

Grade VIII - Geography

Lesson 3. Mineral and Power Resources

Objective Type Questions

(1 Mark each)

I. Multiple choice questions

1. Waittple Choice questions					
following is not a char	acteristics of mineral	s? (NCERT)			
eated by <mark>natur</mark> al proc	cess b. They have a	definite chemical composition			
exhaustible	d. Their distri	bution is uneven			
following is not a prod	lucer of Mica?				
b. Karnat <mark>ak</mark> a	c. Raj <mark>as</mark> than	d. Andhra Pradesh			
following is a leading p	producer of copper in	the world? (NCERT)			
b. Chile	c. Ghana	d. Zimbabwe			
and	have large iron	ore de <mark>posits</mark> .			
ihar b. China and L	ndia c. China and Ja	apan d. China and Asia			
different types of					
b. plateau	c. rocks	d. plain			
s no known mineral dep	oosit in it?				
b. India	c. Europe	d. Switzerland			
_ is the leading produ	ucer of iron-ore in the	e world.			
b. Africa	c. Europe	d. Australia			
he largest producer of	of high grade iron-ore	in the world?			
b. Austra <mark>lia</mark>	c. New Yo <mark>r</mark> k	d. Zaire			
diamond is t <mark>he</mark> ra	arest diamond.				
b. blue	c. red	d. green			
10. Jharkhand, Madhya Pradesh, Gujarat are the major producing areas of					
b. bauxite	c. salt	d. tin			
n as Jen	eralion	Ochool			
b. Blue Gold	c. Yellow Gold	d. Black Gold			
means					
b. rock	c. petrol	d. gold			
	following is not a charmeated by natural product exhaustible following is not a product b. Karnataka following is a leading product b. China and I will be and b. China and I will be and b. I ndia b. I ndia b. I ndia b. Africa the largest producer of b. Australia diamond is the rab. blue b. blue ya Pradesh, Gujarat a b. bauxite n as b. Blue Gold means	collowing is not a characteristics of mineral eated by natural process b. They have a exhaustible d. Their distribution of the collowing is not a producer of Mica? b. Karnataka c. Rajasthan following is a leading producer of copper in b. Chile c. Ghana have large iron in the collowing is a leading producer of copper in b. Chile c. Ghana have large iron in the collowing is a leading producer of copper in c. China and Jack lifterent types of b. plateau c. China and Jack lifterent types of b. plateau c. Furope is the leading producer of iron-ore in the b. Africa c. Europe in the collowing is the leading producer of high grade iron-ore b. Australia c. New York is diamond is the rarest diamond. b. blue c. red ya Pradesh, Gujarat are the major producin b. bauxite c. salt in as b. Blue Gold c. Yellow Gold in means			

