

Date:

Class: VIII

SCIENCE

Time:3Hrs

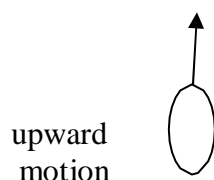
M. M: 90

**General Instructions:**

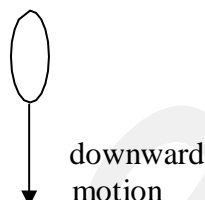
1. There are two sections in this paper. Section A contains Q 1-24 & section B contains Q25-36.
2. Marks are indicated against each question.
3. Read all questions carefully.
4. All questions are compulsory.

**Section A**

- 1 Why is a bacterial cell regarded as a prokaryotic cell? 1
- 2 Suggest a method that we can use to prevent the depletion of Exhaustible Resources. 1
- 3 Give the direction of force of friction in the following cases 1



(a)

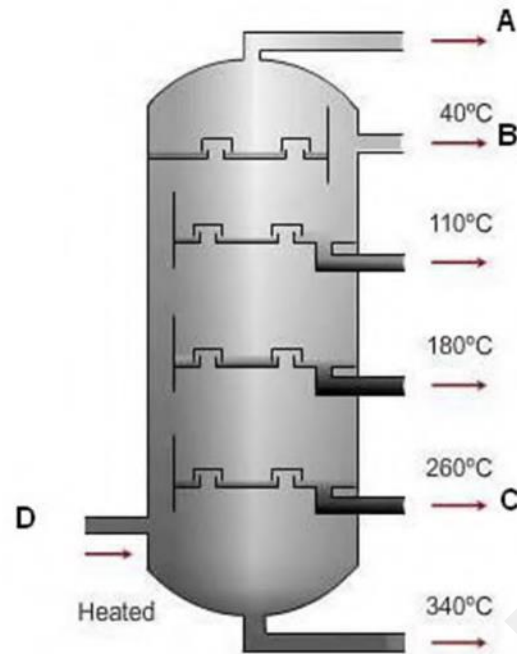


(b)

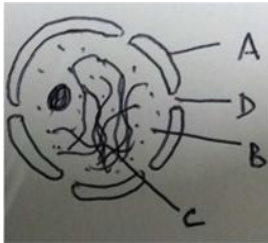
- 4 Give the scientific term for the following: 2
  - i) A male hormone.
  - ii) Female gamete in human beings.
  - iii) Cell produced after fertilization of gametes.
  - iv) Part of the female reproductive system where fertilization takes place.
- 5 Amit wishes to buy a shirt. The shopkeeper shows him one shirt each of Cotton and Rayon. He decides to buy the cotton shirt. What are the two properties of cotton shirt that he prefers over Rayon? 2
- 6 Explain what happens to the meteors when they enter the Earth's atmosphere. 2
- 7 Discuss the various shapes of cells found in human body and give one example of each. (any 3 shapes). 3
- 8 Explain the process of Budding in Hydra with the help of a well labeled diagram. 3
- 9 How does the development of an adult frog take place from the eggs? 3
- 10 List any three changes that take place in males during adolescence. 3
- 11
  - a) What are sex chromosomes? 3(1+2)
  - b) How is sex determined in human beings? Draw a flow chart to explain it.
- 12 Distinguish between Thermoplastics and Thermosetting Plastics on the basis of 3
  - a) Effect of heat
  - b) Nature
  - c) Toughness

- 13 a) Write the principle involved in the process shown in the given figure.  
b) Label the parts A,B,C,D

3(1+2)

