ALL IMP PYOS Marathon Science-26 CH: 45,5,6



Chp: 4 Environmental Management

MCQ (1-Mark)

- 1) One of the rare species is.....
- (A) Lesser florican
- (B) Red panda

(C) Tiger

(D) Shekru

Ans (B) Red panda

2) The apex consumer is......

(A) Eagle

(C) Snake

Ans (A) Eagle

(B) Frog

(D) Grasshopper

(Jul-24)

(Mar-23)

3) Giant squirrel is an example of...... threatened species. (Mar-22) (A) Endangered (B) Rare (C) Vulnerable (D) Indeterminate Ans: (D) Indeterminate 4) Genetic changes occur due to..... pollution. (Dec-20) (A) Radioactive (C) Water Ans: (A) Radioactive

5) Which sanctuary of Assam is underthreat due to dams and indiscriminate use of water? (Dec-20)

(A) Tadoba (B) Kaziranga

(C) Manas (D) Sundarban

Ans (C) Manas

6) In a food chain autotrophic plants are present at thelevel. (Mar-19)

(A) Tertiary nutrition (B) Secondary nutrition

(C) Producer (D) Apex

Ans: (C) Producer

Theory (1-Mark)

1) Match the correct pair.

Column A

(1) Biotic components

Ans:

Column A

(1) Biotic components

Column B

(a) Soil

(b) Plant

(c) Sunlight

Column B

(b) Plant

(Jul-24)

2) Match the correct pair:

Column A Column B

(1) Forest Conservation Act (A) 1986

(B) 1980

(C) 1970

Ans

Column A

(1) Forest Conservation Act

Column E

B) 1980

(Mar-23)

3) Complete the correlation:

Western ghat: Asiatic lion:: Sunderban sanctuary:

Ans

Westem ghat: Asiatic lion::Sunderban sanctuary: Tiger

(Mar-22)

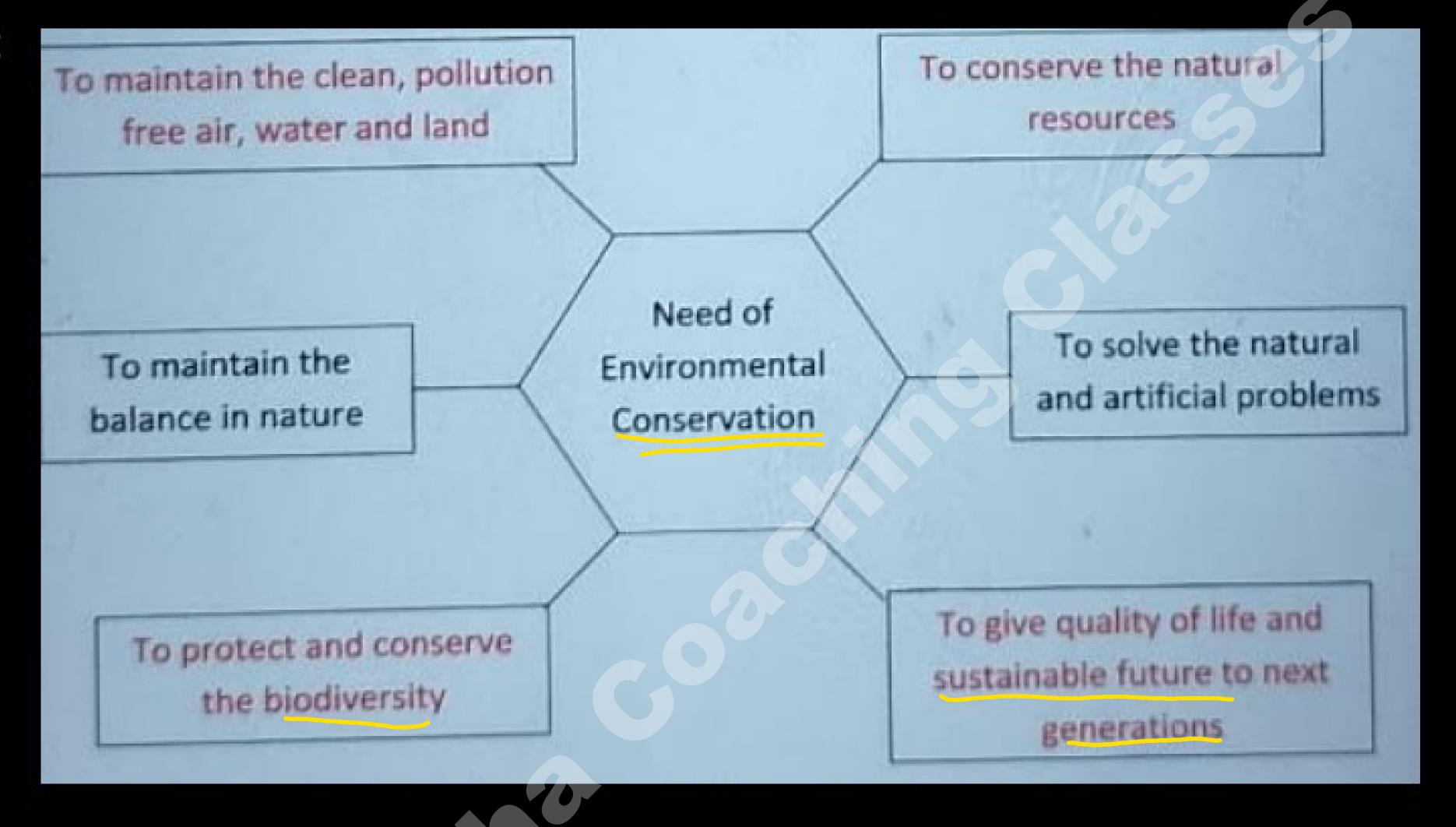
Theory (2-Mark)

1) Complete the following flowchart:

Need of To solve the natural To maintain the Environmental and artificial problems balance in nature Conservation

(Jul-24)

Ans:



2) Write four adverse effects of radiations on human body.

Ans: Following are the adverse effects of radiations on human body:

- 1) Cancerous ulceration occurs due to higher radiations of X-rays
- 2) Tissues in the body are destroyed.
- 3) Genetic changes occur
- 4) Vision is adversely affected

- 3) Humans have a crucial role in maintaining environmental balance. (Jul-23) Ans
- 1) Human life is an integral part of nature and human survival is closely linked with the environment.
- 2) Due to the rapid increase in human population and industrialization, humans have over utilized natural resources, leading to the degradation of the environment.
- 3) The environment influences the life of human beings and also human beings modify their environment as humans are the apex predators in the food chain.
- 4) Humans are capable of conserving and improving the quality of nature and thus, have a major role in maintaining environmental balance.

4) Write a short note on Environmental Conservation.

(Mar-23)

Ans:

- 1) Environmental conservation is a broad term which refers to the actions we take in order to protect our planet and conserve its natural resources.
- 2) Environmental conservation implies to the conservation of forests, water resources, mineral resources, etc.
- 3) We are very well aware of the fact that the human life on earth is supported by the various components of the environment. There is a direct relationship between environment and life on earth. Any kind of harm or disruption to the environment will directly and indirectly affect the life of organisms on this earth.
- 4) We need to understand that natural resources should be used in a sustainable manner and not to fulfill our greeds.

5) What is environment? Write two types of environment.

Ans: Physical, chemical and biological factors affecting the living organisms in any possible way is collectively called as environment. In short, environment is the condition in surrounding.

Types of environment:

1) Natural environment

2) Artificial environment

(Aug-22)

6) What do we learn from the story of Jadav Molai Payeng?

(Mar-22)

Ans

- i) Mr. Molai single handedly transformed a barren land into a forest.
- ii) It was due to his positive attitude, affection towards nature, and hard work, that he could achieve success in planting trees, in over 1360 acres of land.
- (iii) From the story of Jadav Molai Payeng, we learn that we all need to make Earth a better place to live for us as well as for the coming generations.
- (iv) From his story, it is clear that if a large crowd causes harm to the environment, even a single person, if determined can establish a forest and benefit the environment in great ways.
- (v) Also, if one person can make such an impact, many people coming together in unity to take efforts for environment conservation can bring about a revolution.

7) Describe any two animals of threatened species.

(Oct-21)

Ans: Animals of threatened species:

- i) <u>Lion tailed monkey</u>: Lion tailed monkeys are found in The Western Ghats of India. Their tail <u>resembles a lion's</u> tail which is where the name lion-tailed monkey comes from. Their population is decreasing due to fragmentation of habitat.
- ii) Red Panda: Red Pandas are mainly found in Himalaya region. Their population is decreasing because of habitat loss and degradation, human interference and poaching.

