

**Elementary Education (Class-8<sup>th</sup>) Completion Certificate  
Examination 2019**

**Subject : Science**

**Time : 2.30 hrs.**

**Total Marks : 100**

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**(Model Answer)**

Ans. 1. (A) Choose the correct alternative : (10 Marks)

- (i) (b) Fossil fuel
- (ii) (c) Only row no. 3
- (iii) (d) Salt solution
- (iv) (b) 12 years
- (v) (b) Anaemia

(B) Match the following - (10 Marks)

“A”	“B”	Correct answer
a. Electroplating	– Graphite	Layer of Chromium
b. Planting method	– Testosterone	Onion
c. Lubricant	– Virus	Graphite
d. Female hormone	– Layer of chromium	Estrogen
e. Polio	– Onion	Virus
	– Estrogen	
	– Bacteria	

Ans. 2. The four sources of energy are as follows. (4 mark)

1. Sun
2. Wind
3. Water
4. Tides

Fossil fuels etc (as mentioned in text book)

Ans. 3. Hari can protect his crops from birds by the following methods:-

(4 Marks)

1. Scarecrows can be placed in the fields to drive away the birds.
2. Sound of the beating drums can keep the birds away.

Ans. 4.

(4 Marks)

Vitamins	Source	Deficiency disease
Vitamin A	Carrot ect. (as mentioned in text book)	Night blindness
Vitamin C	Lemon etc. (as mentioned in text book)	Scurvy

Ans. 5

(4 Marks)

The 'Bhajiyas' ' Samosas' are fried in oil. The presence of oil in these food items make the paper slippery and semi transparent.

Ans. 6.

(4 Marks)

S.No.	Common red blood cells		Sickle Cell red blood cells
1.	They are round in shape.	1.	They are sickle shaped.
2.	Their life is of 120 days.	2.	They get destroyed soon and their life span is only for 20 days.
3.	They are soft and elastic.	3.	They are less soft and comparatively less elastic.
4.	They flow easily in the capillaries .	4.	They get entangled in the groups in capillaries .

(Note – Any two of the above)

Ans. 7.

(2+2 Marks)

The two- two characteristic changes that are found in adolescent boys and girls are-

Changes found in boys:-

1. Growth of facial hair (moustache and beard)
2. Voice box enlarges as a result the voice of boys becomes hoarse.

Changes found in girls:-

1. Development of breasts.
2. Onset of menstrual cycle.

Ans. 8.

(2+4 Marks)

The process of depositing a layer of any desired metal over another metal by passing electric current is called electroplating.

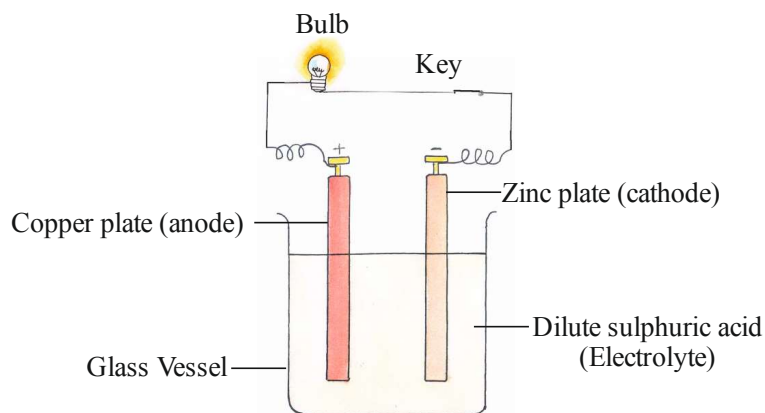
**Uses of electroplating in daily life:**

1. Chromium plating is done on many objects like car parts, bath taps, kitchen gas burners, bicycle handlebars, wheel rims and many others.
2. A thin layer of silver and gold is electroplated on less expensive metals to make ornaments.

Ans. 9.

Voltaic Cell

(6 Marks)



Ans. 10.

(6 Marks)

Peas, Cabbage, Jimikand (yam), Spinach (palak), Gram, Sweet Potato.

