Smart Syllabus / Accelerated Learning Program (ALP)
Computer Science & Entrepreneurship Grade-10 for Academic Session 2026-27 & BISE Exam-2027

Details of excluded content for Computer Science and Entrepreneurship-10 are as under:

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

Unit No.	Unit No.& Name	Excluded Content
1	**Operating Systems: Structure and Services**	Process Scheduling Concepts (Page No. 7-9) **Exercise:** MCQ (Q. 6) (Page No. 17) Short Question (Q. 6) (Page No. 18) Long Questions (Q. 5) (Page No. 18)
2	**System Recovery and Advanced Maintenance**	Complete Unit is excluded.
5	**Data Science**	Tools for Data Visualization (Page No. 81, 82) **Exercise:** MCQs (Q. 4, 6, 8) Short Questions (Q. 5, 8) (Page No. 86, 87) Long Question (Q. 2) (Page No. 87)
6	**Introduction to Machine Learning**	Linear Regression (Page No.95-96) **Exercise:** Short Question (Q. 8) (Page No.100)
8	**Digital Entrepreneurship**	Ethical Business Practice & Digital Ethics (Page. 118-121) Legal Framework & Compliance (Page. 121-124) Exercise: MCQ (Q. 2, 6, 7, 9) (Page. 131) Short Questions (Q. 3, 4, 5) (Page. 132) Long Question (Q. 2) (Page 132)

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Pairing Scheme

Instructions for Preparation of Exam Paper of Computer Science & Entrepreneurship for Grade-10

ESSENTIAL INSTRUCTIONS FOR PAPER SETTERS

The Computer Science & Entrepreneurship paper for Class 10 will consist of 50 marks. The duration for the Multiple-Choice Questions (MCQs) section will be 15 minutes, while the time allocated for the short and long questions section will be 1 hour and 45 minutes. The paper will be made as per the following details:

Part-I: Objective:	**Q-1:** Ten (10) Multiple-Choice Questions. MCQs will be developed from the entire content of the textbook. • One MCQ will be asked from each chapter No.1, 4, 6, 8. • Two MCQs will be asked from chapters No. 3, 5, 7.	1× 10 = 10
Part-II: Subjective:	This section will contain three (3) short questions. Each short question will be asked from the content of the textbook. The detail is as follows:	
	Q-2: Four (4) short questions have to be answered out of 6. The detail is as follows: • Two (2) short questions should be asked from Chapter No. 1 • Four (4) short questions should be asked from Chapter No. 3	2 × 4 = 8
	Q-3: Four (4) short questions have to be answered out of 6. The detail is as follows: • Two (2) short questions should be asked from Chapter No. 4 • Four (4) short questions should be asked from Chapter No. 5	2 × 4 = 8
	Q-4: Four (4) short questions have to be answered out of 6. The detail is as follows: • Two (2) short questions should be asked from each Chapter No. 6, 7 and 8.	2 × 4 = 8
Part-III: Subjective:	This section will contain three (3) detailed questions, and students have to attempt two questions carrying 8 marks each. Each detailed question should be asked from the content of the textbook. The details are as follows: **Q-5:** One detailed question should be asked from Chapter No.1 **Q-6:** One detailed question should be asked from Chapter No. 4 **Q-7:** One detailed question should be asked either from Chapter No. 6 or Chapter No. 8	8 × 2 = 16

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Model Paper

Computer Science and Entrepreneurship Class 10

Q.No.1: Choose the correct option. **(1× 10 = 10)**

(i) ملٹی یوزر انوائرنمنٹ **(Environment)** میں آپریٹنگ سسٹم **(OS)** یقینی بناتا ہے۔			
(i) In multi-user environments, the OS ensures:			
(a) Equal access and data privacy	مساوی رسائی اور ڈیٹا پرائیویسی	(b) All users share the same files	تمام یوزر ایک ہی فائلز استعمال کرتے ہیں۔
(c) Hardware is never used	ہارڈ ویئر کبھی استعمال نہیں ہوتا	(d) Internet speed is increased	انٹرنیٹ سپیڈ بڑھ جاتی ہے۔
(ii) **Print(10 // 3)** کی آؤٹ پٹ کیا ہو گی؟			
(ii) What will be the output of: print(10 // 3)?			
(a) 3.333	(b) 3	(c) 1	(d) 4
(iii) اِن میں سے کون سا آپریٹر پائتھن **(python)** میں قوت نما کے طور پر استعمال کیا جاتا ہے؟			
(iii) Which of the following operators is used for exponentiation in Python?			
(a) *	(b) **	(c) //	(d) #
(iv) پائیتھن **(python)** میں کسی لسٹ کے آخر میں ایک آئیٹم شامل کرنے کے لیے کون سا طریقہ استعمال کیا جاتا ہے؟			
(iv) Which method is used to add an item at the end of the list in Python?			
(a) insert()	(b) append()	(c) add()	(d) extend()
(v) بہت سے طلبا سے رائے حاصل کرنے کے لیے کون سا طریقہ سب سے بہترین ہے؟			
(v) Which method is best for collecting opinions from many students?			
(a) IoT Devices	IoT کے آلات	(b) Survey	سروے
(c) Web Scraping	ویب سکریپنگ	(d) Database	ڈیٹا بیس
(vi) ڈیٹا جمع کرنے کے بعد اگلا اہم (سٹیپ) ہے:			
(vi) After collecting data, the next important step is to:			
(a) Clean and validate it	اس کو صاف اور تصدیقی بنانا	(b) Interpret it	اس کو انٹرپریٹ کرنا
(c) Analyze it	اس کا تجزیہ کرنا	(d) Communicate its result	اس کے نتیجہ کی اطلاع کرنا
(vii) سپروائزڈ لرننگ **(Supervised learning)** میں ڈیٹا ہوتا ہے:			
(vii) In supervised learning, the data is:			
(a) Unorganized	بے ترتیب	(b) Without any answers	بغیر کسی جواب کے
(c) Labeled with correct answers	درست جوابات کے لیبل کے ساتھ	(d) Only text-based	صرف متن پر مبنی

