords, content creation, blogging strategies, and tools for content management.
4. Discuss Social Media Marketing in detail. Compare different platforms such as Facebook, LinkedIn, Twitter, Instagram, and video-based platforms in terms of marketing objectives and audience reach.
5. Explain the concept and importance of SEO. Discuss the role of search engines and keywords in improving website ranking and visibility.
6. Discuss On-Page SEO techniques. Explain website structure, navigation menus, content writing, keyword research, and SWOT analysis of websites.
7. Discuss Keyword Research and Analysis in detail. Explain business analysis, types of keywords, tools, and their role in driving website traffic.



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Total No. of Pages 02

Total No. of Questions : 07

BCA (Sem.-6)
ANDROID PROGRAMMING
 Subject Code : UGCA-1943
 M.Code : 91681

Date of Examination : 05-05-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION - A

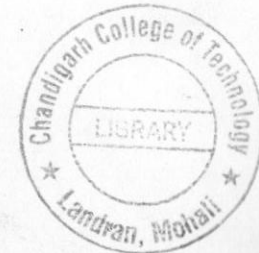
1. Explain briefly :

- a) JVM vs DVM
- b) Testing
- c) Android XML
- d) Google Map
- e) AVD
- f) Bytecode
- g) SDK
- h) Date time picker
- i) Toast
- j) Security

SECTION-B

2. Discuss the characteristics of mobile applications

3. Define UI design. Explain any 2 UI tools used in mobile app development.
4. Explain in detail with the help of flowchart the activity life cycle process.
5. Build an app to differentiate between checkbox and radio button.
6. What is testing and deployment process in Mobile? Explain.
7. Write a detailed note on mobile software engineering.



NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.