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10. 1110 10	ıll form of (5110 13						
a. Compressed none gas			b. Co	b. Composite natural gas				
c. (c. Compressed Natural Gas			d. Co	mpulsory n	one gas		
14. Norwa	y was the f	irst countr	y in the w	orld to deve	lop			
a. h	nydroelectr	icity b. r	nuclear ene	ergy c. ge	othermal	d. win	nd energy	
15. Solar e	energy is pr	oduced fr	om		LC			
a. a	air	b. v	vind	C. SU	n	d. lan	d	
16. Which	non-conver	ntional ene	rgy is harn	nful to birds	?			
a. r	nuclear	b. E	Biogas	c. wi	nd	d. Sol	lar	
17. Energy	y generated	I from tide	s is called					
a. \	Water ener	gy b. F	Hydel powe	er c. Ti	dal energy	d. Ge	othermal	energy
1. c	2. b	3. b	4. b	5. c	6. d	7. c	8. a	9. d
10. b	11. d	12. b	13. c	14. a	15. c	16. c	17. c	
			II. Mult	tiple choice	questions			
1. Which o	1. Which of these is a non-metallic mineral?							
a. I ron ore b. Bauxite c. Limestone d. Manganese ore								
a. I	Iron ore	b. E			mestone	d. Ma	nganese o	ore
			Bauxite			d. Ma	nganese o	ore
2. Which		roduces mo	Bauxite	c. Liı	orld's tin?		nganese c	
2. Which o	continent p	roduces mo	Bauxite ore than ha Asia	c. Lii	orld's tin? Irope	d. So		
2. Which of a. 7	continent p	roduces mo b. A s the leadin	Bauxite ore than ha Asia	c. Linalf of the wo c. Eu r of iron ore	orld's tin? Irope	d. Sor		
2. Which of a. 7 3. Which of a. 1	continent p Africa continent is	b. As the leading	Bauxite ore than ha Asia ng produce Asia	c. Linalf of the wo c. Eu r of iron ore c. Eu	orld's tin? rope in the wor	d. Sor	uth Amer	
2. Which of a. A. 3. Which of a. I. 4. Which s	continent p Africa continent is North Amer	b. As the leading tica b. As also bauxi	Bauxite ore than ha Asia ng produce Asia te produci	c. Linalf of the wo c. Eu r of iron ore c. Eu	orld's tin? Irope In the wor	d. Sor ild ? d. Au	uth Amer	
2. Which of a. 7 3. Which of a. 1 4. Which of a. 0	continent po Africa continent is North Amer state is a m	b. As the leading	Bauxite ore than ha Asia ng produce Asia te produci Madhy <mark>a P</mark> ra	c. Linalf of the wo c. Eu r of iron ore c. Eu ng area?	orld's tin? Trope in the wor Trope	d. Sor d. Aus d. Tar	uth Amer stralia	
2. Which (a. / 3. Which (a. / 4. Which (a. / 5. What is	continent po Africa continent is North Amer state is a m	b. As the leading	Bauxite ore than ha Asia ng produce Asia te produci Madhy <mark>a P</mark> ra	c. Linalf of the wo c. Eu r of iron ore c. Eu ng area? adesh c. As ty produced	orld's tin? Trope in the wor Trope	d. Son d. Aus d. Tar	uth Amer stralia	ica
2. Which (a. / 3. Which (a. / 4. Which (a. / 5. What is a. /	continent po Africa continent is North Amer state is a m Goa s the name o	b. As the leading	Bauxite Dre than hat hasia Ing produce Asia The produci Thermal po	c. Linalf of the wood c. Eurof iron orect. Eurof area? adesh c. Asty produced wer c. Fo	orld's tin? Irope In the wor Irope Issam Irom coal?	d. Son d. Aus d. Tar	uth Amer stralia milnadu	ica
2. Which (a. / 3. Which (a. / 4. Which (a. / 5. What is a. / 6. Which (a. /	continent positions Africa continent is North America state is a magnetic of the name of the continent o	the leading the fica b. A sajor bauxing b. Major bauxing b. Major bauxing b. Major bauxing b. Major b.	Bauxite Dre than hat hasia Ing produce Asia The produci Thermal po	c. Linalf of the wood c. Eurof iron ore c. Eurof area? adesh c. Asty produced wer c. Fore?	orld's tin? Irope In the wor Irope Issam Irom coal?	d. Sol d. Aus d. Tai ? d. No	uth Amer stralia milnadu	ica
2. Which (a. / 3. Which (a. / 4. Which (a. / 5. What is a. / 6. Which (a. /	continent properties Africa continent is North America state is a magnetic of these is	roduces mo b. A s the leadin rica b. A najor bauxi b. N given to th ver b. T a convention b. F	Bauxite Dre than hat hasia Ing produce Asia The produci Thermal poonal source Petroleum	c. Linalf of the wood c. Eurof iron orect. Eurof area? adesh c. Asty produced wer c. Fore? c. Na	orld's tin? Irope In the wor Irope Issam Irom coal? Issil fuel	d. Sol d. Aus d. Tai ? d. No	uth Amer stralia milnadu ne of the	ica
2. Which (a. / 3. Which (a. / 4. Which (a. / 5. What is a. / 6. Which (a. / 7. Which (a. /	continent properties Africa continent is North Amer state is a magnetic of these is Coal	roduces mo b. A s the leadin rica b. A najor bauxi b. N given to th ver b. T a convention b. F	Bauxite Dre than hat hasia Ing produce Asia te produci Madhya Pra Ine electrici Thermal po Conal source Petroleum The sunshin	c. Linalf of the wood c. Eurof iron orect. Eurof area? adesh c. Asty produced wer c. Fore? c. Name?	orld's tin? Irope In the wor Irope Issam Irom coal? Issil fuel	d. Sol d. Aus d. Tai d. No	uth Amer stralia milnadu ne of the	ica se