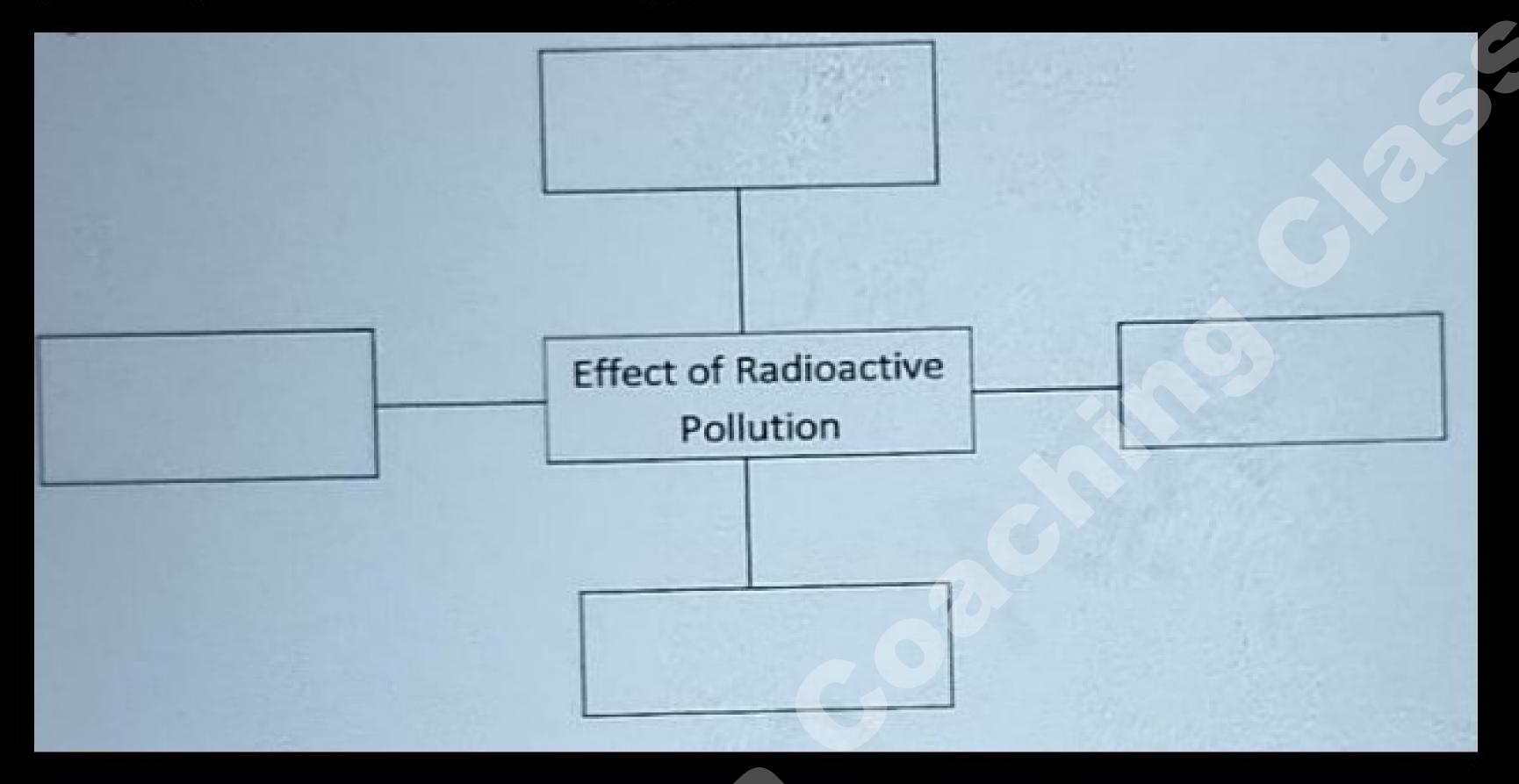
8) Write a short note on Sacred groves.

(Dec-20)

Ans:

- i) Sacred grove is the green patch of the forest which is conserved by local people in the name of God.
- ii) It does not belong to forest department.
- iii) It is conserved as there is a faith that God reside in the sacred grove. Hence in local language, they are known as Deorai.
- iv) Due to this reason, people do not fell the trees. Also hunting of any wild life is not done here.
- v) More than 1300 sacred groves have been reported in India.
- vi) Role of sacred grove is tremendous in conserving the biodiversity

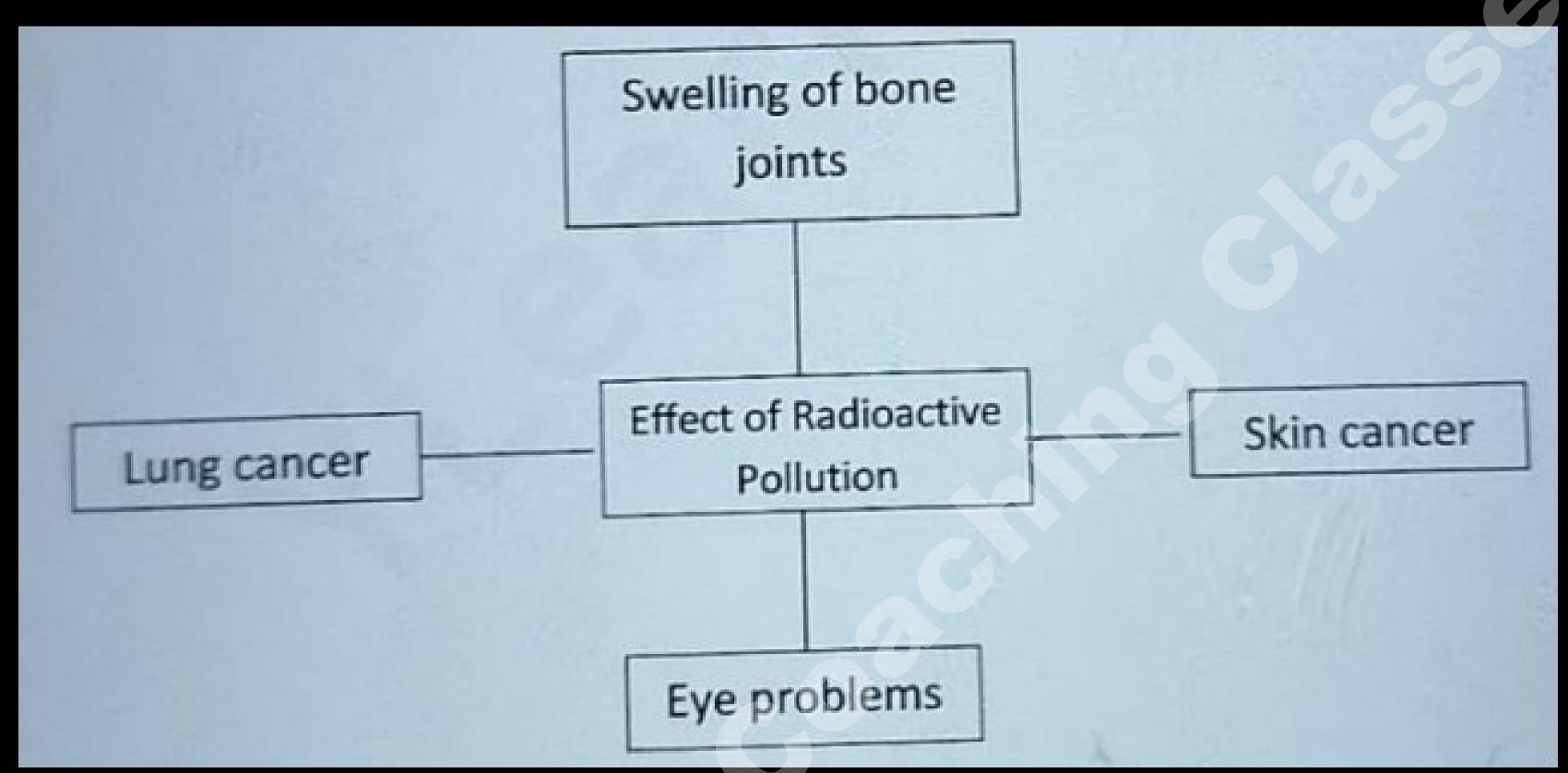
9) Complete the following chart:



(Mar-20)

IMI

Ans



MA

10) Identify the following symbols and state their significance.

(Mar-19)



Ans: (1) Save water

Significance:

Water is essential for life. Therefore save water and use it efficiently

(2) Use bicycles

Significance:

It is good because bicycle will save petrol and it will reduce pollution.

Theory (3-Mark)

1) What is the meaning of the following symbols? Write your role accordingly. (Jul-24)



Ans:(1) Symbol meaning: Waste Management

Role: I will encourage people to use waste bins instead of littering.

(2) Symbol meaning: Green Energy

Role: I will promote the adoption and usage of green energy sources, such as solar and wind power, to reduce the environmental impact of fossil fuels.

(3) Symbol meaning:

Save fuel

Role: I will encourage the use of bicycles as a sustainable and healthy mode of transportation to reduce carbon emissions, save fossil fuels, and promote physical fitness.

2) Write a short note on The types of Biodiversity.

Ans: Three different levels of Biodiversity:

(1) Genetic Diversity:

Occurrence of diversity among the organisms of same species is genetic diversity. Example: Each human being is different from other.

(2) Species Diversity:

Diversity in the species of organisms that occur in the nature. Example: Various types of plants, animals and microbes.

(3) Ecosystem Diversity:

Ecosystem diversity refers to the various kinds of ecosystem which are found in a <u>region</u>. Each ecosystem will have its own characteristic plants, animals, abiotic factors, etc. Ecosystems are also of two types are natural and artificial

(Jul-23)

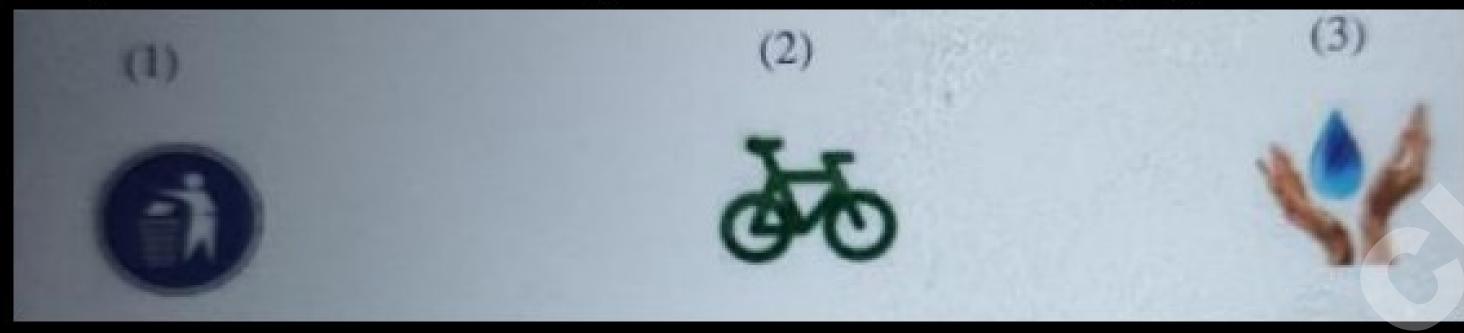
3) Write the factors affecting environment.

