



RRB JE 2024 CBT-2 Chemical & Metallurgical Supervisor

Chemical & Metallurgical Supervisor · CEN 03/2024 · CBT-2 · General Abilities — Topic-wise

English

22 Chapters · 50 Questions · Official Answer Key

About this Compilation

Every **General Abilities** question asked in the paper of the **RRB JE 2024 CBT-2 (Chemical & Metallurgical Supervisor)** examination (CEN 03/2024), regrouped by **chapter**, so you can revise one topic end to end. The correct option is marked as per the official answer key.

How to use

- Use the **Index** to jump to any chapter (clickable).
- Within a chapter, questions on the same idea are placed together.
- The correct answer is highlighted in green with a tick.
- The same paper is also available complete and section-wise.



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Index — All Chapters (click to open)

1

Physical Landmarks (Ports, Dams, Lakes, Passes)

Static GK · 1 Qs

2

Physics

General Science · 7 Qs

3

Chemistry

General Science · 8 Qs

4

Biology

General Science · 1 Qs

5

Computer Hardware

Computer Awareness · 1 Qs

6

Computer Software

Computer Awareness · 4 Qs

7

Networking & Internet

Computer Awareness · 4 Qs

8

Shortcuts & Computer Terms

Computer Awareness · 1 Qs

9

Economic Current Affairs

Current Affairs · 1 Qs

10

Science & Technology Current Affairs

Current Affairs · 1 Qs

11

Sports Current Affairs

Current Affairs · 2 Qs

12

Ancient Indian History

History · 1 Qs

13

Modern Indian History

History · 1 Qs

14

Indian Geography

Geography · 1 Qs

15

Constitution of India

Indian Polity & Governance · 3 Qs

16

Basic Economic Concepts

Indian Economy · 2 Qs

17

Music

Art, Culture, Heritage & Literature · 1 Qs

18

Climate Change Atmosphere

Environment & Ecology · 3 Qs

19

Conservation Protected Areas

Environment & Ecology · 1 Qs

20

Ecosystems Food Chains

Environment & Ecology · 1 Qs

21

Environmental Laws Bodies

Environment & Ecology · 2 Qs

22

Pollution

Environment & Ecology · 3 Qs

Q1 Bridges

Which of the following bridges is constructed over the Brahmaputra River in India?

- A. Howrah Bridge
- B. Mahatma Gandhi Setu
- C. Pamban Bridge
- D. Dholā-Sadiya Bridge



Q1 Equations of motion

The kinetic energy of an object is derived using which of the following equations of motion?

A. $v = u + at$

B. $v^2 - u^2 = 2as$ ✓

C. $a = (v - u) / t$

D. $s = ut + \frac{1}{2}at^2$

Q2 Joule heating

Which of the following will increase the heat produced by a heating element?

A. Increasing the current flowing through the wire ✓

B. Using a material with high conductivity

C. Using a wire of lower resistance

D. Decreasing the applied voltage

Q3 Kinetic energy

A ball of mass 50 grams is moving with a velocity of 15 m/s. What is its kinetic energy?

A. 7.500 J

B. 3.750 J

C. 5.625 J ✓

D. 1.875 J

Q4 Lens formula

An object is placed 15 cm in front of a convex lens of focal length 25 cm. The image distance will be _____.

A. 17.5 cm

B. -9.37 cm

C. -37.5 cm ✓

D. -10.0 cm

Q5 Lens power

A concave lens has a focal length of -2 cm. What is its power?

A. -50 D ✓

B. -0.5 D

C. 0.5 D

D. 25 D

Q6 Sound pitch

A sound wave with a low frequency will have _____.

A. a low amplitude

B. a high pitch

C. a short wavelength

D. a low pitch ✓

Q7 Types of motion

A car moving at a constant speed of 123 km/hr along a straight road is an example of _____.

A. random motion

B. uniform motion ✓

C. rotational motion

D. non-uniform motion



General Science

8 Questions • Answer Key

Q1 Atomic number

Which of the following elements has an atomic number of 8?

- A. Carbon
- B. Oxygen
- C. Nitrogen
- D. Hydrogen



Q2 Covalent compounds

Why do covalent compounds generally have low melting and boiling points?

- A. They have weak intermolecular forces.
- B. They have a rigid lattice structure.
- C. They have strong electrostatic forces.
- D. They contain metallic bonds.



