

12th Geography Lesson 3 Questions in English**3] Resources**

1. Which is a naturally occurring exploitable material that a society perceives to be useful to its economic and material wellbeing?

- a) Legacy
- b) **Resource**
- c) Wealth
- d) All the above

Explanation

A resource is a naturally occurring exploitable material that a society perceives to be useful to its economic and material wellbeing. Willing, healthy and skilled workers also constitute a valuable resource, but without access to materials such as fertile soil or petroleum, human resources are limited in their effectiveness.

2. When Voyager I was launched, which is still traveling at the speed of 62140 km/ hour or 17 km/sec?

- a) **1977**
- b) 1982
- c) 1999
- d) 2001

Explanation

Voyager 1 launched in 1977 still is travelling at the speed of 62140 km/ hour or 17 km/sec.

3. Which among the following is the fuel used in Voyager I?

- a) Liquid Fluorine
- b) Kerosene
- c) Alcohol
- d) **Hydrazine**

Explanation

The fuel used in Voyager I is hydrazine. The future fuel is certainly going to be hydrogen.

4. Based on the continual availability, resources are classified in to how many types?

- a) **Two**
- b) Three
- c) Four

d) Six

Explanation

Based on the continual availability, resources are classified in to renewable and non-renewable resources.

5. Which among the following is not the Non-Renewable resources?

- a) Coal
- b) Solar Energy**
- c) Oil
- d) Minerals

Explanation

Non-renewable resources are available in finite quantities and cannot be obtained once if they are utilized. If these resources are used in large scale, they will get exhausted soon and as such these resources are called as exhaustible resources. Coal, oil and minerals are examples of this type.

The resources which can always be used again and again are known as renewable resources. It means these resources have natural regeneration and are inexhaustible. Air, water, solar energy etc are examples of renewable resources.

6. When a resource is originated from living organism, the resource is known as ____

- a) Scared resource
- b) Biotic resource**
- c) Abiotic resource
- d) Renewable resource

Explanation

On the basis of origin, the resources are classified in to biotic and abiotic resources. When a resource is originated from living organism, the resource is known as biotic resource. Coal, mineral oil and forests are examples of biotic resources. Abiotic resources are composed of non-living inorganic matter. Air, land, water and minerals are examples of this type.

7. Which among the following classification of resource comes under the basis of status of development?

- a) Developed resource**
- b) Man-made resource
- c) Ubiquitous resource
- d) Localised resource

Explanation

On the basis of status of development, the resources are classified in to potential resources and developed resources.

8. Which among the following are those which are known to exist and may be used in the future?

- a) Ubiquitous resource
- b) Localised resource
- c) **Potential resource**
- d) Developed resource

Explanation

Potential resources are those which are known to exist and may be used in the future. Until the resource is extracted and put in to use, it remains a potential resource.

9. Which among the following are those which have been surveyed and their quality and quantity have been determined for utilisation?

- a) **Developed resource**
- b) Man-made resource
- c) Ubiquitous resource
- d) Localised resource

Explanation

Developed resources are those which have been surveyed and their quality and quantity have been determined for utilisation. The development of resources depends on technology and level of their feasibility. Petroleum resource from Mumbai High is an example of Developed resources.

10. The air like resourced which exist everywhere is called as _____

- a) Developed resource
- b) Man-made resource
- c) **Ubiquitous resource**
- d) Localised resource

Explanation

Apart from the above classifications, the resources which are available in nature are known as natural resources and the one created by man is known as man-made resource. Similarly, the air like resources which exist everywhere is called as ubiquitous resources and the resources which are concentrated only at specific places are known as localised resources.

11. A homogeneous, naturally occurring substance which has a definite chemical composition is called _____

- a) Solar energy
- b) Minerals**
- c) Sedimentary rocks
- d) Greensand

Explanation

A homogeneous, naturally occurring substance which has a definite chemical composition is called a mineral. They can be identified by their physical properties and chemical components. Minerals exist in different types based on their formation. Minerals are one of the most valuable resources of the earth. All the stages of human development or progress have been named after them.

12. Minerals are generally found in the form of what?

- a) Coal
- b) Liquid
- c) Lava
- d) Ores**

Explanation

Minerals are generally found in the form of ores. The ore contains several impurities. Minerals are separated from the ores involving a number of distinct processes. It is actually an accumulation of any mineral mixed with other elements. Minerals generally occur in many forms.