(Mar-23)

Ans

- 1) Environment is affected by natural factors and manmade factors
- 2) Natural factors which affect the environment are earthquakes, floods, fires, droughts, etc.
- 3) Manmade factors which affect the environment are deforestation, industrialization, use of excessive pesticides and fertilizers, unorganized garbage disposal, etc.
- 4) These factors cause pollution, create imbalance and ultimately affect the existence of biotic factors

4) Explain the meanings of the following symbols:



- (Mar-22)

- (1) This symbol tells us to keep our waste carefully.
- (2) This symbol indicates save fuel.
- (3) This symbol is giving the message "Save Water"

(Dec-20)

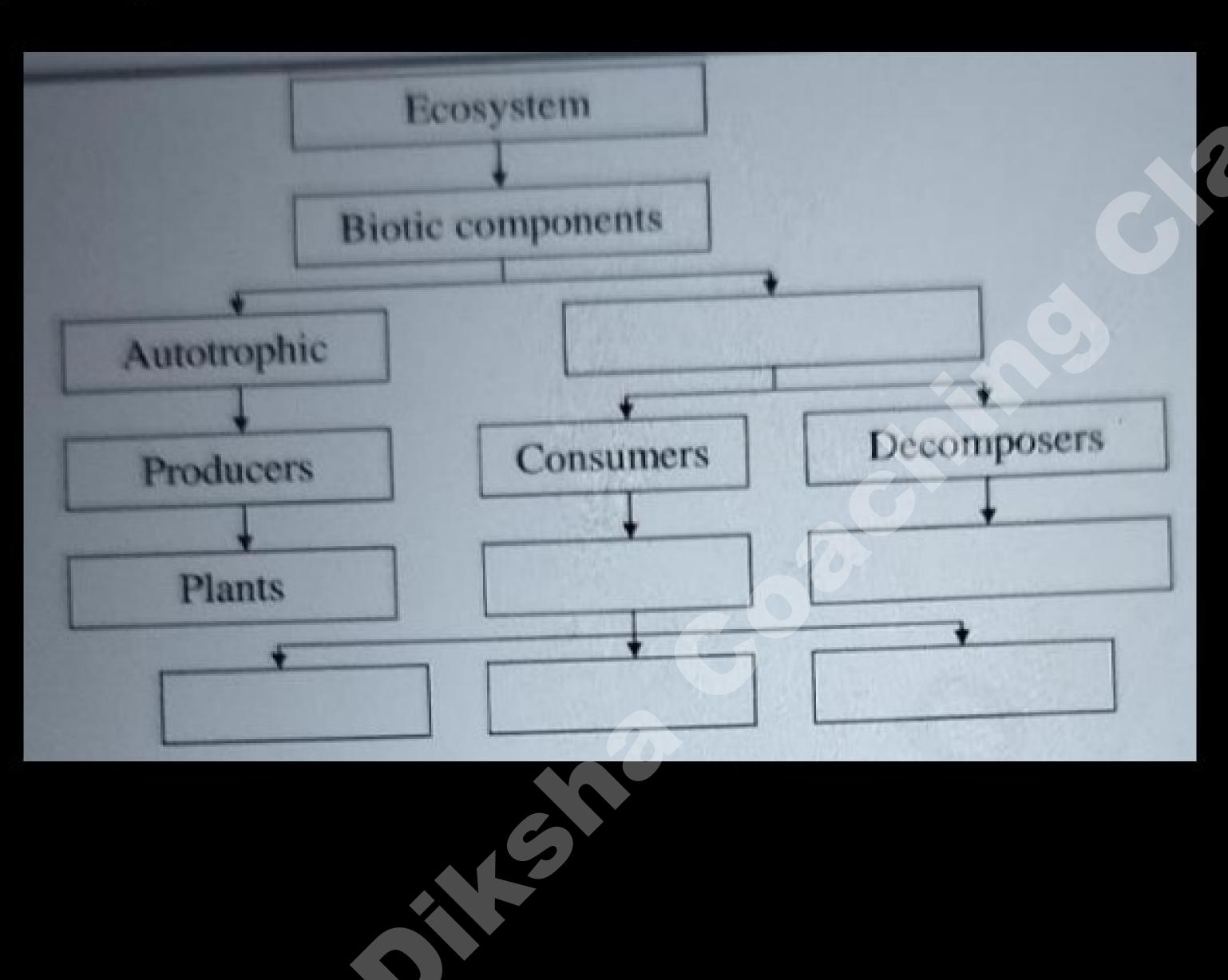
Ans. Three different levels of Biodiversity:

- (1) Genetic Diversity: Occurrence of diversity among the organisms of same species is genetic diversity. Example: Each human being is different from other.
- (2) Species Diversity: Diversity in the species of organisms that occur in the nature

Example: Various types of plants, animals and microbes.

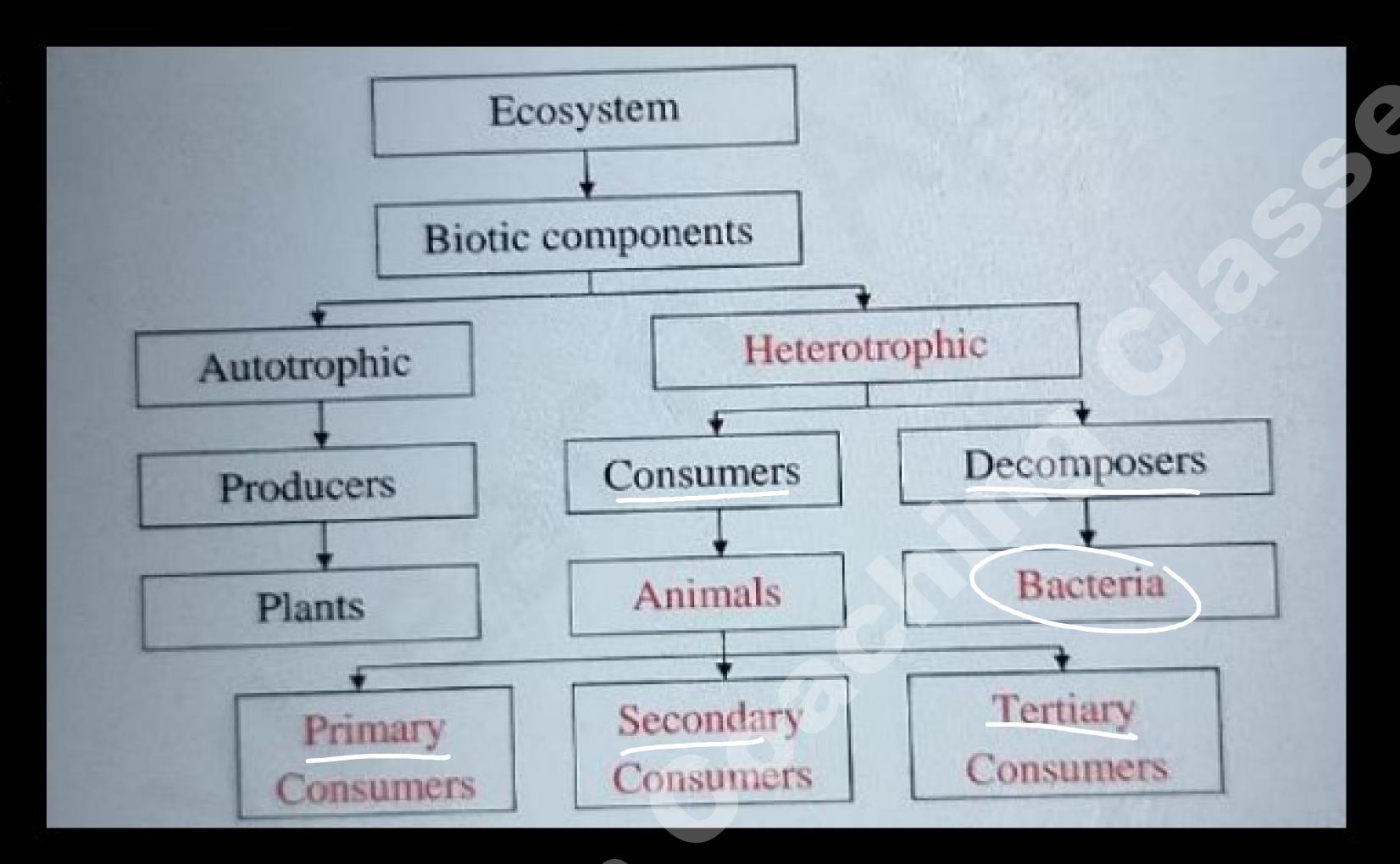
(3) Ecosystem Diversity: Many ecosystems are present in each region. Diversity of the different ecosystems. Example: Natural and artificial ecosystems.

6) Complete the flow chart:



(Jul-19)

Ans:



Ans: Biodiversity can be conserved by

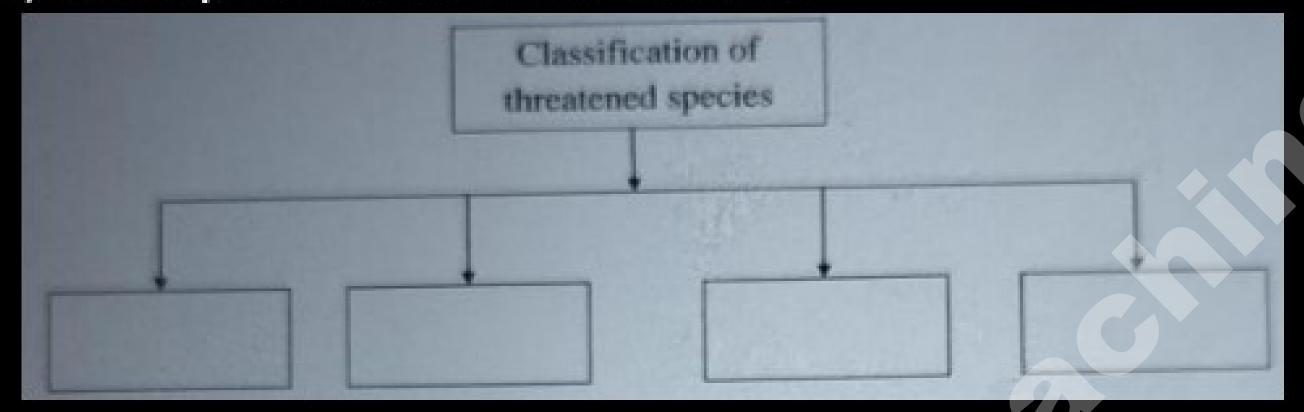
- 1) Protecting the rare species of organisms.
- 2) Establishing national parks and sanctuaries.
- 3) Declaring some regions as "bio-reserves".
- 4) Projects for conservation of special species
- 5) Conserving all plants and animals.
- 6) Observing the rules
- 7) Maintaining record of traditional knowledge

(Mar-19)

Theory (5-Mark)