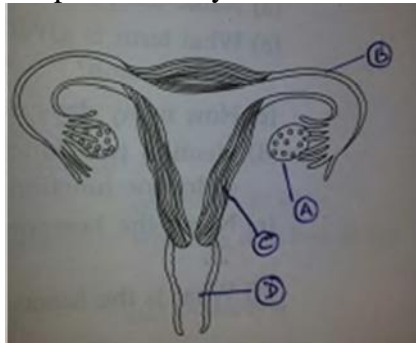


- 14 “Ancient monuments get damaged due to acid rain every year”. With regard to the statement answer the following questions: 3
- a) What is acid rain?  
b) Name any two pollutants that lead to acid rain.  
c) Mention any other damage caused by acid rain apart from the one given above.
- 15 a) What are fossil fuels? Write the two conditions needed for formation of fossil fuels. 3  
b) Name the following-  
i) Variety of Coal that has highest Carbon content.  
ii) Petroleum product used for leveling the roads.
- 16 With the help of a diagram, explain the causes of friction. 3
- 17 Give reason for the following- 3  
a) The handles of a motorcycle are covered with towel material or a rubber sheet with spikes  
b) The kabaddi players rub their hands with sand before playing  
c) The shape of the aircrafts is streamlined
- 18 An object makes 20 vibrations in 4 seconds. Calculate the following for the vibration of the object: 3  
i) frequency  
ii) time period  
iii) Will the sound produced by this object be audible to human ears? Give a reason for your answer.
- 19 a) What is noise pollution? 5  
b) Name any two sources of noise pollution.  
c) Suggest two methods of controlling noise pollution.
- 20 a) Differentiate between a plant cell and an animal cell on the basis of 5(3+2)  
i- Presence of cell wall  
ii- Size of Vacuole  
iii- Presence of Plastids  
b) Label the parts A,B,C,D in the given diagram.



21 Observe the diagram of female reproductive system and answer the following-

5(2+2+1)



i- Label parts A,B,C,D

ii- Write the function of parts C,D

iii- What is the role of the hormone secreted by part A.

22 a) Complete the table-

5(3+2)

Sl. No.	Gland	Hormone	Effect
1		Thyroxine	
2	Adrenal		
3		Insulin	

b) Give reasons-

i- Females can reproduce only during some years of their life span.

ii- Pituitary Gland is regarded as the master gland of the body.

23 Justify the following statements-

5

i) Plastic containers are best suited for storing dry fruits

ii) Wastes like fruit and vegetable peelings should be thrown into green bins.

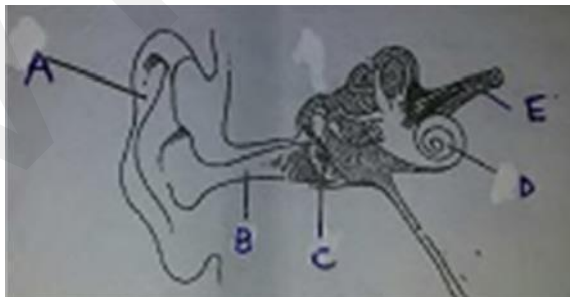
iii) Nylon clothes dry faster than cotton clothes

iv) Petroleum is regarded as 'Black Gold'

v) We should not sleep near the fire place in a closed room during winters.

24 Observe the given diagram of human ear. Label the parts A,B,C,D,E and write the role played by each part in the process of hearing.

5



Section B

25 Name the commonly used stain/dye used for staining to observe the cells under a microscope.

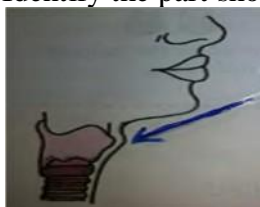
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26 Justify the statement "we should take iodized salt in our diet".

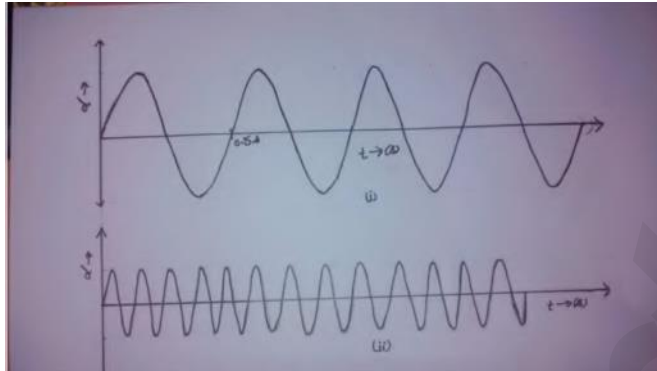
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27 Identify the part shown in the picture.