13. Which among the following is not the Non-Metallic minerals?

- a) Potash Sulphur
- b) Lead**
- c) Marble
- d) Mica

Explanation

Some examples of Non-metallic minerals are mica, salt, potash sulphate, granite, limestone, marble, sandstone etc.,

14. Minerals in smaller occurrence are called as _____

- a) Vein**
- b) Lode
- c) Corp
- d) Slay

Explanation

Minerals generally occur in the cracks, crevices, faults and joints of the igneous and metamorphic rocks. Minerals in smaller occurrence are called a 'Vein' and a larger occurrence is called a 'lode', for example, Copper and Gold are found in lodes and veins.

15. When the decomposed rocks are washed away by water, the soluble particles are removed, leaving a mass containing ores such occurrences are called _____

- a) Partial mass
- b) Coordinative mass
- c) **Residual mass**
- d) Deep mass

Explanation

When the decomposed rocks are washed away by water, the soluble particles are removed, leaving a mass containing ores. Such occurrences are called residual mass. E.g. Bauxite.

16. Minerals that are formed as a result of deposition, accumulation and concentration generally occur in which layers?

- a) **Horizontal**
- b) Vertical
- c) Adjacent
- d) Both Vertical and Horizontal

Explanation

Minerals that are formed as a result of deposition, accumulation and concentration generally occur in horizontal layers. E.g. Coal, Potash, etc.

17. Which among the following deposits is not found in the sands of valley floor and at the foot hills?

- a) Gold
- b) Silver
- c) Platinum
- d) **Copper**

Explanation

Alluvial deposits are the deposits found in the sands of valley floor and at the foot hills. These deposits consist of the minerals such as Gold, Silver and Platinum.

18. Which among the following is the basic mineral and the backbone of industrial development of the world?

- a) Manganese ore
- b) Iron ore**
- c) Copper
- d) Bauxite

Explanation

Iron ore is the basic mineral and the backbone of industrial development of the world. Iron Ore is the most widely distributed element of the earth's crust and it rarely occurs in a free state. It is found as the composition of many rocks and minerals.

19. Iron-ore makes up what percentage of the earth crusts?

- a) 4.6%**
- b) 7.2%
- c) 9.5%
- d) 12.4%

Explanation

Iron-ore makes up 4.6% of the earth crusts. Iron is found in the form of Iron - ore. They are classified into 4 categories. 1. Limonite 2. Hematite 3. Magnetite and 4. Siderite

20. Which among the following Iron ore is red in colour?

- a) Hematite
- b) Magnetite**
- c) Limonite
- d) Siderite

Explanation

Magnetite is red in colour.

21. Which among the following statement of Iron ore is incorrect

- a) Magnetite: It is red in colour and has 72% of pure Iron
- b) Hematite: It is black in colour and has 70% of pure Iron
- c) Limonite: Its colour varies from dark black to red and has 70% of pure iron**
- d) Siderite: It is brown in colour and contains only 30% of pure iron is present.

Explanation

Limonite: Its colour varies from dark brown to yellow and has 50% of pure iron.

22. If the iron content is less than what percentage in an ore, it is considered to be uneconomical?

- a) 30%**

- b) 40%
- c) 55%
- d) 60%

Explanation

The iron content of these ores is highly variable. If the iron content is less than 30% in an ore, it is considered to be uneconomical. Iron is mixed with fixed proportions of Manganese, Nickel, Chromium or Vanadium to make different varieties of steel.

23. Which among the following country has the largest reserves of iron ore in the world?

- a) USA
- b) China
- c) Australia
- d) **Russia**

Explanation

Iron - ore is unevenly distributed in the world. Good quality Iron ore is found in Australia, Brazil, Russia, China, USA, Ukraine, Canada, etc. Russia has the largest reserves of iron ore in the world. Australia.

24. Which is the largest producer of Iron ore in the world?

- a) USA
- b) China
- c) **Australia**
- d) Russia

Explanation

Australia is the largest producer of Iron ore in the world. Other leading producers are China, Brazil, India and Russia. The Majority of Iron ore is (84%) produced by 5 countries alone.

25. Which ore is a kind of Ferro-alloy used to manufacture the special quality steel?

- a) **Manganese ore**
- b) Iron ore
- c) Copper
- d) Bauxite

Explanation

Manganese ore is a kind of Ferro-alloy used to manufacture the special quality steel. Nearly 6 Kg of manganese is used for making one ton of steel.