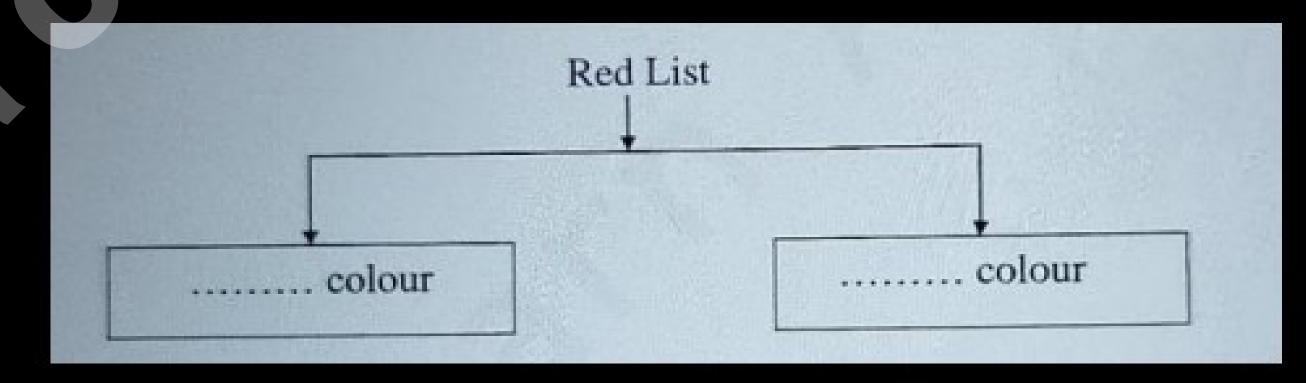
1) Answer the following questions based on environmental conservation and biodiversity: (Mar-24)

(a) Complete the flow chart:



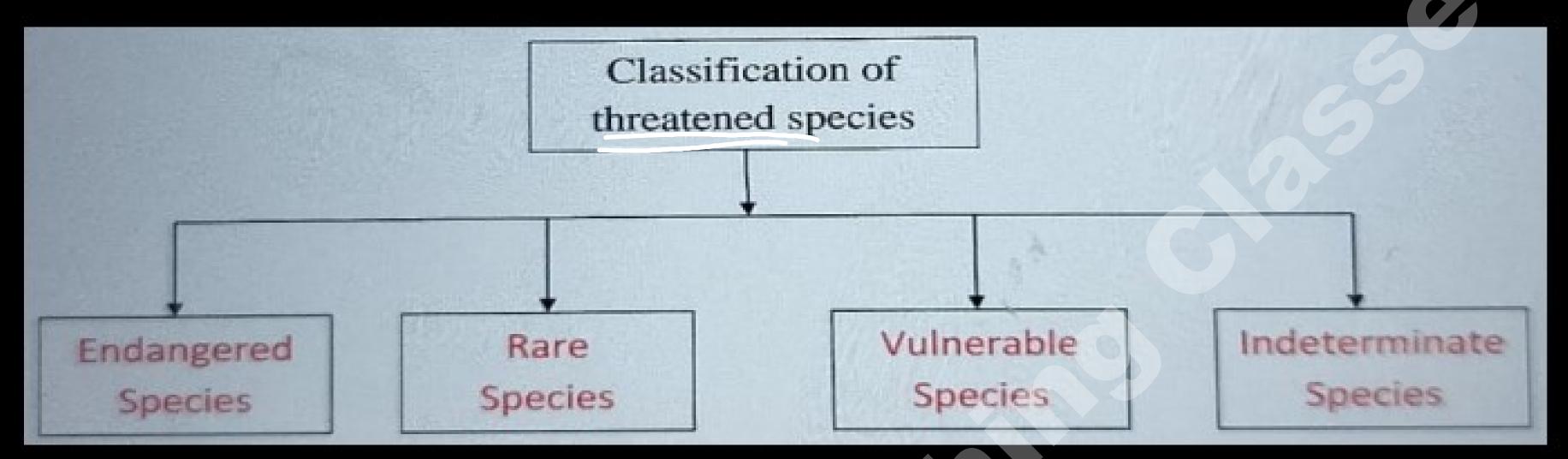
★How can biodiversity be conserved? Give any four points.

(c) Complete the flow chart



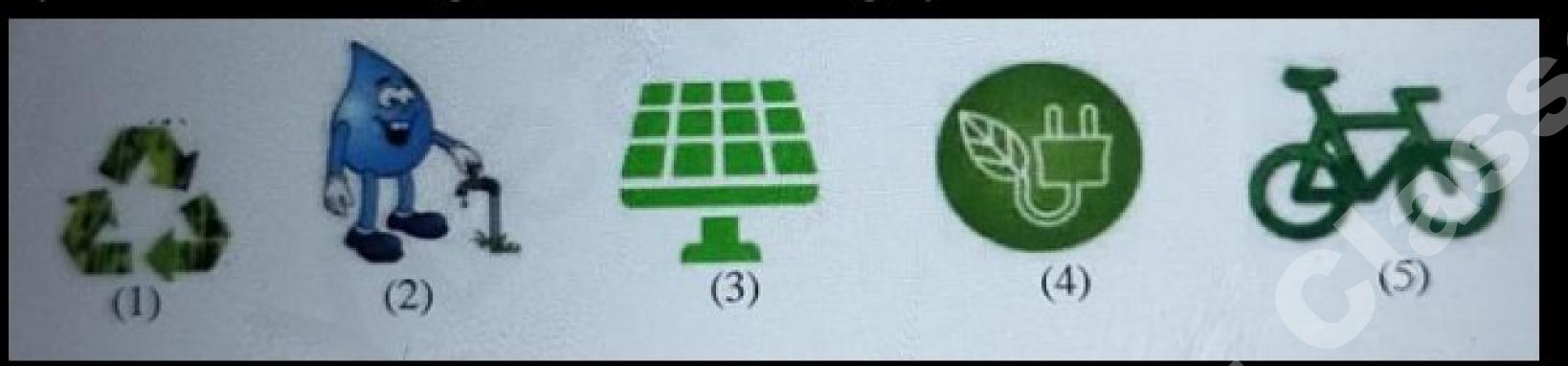
Ans

a)



- (b) Biodiversity can be conserved by
- 1) Protecting the rare species of organisms.
- 2) Establishing national parks and sanctuaries.
- 3) Declaring some regions as 'bio-reserves'
- 4) Projects for conservation of special species.
- 5) Conserving all plants and animals

2) Explain the meanings of the following symbols.



Ans

(1) This sign is used for indicating that "this object can be reused and recycled". Recycling is the process in which a substance that has been discarded is reprocessed to make the same or a different substance. It is one of the methods to conserve our environment.

(Aug-22, Jul-19)

- (2) This sign is used to indicate 'Save Water'. Conservation of water is essential for securing food grain production and sustaining various life-forms
- (3) This sign indicates 'Solar Panel. Solar energy can be harnessed with the help of solar cells. Solar energy will eventually reduce the dependence upon fossils fuels hence will help in the conservation of environment.
- (4) This sign indicates "Green Energy". These are eco-friendly and inexhaustible source of energy.
- (5) This sign indicates 'Save fuel Fuels are depleting in nature because of their excessive use. So, we should use renewable sources of energy and we should try to save fossil fuels.

3) What are the three endangered heritage places in India? Mention two measures you will take to protect this with reasons.

(Oct-21)

Ans:

- (a) The Western Ghats, Manas sanctuary and Sunderbans sanctuary are endangered heritage places in India.
- (b) 1) I will take help of environmentalist to stop the mining industry and search of natural gas in The Western Ghats. Because, due to mining industry and search for natural gas, habitats of Asiatic lion and wild bison are under threat
- 2) I will stop the construction of more dams and indiscriminate use of water with the help of environmentalist and local authority in Manas sanctuary. Because, due to dams and indiscriminate use of water, tiger and rhino are under threat.
- 3) I will stop the construction of more dams, deforestation, excessive fishing and trench digging in Sunderbans sanctuary with the help of environmentalists, local people and authorities. Because, due to construction of more dams, deforestation, excessive fishing and trenching, the tiger population and the overall local environment is seriously affected

4) Attempts at various levels are performed for conserving environment Which role would you like to perform. Give two actions each (Mar-20)

- (a) Prevention
 - (b) Control
- (c) Production
- (d) Awareness
- (e) Conservation

Ans: I would like to perform the role of social activist and environmentalist and will create awareness among the people to save our nature.

- (a) Prevention
- 1. Reduce water pollution by using proper drainage system.
- 2. Reduce waste production to reduce methane emission. It can be achieved by recycling and reusing the used items.
- (b) Control
- 1. The use of pesticides should be banned as it is harmful for plants
- 2. Use of polythene bags should be avoided, to control pollution as it is non-biodegradable.
- (c) Production
- 1. Seeds of better quality should be distributed for better production of crops
- 2. Eco-friendly production process should be followed.
- (d) Awareness
- 1. People Should be encouraged to use organic farming method.
- 2. People should be encouraged to grow small gardening areas.

- (e) Conservation
- 1. Conserve water to extend our water resources for future and to protect the animals and plants that live in areas with limited water.
- 2. Stop the cutting of trees, and plant more trees.

Chp 5 Towards Green Energy

1) The machine which converts the kinetic energy of wind to electrical energy is called

(A) Solar cell (B) Thermal

(C) Generator (D) Wind turbine

2) Atomic power plant in Maharashtra is

(A) Chandrapur (B) Koyana

(D) Anjanwel

3) The Hydroelectric capacity Koyna dam is

(A) 2400 MW (B) 1960 MW

(C) 1900 MW (D) 1961 MW

4)is used in thermal power plan

(LA) Coal (B) Uranium

(C) Natural Gas (D) Water

5) In thermal power plants, theenergy through several steps. energy in the coal is converted into electrical energy throught several steps

(A) Solar (B) Nuclear

(C) Thermal ((D)€hemical

6) Water reservoir possesses energy

(A) Nuclear (B) Thermal

(C) Kinetic (D) Potential

7) Incomplete combustion of fuels leads to formation of

(C) Chlorofluorocarbon

- (B) Carbon Dioxide
- (D) Hydrogen Sulphide

Theory (1 – Mark)

1)The power available from the solar cell is AC

Ans: False

2) Which type of fuel is used in thermal power plant?