Q3 Metal properties

A metal wire is stretched, but it does not break easily. This property is known as:

- A. hardness
- B. ductility
- C. malleability
- D. brittleness



Q4 Mixtures alloys

An alloy is considered a homogeneous mixture because:

- A. it exhibits uniform composition throughout
- B. it contains two or more phases
- C. its components can be separated by filtration
- D. its components are chemically combined in fixed proportions



Q5 Mixtures vs compounds

Which of the following correctly differentiates mixtures and compounds?

Feature	Mixture	Compound
A) Separation	Can be separated by physical methods	Requires chemical methods
B) Composition	Fixed ratio	Variable ratio
C) Properties	Always the same as constituents	Different from constituents
D) Formation	By chemical reaction	By simple mixing

- A. Option C (Properties) is correct
- B. Option B (Composition) is correct
- C. Option A (Separation) is correct
- D. Option D (Formation) is correct



Q6 Molecular mass

The atomic mass of sulphur is 32 u, and sulphur exists as S_8 molecules. What is the molecular mass of sulphur?

- A. 256 u
- B. 128 u
- C. 32 u
- D. 64 u



Q7 Solution concentration

A solution is prepared by dissolving 40 g of NaCl in 200 g of water. What is the mass per cent of NaCl in the solution?

- A. 25%
- B. 45%
- C. 16.67%
- D. 20%



Q8 pH scale

What happens to the pH of pure water when a few drops of lemon juice are added?

- A. The pH becomes neutral
- B. The pH increases
- C. The pH decreases
- D. The pH remains the same



Q1 Respiration

The main reason for which we are dependent on air is our _____.

A. respiration



B. excretion

C. osmoregulation

D. digestion



Q1 RAM types

Which type of RAM is faster and DOES NOT require refreshing?

A. ROM

B. DRAM

C. SRAM



D. Flash Memory



Computer Awareness

4 Questions • Answer Key

Q1 Excel formulas

Which formula should be entered in cell C2 to multiply the values of cells A2 and B2 in Excel?

A. =MULTIPLY(A2,B2)

B. =A2-B2

C. =A2*B2



D. =A2+B2

Q2 Excel functions

Which of the following MS Excel functions is used to convert a numeric value into a text with a specific format?

A. TEXT()



B. FORMAT()

C. VALUE()

D. NUMBERTOTEXT()

Q3 Operating systems

Which operating system is known for its open-source nature and community-driven development for desktops and laptops?

A. Windows

B. macOS

C. iOS

D. Linux

**Q4** PowerPoint features

Where can one find the option to change a PowerPoint template?

A. Home → Layout

B. Design → Themes



C. Insert → Themes

D. View → Slide Master



Computer Awareness

4 Questions • Answer Key

Q1 Email basics

What happens when you click on the 'Forward' button in an email?

- A. A blank email opens.
- B. The email is automatically sent to all contacts.
- C. The email is permanently deleted.
- D. The original message is copied into a new email draft. ✓

Q2 Firewall

What is the primary function of a computer firewall?

- A. To detect and remove computer viruses
- B. To prevent unauthorised access to a private network ✓
- C. To speed up internet connectivity
- D. To store user passwords securely

Q3 Firewall

What is the primary function of a firewall tool in a computer network?

- A. To speed up internet connections
- B. To monitor and control incoming and outgoing network traffic ✓
- C. To store data securely
- D. To detect and remove viruses

Q4 Network types

What does LAN stand for?

- A. Large Area Network
- B. Limited Access Node
- C. Linked Access Network
- D. Local Area Network ✓



Q1 Function keys

Which function key is used to move text or graphics in a document?

A. F5

B. F1

C. F2



D. F12



Q1 Global Capability Centre

Which German optical technology firm inaugurated its first Global Capability Centre in Bengaluru in November 2024, with plans to double its workforce within three years?

- A. Carl Zeiss AG ☒
- B. Jenoptik
- C. Leica
- D. Schneider Kreuznach



Q1 NavIC satellite

In January 2025, India launched the NVS-02 satellite to strengthen which of the following navigation systems?

- A. Navigation with Indian Constellation (NavIC)** ☒
- B. Global Navigation Satellite System (GLONASS)
- C. Global Positioning System (GPS)
- D. Galileo



Q1 BCCI Naman Awards

Who among the following Indian female cricketers won the Best International Cricketer Award (Women) at the BCCI Naman Awards 2025?