III. Multiple choice questions

1. Why has quar	rying become a m	ajor environmer	ntal concern?				
a. Becaus	a. Because minerals are pollutants						
b. Due to	b. Due to dust raised from the quarrying activities						
c. Becaus	se it is done by di	splacing people					
d. None o	of these		mc o				
2. The process of	of taking out mine	erals from rocks	s buried under the	surface of the earth is			
known as							
a. mining	b. pu	mping	c. extracting	d. none of these			
3. Give an exam	ole of shafts.						
a. Surfac	ce mining b. De	eep bores	c. Off-shore drilli	ng d. None of these			
4. What is the p	rocess in which r	minerals lying ne	ar the <mark>s</mark> urface are	dug?			
a. Drilling	b. Of	ff-shore drilling	c. Quarrying	d. Extraction			
5. Name the pro	cess in which dea	ep wells are bor	<mark>ed t</mark> o take out petr	oleum and natural gas.			
a. Quarry	ying b. Dr	rilling	c. Shaft mining	d. Open cast mining			
6. Gold is an exa	imple of	min	erals.				
a. Ferrou	b. No	on-ferrous	c. Both (a) and (b)	d. None of these			
7. Which contin	ent is the largest	producer of iro	on?				
a. Asia	b. Eu	ırope	c. North America	d. Australia			
8. Which one of	the following cou	untries in Europ	e has the largest d	eposits of iron?			
a. Portug	al b. Ru	ıssia	c. Germany	d. Hungary			
9. Which is one	of the deepest g	old mine of the	world?				
a. Kolar	b. Jh	naria	c. Raniganj	d. Bikaner			
10. From which	mineral is silicon	obta <mark>in</mark> ed?					
a. Coal	b. Ba	nuxit <mark>e</mark>	c. Thorium	d. Quartz			
11. Suggest way	s to conserve min	erals <mark>.</mark>					
a. Reduci	ng waste in the p	rocess of mining	b. Recycling	of minerals			
c. Both (a	a) and (b)	0	d. None of	these			
12. Which one o	f the followings i	s not the way sa	iving energy at hom	ne?			
a. Switch	ning off lights wh	en not in use	b. Keeping (gas off when not in use			
c. Cookin	g food in an open	pan on low flam	e d. Switching	g on lights during daytime			



13. Petroleum is referred to as 'black gold' because								
a.	a. it is black in colour b. it is yellow in colour							
C.	c. it is valuable d. it is used in making jewellery							
14. Wher	e do we find	d natural ga	s resource	s in India?				
a.	a. Uttar Pradesh b. Bihar							
C.	Mumbai Hig	jh		d. Ja	ammu and Ka	ashmir		
15. Miner	al fuel is fo	und in						
a.	Sedimentar	ry rocks		b. M	etamor <mark>ph</mark> ic	rocks		
C.	I gneous roo	cks		d. Al	I of these			
16. Which	of the foll	lowing are r	on-convent	ional resou	rces?			
a.	Wind energ	ıy		b. So	olar energy			
C.	Tidal energ	у		d. Al	I of these			
17. Energ	y obtained	from the ea	arth is know	vn as.				
a.	Nuclear ene	ergy		b. Bi	o gas			
c. Geothermal d. Thermal								
1. b	2. a	3. b	4. c	5. b	6. b	7. b	8. b	9. a
10. d	11. c	12. c	13. c	14. c	15. d	16. d	17. c	
			IV. Multi	iple choice	questions			
1 The mir	neral that is	s ovtractor	I from Day	vito ic:				
	Silver		/langanese		uminium	d. Cop	nor	
	etallic mine		_	C. Al	ummum	ս. Եսլ	ppei	
	Metamorph			h S	edimentary	rocks		
	I gneous roo				one of these			
	· ·		erav for ca			C		
	3. The appropriate source of energy for coastal area isa. Tidal energyb. Solar energyc. Biogasd. Wind energy							
		-			J			alled.
•	4. The process in which deep wells are bored to take out petroleum and natural gas is called.a. Open Cast Mining b. Quarrying c. Drilling d. Shaft Mining							
	5. One of the way to conserve minerals is							
	Recycling o			b. Re	educing was	te in the pr	rocess of m	ining
	Only (b)				oth (a) and (•		-



- 6. The Petroleum is called "black gold" because:
 - a. It is used in making black metal jewellery
 - b. The colour of petroleum is black
 - c. It emits smoke of black colour when burnt
 - d. It has immense value