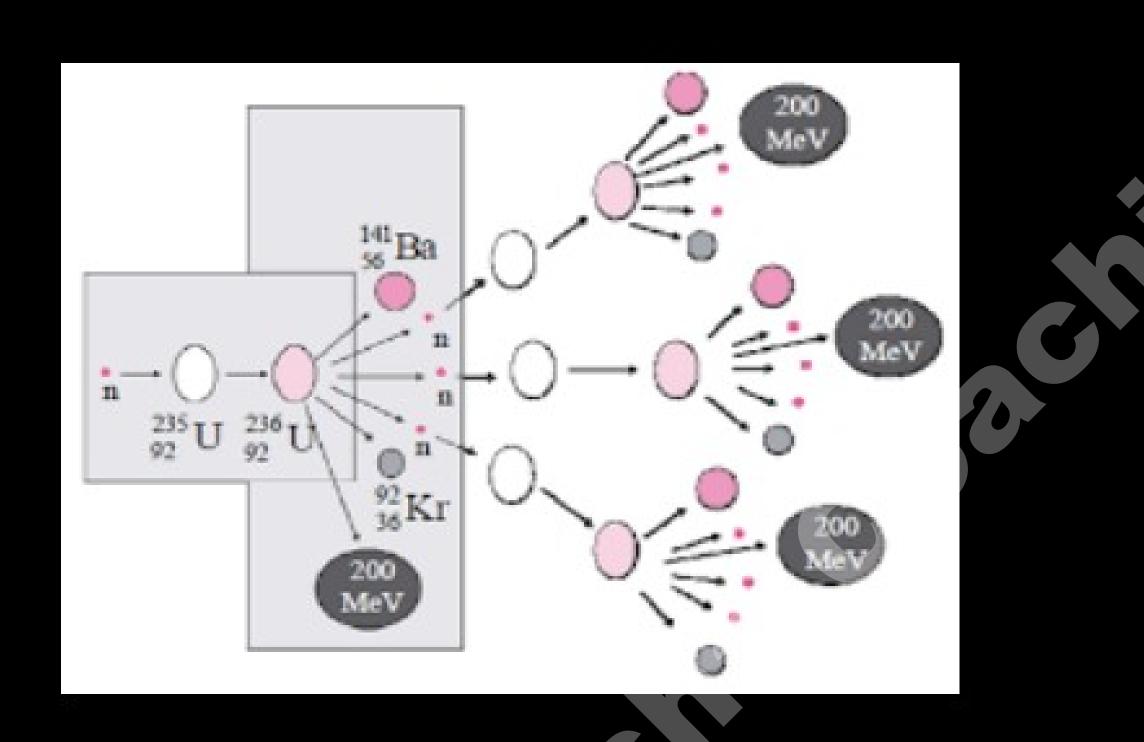
Ans: The coal is used in thermal power plant.

3) The turbines at the thermal power plant operate on solar energy.

Ans: False

4) Identify the process shown in figure and name it.

Ans: The given figure is of nuclear fission (Chain reaction).



Theory (2 – Mark)

1) Hydroelectric energy, solar energy and wind energy are called renewable energies (Jul-24, Mar 24, Dec 20, Mar 20. Jul-19)

- Hydroelectric energy, solar energy and wind energy is obtained respectively from flowing water, solar radiations and flowing wind
- 2) These resources, ie water reservoirs, sun and the wind are inexhaustible and sustainable.
- 3) They will not be finished
- 4) Hydroelectric energy, solar energy and wind energy can be replenished and hence they are called renewable energies.

2) It is absolutely necessary to control the fission reaction in nuclear power plants

(Mar-23, Aug-22 (12))

- Large amount of energy is generated in a matter of seconds in a fission reaction. If the fission reaction is not controlled, it can prove fatal.
- 2) Uncontrolled fission reaction may lead to the emission of harmful radiation.
- 3) It can also lead to the meltdown of the nuclear power plant Thus, it is absolutely necessary to control the fission reaction in nuclear power plants.

 It is absolutely necessary to control the fission reaction in nuclear power plants (Mar-23, Aug-22 12)

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3) Give scientific-reasons: Power generation plant based on natural gas is eco-friendly.

Ans:

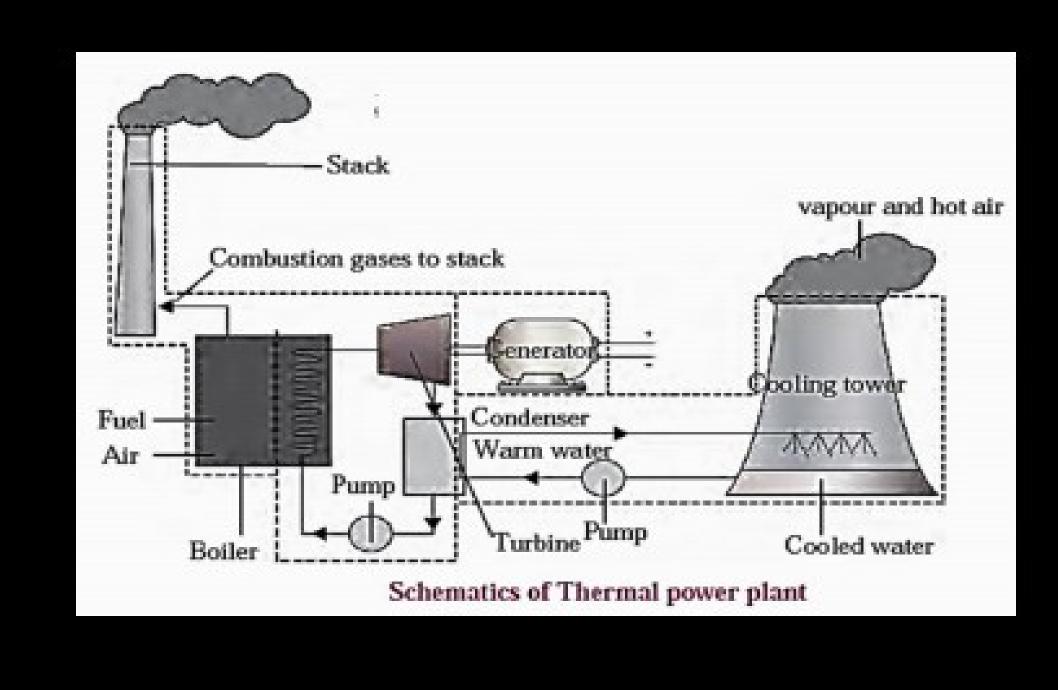
1) Natural gas is a relatively clean burning fossil fuel.

ii) Burning natural gas for energy results in fewer emissions of nearly all types of air pollutants and carbon dioxide (CO2) than burning coal or petroleum products to produce an equal amount of energy.

Hence, power generation plant based on natural gas is eco-friendly.

Observe the diagram and answer the following questions

- (a) Which type of energy is created in the above diagram?
- (b) Which type of fuel is used in power plant?
- (c) State one problem created in such type of power plant.



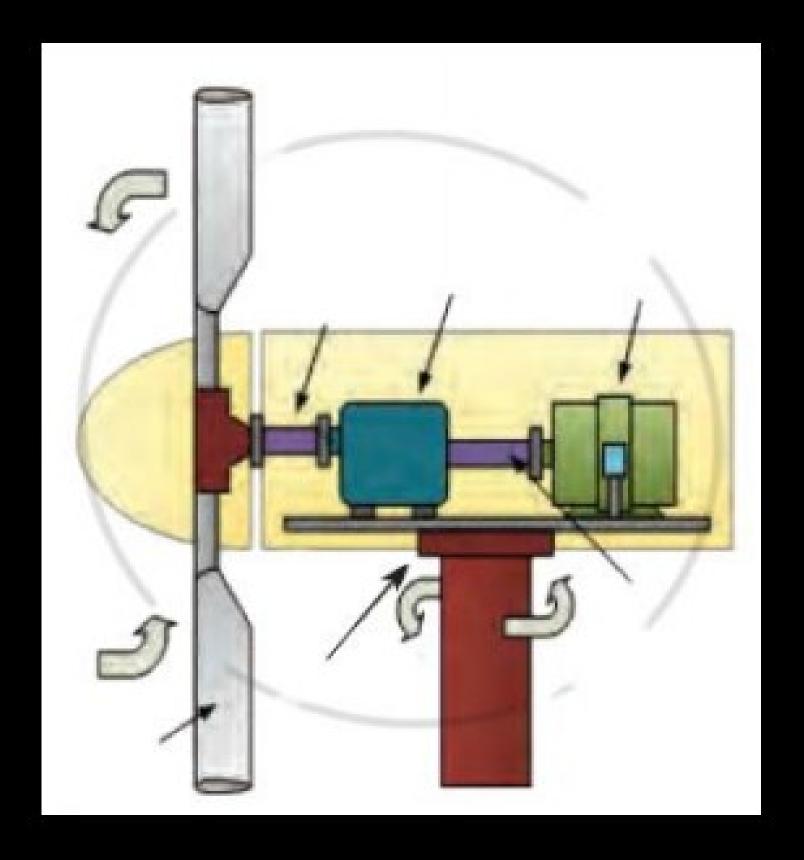
Ans:

- (a) Electrical energy is created in the given diagram.
- (b) Fossil fuel (i.e. coal) is used in the power plant.
- (c) Problem created:

1) Air pollution caused due to burning of coal: Burning of coal emits gases like carbon dioxide, sulphur oxide and nitrogen oxide which are harmful to living beings.

Observe the given picture and answer the questions Questions:

- (a) Identify the given diagram.
- (b) What is the source of energy in this project?
- (c) Why this source is supposed to be ecofriendly?



- (a) This diagram represents schematic of wind mill.
- (b) Wind is the source of the energy.
- (c) Wind is considered as eco-friendly as it does not involve the burning of fuels which produce harmful gases as by products.

- (a) Write any two advantages and two problems associated with hydroelectric power plant.
- (b) Is hydroelectric power generation environment friendly? What is your opinion

Ans:

- (a) Advantages associated with hydroelectric power plant:
- 1) Hydroelectric energy is renewable.
- 2) Hydroelectric energy does not cause pollution.

Disadvantages associated with hydroelectric power plant:

- The back water due to storage of water in dam may submerge villages or towns in that area as well as forests and fertile lands.
- 2) The obstruction of the flow of river water may have adverse effects on the aquatic world in the river.