26. A little manganese added to which mineral, removes gases and acts as a 'Cleanser' in the manufacturing process?

- a) Steel
- b) Copper
- c) **Iron**
- d) Coal

Explanation

A little manganese added to iron, removes gases and acts as a 'Cleanser' in the manufacturing process.

27. In which among the following minerals manganese is not used to produce alloy?

- a) Copper
- b) **Lead**
- c) Bronze
- d) Nickel

Explanation

Manganese is used for special quality steel making; it makes steel anti - corrosive, hard and clean. It helps to increase toughness, strength and durability to resist oxidation in blast furnaces. It is used to produce alloys with Copper, Bronze, and Nickel. It is used for producing heavy machinery, tools, bleaching powder, insecticides and paints.

28. Which among the following country is the largest producer of manganese ore in the world?

- a) Australia
- b) **South Africa**
- c) India
- d) Russia

Explanation

South Africa, Australia, China, Gabon, Kazakhstan, Brazil, India, Ghana, Ukraine and Mexico are the major countries possessing manganese ore. South Africa is the largest producer of manganese ore in the world, followed by Australia.

29. What is the position of India in the production of Manganese in the world?

- a) Sixth
- b) Seventh
- c) **Eight**
- d) Tenth

Explanation

The other leading manganese producers are China, Gabon and Brazil. India is the 8th largest producer of manganese in the world though it possesses the largest reserves of manganese in the world.

30. Which among the following is a non - ferrous, soft brown metal?

- a) **Copper**
- b) Mica
- c) Gold
- d) Bauxite

Explanation

Copper is a non - ferrous, soft brown metal. It is a good conductor, with high luster, density and melting point. Copper occurs in three forms as native metal in its pure state, as oxides and as sulphide.

31. Which among the following is the chief ore of copper that yield nearly 76% of the world production of copper?

- a) Copper Cite
- b) **Copper Pyrite**
- c) Bornite
- d) Copper oxide

Explanation

The chief ore of copper is copper pyrite. It yields nearly 76% of the world production of copper. Copper is extracted by the process of crushing, concentration, roasting, smelting and refining. It was discovered in the earliest stage of civilization.

32. Copper is mixed with which among the following metal to form Bronze?

- a) Zinc
- b) Led
- c) Mica
- d) **Tin**

Explanation

Copper is very soft, but by mixing with tin, bronze can be obtained and mixing with zinc, brass can be obtained which is harder and tougher than pure copper.

33. Which among the following copper is used?

- a) Electrical Engineering
- b) Metallurgical Industries
- c) Making of alloys and making tubes, pipes, pumps, radiators and boilers.
- d) **All the above**

Explanation

Copper is used in (i) Electrical Engineering (ii) Metallurgical Industries (iii) Making of alloys and making tubes, pipes, pumps, radiators and boilers. They are also used in the production of a wide range of ornamental materials.

34. Which among the following country is the largest producer of Copper in the world?

- a) Brazil
- b) Colombia
- c) **Chile**
- d) Argentina

Explanation

Copper deposits are found in almost every country. The main producers are Chile, Peru, China, USA and Congo. Chile is the largest producer of Copper in the world. It produces 27.20% of the world Copper, followed by Peru, which produces 11.53%.

35. What is the position of India in the production of copper in world?

- a) 21st
- b) 30th
- c) 43rd
- d) **35th**

Explanation

India holds 35th rank and it produces only 0.15% of the world's copper production.

36. Which is an important ore which is the main source of Aluminium?

- a) Platinum
- b) Silver
- c) **Bauxite**
- d) Brass

Explanation

Bauxite is an important ore which is the main source of Aluminum. It is an impure raw material. It generally occurs as an ingredient of chemical compounds in highly complex minerals such as

Cryolite, Corundum and Kaolin. Bauxite occurs quite near the surface and is generally mined by open cast method.

37. Which among the following country is the largest producer of bauxite in the world?

- a) Brazil
- b) Australia**
- c) Peru
- d) South Africa

Explanation

The main Bauxite producers are Australia, China, Brazil, Guinea and India. Australia is the largest producer of bauxite in the world.