1. c	2. b	3. a	4. c	5. d	6. d

I. Match the columns

Column A	Column B
1. Africa	a. Bauxite
2. Australia	b. Kolar in Karnataka
3. Europe	c. Diamonds
4. Gold	d. Iron-ore

1. c	2. a	3. d	4. b

II. Match the columns

Column A	Column B
1. Australia	a. I ron in Princes Charles Mountains
2. Antarctica	b. Leading producer of salt
3. I ndia	c. Tidal mill forms.
4. Gulf of Kachchh	d. Leading producer of gold and diamond
5. Manikaran, HP	e. Geothermal plant

<u>617</u>	· · · · ·			0
1. d	2. a V 47	163.p11611	4. c	6 5. e



III. Match the columns

Column A	Column B		
i. Ferrous minerals	a. Coal, petroleum, natural gas		
ii. Non-ferrous minerals	b. Limestone, potash, nitrate		
iii. Metallic minerals	c. Fully evaporated, solid, hard and blackest		
C.D.	form of coal		
iv. Non-metallic minerals	d. I ron, manganese		
v. Fossil fuels	e. Zinc, lead, copper, gold		
vi. Coke	f. Iron ore, bauxite, copper, gold, etc.		
i. d ii. e iii. f	iv. b v. a vi. c		

IV. Match the columns

Column A	Column B
1. Coal	a. Southern California
2. Petroleum	b. Norway
3. Water Energy	c. Russia
4. Wind Energy	d. Persian Gulf

1. c 2. d 3. b 4. a

I. Fill in the blanks

______ is an excellent fuel for cooking and lighting.
 The first tidal energy station was built in ______.
 ______ has the world's largest geothermal power plants.
 Geothermal energy in the form of ______ has been used for cooking.
 ______ is found in large quantities in the monozite sands of Kerala.
 In India ______ have large deposits of uranium.
 Wind is an ______ source of energy.



8 energy is used in solar heater, solar cookers.							
1. Biogas	2. France	3. USA					
4. hot spring	5. Thorium	6. Rajasthan and Jharkhand					
7. inexhaustible	8. Solar						
Wublia							
	II. Fill in the blanks						
1. Metallic minerals are classific	ed intoand _	72					
2. Gold and silver are	minerals.						
3. Minerals can be extracted by	у,	or					
4 is the lar	gest producer of bauxite in the	world.					
5. Bhakra Nangal is an importan	station	n in India.					
1. ferrous, non-ferrous	2. non-ferrous	3. mining, drilling; quarrying					
4. Australia	5. hydel power						
	III. Fill in the blanks						
1. Russia is rich in	resource.						
2. Processing of digging out of	minerals is known as						
3. Biogas is produced in	areas.						
4. I ndia	in ferrous minerals.						
5. Australia is the largest produ	ucer of in	the world.					
6. China and India have large _	are depo	osits.					
1. natural gas 2. quarrying	3. rural 4. is rich	5. bauxite 6. iron					
	IV. Fill in the blanks						
1. Metallic mineral are classifie	d into and	$ \bigcirc$ \bigcirc \bigcirc					
2. Gold and silver are minerals.							
3. Minerals can be extracted by	ý	or					
4. Petroleum is drilled from	·						
E and	ara radioaatiya mata	la					



6	is called buried sunshine.
7	is a major bauxite producing area in India.
8	is the continent that produces more than half of the world's tin.
9	is the continent that is the leading producer of iron ore in the world.
10. I	Deep bore dug to reach mineral deposits are called

1. Ferrous and non-ferrous	2. Non-ferrous
3. Mining, drilling or quarrying	4. Oilfields
5. Uranium and thorium	6. Coal
7. Madhya Pradesh	8. Asia
9. Europe	10. Shafts

I. True or False

- 1. Power plays a vital role in our lives.
- 2. Minerals are equally distributed across the globe.
- 3. Non-metallic minerals do not have metals.
- 4. Mining, drilling and quarrying are processes of extracting minerals.
- 5. I ron is a non-metallic minerals.
- 6. Asia, China and India have iron ore deposits.
- 7. Gold is found in Kolar in Kerala.
- 8. Minerals are the backbone of industrialisation.
- 9. Tidal energy is a polluting source.
- 10. Solar energy is exhaustible.
- 11. Biogas causes green house effect.