- A. Harmanpreet Kaur
- B. Smriti Mandhana ☒
- C. Jhulan Goswami
- D. Mithali Raj

Q2 Para athletics

In which of the following events did Deepthi Jeevanji set a world record at the 2024 World Para Athletics Championships?

- A. 100 metres T20
- B. 600 metres T20
- C. 400 metres T20 ☒
- D. 200 metres T20



Q1 Mauryan economy

Which of the following was NOT an artisan guild during the Mauryan period?

A. Bankers and Merchants

B. Potters

C. Astrologers



D. Carpenters



Q1 Swadeshi movement

Who among the following established the Bengal Chemical Swadeshi Stores?

- A. Acharya PC Ray** ☒
- B. BG Tilak
- C. Dadabhai Naoroji
- D. Surendranath Banerjee



Q1 Himalayas

What is the general orientation of the Himalayan ranges in the northwestern part of India?

- A. East-South
- B. Northeast to Southwest
- C. South-North
- D. Northwest to Southeast



Q1 Directive Principles

Who among the following referred to the Directive Principles as the 'life-giving provisions' of the Constitution of India?

- A. BR Ambedkar
- B. Ivor Jennings
- C. LM Singhvi
- D. HM Seervai

Q2 Ordinance power

The power to issue an ordinance when Parliament is NOT in session is given to the President under which Article?

- A. Article 123
- B. Article 72
- C. Article 356
- D. Article 110

Q3 President powers

The President has the power to dissolve which house of Parliament?

- A. Legislative Assembly
- B. Both Rajya Sabha and Lok Sabha
- C. Lok Sabha only
- D. Rajya Sabha only



Q1 Economic sectors

Electricity production is categorised under which of the following economic sectors?

- A. Primary sector
- B. Secondary sector ☒
- C. Quaternary sector
- D. Tertiary sector

Q2 Green Revolution

Who is known as the leader of the Green Revolution in India?

- A. C Subramaniam
- B. Dr. Rajendra Prasad
- C. Prof. MS Swaminathan ☒
- D. Tribhuvandas Kishibhai Patel



Q1 Hindustani music notation

Who among the following developed the notation system for Hindustani classical music?

A. Ustad Bismillah Khan

B. Pandit Vishnu Narayan Bhatkhande



C. Ustad Amjad Ali Khan

D. Pandit Ravi Shankar



Q1 Global warming temperature

Due to global warming, the temperature of the earth has increased by _____

A. 0.5°C

B. 0.8°C

C. 0.6°C



D. 0.7°C

Q2 Greenhouse gases

Which of the following options is NOT a greenhouse gas?

A. Carbon dioxide

B. Nitrous oxide

C. Methane

D. Carbon tetrachloride

**Q3** UV radiation

The wavelength of ultraviolet radiations which is most powerful and causes damage to the DNA is _____.

A. UV-A

B. UV-C

C. UV-B



D. UV-D



Q1 Chipko movement

The people of _____ were famously involved in execution of the Chipko movement.

A. Garhwal Himalayas



B. Delhi

C. Gujarat

D. Assam



Q1 Biomagnification

In an aquatic ecosystem, the phenomenon of biomagnification can best be studied in the case of _____.

- A. chlorine
- B. organochlorine
- C. phosphates
- D. DDT



Q1 Environment Protection Act

For the protection and improvement of the environmental quality, the Environment Protection Act came into force in the year _____.

A. 1984

B. 1992

C. 1986



D. 1972

Q2 UN environment conference

Which country proposed the idea of holding a United Nations conference on human interactions with the environment in 1968?

A. United States

B. France

C. Canada

D. Sweden



Q1 Agrochemical soil pollution

Which of the following is NOT toxic to non-target organisms in the soil?

A. Organic fertilisers



B. Pesticides

C. Herbicides

D. Fungicides

Q2 Nuclear waste

Radiations that are emitted from nuclear wastes are known to cause _____ at a high rate.

A. diseases

B. mutations



C. emotional defects

D. syndromes

Q3 Solid waste

Which of the following is NOT a source of collection of municipal solid waste?

A. Waste from homes

B. Radioactive waste



C. Waste from schools

D. Waste from hospitals