(b) No waste products and harmful gases are released in water bodies and atmosphere when power is generated using hydroelectric power plants. Thus, it has no harmful effects on environment and hence is environment friendly

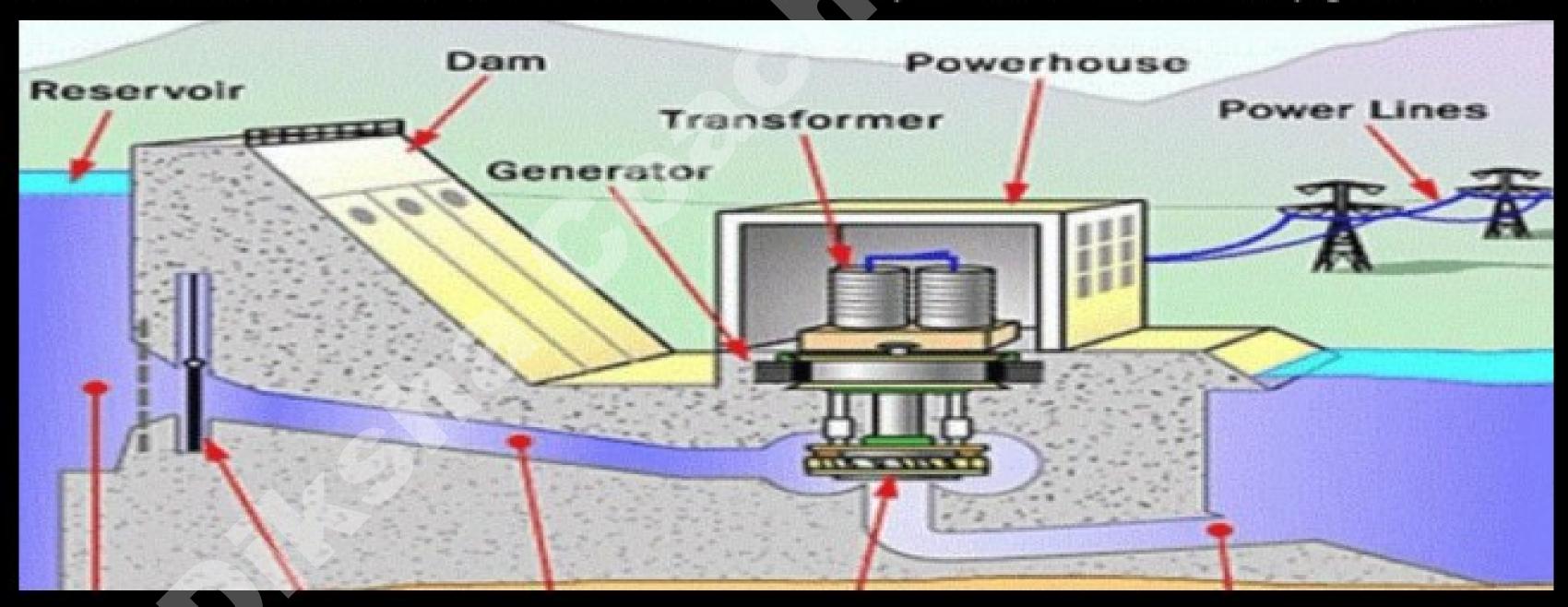
Answer the following questions from figure

- (a) With reference to point B, potential energy of how much water reservoir in the dam will be converted into kinetic energy?
- (b) What will be the effect on electricity generation, if the channel taking water to turbine starts at point A?
- (c) What will be the effect on electricity generation, if the channel taking water to turbine starts at point C?

- (a) When the sluice gate at point B. is opened, potential energy of the stored water at level A and B in the dam will be converted into kinetic energy.
- (b) If the channel taking water to turbine starts at point A, then the water will flow

with a greater speed. Since point A is at height, water will acquire speed. This will result into more efficient rotation of the blades of turbine. The electricity generation will thus become more efficient. (c) If the channel taking water to turbine starts at point C, it will affect the electricity generation adversely. Point C is on the lower height as compared to

the channel that carries water on the turbine. The flow of water thus will be affected resulting into improper rotation of blades of turbine. This will certainly affect the electricity generation

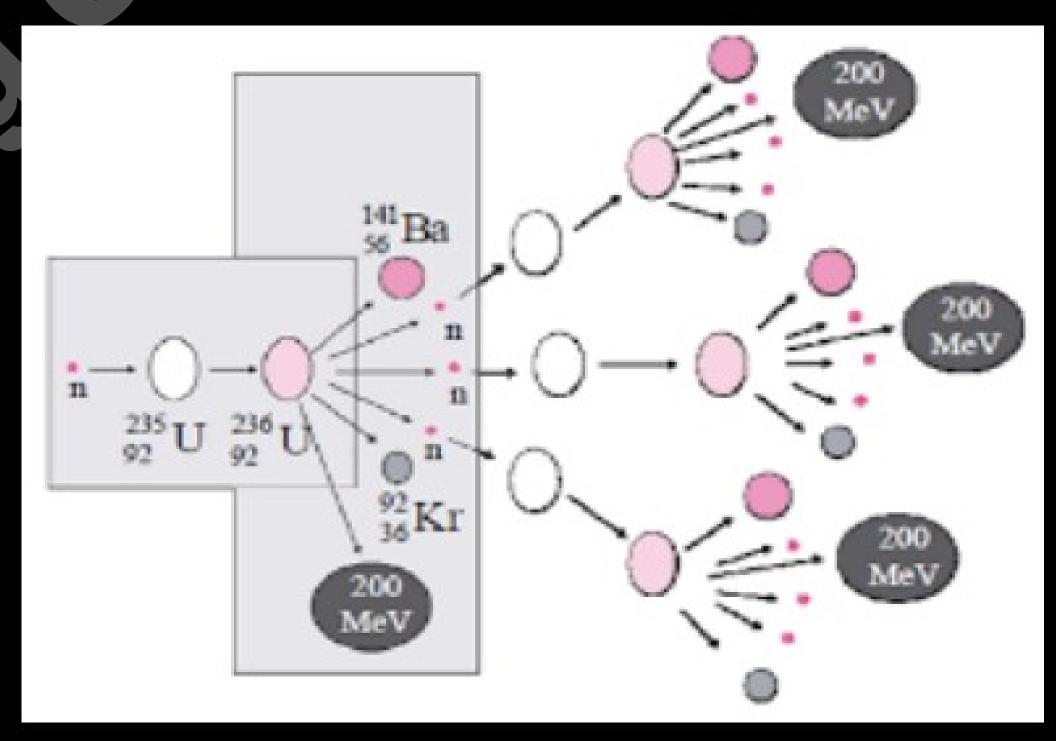


Answer the following questions with respect to the below figure

(a) Identify the reaction shown in the figure.

(b) Where is this reaction used?

(c) Which atom is used in this reaction?



- (a) The reaction shown is nuclear fission or chain reaction.
- (b) This reaction is used in nuclear power plants.
- (c) Uranium-235 is used in the nuclear fission reactions.

9) What are the advantages of hydroelectric power generation

Ans:

Advantages of hydroelectric Power generation:

- i) Hydroelectric energy is renewable.
- ii) Hydroelectric energy does not cause pollution.
- iii) Generation of hydroelectric energy does not involve buming of fossil fuel.
- iv) If sufficient water storage is available then electricity generation can be done as per requirement.
- v) Rainwater can replenish the water storage and power generation can thus be done uninterrupted.
- vi) It is eco-friendly

Make a table based on forms of energy and corresponding devices

Forms of Energy	Devices
(1) Electric	
(2) Mechanical	Sewing machine, Bicycle
(3) Thermal	
(4)	Solar cooker, Solar heater

	Forms of Energy	Devices
a.	Electric	Electric Fan, Electric iron
b.	Mechanical	Sewing machine, Bicycle
c.	Thermal	Steam Engine, Steam turbine
d.	Solar	Solar cooker, Solar heater

Chp 6 Animal Classification

MCQ(1-Mark)

- 1) Example of phylum Arthropoda is......
- (A) scorpion (B) starfish
- (C) earthworm (D) hydra

Ans (A) scorpion

- 2) Animal with bilateral symmetry is......
- (A) Star fish

- (B) Human
- (C) Paramoeecium (D) Amoeba

Ans (B) Human

(Mar-24)

(Mar-23)

3) Human being belongs to...... class. (Mar-22) (A) Mammalia (B) Amphibia (D) Cyclostomata (C) Reptilia Ans: (A) Mammalia 4) Calcareous spines are present on the body of..... animal. (Jul-19) (B) Snail (A) Fish (D) Star fish (C) Sponge Ans: (D) Star fish

(Mar-19) 5)..... is a cold blooded animal. (A) Bat (B) Snake (C) Rabbit (D) Elephant Ans: (B) Snake

Theory (1-Mark)

1) Find odd man out:

Starfish, Snail, Frog, Amoeba

Ans: Amoeba

(Jul-24)

2) Observe the diagram and identify the phylum

(Jul-24)

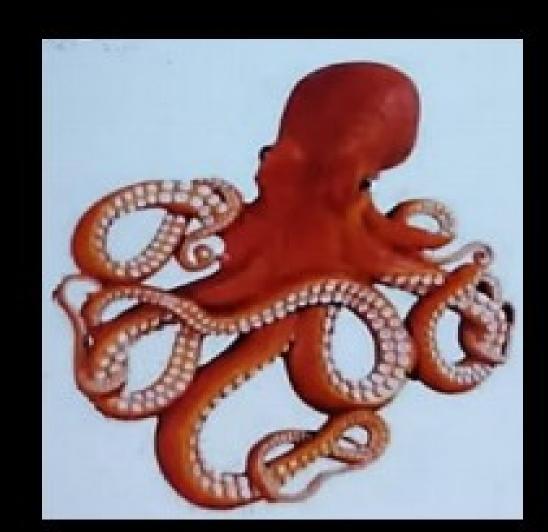


Ans Phylum: Cnidaria

3) Pick the odd man out duckbill platypus, pomfret, lungfish, peripatus. Ans Pomfret

(Mar-24)

4) Identify the phylum of the given animal: Ans: Phylum of the given animal is Mollusca.



(Jul-23)

5) To which class does bat belong?

Ans: Bat belongs to class Mammalia.

(Mar-23)

6) I have calcareous spines and I move with tube feet, which phylum do I belong to ? (Aug-22)

Ans: Echinodermata

7) My outer structure is made of exoskeleton; I have three pair of legs to walk. Tell me to which phylum I belong? (Oct-21)

Ans: Phylum Arthropoda



Name the locomotory organ of animal shown in the above figure. (Dec-20) Ans Tube feet is the locomotory organ of starfish.

9) Write the correct co-relation.

Annelida: Earthworm:: Platyhelminthes:

Ans Annelida: Earthworm:: Platyhelminthes: Planarsa

10) Who am I? (Jul-19)

I have suckers. I am blood sucking ectoparasite and my body is segmented.