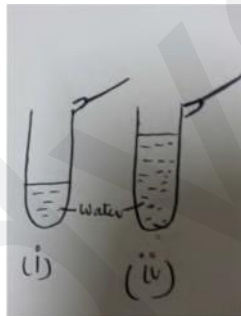
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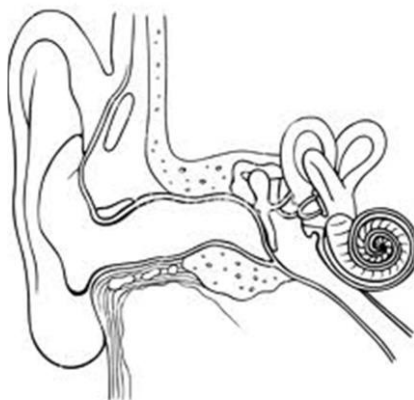
- 28 Write any two ways by which AIDS virus HIV is transmitted from an infected person to a healthy person. 1
- 29 Why are CNG cars becoming very popular over the diesel cars ? 1
- 30 We often read in newspapers about the oil spills occurring in various oceans. Write any one harm caused to the environment by such oil spills. 1
- 31 A box is lying on the table. When a force of 25 N is applied on it ,the box just starts to slide on the table. What is the magnitude and direction of the static friction 1
- 32 Two wave forms are shown here .In which case will the sound be louder and why? 1



- 33 The same sound produced by a source is heard through water and air by two people Ram and Shyam. Who will hear this sound first and why? 1
- 34 Water is filled in two glasses tumblers up to different levels. Each of them is struck with a metal spoon. In which case the sound will be shriller and why? 2



- 35 Anu read a poster depicting the “Use of 4-Rs of conservation”. Suggest two ways by which she can use them in her daily life. 2
- 36 Kamla is a maid who works in Ravi’s house. She is planning to marry her daughter who is just 15 years of age. Ravi warns her that what is doing is legally and ethically wrong as her daughter is not physically and mentally mature for getting married .What is the legal age of marriage for boys and girls in our country? Which value of Ravi is highlighted by his act. 2



1	Holt Mackenzie	1	
2	Jews	1	
3	A law banning students from wearing any conspicuous religious or political signs or symbols.	1	
4	543	1	
5	Prime Minister	1	
6	233,12	1	
7	Potential resource	1	
8	Afforestation/ checking overgrazing of land by the cattles.		
9	Western Australia	1	
10	Yes. The reasons are poverty and lack of technological development/ lack of resource exploitation	3	
11	<p>The problem with nij cultivation was that the planters found it difficult to expand the acre under nij cultivation.</p> <ul style="list-style-type: none"> <li>• Indigo could be cultivated only on fertile lands, and these were all already densely populated. Only small plots scattered over the landscape could be acquired.</li> <li>• Planters needed large areas incompact blocks to cultivate indigo in plantations. They attempted to lease in the land around the indigo factory, and evict the peasants from the area. But this always led to conflicts and tensions.</li> <li>• Nor was labour easy to mobile. A large plantation required a vast number of hands to operate. And labour was needed precisely at a time when peasants were usually busy with their rice cultivation.</li> <li>• Nij cultivation on a large scale also required many ploughs and bullocks. Investing on purchase and maintenance of plough was a big problem.</li> </ul>		3
12	<ul style="list-style-type: none"> <li>• In the countryside peasants and zamindars resented the high taxes and the rigid methods of revenue collection. Many failed to pay back their loans to the moneylenders and gradually lost the lands they had tilled for generations.</li> <li>• Some of the new rules, moreover, violated their religious sensibilities and beliefs.</li> <li>• Sepoys also reacted to what was happening in the countryside. Many of them were peasants and had families living in the villages. So the anger of the peasants quickly spread among the sepoys.</li> </ul>		3
13	<ul style="list-style-type: none"> <li>• A very large number of people begin to believe that they have a common enemy and rise up against the enemy .</li> <li>• Sepoys mutinied in several places beginning from Meerut and a large number of people from different sections of society rose up in rebellion.</li> <li>• After a hundred years of conquest and administration, the English East India Company faced a massive rebellion that started in May 1857 and threatened the Company’s very presence in India.</li> </ul>	3	
14	<ol style="list-style-type: none"> <li>1. The constitution of India recognized the right to water as being right to life as a part under article 21.</li> <li>2. This means that it is the right of every person, whether rich or poor to have sufficient amount of water to fulfill daily needs at a price they can afford.</li> <li>3. There should be “Universal access” to water.</li> </ol>	3	
15	<p>Primary requirements like food, water, shelter, sanitation, healthcare, education etc which are necessary for survival are referred to as public facilities. The important characteristic of public facilities is that the benefits provided by public facilities can be shared by many people.</p> <p>For e.g.:- A school in a village will enable many children to get education.</p>	1+2=3	
16	<p>The Indian Constitution mandates that the Indian state be secular as only a secular state can realize its objectives to ensure</p> <ul style="list-style-type: none"> <li>• that one religious community does not dominate another,</li> <li>• that some members do not dominate other members of the same religious community,</li> <li>• that the State does not enforce any particular religion nor take away the religious freedom of individuals.</li> </ul>		

