

# MP BOARD CLASS 10 EM SCIENCE MODEL PAPER SET 8 2020

म.प्र. बोर्ड कक्षा 10 EM विज्ञान मोडल पेपर सेट 8 2020

Time : 3 Hrs.

M. M.: 80

Instructions :

- (i) All questions are compulsory.
- (ii) Q. No. 1 to 4 are Objective type questions. Each question carries 5 marks and each sub questions carries 5 mark.
- (iii) Q. No. 5 to 9 are very short answer type questions. Each question carries 2 marks. Maximum word limit of the answer is 30 words.
- (iv) Q. No. 10 to 14 are short answer type questions. Each question carries 3 marks. Maximum word limit of the answer is 50 words.
- (v) Q. No. 15 to 19 are Short answer type questions. Each question carries 4 marks. Maximum word limit of the answer is 75 words.
- (vi) Q. No. 20 to 22 Long answer type questions. Each question carries 5 marks. Maximum word limit of the answer is 120 words.

Q. 1. Choose the correct answer:

1.  $\text{CaO} + \text{CO}_2 \rightarrow \text{CaCO}_3$  This reaction is a:

- (a) Combination reaction (b) Precipitation reaction  
(c) Decomposition reaction (d) Endo thermic reaction.

2. The example of non metal is :

- (a) Carbon (b) Hydrogen (c) Sulphur (d) All the above.

3. Respiration occur in Amoeba and paramaecium :

- (a) By osmosis (b) By lungs (c) By Gills (d) By respiratory tube.

4. Involuntary actions are controlled by :

- (a) Cerebrum (b) Cerebellum (c) Medulla oblongata (d) Spinal Cord.

5. Mendel performed his experiments on the following plants :

- (a) Bean (b) Pea (c) Gram (d) Wheat.

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

Q. 2. Fill in the blanks :

1. The common name of  $\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$  is .....

2..... is called as power house of cell.

3. .... play main role in reproduction. 4. Distilled water is ..... of electricity.

5. The resistance of an ideal ammeter is .....

Ans. 1. Plaster of Paris, 2. Mitochondria, 3. Chromosomes, 4. Bad conductor, 5. Zero.

Q.3. Match the columns :

'A'

'B'

1. Lemon

(a) Mendeleev's periodic table

2. Mendeleev

(b) Citric acid

3. Insulin (c) Ultraviolet radiation  
4. Ozone layer (d) Bihar  
5. Ahars and pynes (e) Pancreas.

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

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

1. Which metal burns easily?
2. Which type of nutrition method is found in sandal ?
3. Which type of mirrors are used in vehicles as side view mirror ?
4. At what distance, the far point of human eye situated ?
5. Name the coloured part of eye.

Ans. 1. Magnesium, 2. Parasitic, 3. Convex mirror, 4. Infinity, 5. Iris.

Q. 5. A solution of substance X is used for white washing. Name the substance X and write its formula. <http://www.mpboardonline.com>

Or

In the refining of silver, the recovery of silver from silver nitrate solution involved displacement by copper metal. Write down the reaction involved.

Q. 6. In first period of periodic table only two elements are there. why?

Or

Why do you think the noble gases are placed in a separate group ?

Q.7. Differentiate between self pollination and cross pollination.

Or

Compare the growth in animals and plants ?

Q.8. What factors could lead to the rise of new species?

Or

Why are traits acquired during the life time of an individual not inherited ?

Q.9. State laws of reflection. <http://www.mpboardonline.com>

Or

Which mirror is used as rear view mirror in vehicles. Why?

Q. 10. Write difference between exothermic and endothermic reactions.

Or

Translate the following statement into chemical reaction and then balance it. Hydrogen sulphide gas burns in air to give water and sulphur dioxide.

Q. 11. What is short sightedness ? Explain by diagram that how it can be removed ?

Or

What do you mean by total internal reflection ?

Q. 12. Write Faraday's laws of electromagnetic induction.

Or

Draw labelled diagram of D.C. generator.

Q. 13. When current is allowed to flow through the coil of an electric motor it rotates. Why?

Or

Write Fleming's left hand rule.

Q. 14. Explain mechanism of solar cell panel.

Or

Draw labelled diagram of Bio gas plant.

Q. 15. Write word equation and then balance equation for the reaction taking place when :

(a) Dilute sulphuric acid reacts with zinc granules.

Or

Write two uses of washing soda and baking soda each.

Q. 16. What is a functional group ?

Or

Draw structure for the following compounds :

(i) Ethanoic acid (ii) Bromo pentane (iii) Butanone.

Q. 17. Name the hormones found in plants. Write two function each of them.

Or

Write any four functions of cytokinin.

Q. 18. Give difference between the respiration in plants and animals.

Or

Describe the functions of blood.

Q. 19. What is potential ? Write its S.I. unit.

Or

State Ohm's law.

Q. 20. Compare the physical properties of metals and non-metals.

Or

What are amphoteric oxides? Give two example of amphoteric oxides.

Q. 21. Describe the asexual reproduction in Amoeba.

Or

Write the various types of asexual reproductions in plants.

Q.22. Derive lens formula for convex lens.

Or

An object is placed at a distance of 10cm from a convex mirror of focal length 15cm. Find the position and nature of the image.