Ans. Leech

(Mar-20)

Theory (2-Mark)

1) Though tortoise lives on land as well as in water, it cannot be included in class-Amphibia (Jul-24, Mar-24)

Ans

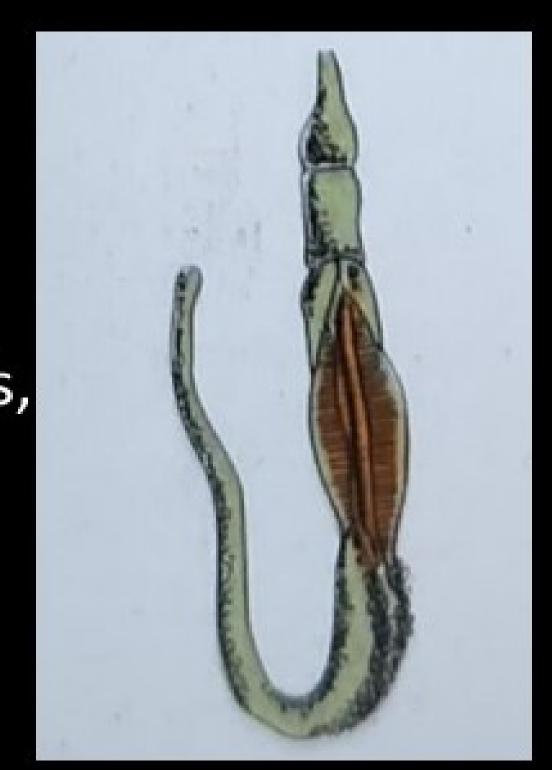
- 1) The animals which not only live in water but also on land and respire in both climatic conditions are called Amphibians.
- 2) Tortoise respires through lungs but does not have a structure to respire in water.
- 3) Also, tortoise lays eggs with hard shells which is a characteristic of reptiles.
- 4) Tortoise has a neck, whereas neck is absent in amphibian.

Therefore, tortoise is not an amphibian.

2) Observe the given animal and answer the following questions:

(Jul-23)

- (a) Identify the given animal and its phylum
- (b) Write any two characteristics of that phylum Ans
- (a) Given animal is Balanoglossus and it belongs to phylum Hemichordata.
- (b) Characteristics
- 1) Body of these animals is divided into three parts as proboscis, collar & trunk.
- 2) They are unisexual or some may be hermaphrodite.



3) Distinguish between Chordates and Non-chordates.

Ans:

Chordates	Non-chordates
	1. Notochord is absent.
2. Their central nervous system is hollow	2. Their central nervous system is solid and
and dorsal.	ventral.
3. The heart is ventral in position.	3. The heart if present is dorsal in position.
	4. Pharyngeal gill slits are absent in them.

(Mar-23)



4) Distinguish between butterfly and hat with the help of two distinguishing characteristics. (Aug-22)

	Butterfly	Bat
1	It belongs to phylum Arthropoda.	It belongs to phylum Chordata.
2	It has jointed appendages.	It does not have jointed appendages.
3	It has four wings for flying.	It has patagium that functions as a wing.
4	Exoskeleton is chitinous.	Exoskeleton is in the form of hairs.

- 5) Give scientific reasons: Cockroach belongs to phylum Arthropoda. (Mar-22) Ans: Cockroach shows all the following features of phylum Arthropoda:
- i) It shows the presence of jointed appendages
- ii) It is triploblastic, coelomate, bilaterally symmetrical, and segmented
- iii) It has a chitinous exoskeleton around its body
- iv) It respires with the help of tracheal system
 Hence, cockroach belongs to phylum Arthropoda.

6) Give scientific reasons: Our body irritates if it comes in contact with jellyfish. (Oct-21)

Ans:

- (1) Jelly fish has special cells on its tentacles called chidoblasts.
- (ii) These cnidoblasts contain toxins which is a protective mechanism shown by organisms belonging to the phylum Cnidaria.
- iii) On touching the jelly fish, this toxin is released.
- (iv) Due to the release of the toxin, our body irritates if it comes in contact with jellyfish.

(7) How is Balanoglossus connecting link between chordates and non-chordates ? (Dec-20)

Ans:

- i) Balanoglossus shows the presence of notochord which is a characteristic feature of chordates.
- ii) It also shows the presence of heart which is dorsal just like non chordates.

Since it shares the characters of non-chordates and chordates, it is called connecting link between them.

(Mar-20)

	Viammalia
Aves	1. Manuals are adapted for
1. Aves are totally adapted for	1. IVITALIS ALCOHOLIS ALCO
	terrestrial life.
the action to the form	2. The exoskeleton is in the form
Z. The exusacion is in	of fur, hair, wool, etc.
of feathers.	a r been tooth and they
	3. Jaws have teeth and they
3. Jaws are modified into beak.	surround the mouth.
	4. Mammals are viviparous.
4. Aves are oviparous.	To later the second sec



9) State any four benefits of animal classification. (Mar-19)

Ans: Benefits of animal classification:

- 1). Study of animals becomes convenient.
- 2) Study of few animals from a group helps to understand about that entire animal group.
- 3). It gives idea about animal evolution.
- 4). Animals can be easily identified with great accuracy.

Theory (3-Mark)

Theory (3-Mark) - (11-Questions)

1) Write any three characteristic features of class "Aves". (Jul-24)

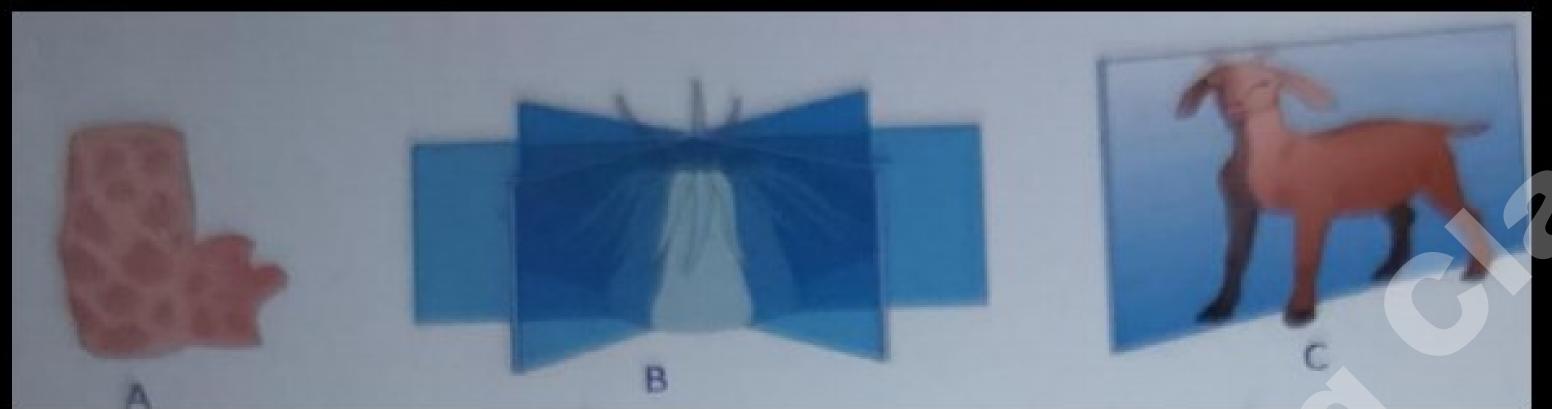
Ans: Characteristic features of class Aves

- 1) These are warm blooded (Homeotherms) i.e. they can maintain their body temperature constant.
- 2) Their body is spindle-shaped to minimize air resistance during flight.
- 3) Exoskeleton is present in the form of feathers.

2) Read the statements and answer accordingly: (a) Calcareous spines are present on the body. Tube feet are used for locomotion and capturing prey also. Identify the phylum and give one example. (b) live in your small intestine. Pseudocoelom is present in thread like body. Identify the phylum and give one example. (c) My body is spindle shaped. I respire with the help of gills. Identify my class and give one example. Ans. (a) Phylum: Echinodermata Example: Star fish (b) Phylum: Aschelminthes Example: Ascaris (c) Class: Pisces Example: Rohu

(Mar-24)

3) Observe the given figures and answer the following:



(Jul-23)

Identify the types of body symmetry and give one example of each apart from the given figure.

Ans:

(A) Type of body symmetry: Asymmetrical Body

Example: Amoeba

(B) Type of body symmetry: Radial symmetry

Example: Star fish

(C) Type of body symmetry: Bilateral symmetry

Example: Fishes

4) Cockroach, Frog, Sparrow, Star fish, from these animals which can regenerate its broken body part? (Mar-23)

- 1) Starfish can regenerate it's broken body part.
- 2) It belongs to kingdom Animalia.
- 3) It belongs to sub kingdom Non-chordata.
- 4) It belongs to phylum Echinodermata,
- 5) It is triploblastic and acoelomate.
- 6) It perform locomotion with the help of tube-feet





- (a) Identify the class of the animals shown in the figure. (Aug-22)
- (b) Write two characteristics of that class.

Ans:

- (a) Animals shown in the figure belongs to class Amphibia.
- (b) Characteristics of class Amphibia:
- 1) They have two pairs of appendages. Digits are without claws.
- 2) Neck is absent. Eyes are prominent with eye lids.

- 6) Write any three characteristics of class reptilia. (Mar-22)
- Ans: Characteristics of Reptilia:
- i) These are creeping and burrowing terrestrial animals with scales on their body.
- ii) They are cold-blooded animals found in most of the warmer regions of the world.
- iii) Their skin is dry, and rough, without any glands.

7) Name the largest phylum of kingdom Animalia. Write any two characteristics of it. (Oct-21)

Ans:

- (1) Arthropoda is the largest phylum of kingdom Animalia.
- (2) Characteristics of Arthropoda:
- i) They are triploblastic and bilaterally symmetrical.
- ii) They are unisexual.