S.No.	Fertilizers	Crops
1.	Nitrogenous fertilizer	Cabbage, Spinach (palak)
2.	Phosphatic fertilizer	Peas, gram
3.	Potassium fertilizer	Jimikand, Sweet potato

Ans. 11.

(2+4 Marks)

The doctor advised Shyama to take ORS because there was lack of sufficient water in her body. This Condition is called Dehydration.

**Preparation of ORS –**

For making life saving solutions or ORS take about 1 cup of water (200 mL) in a bowl and boil it for 5 minutes.

Let it cool down at room temperature. Add a pinch of salt and one teaspoon of sugar. Stir if properly. If available add lemon juice and stir well.

Ans. 12. Difference between

( 3+3 Marks)

(A) Viviparous animal and Oviparous animal

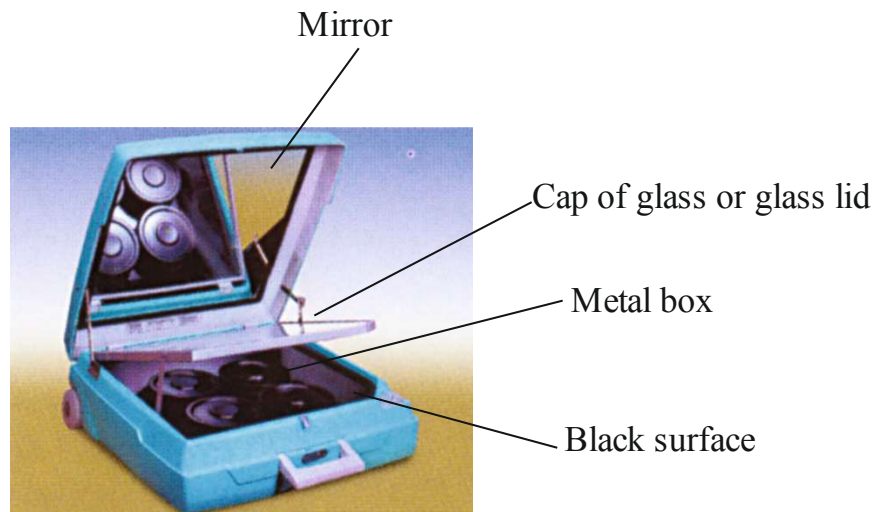
S. N.	Viviparous animal	Oviparous animal
1.	Animals in which the complete development of an embryo into a new born individual takes place in the uterus of the female body are known as viviparous animals.	Animals which lay eggs, which later hatches out into a new individual are known as oviparous animals.
2.	Examples are Human/ cow/bat etc.	Examples are birds/fish/frog etc.

(B) Internal fertilization and external fertilization.

S. N.	Internal Fertilization	External fertilization
1.	When the fusion of an egg and a sperm takes place inside the female body it is known as internal fertilization.	When the fusion of an egg and a sperm takes place outside the female body it is known as external fertilization.
2.	Examples are human, cat, cow.	Examples are frog, fish, most aquatic animals.

Ans. 13. (A). Labeled diagram of solar cooker -

(4+2+2 Marks)

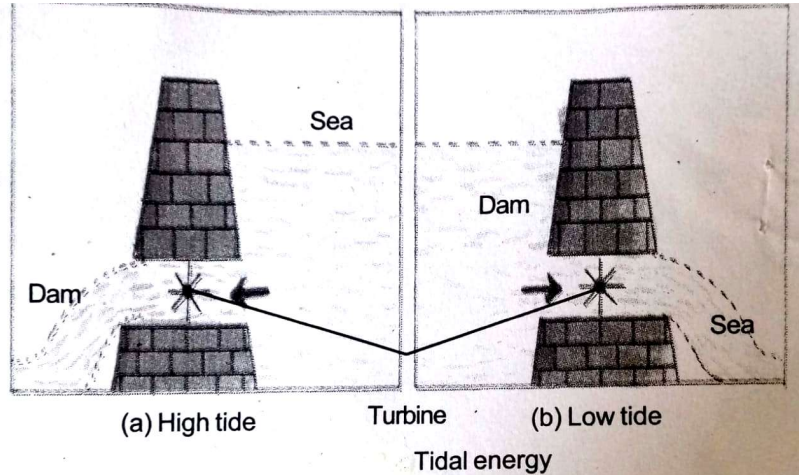


(B) Black surface is a good absorber of heat so the solar cooker boxes are painted black.