ANSWER KEY VIII

17	<p>Yes to an extent.          Yes- still major population of women are not getting that privilege in job / education sector.          OR          No- over the period of 60 years and more of independence the reservation policy has actually made most of the worthy ones devoid of opportunities.</p>	3									
18	<ul style="list-style-type: none"> <li>• Before freedom, under British rule, all adults were not allowed to vote and nor could people participate in decision making.</li> <li>• The nationalists struggled and laid down the principle of Universal Adult Franchise.</li> <li>• In this way the individual or the citizen is the most important person. It is the decision of the people that creates a democratic govt. and decides about its functioning.</li> </ul>										
19	<p>Anything that can be used to satisfy one's need is called resource.          It need to be conserved :</p> <ul style="list-style-type: none"> <li>• From getting it extinct</li> <li>• So that future generation can also use it and fulfill their need.</li> </ul>	1+2=3									
20	<p>Landslides are simply defined as the mass movement of rock, debris or earth down a slope. They often take place in conjunction with earthquake, floods and volcanoes.          Mitigation scheme(any 2)          Hazard mapping to locate areas prone to landslides. Hence such area can be avoided for building settlement.          Construction of retention wall to stop land from slipping.          Increase in vegetation cover to arrest landslide.          The surface drainage control works to control the movement of land slide along with rain water and spring flows.</p>	1+2=3									
21	<table border="1"> <tr> <td>Natural gas</td> <td>Bio gas</td> </tr> <tr> <td>It is obtained in natural form.</td> <td>It is obtained from shrubs, farm wastes, animal and human wastes.</td> </tr> <tr> <td>It is available in large quantities.</td> <td>It is available in limited quantities.</td> </tr> <tr> <td>It is used as a source of power in industries</td> <td>It is used mostly in rural areas.</td> </tr> </table>	Natural gas	Bio gas	It is obtained in natural form.	It is obtained from shrubs, farm wastes, animal and human wastes.	It is available in large quantities.	It is available in limited quantities.	It is used as a source of power in industries	It is used mostly in rural areas.		
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22	<p>There was a competition amongst the European companies because all of them wanted to gain control over India which was well-known for its spices and other goods. Indian was known as the 'Land of Spices'. Indian spices like – pepper, cloves, cardamom &amp; cinnamon were in great demand in European market. The fine qualities of cotton and silk produced in India had a big market in Europe. The European companies used to purchase these things at a very low price in India and sold them at a huge profit in the European market.          The problem was that all the companies were interested in buying the same things. So the only way the trading company could flourish was by eliminating rival competitors. The competition and the urge to secure markets therefore led to fierce battles between the trading companies. Throughout the 17th &amp; 18th centuries they regularly sank each other's ships, blockaded routes and prevented rival ships from moving with the supplies of goods. They had to carry their trades with arms and fortify their trading posts.</p>	5									
23	<ul style="list-style-type: none"> <li>• In 1859, the indigo ryots felt that they had the support of the local Zamindar and Village headmen in their rebellion against the planters.</li> <li>• In many villages, headmen who had been forced to sign indigo contracts, mobilized the indigo peasants and fought pitched battles with the lathiyals.</li> <li>• In other places even the zamindars went around villages urging the ryots to resist the planters.</li> <li>• These zamindars were unhappy with the increasing power of the planters and angry at being forced by the planters give them land on long bases.</li> <li>• The indigo peasant also imagined that the British govt. would support them in their struggle against the planters.</li> </ul>		5								
24	<p>After the revolt, the British had to change some of the rule.          1. The British Parliament passed a new act in 1858 and transferred the powers of the East Indian Company to the British Crown in order to ensure a more responsible management of Indian affairs.</p>		5								