38. What is the position of India in the production of Bauxite in the World?

- a) Fifth**
- b) Seventh
- c) Eight
- d) Tenth

Explanation

The World's greatest Bauxite producers and exporters are the countries located in the tropical and sub-tropical region. India is the 5th largest producer of bauxite in the world.

39. Which among the following is the first metals known and used by man?

- a) Copper**
- b) Silver
- c) Gold
- d) Platinum

Explanation

Copper was discovered in the earliest stage of civilization. Copper is one of the first metals known and used by man.

40. Which among the following statement is correct

- 1) Gold is a precious metal which occurs in alluvial or placer deposits or as reefs or lodes in the underground. Gold is used extensively for jewellery and also in dentistry, glass and porcelain dyes, in medicines and other industries.
- 2) Platinum is a rare metal. It is costlier than gold. It has a very high melting point. It is a heavy, malleable, ductile, highly inactive, silverish, white transition metal. It is one of the densest metals almost twice as dense as lead.

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) **None**

41. Which among the following country is the highest producer of Gold?

- a) **China**
- b) Canada
- c) Brazil
- d) USA

Explanation

China, Australia, Russia, USA and Canada are the leading producers of gold in the world. China is the leading producer of Gold in the world.

42. Which among the following is known as Fool's gold?

- a) Pyrite of Copper Sulphide
- b) Pyrite of Silver Sulphite
- c) **Pyrite of Iron Sulphite**
- d) Pyrite of Platinum Sulphite

Explanation

Fool's Gold refers to pyrite of Iron Sulphide because of its similarity in shape and colour to actual gold.

43. Platinum is not found with which among the following metals?

- a) Osmium
- b) **Potassium**
- c) Palladium
- d) Iridium

Explanation

Platinum is found with other rare metals such as osmium, Palladium, Iridium and rhodium. Platinum is also used in industrial applications.

44. Which among the following country is the largest producer of platinum in the world?

- a) Brazil
- b) Australia
- c) Peru
- d) **South Africa**

Explanation

South Africa is the largest producer of platinum in the world. The other leading producers are Russia, Zimbabwe, Canada and USA.

45. Which among the following statement is correct regarding Mica?

- 1) Mica is a Greek word micare means to shine, to flash or to glitter. Mica has a crystalline and layered structure and can be split into very thin sheets. It reacts more to water, acids, oil or solvents.
- 2) It is lightweight, flexible and strong. It can resist extremely high temperatures or sudden changes in temperature and is able to withstand high voltages and insulate with low power loss. It can absorb or reflect light, which enables a decorative effect and protects against ultra-violet (UV) light.
- 3) Mica has several applications. There are several main sectors where the use of mica is identified. They are the paint and coatings sector, Cosmetics and personal care companies, Plastics and printing ink manufactures, the electronics sector, the automotive sector, the construction industry and the oil industry
 - a) Both 1 and 2
 - b) Both 1 and 3
 - c) **Both 2 and 3**
 - d) All 1, 2 and 3

Explanation

Mica is a Latin word micare means to shine, to flash or to glitter. Mica has a crystalline and layered structure and can be split into very thin sheets. It does not react to water, acids, oil or solvents.

46. Phosphate occurs in which rock form?

- a) Igneous rocks
- b) Metamorphic rocks
- c) **Sedimentary rocks**
- d) All the above

Explanation

Phosphate occurs in the sedimentary rocks or as phosphate nodules. Another source is bird dropping of Guano. It is the most important source of phosphorus. It is mainly used in fertilizer.

47. Which among the following country is the largest producer of Phosphate in the world?

- a) Brazil
- b) **China**
- c) Chile
- d) Canada

Explanation

China is the largest producer of Phosphate in the world. The other leading producers are Morocco, USA, Russia and Peru. The Guano deposits are found in Peruvian and Chilean deserts in South America.

48. What is the position of India in the production of phosphate in World?

- a) 20th
- b) 30th
- c) 35th
- d) 40th

Explanation

India is the 20th largest producer of Phosphate in the world. Agencies involved in the exploration of minerals in India. GSI, ONGC, MECL, NMDC, IMB, BGML, HCL, NALCO are the departments involved in mining in different states of India.

49. Which among the following is not the Non-renewable resources?

- a) Coal
- b) Petroleum
- c) **Biogas**
- d) Natural gas

Explanation

Resources may be classified into renewable and non-renewable resources. Mineral resources like coal, Petroleum and natural gas are the exhaustible or non-renewable resources. They cannot be reused once they are consumed. Coal, Natural gas and petroleum are the fossil fuels, on which the modern culture relies so much.

