Smart Syllabus / Accelerated Learning Program (ALP) for Computer Science & Entrepreneurship Grade-12 for Academic Session 2026-27 & BISE Exam-2027

Details of excluded content for Computer Science and Entrepreneurship-12 are as under:

NOTE: No question should be included from excluded topics in any section, including: Unit Summary, Content-based questions, Exercises, MCQs, Short questions and Essay Type (Long) questions.

Unit No.	Unit Name	Excluded Content
1	**Computer Networks**	Home Network Setup and Configuration, Wi-Fi Security and Router Configuration, Network Diagnostic Tools and Commands (Page No. 11-13) Network Load Balancing (Page No. 14) Usability and Security Tradeoffs (Page No. 16)
2	**Computational Thinking and Algorithms**	Applying Predicate Logic to real-world Problems (Page No. 28-29) Logic-Based Reasoning and inference (Page No. 29) **Exercise:** Long Question (Q. 8) (Page 32)
3	**Object-Oriented Programming using Python**	Polymorphism (Page No. 39-41) **Exercise:** MCQs (Q. 5, 7) (Page No. 43) Short Questions (9, 10) Long Questions (5, 7) (Page No. 44)
4	**Development of Graphical User Interface (GUI)**	Graphical User Interface development with Tkinter (Page 45-52) **Exercise:** MCQs (Q. 1-9) (Page No. 58) Short Questions (Q. 1-8) Long Questions (1-7) (Page 59)
5	**Code Testing and Debugging**	Complete Unit is excluded.

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6	**Data and Analytics**	Validation and Model Improvement (Page No. 82-83), Predictive Modeling and Causality (Page No. 83-84), Machine Learning Tools and Platforms (Page No. 84-85) **Exercise:** MCQ. (Q 10) (Page No. 87) Short Questions (Q. 9, 10) Long Questions (Q. 7, 8) (Page No. 88)
7	**Hypothesis Testing**	Data Visualization for Hypothesis Testing (Page No. 96-99) **Exercise:** MCQs. (Q 8-10) (Page No. 101) Short Questions (Q. 8-10) Long Questions (Q.5 – 8) (Page No. 88)
8	**Applications of Computer Science**	Ethical and Cultural Implications of AI Systems (Page No. 108-111) **Exercise:** MCQs (Q 5, 6) (Page No. 116) Short Questions (Q. 5, 6), Long Question (Q 7) (Page No. 117)
9	**Cybersecurity and Safe Digital Collaboration**	Digital Collaboration and Equity in Computing (Page No. 124-127) Ethical, Legal and Environmental Impacts of Computing (Page No. 131-133) **Exercise:** MCQs (Q 7-10) (Page No. 135) Short Questions (Q. 8, 9) Long Questions (Q. 7, 8) (Page No. 136)

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Excluded Practicals for
Computer Science and Entrepreneurship for Grade-11

List of Practicals
• Create Python programs that handle exceptions effectively. • Write and execute Python programs that involve file handling for reading and writing data. • Build Python programs that invoke functions, both with and without loops, in a modular approach. • Develop the ability to locate and correct simple code errors, such as syntax issues, through systematic examination. • Build basic statistical models, such as linear regression, for solving real-world problems. • Apply statistical models to solve real-world problems in areas like business, science, healthcare, or social issues. • Work collaboratively on modeling projects, sharing ideas, and insights to build effective models. • Read and interpret boxplots, with an emphasis on understanding sample sizes and their relationship to population parameters. • Use data analysis tools like RStudio or Python to re-randomize data for experimentation purposes. • Effectively communicate the applications and implications of cloud computing and blockchain, both orally and in written form.

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Excluded Practicals for
Computer Science and Entrepreneurship for Grade-12

List of Practicals

• Set up basic networks, configure network devices, and establish network connections.
• Proficiency in using diagnostic tools and commands to identify and resolve network issues.
• Implement basic security measures
• Implement inheritance hierarchies to represent relationships between objects.
• Implement polymorphism through method overriding and abstract classes or interfaces.
• Design interactive user interfaces using Tkinter components
• Understand the event-driven nature of GUI applications and implementing event handlers.
• Handle user events, such as button clicks and mouse interactions, within Tkinter applications.
• Create responsive and visually appealing GUIs that enhance the user experience.
• Organize GUI elements in a structured and user-friendly layout
• Troubleshoot and resolve GUI-related issues.
• Develop and execute comprehensive unit tests, analyze test results, and refine code based on testing outcomes.
• Evaluate machine learning models using various metrics, including error, accuracy, precision, recall, and F-measure.
  o Assess machine learning models with validation datasets to ensure their robustness.
• Implement train-test splitting of data to assess model performance.
  o Explain the meaning of machine learning model results in real-world scenarios.
• Apply feature engineering techniques in machine learning model building.
  o Interpret the results of machine learning model outputs, including identifying features with the most impact.
• Evaluate models with appropriate metrics related to the algorithm type and improve models using hyperparameter tuning.
• Interpret the visuals to support and illustrate conclusions drawn from hypothesis tests.
  o Use data analysis and statistical software tools (e.g., Excel, R, Python) to create data visuals.
  o Create graphs, bar charts, histograms, or other relevant data visualizations to represent data and findings.

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