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			AI (viii) سے کیا مراد ہے؟
(viii) What does AI stand for?			
(a) Automatic Intelligence	خودکار ذہانت	(b) Artificial Intelligence	مصنوعی ذہانت
(c) Active Interface	ایکٹو انٹرفیس	(d) Applied Interface	اپلائیڈ انٹرفیس
			(ix) روبوٹس کا فیکٹریوں میں کیا کردار ہے؟
(ix) What is the role of robots in factories?			
(a) Watching videos	ویڈیو دیکھنا	(b) Making websites	ویب سائٹ بنانا
(c) Doing repeated or dangerous tasks	بار بار ہونے والے اور خطرناک کام کرنا	(d) Writing stories	کہانیاں لکھنا
			(x) ٹریڈ مارک رجسٹر کرنے کے لیے کون سے دستاویزات درکار ہیں؟
(x) The document is required to register a trademark is:			
(a) A bank statement	بینک سٹیٹمنٹ	(b) Proof of product purchase	شے کی خریداری کا ثبوت
(c) A copy of the logo and business name	بزنس کے نام اور لوگو کی نقل	(d) Social media profile link	سوشل میڈیا کے پروفائل کا لنک

سوال نمبر 2: کوئی سے چار (04) سوالات کے مختصر جوابات تحریر کریں۔

Q. No. 2: Write Short answers to any Four (04) questions. **(2 × 4 = 8)**

i. How does the OS act as a translator between the user and hardware?

i. یوزر اور ہارڈ ویئر کے مابین آپریٹنگ سسٹم (OS) کیسے ٹرانسلیٹر کے طور پر کام کرتا ہے؟

ii. Define thread.

ii. تھریڈ کی تعریف کیجیے۔

iii. Why are comments important in programming?

iii. پروگرامنگ میں کمنٹس (comments) کیوں اہم ہیں؟

iv. Why is it important to setup Python Development Environment?

iv. پائتھن ڈویلپمنٹ انوائرنمنٹ (Python development environment) کا سیٹ اپ کرنا کیوں اہم ہے؟

v. Write down two variable naming rules in Python.

v. پائتھن (Python) میں ویریبل کا نام رکھنے کے دو اصول بیان کیجیے؟

vi. Differentiate between arithmetic and logical operations in Python.

vi. پائتھن میں ارتھمیٹک اور لوجیکل آپریٹرز کے درمیان فرق کی تعریف کیجیے۔

سوال نمبر 3: کوئی سے چار (04) سوالات کے مختصر جوابات تحریر کریں۔

Q. No. 3: Write Short answers to any Four (04) questions. **(2 × 4 = 8)**

i. Why How does the if statement differ from the if-else statement?

i. If سٹیٹمنٹ if-else سٹیٹمنٹ سے کیوں مختلف ہے؟

ii. What is the purpose of append operation in Python lists?

ii. پائتھن لسٹ میں اپینڈ اپریشن کا کیا مقصد ہے؟

iii. Write down two real world applications of Data Science.

iii. حقیقی زندگی میں ڈیٹا سائنس کی دو مثالیں تحریر کریں۔

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iv. ڈیٹا کو استعمال کرنے سے قبل اس کی توثیق (validate) کرنا کیوں اہم ہے؟

iv. Why is it important to validate data before using it?

v. ڈیٹا کولیکشن (Collection) کے لیے درست ذرائع منتخب کرنے کی اہمیت تحریر کریں۔

v. Write the important to choose right source for data collection?

vi. ڈیٹا بیس کیا ہے؟

vi. What is a database?