50. Coal is mainly composed of which among the following element?

- a) Silicon
- b) Iodine
- c) Boron
- d) **Carbon**

Explanation

Coal is a fossil fuel. It is a flammable, black or brown sedimentary rock and is mainly composed of carbon. Coal is used for various purposes. It is used as a source of steam energy, electrical energy, domestic fuel, metallurgical coke, chemical industries and byproducts such as Ammonium sulphate, Naphthalene, Phenol, Benzene, etc.

51. Which among the following is not the types of Coal?

- a) Peat
- b) Lignite
- c) Bituminous
- d) **Pyrite**

Explanation

The following types of coal have been identified on the basis of their physical properties. They are 1. Bituminous, 2. Lignite, 3. Peat and 4. Anthracite. Man has used coal for hundreds of years. But it has gained importance only after industrial revolution. It contributes about 25% of global energy demand.

52. Which among the following coal is called as Brown Coal?

- a) Bituminous
- b) **Lignite**
- c) Peat
- d) Anthracite

Explanation

Lignite or Brown coal is the inferior quality and contains 35%-45% carbon.

53. Which is the first stage of transformation of wood into coal?

- a) Bituminous
- b) Lignite
- c) **Peat**
- d) Anthracite

Explanation

Peat is the first stage of transformation of wood into coal and it has only 30% to 35% of carbon.

54. Which among the following statement is correct

- 1) Anthracite is the second-best variety of coal and contains 70%-90% of carbon. It is the most widely spread and most widely used variety of coal. It is the most popular coal in commercial use.
- 2) Bituminous or coking coal is the best quality coal, which contains more than 95% of carbon. It is very hard but emits very less smoke and leaves very less ash. However, its deposits are limited.
 - a) Only 1
 - b) Only 2

- c) Both 1 and 2
- d) **None**

Explanation

Bituminous or coking coal is the second-best variety of coal and contains 70%-90% of carbon. It is the most widely spread and most widely used variety of coal. It is the most popular coal in commercial use.

Anthracite is the best quality coal, which contains more than 95% of carbon. It is very hard but emits very less smoke and leaves very less ash. However, its deposits are limited.

55. Which among the following country is the largest producer of steam coal in the world?

- a) **China**
- b) USA
- c) Australia
- d) India

Explanation

Coal reserves are found in more than 70 countries of the world but the major coal reserves occur in the USA, Russia, China and South Africa. China is the largest producer of steam coal in the world followed by India. The other leading producers of steam coal are USA, Indonesia, and South Africa etc.

56. Which among the following country is the second largest producer of Cooking coal in the world in 2016?

- a) India
- b) USA
- c) **Australia**
- d) Russia

Explanation

China was the largest producer of coking coal in the world in 2016 followed by Australia. The other leading producers of coking coal are Russia, India and USA. The main exporters of coal in the world are Australia, Indonesia, Russia, Colombia and South Africa and the main importers are China, India, Japan, Korea and Germany.

57. Which among the following statement is correct

- 1) Petroleum is a mineral that exists under the surface of the earth in liquid, solid and gaseous forms. Liquid petroleum may be in the form of crude oil. The solid form may be mineral waxes or asphalts. The gaseous form is natural gas.

- 2) Petroleum is a main source of energy in the World due to its multiple uses. The human activities are directly or indirectly depending on the use of petroleum or its sub products. Oil is lighter than water hence, floats over water.
- 3) Drilling of oil wells is the hole drilled in the earth's crust and when it reaches the rock cap, the natural gas comes out first with a great pressure. When the pressure of gas subsides, petroleum starts flowing out when the pressure of natural gas is released.
- a) Both 1 and 2
 - b) Both 1 and 3
 - c) Both 2 and 3
 - d) **All 1, 2 and 3**

58. Petroleum is formed by residual chemical and bio chemical decomposition of the remains of organic matter in which rocks?

- a) Igneous rocks
- b) Metamorphic rocks
- c) **Sedimentary rocks**
- d) All the above

Explanation

Petroleum is formed by residual chemical and bio chemical decomposition of the remains of organic matter in sedimentary rocks. It is found in the pores of the sedimentary rocks.

