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CLASS 12

Informatics Practices

Chapterwise PYQs

5 sections | 42 questions | 2022, 2023, 2024, 2025, 2026

CBSE board examination questions

Selected and rewritten questions are grouped under the current chapters or course topics. Each question shows its examination year. A chapter appears only when a verified question is available.

Choose a chapter or topic

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CHAPTER 1

Querying and SQL Functions

Informatics Practices

1. 2026

Write SQL queries extracting the numeric month and year from '2026-01-01'.

2. 2026

Guest has GuestName and CheckInDate. Query each name's final three characters in uppercase, then each guest's name with the check-in weekday.

3. 2025

COURSE contains DURATION and INSTRUCTOR. Write separate SQL queries for maximum duration, total course count and instructor names in lowercase.

4. 2025

STUDENTS includes Score and Name. Query total Score, the first five characters of each Name and names without trailing spaces.

5. 2025

Find the minimum Score in GRADES. In STUDENTS, increase every FEE value by 100.

6. 2025

Write SQL to square 15 and round 456.789 to the nearest integer.

7. 2025

Write SQL to obtain the weekday name for '2024-11-07' and the current date and time.

8. 2024

Salesman has a commission field. Write SQL to display all records in descending commission order.

9. 2024

NOBEL includes YEAR, SUBJECT, WINNER and COUNTRY. Query Literature winners from 1970; separately find records with unknown COUNTRY.

10. 2023

Find results of SELECT SUBSTR('CLIMATE CHANGE',4,4); SELECT UCASE(RIGHT('Pollution',3)); and SELECT LENGTH('HAPPY')+3;.

11. 2023

Write SQL to extract the year from '2023-05-15', lowercase 'ABC@XYZ.com', remove leading spaces from a string and show today's date.

12. 2023

Schooldata includes Marks, Gender and Club. Find average Marks by Gender and counts by Club, retaining clubs with more than one student.

13. 2022

Evaluate SELECT ROUND(7658.345,2); and SELECT MOD(ROUND(13.9,0),3);.

14. 2022

STUDENT includes a Class column. Write SQL to count students per class, showing only classes with more than three students.

15. 2022

Name SQL functions that return a date's month name, lowercase an email address and count characters in a name.

16. 2022

ITEM contains Itemname, Type, Price and Stockdate. Write queries to sort by descending Stockdate and count items in each Type.

CHAPTER 2

Data Handling using Pandas – I

Informatics Practices

17. 2026

Create a Series from a NumPy array ['a','b','c'], indexed 'first', 'second' and 'third'.

18. 2026

Create a Series indexed July, Aug, Sept and Oct with corresponding values 31, 31, 30 and 31.

19. 2026

Read customer.csv, whose first row contains headings, into DataFrame DF and display its final two rows.

20. 2025

Give two differences between a Pandas Series and a DataFrame.

21. 2025

DataFrame Doctor includes Name. Write statements to show its last three rows and display the Name column.

22. 2025

For DataFrame Doctor, add Discount=200 for every row, select rows indexed 2 and 3, and remove Department.

23. 2024

Write a Pandas statement that displays the last three rows of DataFrame result.

24. 2024

Write a statement selecting rows labelled 'a' and 'd' from DataFrame result.

25. 2024

Read registration.csv into a Pandas DataFrame named regis.

26. 2023

Write Python to rename DataFrame player's column 'points' as 'netpoint'.

27. 2023

Create a DataFrame indexed Hydrogen, Helium, Lithium and Beryllium, with Symbol values H, He, Li, Be and Atomic Number values 1–4, using two Series.

CHAPTER 4

Plotting Data using Matplotlib

Informatics Practices

28. 2025

Use Matplotlib to plot temperatures 30,32,31,29,28 for Days 1–5. Label both axes and add the title 'Temperature Over 5 Days'.

CHAPTER 5

Internet and Web

Informatics Practices

29. 2026

Explain the functions of a modem and a gateway.

30. 2025

Explain a router's role in a computer network.

31. 2023

Classify the network connecting offices in Delhi and Bengaluru, 2154 km apart.

32. 2022

Distinguish the World Wide Web from the Internet using examples.

33. 2022

Explain browser cookies and how a user can disable them.

34. 2022

Explain the role of a gateway.

35. 2022

Give one benefit and one limitation each of bus and star topologies.

CHAPTER 6

Societal Impacts

Informatics Practices

36. 2026

A website uses others' design elements without credit. Identify a possible IPR violation and two licensing models permitting conditional reuse.

37. 2026

Define data protection and give two precautions against cybercrime.

38. 2025

Describe two environmental consequences of dumping electronic waste carelessly.

39. 2024

Fraudsters email links to fake travel sites and collect payments. Identify the cybercrime and suggest one preventive measure.

40. 2023

Explain plagiarism through an example.

41. 2023

State two netiquette rules for communicating on social media.

42. 2023

Explain hacking and suggest two precautions against it.

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