سوال نمبر 4: کوئی سے چار (04) سوالات کے مختصر جوابات تحریر کریں۔

Q. No. 4: Write Short answers to any Four (04) questions. **(2 × 4 = 8)**

i. سپروائزڈ لرننگ کس طرح کام کرتی ہے؟

i. How does Supervised Learning work?

ii. اے آئی کو کیوں بڑے اور اچھے ڈیٹا کی ضرورت ہوتی ہے؟

ii. Why does AI need large and good-quality data?

iii. نیچرل لینگویج پروسیسنگ (این ایل پی) کا کردار تحریر کیجیے۔

iii. Write the role of Natural Language Processing (NLP)?

iv. اے آئی سسٹم میں تعصب کا کیا معنی ہے؟

iv. What is meant by bias in AI systems?

v. پیٹنٹ کی تعریف کیجیے۔

v. Define Patent.

vi. SWOT تجزیہ کس طرح پہچان میں مدد کرتا ہے؟

vi. What does SWOT analysis help identify?

تفصیلی سوالات کوئی سے دو (02) سوالات حل کریں۔

Long Question Solve any Two Questions. **(8 × 2 = 16)**

سوال نمبر 5: آپریٹنگ سسٹم کے آرکیٹیکچر کی وضاحت کیجیے، لیئرڈ ڈیزائن کی مثالوں سے وضاحت کیجیے۔

Q. No.5: Describe the architecture of an operating system, explaining layered design with examples.

سوال نمبر 6: پائتھن لینگویج میں لوپ کا استعمال کرتے 1 سے 20 تک کے طاق اعداد کا پروگرام کیجیے۔

Q. No.6: Write a Python program using a loop that prints all the odd numbers between 1 and 20.

سوال نمبر 7: مسائل کو حل کرنے اور ایڈپٹیبلیٹی کے پراسس کی وضاحت کیجیے۔

Q. No.7: Explain the process of problem solving and adaptability?

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Excluded Practical for Computer Science & Entrepreneurship for Grade-9

Practical No.	Practical Name
10-13	• Design a webpage that contains ordered and unordered lists, a table with rows and columns, and apply styles to HTML elements such as fonts, colors and background using CSS. • Create a styled webpage by linking an external CSS file to HTML and applying formatting rules for headings, paragraphs and page background. • Handle user input on a webpage by creating a text box and button in HTML and writing JavaScript code to display the entered text using an event. • Create a webpage that accepts two numbers as input, and use JavaScript variables and operators to calculate and display their sum when a button is clicked.

Excluded Practical for Computer Science & Entrepreneurship for Grade-10

Practical No.	Practical Name
35-37	• Identify possible hardware issues in a computer system (such as RAM or hard drive problems) by observing system behavior and recording the symptoms. • Check the system information and device status using the operating system tools (such as Device Manager) to identify any hardware problems. • Use basic troubleshooting techniques to diagnose a hardware issue (e.g., checking cable connections, restarting the system, or observing error messages).
57-58	• Create a bar chart to visualize given data of four student (name, marks) from a spreadsheet. • Create a line chart to show trends in a given dataset.

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Pairing Scheme

Instructions for Preparation of Practical Paper of Computer Science and Entrepreneurship for Class 9 & 10

ESSENTIAL INSTRUCTIONS FOR PAPER SETTERS

Total Marks: 50 **Time Allowed: 2 hours**

Part 1:	The section will contain two practical-based questions. The detail is as follows:	
	Q-1 (Grade 9): **1** Practical has to be performed out of 2. The detail is as follows: • One (1) Practical will be taken from Practical No. 1 to Practical No. 7 and Practical No. 19 to Practical No. 31. • One (1) Practical will be taken from Practical No. 8, 9 and 14-18.	$1 \times 20 = 20$
	Q-2 (Grade 10): **1** Practical has to be performed out of 2. The detail is as follows: • One (1) Practical will be taken from Practical No. 32 to Practical No. 34 and Practical No. 54-56 and 59- 67. • One (1) Practical will be taken from Practical No. 38 to Practical No. 53.	$1 \times 20 = 20$
Part 2:	This section will consist of checking Practical Notebooks and conducting Viva Voce. The detail is given below:	
	Practical Notebook	5
	Viva Voce	5

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MODEL PRACTICAL PAPER FOR
COMPUTER SCIENCE AND ENTREPRENEURSHIP GRADES 9-10

Total Marks: 50 **Time: 2 Hours**

Q. 1 Draw a flowchart that gets the year from the user and display the entered year is a "Leap year" or "not a leap year".

a) Perform above practical on computer. **10 Marks**

b) Draw a flowchart on answer book. **10 Marks**

OR

Develop a static webpage by writing the basic HTML structure using any three Tags.

(a) Perform above practical on computer. **10 Marks**

(b) Write down the HTML code on answer book. **10 Marks**

Q. 2 Write a prompt to generate an image for parent teacher meeting using any AI tool.

(a) Perform above practical on computer. **10 Marks**

(b) Write down the stepwise procedure on answer book. **10 Marks**

OR

Write a python program to print even numbers from 1 to 20.

(a) Execute / Run the program on computer. **10 Marks**

(b) Write code on answer book. **10 Marks**

Q. 3 Practical Copy **05 Marks**

Q. 4 Viva Voce **05 Marks**

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