



Bal Bharti School, Bahadurgarh
Academic Session 2019-20
Half -Yearly Examination
Subject: Science
Class: VIII

Time: - 3 hour

Date:- 20-09-2019

M.M:- 80

General Instructions:

- All questions are compulsory.
- This question paper consists of three sections: Physics, Chemistry and Biology.
- Each section has 12 questions.

Physics

Multiple choice questions:

4x1=4

1. The force exerted by one object on another by virtue of their masses is
 - a. Magnetic force
 - b. electric force
 - c. Gravitational force
 - d. frictional force
2. A spring balance is used for measuring
 - a. mass
 - b. weight
 - c. speed
 - d. velocity
3. Which of the following is least?
 - a. Static friction
 - b. limiting friction
 - c. sliding friction
 - d. rolling friction
4. A tightened string of a string instrument produces a sound of
 - a. lower frequency
 - b. higher frequency
 - c. same frequency
 - d. moderate frequency

Very short answer type questions:

3x1=3

5. Name the quantity that describes the pitch of the sound wave?
6. What is the symmetrical shape of the boat, fish, aeroplane etc. is called?
7. Name the single force which acts on a body to produce the same effect as is done by all the forces collectively.

Short answer type questions:

3x3=9

8. A girl of weight 50 kgf is standing on pencil heels each having an area of cross section 1 cm². An elephant of weight 2000 kgf and foot area of 250 cm² standing on the floor. Which of the two exerts more pressure?

OR

Let 'P' be the pressure exerted by a force 'F' on an area 'A'. How will the pressure change if:

- i. area is doubled by keeping the force same?
 - ii. force is doubled by keeping the area of cross section same?
 - iii. force is doubled and area is halved?
9. Mention three ways to reduce friction between two surfaces.
 10. Differentiate between music and noise on the basis of following parameters:
 - i. waveform
 - ii. Frequency
 - iii. nature of vibration

Long answer type questions:**5x2=10**

11. Briefly explain the working of human ear.

OR

Explain the characteristics of sound.

12. i. What is SI unit of pressure?
ii. Name two parameters which define pressure.
iii. Where is the pressure due to water higher in a dam- near its base or near its top?
iv. How does pressure at a point within a liquid change with its depth?
v. Bulldozers have caterpillar tracks. Why?

CHEMISTRY**Multiple choice questions:****3x1=3**

1. The oxides of metals are
a. Acidic
b. basic
c. Neutral
d. none of the above
2. A petroleum product used in dry cleaning
a. Petrol
b. Diesel
c. Fuel oil
d. Kerosene
3. The raw material used in making nylon
a. Ester
b. Amide
c. Acrylonitrile
c. Ethene

Very short answer type questions:**3x1=3**

4. Fill in the blanks:
i. Thermoplastic is a _____ conductor of electricity.
ii. Socks, tents and bristles of brushes are made of _____.
5. What happens when Sulphur reacts with oxygen?
6. Name the following :
i. A liquid non- metal
ii. A metal which is best conductor of electricity

Short answer type questions:**4x3=12**

7. i. What are the advantages of using CNG and LPG as fuels?
ii. What is the underlying principle, based on which fractional distillation is carried out?
iii. What is the full form of PCRA?
8. Describe the process of formation of coal in the nature. (with diagram)
9. i. A student passes Sulphur dioxide gas in water. Represent the reaction which took place by a chemical equation.
ii. Sanjay made an electric circuit using Copper wire, battery, bulb, and a coal piece. On testing, he observed that bulb did not glow. What is the problem with the circuit?
iii. Have you ever seen a black smith beating an iron piece? Do you find a change in the shape of iron piece on beating? Give reason for your answer. Would you expect a similar change in wooden log on beating?

OR

Answer the following questions

- i. What happens when zinc granules are kept in copper sulphate solution?
ii. How do metals react with acids?
iii. How do non-metals react with Oxygen?

10. A student has been collecting Silver and Copper coins. One day he observed the formation of a black coating on silver coins and a green coating on copper coins. Give the chemical names of the black and green coatings. How are they formed? (Give equations involved)