(C) The use of solar cooker is beneficial to the environment as it don't produce or add any kind of pollutants to the environment.

OR

(4+4 Marks)



Dams are made at the mouth of sea bays. At high tide the level of water increases and water flows into the dam which makes the turbines placed on the way, to rotate. Similarly, during low tide water flows from the dam to the sea, which again makes the turbine to rotate. The turbines are connected to the generator and they produce electrical energy.

Ans. 14.

( 4 Marks)

(A) The force which opposes the motion of an object is called frictional force. Example it is only due to friction that we can write with a chalk on blackboard. When something is written with chalk on the blackboard, its rough surface rubs off some chalks particles which stick to the blackboard.

**(B) Methods of increasing friction:**

(2+2 Marks)

1. The sole of shoes and the tyres of automobiles are grooved to provide better grip with the ground. This increases friction.
2. Gymnasts apply some coarse substances on their hands to increase friction.

**Methods of decreasing friction:-**

1. Oil, grease or graphite is applied between the moving parts of a machine to reduce friction.
2. Use of an air cushion between the moving parts also reduce friction.

or

(A)

( 4 Marks)

Certain natural phenomenon that causes large scale destruction of human life and property is called natural disaster. It is very difficult to protect ourselves from them:

Four such natural disasters are:

- (i) Earth quake
- (ii) Fire
- (iii) Flood
- (iv) Drought /Lightning / Cyclone

(B)

(2+2 Marks)

Earth quake is a sudden shaking or trembling of the earth which is caused by a disturbance deep inside the earth's crust.

Steps to be taken as protection against earth quake.

1. If you are at home, take shelter under a table and stay there till the shaking stops.
2. If you are outdoors, find a clear spot, away from buildings, trees and overhead power lines, drop to ground.
3. Stay away from tall and heavy objects that may fall on you .

(any two as given in text book)

Ans. 15. **(A) Name :** Traditional plough (2 + 3 + 3 + 2 Marks )

**Working :** In the first stage of land preparation, the farm land is ploughed. For this traditional plough is used this cleaves the soil.

**(B) Name :** Wooden block or harrow plank

**Working :** after ploughing, the soil in the field have big lumps, before seed sowing and irrigation, these lumps are leveled. For this wooden plank is used.

**(C) Name :** Simple ploughing seeding machine

**Working :** To sow seeds a sowing machine is used. In any simple ploughing seeding machine there is a long tube with a funnel on one end. This is tied to the plough. The seeds are filled in the funnel. The seeds pass through the pipe or tube into the furrows made by the plough. In this way seeds are sown in a line and at similar depths.

**(D) Name :** Thresher

**Working :** After reaping the harvest the grains have to be separated. This process of separation is called threshing. Advanced farmers use threshers for threshing.

OR

**(A)** ( 2 + 2 + 2 Marks)

The different types of crops according to the season they are grown in are-



**1. Kharif crops:** These crops need much water and heat (temperature). So they are grown in rainy season. They are sown during the monsoons. Example: Paddy (rice), Maize, Sugarcane etc.

**2. Rabi crop :** These crops need moisture and less temperature. These are grown during winter season example- Wheat, Gram Mustard etc.

**3. Jayad crops :** These crops gives good field in dry weather. There are usually sown in December to February, Example: Muskmelon, watermelon, cucumber, ground nut.

**(B)**

(4 Marks)

**Hybrid seeds:** Seeds with different characteristics are selected and artificially bred to get new improved and better seeds. These types of seeds are called hybrid seeds. Hybrid seeds are of better quality.

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