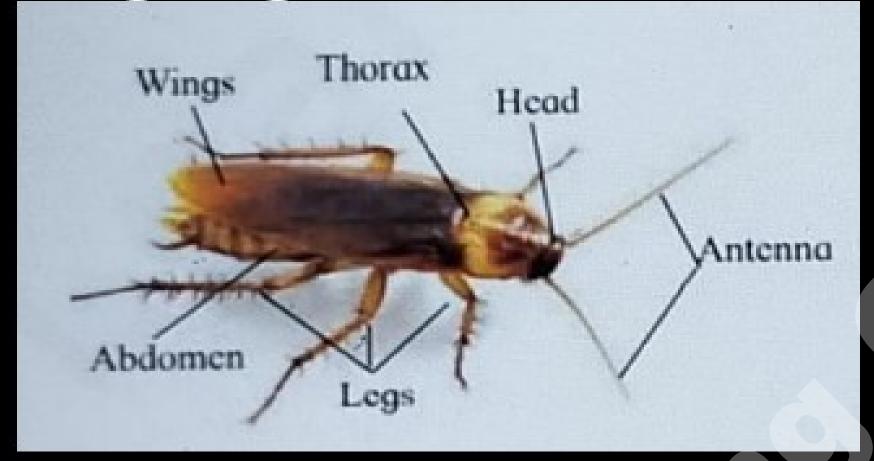


Identify and explain the above different types of symmetry (Dec-20)

Ans

- (a)Asymmetrical Body: In case of such body, there is no any such imaginary axis of the body through which can get two equal halves. Example: Amoeba
- (b) Radial symmetry: In this type of body, if imaginary cut pusses through central axis but any plane of body, it gives two equal halves, Example: Star fish
- (C) Bilateral symmetry: In this type of body, there is only one such imaginary axis of body through which we can get two equal halves. Example: Fishes.

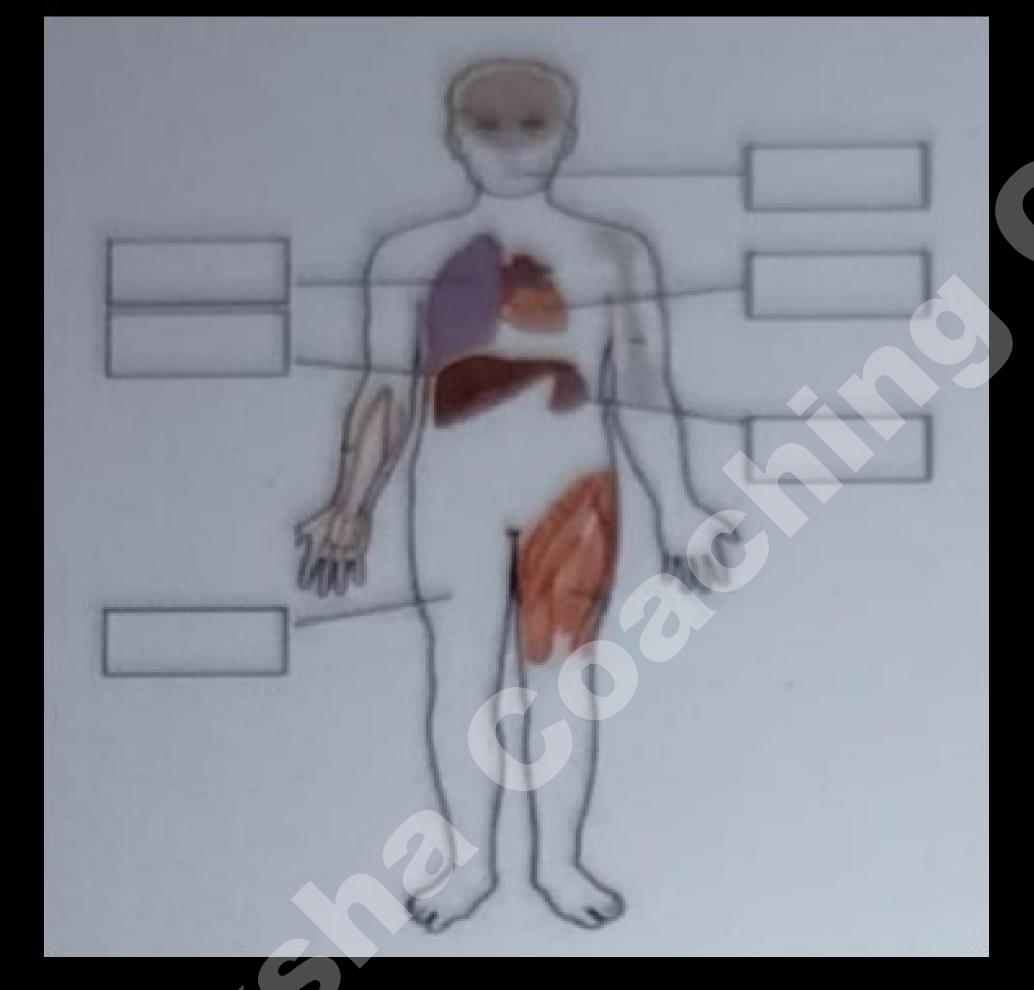
9) Observe the following diagram. Write the answers of the following questions:

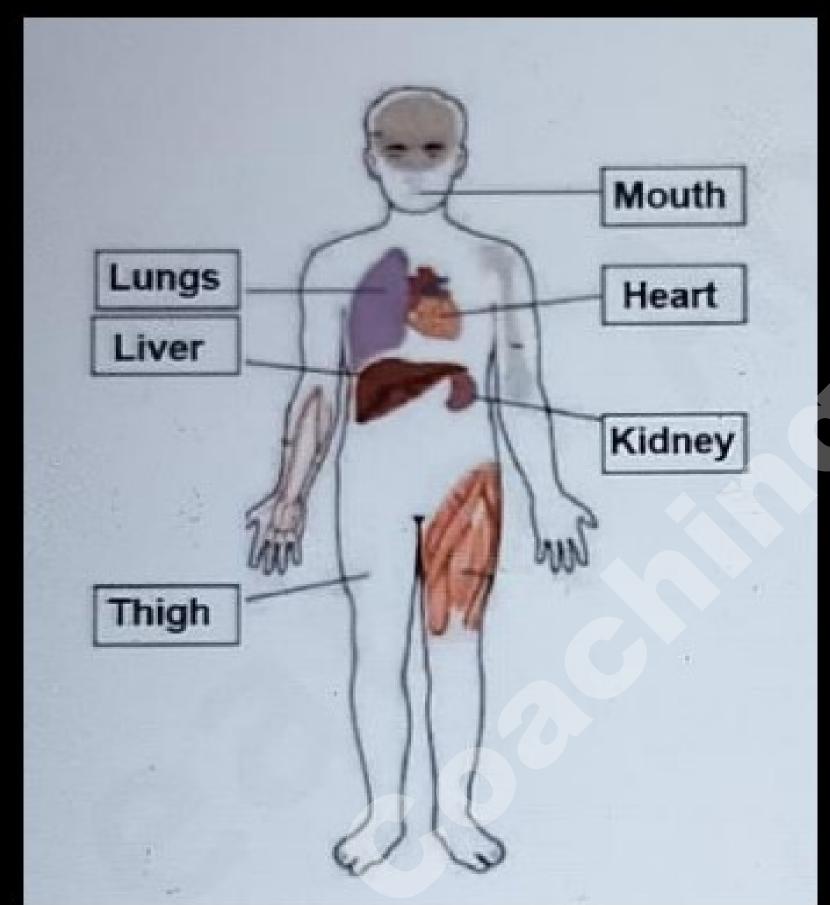


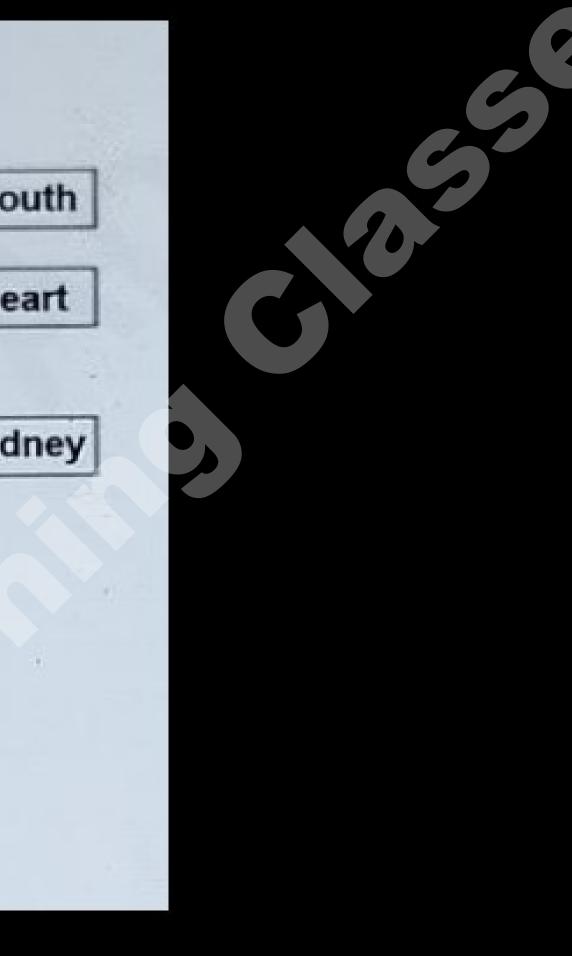
- (a) To which phylum does the animal included in the diagram belong. (Mar-30)
- (b) What is the exoskeleton made up?
- (c) What is the symmetry

- (a) Cockroach belongs to phylum Arthropoda
- (b) The exoskeleton is made up of chitin
- (c) Symmetry of the cockroach is bilateral.

10) Label the body organization of human has been shown in the following figure: (Mar-20)







- 11) Identify my class/phylum and give one example of it:(Mar-19)
- a) I have mammary glands and exoskeleton in the form of hair.
- b) We form the highest number of animals on the planet. We have bilateral symmetry and our exoskeleton is in the form of chitin.
- c) I live in your small intestine, my body is long and thread like and pseudocoelomate.

Ans

a) Class-Mammalia

Example-Human

b) Phylum Arthropoda

Example-Cockroach

c) Phylum-Aschelminthes

Example-Ascaris

Theory (5-Mark)

11 Identify the class of given animals and write one characteristic of each animal. (Jul-19)

- a) Kangaroo
- b) Penguin
- c) Crocodile
- d) Frog
- e) Sea-horse

Ans

a) Animal: Kangarooi

Class: Mammalia

Characteristics: Kangaroo is a warm blooded animal.

b) Animal: Penguin

Class: Aves

Characteristics: Penguin is a flightless and warm-blooded bird

c) Animal: Crocodile

Class: Repitila

Characteristics: External bar is absent and skin is dry and scaly,

d) Animal: Frog

Class: Amphibia

Characteristics: When on land, frog respires with the help of lungs while in water in uses its skin for breathing.

e) Animal: Sea-hone

Class: Pisces

Characteristics: Sea-horse is a cold blooded aquatic animal