CBSE CLASS X

Social Science (087)

QUESTION PAPER

AI-generated question paper

Code: 5AT0R9 **Questions: 20** **Maximum Marks: 37** **Generated: 2026-06-26 10:02**

SELECTIONS USED

Subject	Social Science
Lessons	5 Minerals and Energy Resources
Level of understanding	Initial understanding
Question selection	Curated chapter coverage (~3 questions per section)
Model	claude-sonnet-4-6

Composition — Difficulty: 10 straightforward · 9 medium · 1 deep | Types: 10 Short · 7 Very short · 3 MCQ

Q1. straightforward · initial-understanding · § Introduction **[1]**

Which of the following best explains why minerals are considered indispensable to human life?
(A) They are only used in construction and transport industries.
(B) They are used across virtually all aspects of life, from everyday objects to the food we eat.
(C) They are important only for decoration and ceremonial purposes.
(D) They are needed solely for generating energy.

A They are only used in construction and transport industries.
B They are used across virtually all aspects of life, from everyday objects to the food we eat.
C They are important only for decoration and ceremonial purposes.
D They are needed solely for generating energy.

◆ **Minerals and Energy Resources**

Q2. straightforward · initial-understanding · § MODE OF OCCURRENCE OF MINERALS **[1]**

What is an 'ore'? State the condition under which a mineral deposit is considered an ore.

◆ **Minerals and Energy Resources**

Q3. medium · initial-understanding · § MODE OF OCCURRENCE OF MINERALS **[3]**

Explain how metallic minerals are formed in igneous and metamorphic rocks. Describe the process by which they come to occupy the positions where they are found.

◆ **Minerals and Energy Resources**

Q4. straightforward | initial-understanding | § MODE OF OCCURRENCE OF MINERALS **[1]**

Which one of the following correctly explains how bauxite is formed?
(A) It crystallises from molten magma forced into cracks in igneous rocks.
(B) It is deposited in horizontal layers due to evaporation in arid regions.
(C) It is left behind as a residual mass after surface rocks decompose and soluble material is washed away.
(D) It accumulates in river and valley sands as a placer deposit.

A It crystallises from molten magma forced into cracks in igneous rocks.
B It is deposited in horizontal layers due to evaporation in arid regions.
C It is left behind as a residual mass after surface rocks decompose and soluble material is washed away.
D It accumulates in river and valley sands as a placer deposit.

◆ **Minerals and Energy Resources**

Q5. medium | initial-understanding | § MODE OF OCCURRENCE OF MINERALS **[3]**

What are placer deposits? Why are minerals found in placer deposits resistant to weathering? Give two examples of minerals commonly found in such deposits.

◆ **Minerals and Energy Resources**

Q6. straightforward | initial-understanding | § Ferrous Minerals **[1]**

[very_short_answer] Which type of iron ore has the highest iron content? Name one state in India where it is found.

◆ **Minerals and Energy Resources**

Q7. medium | initial-understanding | § Ferrous Minerals **[2]**

Manganese is an essential mineral in steel production. Explain TWO uses of manganese — one in the steel industry and one outside it — and identify the leading manganese-producing state in India.

◆ **Minerals and Energy Resources**

Q8. straightforward | initial-understanding | § Non-Ferrous Minerals **[1]**

[very_short_answer] Copper is an important industrial mineral widely used in electrical and electronics industries. Name any TWO properties of copper that make it so valuable for these uses.

◆ **Minerals and Energy Resources**

Q9. medium | initial-understanding | § Non-Ferrous Minerals **[3]**

[short_answer] Bauxite is an important non-ferrous mineral found in India. Explain how bauxite deposits are formed. Why is aluminium, extracted from bauxite, considered a versatile metal? Give any two reasons.

◆ **Minerals and Energy Resources**

Q10. straightforward | initial-understanding | § Non-Metallic Minerals **[1]**

Why is mica widely used in the electrical and electronics industries? Give one reason.

◆ **Minerals and Energy Resources**

Q11. medium | initial-understanding | § CONSERVATION OF MINERALS **[3]**

What does it mean to say that mineral resources are 'finite and non-renewable'? Why is this a cause for concern?

◆ **Minerals and Energy Resources**

Q12. medium | initial-understanding | § Energy Resources **[3]**

Distinguish between conventional and non-conventional sources of energy. Give two examples of each and state the key characteristic that sets them apart.

◆ **Minerals and Energy Resources**

Q13. straightforward | initial-understanding | § Conventional Sources of Energy **[1]**

Which fossil fuel is the most abundantly available in India and meets a large part of its commercial energy requirements?

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Q14. straightforward | initial-understanding | § Conventional Sources of Energy **[1]**

[very_short_answer] Name the four types of coal in order of increasing carbon content and quality, starting from the lowest.

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Q15. medium | initial-understanding | § Conventional Sources of Energy **[2]**

Why are heavy industries and thermal power stations usually set up on or near coalfields rather than far away from them?

◆ **Minerals and Energy Resources**

Q16. medium | initial-understanding | § Conventional Sources of Energy **[3]**

[short_answer] Petroleum is considered central to many other industries. Explain why petroleum refining is so important to India's industrial development, with examples of industries that depend on it.

◆ **Minerals and Energy Resources**

Q17. deep | initial-understanding | § Conventional Sources of Energy **[3]**

[short_answer] Compare hydroelectric power and thermal power as sources of electricity in India. In your answer, mention the resource each uses and give one example of each type from India.

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Q18. straightforward | initial-understanding | § Non-Conventional Sources of Energy **[1]**

Which of the following correctly describes how geothermal energy is used to generate electricity?
(A) Uranium atoms are split to release heat, which boils water into steam to drive turbines.
(B) Groundwater heated by rocks deep in the Earth rises as steam and is used to drive turbines.
(C) Sunlight is focused onto water to convert it into steam that drives turbines.
(D) Organic waste is decomposed to release gas, which is burned to produce steam for turbines.

A Uranium atoms are split to release heat, which boils water into steam to drive turbines.
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Q19. medium | initial-understanding | § Non-Conventional Sources of Energy **[2]**

Biogas is considered a more efficient use of cattle dung than burning dung cakes directly as fuel. Justify this statement.

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Q20. straightforward | initial-understanding | § ACTIVITY **[1]**

Which type of iron ore is known for its magnetic properties and has the highest iron content among all iron ores?

◆ **Minerals and Energy Resources**

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