59. What is the percentage of Middle East in the petroleum reserves of the world's oil reserve?

- a) 40%
- b) 50%
- c) **60%**
- d) 70%

Explanation

The west Asia or Middle East is has the largest petroleum reserves, which is about 60% of the world's oil reserve. The total estimated world's oil reserves in 2008 were 1,243. Saudi Arabia, Canada, Iran, Iraq and Kuwait have large reserves of petroleum.

60. The petroleum producing countries of the world can be grouped in to how many geographical regions?

- a) Four
- b) **Five**
- c) Six
- d) Eight

Explanation

The petroleum producing countries of the world can be grouped in to five geographical regions: (i) West Asia (or) middle East region (ii) American region (iii) Russian region (iv) East & south Asian region and (v) African region.

61. Which among the following country is the largest oil producer of the world?

- a) **Saudi Arabia**
- b) Iran
- c) Iraq
- d) UAE

Explanation

Saudi Arabia is the largest oil producer of the world with 13.62% of the world output of oil. Russia is the second largest producer in the world.

62. What is the position of India in the petroleum production in world?

- a) 18th
- b) 20th
- c) **24th**
- d) 32nd

Explanation

India is placed at 24th position in petroleum production in the world. The distribution of oil is naturally uneven; Middle East contains 60% of global reserves and rest of the world only 40%.

63. Who among the following is not the leading exporters of Petroleum?

- a) Canada
- b) Russia
- c) UAE
- d) **China**

Explanation

The world leading exporters of petroleum are Saudi Arabia, Russia, Iraq, UAE and Canada and the main importers are USA, China, India, Japan and Korea.

64. Organisation of Petroleum Exporting Countries was formed in 1960 in which convention?

- a) Tehran convention
- b) Istanbul convention
- c) **Bagdad convention**
- d) Riyadh convention

Explanation

OPEC is the short form of the "Organisation of Petroleum Exporting Countries. It was formed in 1960 at Bagdad convention.

65. Which among the following country recently left from OPEC?

- a) Qatar
- b) Indonesia**
- c) Libya
- d) UAE

Explanation

Initially OPEC comprised of Saudi Arabia, Iran, Iraq, Kuwait and Venezuela. Later on, added in eight countries Libya, Algeria, Qatar, UAE, Nigeria, Ecuador and Angola. Indonesia left from OPEC in recently.

66. Which is the cheapest source of Energy?

- a) Nuclear energy
- b) Hydrel power
- c) Natural gas**
- d) Coal

Explanation

It is the cheapest source of energy. It is found along with or without petroleum. It is considered as an environment friendly fuel because of its low carbon dioxide emissions.

67. Natural Gas is the only fuel for the present century and it is also called ____

- a) Punch gas
- b) Red gad
- c) Green gas**
- d) Blue gas

Explanation

Natural Gas is the only fuel for the present century and it is also called green energy. A powerful odorant, ethanethiol is added, so that leaks can be detected easily. It is prepared by refining petroleum or wet natural gas.

68. Which among the following country has the largest reserve and is the leading producer of natural gas in the world?

- a) USA**

- b) Russia
- c) Qatar
- d) China

Explanation

The known natural gas reserves in the world is about 6254 trillion cubic feet. Most of these reserves are found in Russia, Iran, Qatar, UAE, Saudi Arabia, USA etc. USA has the largest reserve and is the leading producer of natural gas in the world.

69. What is the position of India in the production of Natural Gas in the world?

- a) 24th
- b) 28th**
- c) 32nd
- d) 35th

Explanation

India is the 28th producer of natural gas in the world. It is widely used as a fuel in industries and domestic cooking purposes. Petrochemical industries use it as fuel and raw material. It is also used in chemical industries, artificial rubber, plastic, fertilizers, ink and carbon.

70. Which among the following is the most important source of nuclear energy?

- a) Uranium**
- b) Thorium
- c) Radium
- d) Plutonium

Explanation

Nuclear Energy is commonly said, this energy holds the key of future. Energy contained within the nucleus of an atom is called nuclear energy. Heavy metals like Uranium, Thorium, Radium, Plutonium and Lithium are the main sources of nuclear energy. However, Uranium is the most important source of nuclear energy.

71. In which country the nuclear energy production was first started in 1950?

- a) Russia
- b) German
- c) USA**
- d) England

Explanation

The nuclear energy production was started first in USA in 1950. Nuclear energy now provides about 11% of the World's electricity. At present there are more than 450 operable fission reactors in the world.