1. True	2. False	3. True	4. True	5. False	6. True
7. False	8. True	9. Fa <mark>ls</mark> e	10. False	11. True	

II. True or False

- 1. All ores are rocks but all rocks are not minerals.
- 2. Quarrying is good for the environment.
- 3. Coal is more predominant in Canadian Shield Region than Appalachians.



- 4. Chile and Peru are leading procedures of copper.
- 5. Bauxite is the ore of aluminium.

1. True	2. False	3. False	4. True	5. True

III. True or False

- 1. Petroleum is also termed as black gold.
- 2. Environmental aspects must be carefully looked into before building huge dams.
- 3. Kerala is the leading producer of mica in India.
- 4. Dams leads to environmental pollution.
- 5. Solar energy is a good source of energy in western part of Rajasthan.

1. True	2. True	3. False	4. True	5. True

Very short answer type questions

1. Name any three common minerals used by you everyday.

[NCERT]

Copper, iron and Salt are three common minerals used by everyday.

2. What is an ore? Where are the ores of metallic minerals generally located? [NCERT]

Ore is a rock from which a mineral is mined.

Ores of metallic minerals are located in igneous and metamorphic rocks. [NCERT]

3. Name two region rich in natural gas resources.

[NCERT]

The two regions rich in natural gas resources are:

i. Jaisalmer

ii. Krishna-Godavari Delta.

4. Which sources of energy would you suggest for

[NCERT]

- i. Rural areas
- ii. Coastal areas
- iii. Arid areas
- i. Rural areas: Solar energy and wind energy.
- ii. For coastal areas: Wind energy and tidal energy.
- iii. For arid areas: Wind energy and solar energy.

5. Define minerals.

Minerals are naturally occurring substances that have a definite chemical composition.



6. Write the properties of minerals.

The properties of minerals are

i. hardness

ii. solubility

iii. colour

iv. density

7. What are power resources?

Power resources are the resources which provide power or energy for industry, agriculture, transport, communication and defence.

8. What do you mean by conventional sources?

Conventional source of energy are those sources which are likely to get exhausted very soon. For example: oil, gas and coal.

9. What is smelting?

Smelting is the process of separating metal from their ores by the use of heat.

Short answer type questions

1. Give five ways in which you can save energy at home.

[NCERT]

- i. Use of biogas as cooking fuel.
- ii. For cooking, use of pressure cookers.
- iii. Switch off the light when not in use.
- iv. Using solar energy.
- v. Use of CNG instead of petroleum.

2. Name the type of minerals.

There are two types of minerals:

(i) Metalic and

(ii) Non-metallic.

- (i) Metallic minerals: These minerals contain metal in raw form and are hard substances that conduct heat and electricity and have lustre or shine. For example, iron ore and bauxite.
- (ii) Non-metallic minerals: These minerals do not contain metal. For example coal and petroleum.

3. Describe the types of mining.

There are two types of mining:

(i) Open cast mining,

(ii) Shaft mining

(i) Open cast mining: Minerals which lie at shallow depths are taken out by removing the surface layer.



(ii) Shaft mining: Deep bores called shafts, are made to reach minerals deposits that lie at great depth.

4. Describe the type of minerals found in Europe.

Europe is the leading producer of iron ore in the world. Russia, Ukraine, Sweden and France are the countries having large deposits of iron-ore. Copper, lead, zinc, manganese and nickel are found in Eastern Europe and European Russia.

5. What are the uses of minerals?

Uses of minerals:

- (i) They are the backbone of industrialisation.
- (ii) Minerals that are usually hard are used as gems in making jewellery.
- (iii) Minerals like copper are used in almost everything from coins to pipes.

6. Which mineral deposits are found in Australia?

Australia is the largest producer of bauxite in the world. It is a leading producer of gold, diamond, iron-ore, tin and nickel. It is rich in copper, manganese, zinc and lead.

Kargoorlie, Coolgardie are rich in gold deposits.

7. How can we conserve minerals?

We can conserve minerals in the following ways:

- (i) By reducing wastage in the process of mining.
- (ii) By recycling of metals.
- (iii) By finding biodegradable substitutes of iron, aluminium and other minerals.

8. Write the advantages and disadvantages of firewood.

Advantages of firewood

- (i) They are easy to access.
- (ii) They provide energy to a large number of people.

Disadvantages of firewood

- (i) Collection of firewood is time consuming.
- (ii) It is a polluting source.
- (iii) It causes deforestation.

9. Describe coal as a conventional source.

- (i) Coal is the most abudantly found fossil fuel.
- (ii) It is used as a domestic fuel.
- (iii) Thermal power is generated from coal.

