Step Academy official
Model Town Grw PH: 03016652757

STUDENT NAME			CLASS	New 1st Year (FSC/ICS)
PAPER CODE	81834		SUBJECT	Computer
TIME ALLOWED	150		TOTAL MARKS	100
Paper Date	27-02-2026		Paper Type	

Q1. **Choose the correct answer.** 15X1=15

1. A keyword used to define a function in Python:

(A) Define
(B) Function
(C) Def
(D) Func

2. An algorithm with a time complexity of O(n log n):

(A) Bubble Sort
(B) Binary Search
(C) Merge Sort
(D) Insertion Sort

3. An algorithm that sorts data by stepping through the list and swapping adjacent elements if needed is:

(A) Selection Sort
(B) Quick Sort
(C) Bubble Sort
(D) Merge Sort

4. Time complexity of Depth-First Search (DFS) in a graph is:

(A) O(n log n)
(B) O(V)
(C) O(V + E)
(D) O(n)

5. The function used to add an item at the end of a list in Python:

(A) insert()
(B) append()
(C) remove()
(D) pop()

6. A cloud deployment model combining public and private cloud features:

(A) Public Cloud
(B) Hybrid Cloud
(C) Community Cloud
(D) Multi-Cloud

7. The practice considered ethical when using information:

(A) Copying content without permission
(B) Respecting copyright and avoiding plagiarism
(C) Ignoring source attribution
(D) Using unverified information

8. The reason for understanding bias during information evaluation:

(A) Ignoring other viewpoints
(B) Recognizing the source's agenda
(C) Validating all sources equally
(D) Avoiding evaluation altogether

9. Boolean operator used to exclude a term from search res

(A) OR
(B) AND
(C) NOT
(D) NEITHER

10. The option falls outside the category of intellectual:

(A) Patents
(B) Trademarks
(C) Copyrights
(D) Physical Properties

11. Way for a company to protect a trade secret:

(A) Register it with the IPO
(B) Apply for a trademark
(C) Keep it confidential and use legal agreements
(D) Publish it in a journal

12. A principle of Design Thinking is:

(A) Focusing on profits
(B) Human-centered approach
(C) Minimizing risks
(D) Emphasizing short-term

13. The first step in creating a business plan involves:

(A) Financial forecasting   **(B)** Market analysis   **(C)** Defining the business idea   **(D)** Setting sales targets

14. A successful business pitch should be:

(A) Long and detailed   **(B)** Clear and persuasive   **(C)** Focused on personal achievements   **(D)** Directed only at investors

15. Innovation in business focuses on:

(A) Inventing new technologies   **(B)** Improving existing products and processes   **(C)** Reducing operational costs   **(D)** Increasing production speed

---

Q2.   **Write short answers of the following questions. Any 6**   6X2=12

1 . Explain why the testing phase is important in the Software Development Life Cycle (SDLC), and provide two reasons for its significance.

2 . Evaluate the main steps involved in risk assessment and management, and assess their importance in a software project.

3 . Define operator precedence and give an example of an expression where operator precedence affects the result.

4 . Explain the use of the range() function in a for loop.

5 . Outline the main steps involved in the Generate-and-Test method.

6 . Compare tractable and intractable problems in the context of computational complexity.

7 . Discuss the advantages of using Dynamic Programming

8 . Compare the advantages of Breadth-First Search (BFS) with Depth-First Search (DFS) in graph traversal.

9 . Explain why modular programming is useful in Python.

Q3.   **Write short answers of the following questions. Any 6**   6X2=12

1 . What is difference between enqueue () and dequeue ().

2 . What is a list in Python?

3 . How is a list created in Python?

4 . What does LIFO stand for in the context of stacks?

5 . Which two main operations are performed on a queue?

6 . How does a queue work in real life?

7 . What is the mean of the dataset: 50, 52, 55, 57, 60?

8 . What is the probability of getting heads when flipping a fair coin?

9 . Why is data security important in cloud computing?

Q4.   **Write short answers of the following questions. Any 6**   6X2=12

1 . What legal benefit do Terms of Use offer to businesses?

2 . What is spyware?

3 . What is health research and how can it be useful?

4 . Give an example of how searching for information can be helpful in solving a problem?

5 . Why is it important to use specific keywords when searching for information online?

6 . What does confidentiality mean in research ethics?

7 . Give an example of data-driven decision-making.

8 . What is communication?

9 . What does iteration mean?

Q5. **Write detailed answers of the following questions. Any 3** **3X8=24**

1 . Explain how the while loop works in Python with an example.

2 . Discuss the nature of optimization problems and provide examples of their applications in real-world scenarios.

3 . Explain data collection methods.

4 . Explain the process of creating a business plan, and why each step is critical to the success of a new business.

5 . Describe "Cloud Deployment Models" with examples