72. Where the world's first commercial nuclear power station was opened in 1956?

- a) USA
- b) England**
- c) Russia
- d) German

Explanation

The world's first commercial nuclear power station Calder Hall at Wind scale, England was opened in 1956.

73. Hydel power contributes nearly what percentage of the world electricity production?

- a) 7%**
- b) 10%
- c) 12%
- d) 15%

Explanation

Hydro electricity is produced by using the potential energy of water falling from a certain height. The falling water spins the turbine blades and energy is produced. It is a clean eco-friendly and renewable source of energy. It contributes nearly 7% of the world electricity production.

74. Which country is the largest producer of Hydroelectricity in the world?

- a) USA
- b) Canada
- c) China**
- d) Brazil

Explanation

China has the largest potential followed by Brazil, Indonesia, Canada and Zaire. China is the largest producer of Hydroelectricity in the world, followed by Canada.

75. Which country is the major producer of solar cells at present?

- a) USA**
- b) Canada
- c) China
- d) Brazil

Explanation

Solar energy is based on mechanical conversion of solar energy into electricity. It is available in abundance but only in the recent period it gets more importance due to technological development. USA is the major producer of solar cells at present.

76. India's solar installed capacity reached how many GW as of 30 September 2018?

- a) 20 GW
- b) 26 GW**
- c) 32 GW
- d) 38 GW

Explanation

Solar power in India is a fast-developing industry. The country's solar installed capacity reached 26 GW as of 30 September 2018. India expanded its solar generation capacity 8 times from 2,650 MW on 26 May 2014 to over 20 GW as on 31 January 2018. The country added 3 GW of solar capacity in 2015-2016, 5 GW in 2016-2017 and over 10 GW in 2017-2018, with the average current price of solar electricity dropping to 18% below the average price of its coal-fired counterpart.

77. Noor Complex is the world's largest concentrated solar power (CSP) plant, located in which desert?

- a) Gobi Desert
- b) Kalahari Desert
- c) Thar Desert
- d) Sahara Desert**

Explanation

Noor Complex is the world's largest concentrated solar power (CSP) plant, located in the Sahara Desert.

78. Kamuthi Solar Power Project is a photovoltaic power station spread over an area of 2,500 acres is located in which district?

- a) Madurai
- b) Ramanathapuram**
- c) Trichy
- d) Nagarcoil

Explanation

Kamuthi Solar Power Project is a photovoltaic power station spread over an area of 2,500 acres (10 km²) in Kamuthi, Ramanathapuram district. With a generating capacity of 648 MW at a single

location, The Kamuthi Solar Power Project was completed on 21 September 2016. Around 8,500 workers installed an average of 11 MW of capacity per day to complete the project within 8 months.

79. Kamuthi Solar Power Project was commissioned by which company?

- a) Reliance power
- b) Tata power
- c) **Adani power**
- d) Yes Bank

Explanation

Kamuthi Solar Power Project was commissioned by Adani Power. The entire solar park is connected to a 400 kV substation of the Tamil Nadu Transmission Corp. The solar panels are cleaned daily by a self-charged robotic system.

80. Which among the following statement is correct

- 1) The wind is a clean, free and readily available renewable energy source. Wind turbines are capturing the wind's power and converting it to electricity. Wind power has become a pillar in their strategies to phase out fossil and nuclear energy.
 - 2) Wind energy is now the second fastest growing source of electricity in the world. It fulfils about 5% of world's electricity demand. The world's largest wind farm is in Altamont pass in California. India is emerging as a major wind power producer of world.
- a) Only 1
 - b) Only 2
 - c) **Both 1 and 2**
 - d) None

81. The Largest wind farm in India is located in which state?

- a) **Tamil Nadu**
- b) Kerala
- c) Maharashtra
- d) Madhya Pradesh

Explanation

The largest wind farms in India are Muppandal in Kanyakumari District of Tamil Nadu and Jaisalmer wind park in Rajasthan. They are the first and second largest wind farms of India. Based on the location of its generation it is classified into 1. Onshore wind energy and 2. Offshore wind energy.