School



(iv) It is also known as 'buried sunshine'.

10. Describe how petroleum is obtained.

Petroleum is found between the layers of rocks and is drilled from oil fields located in offshore and coastal areas. Then it is sent to refineries which process the crude oil and produce a variety of products like diesel, petrol, kerosene, wax, plastics and lubricants.

11. Explain the features of natural gas.

- (i) Natural gas is found with petroleum deposits and is released when crude oil is brought to the surface.
 - (ii) It can be used as a domestic and industrial fuel.

12. What is CNG?

CNG refers to Compressed Natural Gas which is a popular eco-friendly automobile fuel.

It causes less pollution than petroleum and diesel.

13. How is hydel power generated?

Hydel power is generated by the force of falling water through dams at heights. The falling water flows through pipes inside the dam over turbine blades placed at the bottom of the dam. The moving blades then turn the generator to produce electricity.

14. What are the disadvantages of hydel power?

Disadvantages of Hydel Power:

- (i) It causes displacement of local community.
- (ii) It inundates low lying areas.
- (iii) It is expensive to set up.

15. What do you mean by non-conventional sources of energy?

Non-conventional sources of energy mean those sources which can be used for long time and are inexhaustible and renewable. For example, solar energy, wind energy, tidal energy, etc.

16. How is solar energy obtained?

Solar energy is obtained from the rays of the sun. Solar energy is trapped in solar collectors and converted into electricity with the help of solar cells. For example, solar energy is used in solar heaters, solar cookers, solar dryers, etc.

17. Explain wind energy and give the names of windfarms.

For generating wind energy, wind mills have been used. The high speed winds rotate the wind mill which is connected to a generator to produce electricity. Windfarms are found in Netherlands, Germany, Denmark, UK, USA and Spain.



18. What is nuclear power?

Nuclear power is generated by splitting atomic minerals. These elements are uranium and thorium. These fuels undergo nuclear fission in nuclear reactors and emit power. The nuclear power stations in India are located in Kalpakkam in Tamil Nadu and Tarapur in Maharashtra.

19. What is geothermal energy?

Geothermal energy is heat energy which is obtained from the earth. This heat energy can be used to generate power. Hot springs is the form of geothermal energy which is used for cooking, heating and bathing. In India, geothermal plants are located in Manikaran in Himachal Pradesh and Puga Valley in Ladakh.

20. Explain how tidal energy generates electricity?

Tidal energy can be harnessed by building dams at narrow openings of the sea. During high tide the energy of the tides is used to turn the turbine installed in the dam to produce electricity. For example, Russia, France, and the Gulf of Kachchh in India have huge tidal mill farms.

21. What are the uses of biogas?

Biogas is an excellent fuel for cooking and lighting and produces huge amount of organic manure each year. Biogas is generated from the organic waste such as dead plant and animal materials, animal dung and kitchen waste can be converted into a gaseous fuel.

Long answer type questions

1. Give reasons:

(i) Environmental aspects must be carefully looked into before building huge dams. [NCERT]

Building of huge dams causes displacement of local community and destablisation of the natural habitats of flora and fauna living in that area.

(ii) Most industries are concentrated around coal mines.

[NCERT]

It reduces the cost of transportation and ensures easy availability of fuel.

(iii) Pertroleum is referred to as 'Black gold'.

[NCERT]

As petroleum is very valuable it is referred to as 'Black gold'. Petroleum is used for transportation, running machineries, etc.



(iv) Quarrying can become a major environmental concern.

[NCERT]

Pits are not covered after quarrying, and they can cause environmental hazard.

2. Distinguish between the followings:

(i) Conventional and non-conventional sources of energy

[NCERT]

S.No.	Conventional sources of energy	Non-conventional sources of energy
(1)	Conventional sources are likely to get	Non-conventional sources are those
	exhausted very soon.	sources of power that are
	- 11	inexhaustible.
(2)	For example: fossils firewood and	For example: solar energy tidal energy
	petroleum.	and wind energy.

(ii) Biogas and Natural Gas.

[NCERT]

S.No.	Biogas	Natural Gas
(1)	The gas obtained from the	Natural gas is obtained as a by-
	decomposition of organic waste is	product from the extraction of
	called biogas.	petroleum.
(2)	It makes use of bio waste.	It is cheaper than oil.

