

MP BOARD CLASS 10 MODEL PAPER 2020

SCIENCE

Time: 3 Hrs.]

[M.Marks : 80

Section - A

Objective Type questions :

Q.1. Choose the Correct answer:

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(1) The nature of lemon juice is:

- (a) Acidic (b) Basic
(c) Neutral (d) Neither acidic nor basic

(2) The unit of rate of reaction is:

- (a) Mole per litre presecond (b) Mole per litre
(c) Gram per litre (d) Gram per mode.

(3) The reflex actions are controlled and coordinated by:

- (a) Spinal cord (b) Cerebellum
(c) Medulla oblongata (d) All of these

(4) Estrogen is secreted by

- (a) Pituitary (b) Ovary
(c) Testis (d) Thyroid

(5) The brain is divided into the following parts:

- (a) Two (b) Three
(c) Four (d) Five

Ans. (1) c, (2) c, (3) a, (4) b, (5) b.

Q.2. Fill in blanks:

5

(1) Distilled water is a of electricity.

(2) Sources producing inexhaustible energy are called sources.

(3) The atomic radius on moving left to right in a peiod.

(4) We came see the objects in the presence of

(5) The fermentation reactin occurs in presence of

Ans. (1) Bad conductor (2) Renewable (3) decreases (4) Light (5) Enzymes.

Q.3. Match the columns:

5

(A)

(B)

(1) Slakd lime

(a) P.V.C:

(2) Hematite.

(b) Earthworm

(3) Vinyl chlride

(c) Size of object

(4) Bisexual

(d) Iron

(5) Angle of vision

(e) Ca(OH)₂

Ans. (1)-(e), (2)-(d), (3)-(a), (4)-(6), (5)-(c).

Q.4. Answer the following in one word/ sentence: **5**

- (1) What is the e.m.f. of dry cell ?
- (2) Who construct the mangal turbine ?
- (3) Write Chemical formula of chlorofluoro carbon ?
- 4) What is the main constituent of L.P.G. is ?
- (5) Mole per litre per second is unit of.

Ans. (1) 1.5 volt, (2) Mangal, (3) CCl_2F_2 , (4) Butane, (5) Rate of reaction.

Section - B

Q.5. Why do we apply paint on iron articles? 2

Or

Oil and fat containing food items are flushed with nitrogen. Why?

Q.6. State Mendeleev's periodic law. 2

Or

What was Dobereiners' basis of classifying elements?

Q.7. What is fertilisation in plants? 2

Or

What is the importance of DNA copying in reproduction?

Q.8. How is the sex of the child determined in human beings? 2

Or

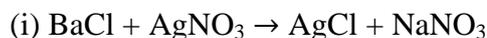
Explain the terms of analogous organs with examples.

Q.9. Name a mirror that can give an erect and enlarged image of an object. 2

Or

The refractive index of diamond is 2.42. What is the meaning of this statement?

Q.10. Balance the chemical equations- <http://www.mpboardonline.com> 3



Or

What do you mean of exothermic and endothermic reaction? Give examples.

Q.11. What do you understand by spectrum of white light. 3

Or

What is color blindness? Give the reason.

Q.12. The magnetic field in a given region is uniform. Draw a diagram to represent it. 3

Or

Write the properties of a bar magnet.

Q.13. Draw magnetic field lines around a bar magnet. 3

Or

List the properties of magnetic field lines.

- Q.14. What is atomic radius? Why does atomic radius decrease across a period? 3
Or
Why does the size of the atom increase down the group?
- Q.15. What is a neutralisation reaction? Give two examples. 4
Or
Give two important uses of washing soda and baking soda.
- Q.16. Give a test that can be used to differentiate chemically between butter and cooking oil. 4
Or
Explain the mechanism of the cleaning action of soap.
- Q.17. Draw labelled diagram of structure of Nephron. 4
Or
Draw a labelled diagram of human excretory system.
- Q.18. An electric lamp of 100Ω , a toaster of resistance 50Ω , and a water filter of resistance 500Ω and connected in parallel to a $220V$ source. What is the resistance of an electric iron connected to the same source that takes as much current as all three appliances and what is the current through it? . 4
Or
What is Ohm's law? Give the verification of Ohm's law under following heading:
(i) Circuit diagram,
(ii) Observation table,
(iii) Precautions.
- Q.19. Write the names and functions of two hormones secreted by the pituitary gland. 4
Or
How does our body respond when adrenaline is secreted into the blood.
- Q.20. Why are we prefer the convex mirror to use as rear view mirror? 5
Or
Derive lens formula for convex lens.
- Q.21. Define the following terms: 5
(i) Minerals, (ii) Ores, (iii) Gangue.
Or
Carbonate and Sulphide ores are usually converted into oxides during the process of extraction. Why?
- Q.22. Define fission and explain it with example of unicellular organism. 5
Or
Describe with diagram the reproduction in hydra by budding process.