82. Which among the following statement is incorrect

- 1) Energy generated from the plants located on the land is known as onshore wind energy. Onshore wind has the advantage of being one of the most affordable renewable energy sources. It is cheaper than any other renewable source of energy but it requires more area to install than any other energy.
- 2) Offshore wind energy refers to the use of wind farms developed in seas and oceans. The largest offshore wind farms are currently in the U.K and USA. These two countries installed 1/3 capacity. Florida Array is the largest offshore wind farm in the world. The first offshore wind farm is planned near Ennore in Tamil Nadu.
 - a) Only 1
 - b) Only 2**
 - c) Both 1 and 2
 - d) None

Explanation

Offshore wind energy –It refers to the use of wind farms developed in seas and oceans. The largest offshore wind farms are currently in the U.K and Germany. These two countries installed 2/3 capacity. London Array is the largest offshore wind farm in the world. The first offshore wind farm is planned near Dhanuskodi in Tamil Nadu.

83. The first tidal power station was located in which country?

- a) France**
- b) German
- c) U.K
- d) Norway

Explanation

Tidal energy is a renewable energy powered by the natural raise and fall of ocean water. Its production is very small. The first tidal power station was located in La Rance in France.

84. The largest tidal power station of the world is located in which country?

- a) Indonesia
- b) Japan
- c) South Korea**
- d) New Zealand

Explanation

The largest tidal power station is at Sihwa Lake in South Korea and it is the largest tidal power producer in the world. There are three different categories of sources from which the tidal energy is generated. The sources are tidal streams, barrages and tidal lagoons.

85. India's first attempt to harness tidal power for generating electricity would be in the form of a 3MW plant in which state?

- a) Gujarat
- b) West Bengal**
- c) Tamil Nadu
- d) Maharashtra

Explanation

India's first attempt to harness tidal power for generating electricity would be in the form of a 3MW plant at the Durgaduani creek in Sundarbans delta of West Bengal.

86. Which among the following site is not identified as potential areas for tidal power generation in India?

- a) Gulf of Kutch
- b) Gulf of Mannar**
- c) Gulf of Cambay
- d) Ganges delta

Explanation

The Gulf of Kutch and Cambay in Gujarat and the Ganges delta in Sunderbans, the world's largest mangrove, are the 3 sites identified as potential areas for tidal power generation in India.

87. Which country is the world's largest producer, and the largest geothermal development in the world?

- a) Canada
- b) Russia
- c) USA**
- d) India

Explanation

Geothermal energy is derived from the natural heat of the earth. The United States is the world's largest producer, and the largest geothermal development in the world is The Geysers north of San Francisco in California, the U.S.

88. When exploration and study of geothermal fields started in India?

- a) 1965
- b) 1970**
- c) 1984
- d) 1995

Explanation

In India, exploration and study of geothermal fields started in 1970. The GSI (Geological Survey of India) has identified 350 geothermal energy locations in the country.

89. Which among the following is the most promising geothermal energy locations in India?

- a) Araku Valley
- b) Darma Valley
- c) Johar Valley
- d) **Puga Valley**

Explanation

The most promising geothermal energy locations in India is in Puga valley of Ladakh. The estimated potential for geothermal energy in India is about 10000 MW.

90. Which among the following is not geothermal provinces in India?

- a) Godavari
- b) Mahanadi
- c) **Yamuna**
- d) Cambay

Explanation

There are seven geothermal provinces in India: the Himalayas, Sohana, West coast, Cambay, SonNarmada-Tapti (SONATA), Godavari, and Mahanadi.

91. Most of the coal resources of the world were formed during which period?

- a) Silurian
- b) Devonian
- c) **Carboniferous**
- d) Cretaceous

Explanation

The dense forest plants were converted into coal due to intense pressure and heat inside the earth by the process of carbonization. Most of the coal resources of the world were formed during the carboniferous period (280 to 350 million years ago). The quality of the coal is determined by its carbon content.

92. Match the following coal with its respective property and Names

- | | |
|----------------|--|
| i. Anthracite | – 1. Cooking coal |
| ii. Bituminous | – 2. First stage of transformation of wood into coal |

- iii. Lignite – 3. Brown coal
- iv. Peat – 4. Best quality of coal more than 95%
- a) 2 – 1 – 4 – 3
- b) 4 – 1 – 3 – 2
- c) 2 – 3 – 1 – 4
- d) 3 – 4 – 2 – 1

Explanation

Peat is the first stage of transformation of wood into coal and it has only 30% to 35% of carbon. Lignite or Brown coal. Bituminous or coking coal. Anthracite is the best quality coal, which contains more than 95% of carbon.