(iii) Ferrous and Non-ferrous minerals.

[NCERT]

S.No.	Ferrous minerals	Non-ferrous minerals
(1)	Ferrous minerals contain iron.	Non-ferrous minerals do not contain
		iron.
(2)	For example: I ron ore, manganese.	For example: Gold and silver.

(iv) Metallic and Non-metallic minerals [NCERT]

S.No.	Metallic minerals	Non-metallic minerals
(1)	Metalic minerals contain metal in raw form.	Non-metallic do not contain metals.
(2)	For example: I ron ore, bauxite.	For example: Limestone, mica



3. Briefly describe the extraction of minerals.

Minerals are mainly extracted by mining, drilling or quarrying.

Mining: The process of taking out minerals from rocks buried under the earth's surface is called mining. Mining are of two types:

- i. Open cast mining
- ii. Shaft mining
- i. Open cast mining: Open cast mining refers to the method of extraction in which minerals lying at shallow depths are taken out by removing the surface layer.
- (ii) Shaft mining: Shaft mining refers to the method of extraction in which deep bores called shafts, have to be made to reach mineral deposits that lie at great depths.

Drilling: Deep wells are bored to take minerals out, is called drilling.

Quarrying: In process of quarrying, minerals that lie near the surface are simply dug out.

4. Explain the distribution of minerals.

Minerals occur in different types of rocks. There are three types of rocks:

(i) I gneous rocks (ii) Sedimentary rocks (iii) Metaphorphic rocks

In igneous and metamorphic rocks metallic minerals are found. Iron ore in North Sweden, copper and nickel deposits in Ontario Canada, iron, nickel, chromite and platinum in South Africa are examples of minerals found in igneous and metamorphic rocks.

Sedimentary rock formations of plains and young fold mountains contain non-metallic minerals like limestone.

For example, limestone deposits of Caucasus region of France, Manganese deposits of Georgia and Ukraine and phosphate beds of Algeria and mineral fuels like coal and petroleum are found in the sedimentary strata.

5. What are the advantages and disadvantages of conventional source of energy? Advantages:

- (i) Oil is easier to transport and coal is extensively available.
- (ii) Firewood is easy to access.
- (iii) Firewood provides energy to a large number of people.

Disadvantages:

- (i) Firewood causes green house effect and leads to deforestation and is a source of pollution.
 - (ii) Hydel Power causes displacement of local community is expensive to setup.



6. How minerals can be conserved?

- (i) Minerals are a non-renewable resource.
- (ii) It takes thousands of years for the formation and concentration of minerals.
- (iii) The rate of formation is much smaller than the rate at which the humans consume these minerals.
 - (iv) It is necessary to reduce wastage in the process of mining.
 - (v) Recycling of metals is another way in which the mineral resources can be conserved.

7. Why petroleum is called 'Black-gold'?

Petrol keeps one cars running as well as the oil that keeps ones' cycle from squeaking, both began as a thick black liquid called petroleum. It is found in between the layers of rocks and is drilled from oil fields located in off-shore and coastal areas. This is then sent to refineries which process the crude oil and produce a variety of products like diesel, petrol, kerosene, wax, plastics and lubricants. (iv) Petroleum and its derivatives are called 'Black Gold' as they are valuable.

8. What is the result of excessive use of fossil fuels?

- (i) The sharp increase in our consumption of fossil fuels has led to their depletion at an alarming rate.
 - (ii) The toxic pollutants released from burning these fuels are also cause for concern.
- (iii) Unchecked burning of fossil fuel is like an unchecked dripping tap which will eventually run dry.
- (iv) This has led to the tapping of various non-conventional sources of energy that are cleaners alternatives to fossil fuels.

9. How nuclear power is obtained and utilised in India for peaceful purpose?

- (i) Nuclear power is obtained from energy stored in the nuclei of atoms naturally occurring radioactive elements like uranium and thorium.
 - (ii) These fuels undergo nuclear fission in nuclear reactors and emit power.
 - (iii) The greatest producers of nuclear power are USA and Europe.
 - (iv) In India, Rajasthan and Jharkhand have large deposits of uranimum.
 - (v) Thorium is found in large quantities in the monazite sands of Kerela.
- (vi) The nuclear power stations in India are located in Kalpakkam in Tamil Nadu, Tarapur in Maharashtra, Kota in Rajasthan, Narora in Uttar Pradesh and Kaiga in Karnataka.