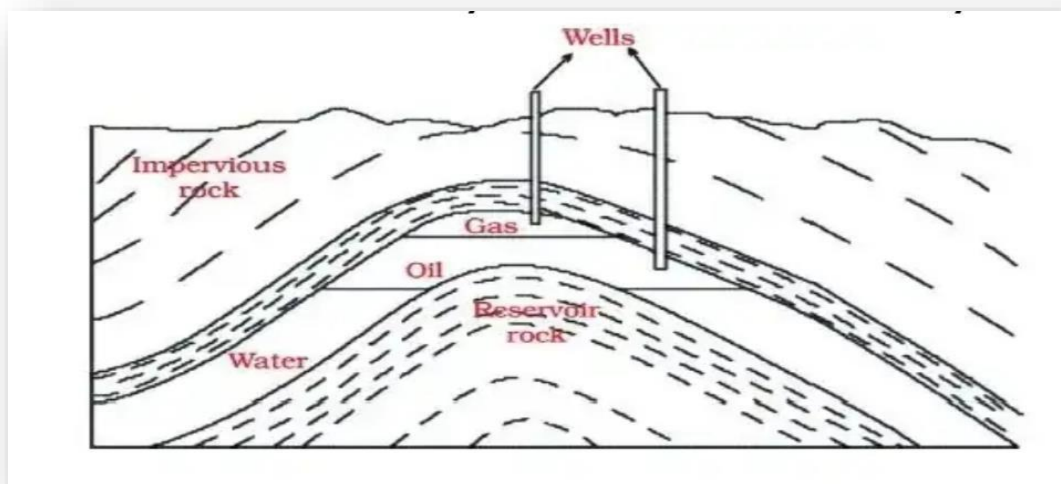
Long answer type questions:

2x5=10

11. i. What are the advantages of using fabrics made of polyester? (any two)
ii. What are the disadvantages of wearing synthetic fabrics? (any two)
iii. Name the two ways in which monomers combine to form a polymer.
iv. Differentiate between cotton and silk.
v. Though rayon has a silky sheen, it is otherwise similar to cotton. Why?

OR

- i. Polyvinyl chloride is a plastic and used for making toys, sleepers etc. Bakelite is also a plastic and is used for making electrical switches, handles of different utensils etc. Can you write the major difference between these two types of plastics?
ii. What are the reasons for popularity of plastic?
iii. What can be used as a substitute for wool? Why?
iv. Why should polyester clothes be avoided in kitchen?
12. i. Imagine that all the exhaustible natural resources are exhausted by human activities. Do you think survival of living being would be possible?
ii. Explain the process of destructive distillation of coal with the help of diagram.
iii. Look at the figure given below in which petroleum and natural gas deposits are shown. Why do we find the oil layer above the water layer?



BIOLOGY

Multiple choice questions:

3x1=3

1. Sumanyu wants to cultivate tomatoes and chillies in his field. Which method should he use for growing these crops?
- | | |
|---------------------|------------------|
| a. Broadcasting | b. seed drilling |
| c. Transplantation. | d. sowing |
2. Ritika's mother wants to make dhokla in breakfast. What should she use to make the soft dough of dhokla?
- | | |
|-----------------|--------------------|
| a. Yeast powder | b. oil |
| c. sugar | d. sodium benzoate |

3. Which part of the earth contains maximum biodiversity?
- | | |
|-----------------|------------------|
| a. Hydrosphere | b. lithosphere |
| c. stratosphere | c. none of these |

Very short answer type questions:

4x1=4

4. Which activity of the farmers can promote the growth of earthworms and microbes in the field?
5. Polio drops are not given to children suffering from diarrhoea. why?
6. State the term which denotes the richness of species in a particular area or habitat.
7. A biosphere reserve may also contain other protected areas in it. Give one example of such a biosphere reserve and name the protected areas under it.

Short answer type questions:

3x3=9

8. a. State any two ways of 'Crop protection' from pests and diseases.
b. What are weedicides? Name one weedicide.
c. What are the harmful effects of weeds in the crop field?

OR

What is hybridization? Explain the method of hybridization taking one example of high - yielding variety.

9. i. State any two conditions when the most microorganisms cannot grow or multiply.
ii. What are the advantages of food preservation?
10. Biodiversity is essential for our own survival. Describe any three causes of loss of biodiversity that threaten the existence of many plant and animal species.

OR

Explain how the government and non-government bodies at international, national and local level are constantly involved in the conservation of biodiversity programmes to conserve the threatened species.

Long answer type questions:

5x2=10

11. i. State one advantage of maintaining the Red Data Book.
ii. Why are endemic organisms in great danger of becoming extinct?
iii. State any two measures which can conserve forest and wildlife.
12. i. Why does a doctor advise only rest and no antibiotics during cold?
ii. Answer the following:
a. Name the smallest microorganism.
b. Name a protozoan that contains chlorophyll.
c. What is the effect of tenderization of meat?
d. Name any two antibiotics.
e. Name any two microorganisms which increase soil fertility.
f. Name a pathogen that causes foot and mouth disease?

OR

- i. Predict that a cooked food kept in summer days has been spoilt. What indicators you will look for?
- ii. Answer the following:
a. Convert 10 mm in microns.
b. Give another term for pertussis.
c. Write one effect caused by clostridium.
d. Name a bacteria spherical in shape.
e. Name a pathogen which causes diphtheria.
f. Name a microorganism that causes ranikhet.