	<p>A member of the British cabinet has appointed secretary of state for Indian and made responsible for all matters related to the governance of India. He was given a council to advise him, called the Indian Council. The Governor –General of India was given the title of viceroy, that is a personal representative of the crown. Through these measures the British Government accepted direct responsibility for ruling India.</p> <p>2. All ruling chiefs of the country were assured that their territory would never be annexed in future. They were allowed to pass on their kingdoms to their heirs, including adopted sons. However, they were made to acknowledge the British Queen as their sovereign Paramount. Thus the Indian rulers were to hold their kingdom as subordinates of the British Crown.</p> <p>3. It was decided that the proportion of Indian soldiers in the army would be reduced and the number of European soldiers would be increased. It was also decided that instead of recruiting soldiers from Awadh, Bihar, Central India and South India, more soldiers would be recruited from among the Gurkhas, Sikhs and Pathans.</p> <p>4. The land and property of Muslims was confiscated on a large scale and they were treated with suspicious and hostility. The British believed that they were responsible for the rebellion in a big way.</p> <p>5. The British decided to respect the customary religious and social practices of the people in India.</p>		
25	<ul style="list-style-type: none"> <li>• In a democratic country like USA, the US Constitution prohibits the legislature from making laws ‘respecting an establishment of religion’ or that ‘prohibit the free exercise of religion’. This means that the legislature cannot declare any religion as the official religion.</li> <li>• In Indian Secularism, the State can intervene in religious affairs.</li> <li>• In Indian Secularism, though the State is not strictly separate from religion, it does maintain a principled distance vis-à-vis religion. This means that any interference in religion by the State has to be based on the ideals laid out in the Constitution.</li> <li>• The Indian State is secular &amp; works in various ways to prevent religious domination.</li> <li>• The Indian Constitution guarantees Fundamental Rights that are based on these secular principles.</li> <li>• The knowledge that such rights exist makes us sensitive to their violations &amp; enables us to take action when these violations take place.</li> </ul>		
26	<p>a. Similarity- problem of water shortage //Difference- Figure 1-common tap in slum where water is supplied for few minutes in a day Figure 2 shows that water is supplied to the area through water tankers and pay good amount to get municipal water once in two days.</p> <p>b. Inadequate quantity/rising population/ depelting level of gound water./ and above all poverty</p>		
27	<p>a. when they have knowledge, skill and technology</p> <p>b. .the usefulness of the object give its valueAs a resource is something that has utility, all resources have some value. The value of the object can be classified as :</p> <ul style="list-style-type: none"> <li>• Resource that have commercial value</li> <li>• Resource which do not have commercial value</li> </ul> <p>Metal is a resource as it has economic value as we make various product for our daily use. On the other hand a scenery may not have a economic value but still considered as a resource as it is useful in giving pleasure to the human mind.</p>		
28	<p>Yes/No.</p> <p>Yes- population/ technology/ requirement/ exploitation of resource etc....</p> <p>a. Afforestation, land reclamation, regulated use of chemical fertilizers and pesticide and check of overgrazing of land by the animals...</p>	5	
29	<p>A naturally occurring substance that has adefinite composition is called mineral.</p> <p>Minerals occur in different types of rocks. Some are found in igneous rocks, some in metamorphic rocks while others occur in sedimentary rocks.</p> <p>Generally, metallic minerals are found in igneous and metamorphic rock formations that form large plateaus. Iron-ore in north Sweden, copper and nickel deposits in Ontario ,Canada, iron, nickel, chromites and platinum in South Africa are examples of minerals found in igneous and metamorphic rocks.</p> <p>Sedimentary rock formations of plains and young fold mountains contain non-metallic minerals like limestone</p>	1+4=5	
30	MAP WORK		

## BLUE PRINT

CHAPTER	1 MARKS	3 MARKS	5 MARKS	TOTAL
From trade to territory	---	3*1=3	5*1=5	8
Ruling the country side	1*1=1	3*1=3	5*1=5	9
When People rebel	-----	3*2=6	5*1=5	11
Understanding Secularism	1*2=2	3*1=3	5*1=5	10
Why do we need Parliament	1*3=3	3*2=6	---	9
Public facilities	-----	3*2=6	5*1=5	11
Resources	1*1=1	3*1=3	5*1=5	9
Land,soil,water, vegetation and wildlife resources	1*1=1	3*1=3	5*1=5	9
Mineral and Power Resource	1*1=1	3*1=3	5*1=5	9
Map work				2+3=5
	1*9=9	3*12=36	5*8=40	90