

MP BOARD CLASS 10 EM SCIENCE MODEL PAPER SET 5 2020

म.प्र. बोर्ड कक्षा 10 EM विज्ञान मोडल पेपर सेट 5 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. Which metal can be cut by knife :
(a) Mercury (b) Sodium (c) Silver (d) Gold.
2. Respiration is :
(a) Reduction (b) Oxidation (c) Circulation (d) All the above.
3. The brain is divided into the following parts :
(a) Two (b) Three (c) Four (d) Five.
4. The removal of short sightedness is done by using :
(a) Concave lens (b) Convex lens (c) Bifocal lens (d) All the above.
5. The cause of blue colour of sky is :
(a) Refraction of light (b) Scattering of light (c) Dispersion of light (d) Reflection.

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

Q. 2. Fill in the blanks :

1. The maximum number of electrons in a shell is
2. Enzyme converts proteins into peptones.
3. According to Darwin animals are alive by
4. Distilled water is of electricity.
5. World environment day is celebrated on

Ans. 1. $2n^2$, 2. Pepsin, 3. Adaptation, 4. Bad conductor, 5. 5th June.

Q.3. Match the columns :

'A'

'B'

1. Alloy

(a) Thyroxin

2. Thyroid (b) Sex determination in male
3. Y-chromosome (c) Bronze
4. Concave mirror (d) Unit of electric current
5. Ampere (e) For shaving.

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

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

1. How many methods of nutrition are there in living organisms?
2. Which type of salt is washing soda ?
3. State the name of pollutants which are not broken down by microorganism.
4. What is Aqua regia ?
5. What is called the collection of rain water and its use?

Ans. 1. Two, 2. Basic salt, 3. Non biodegradable, <http://www.mpboardonline.com>

4. The fresh mixture of Conc. H_2SO_4 and conc. HNO_3 in the ratio 3 : 1,5. Rain water harvesting.

Q.5. Why should a magnesium ribbon be cleaned before burning in air?

Or

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

Q. 6. Write names of elements of zero group.

Or

Write the following halogen in the increasing order of their reactivity:

Br, I, Cl, F.

Q.7. How is it possible to control fertilization ? Write significance.

Or

What is meant by pollination ?

Q. 8. How does the creation of variation in species promote survival ?

Or

Write importance of DNA.

Q.9. What is meant by focal length of spherical mirror?

Or

What is power of lens ?

Q. 10. Write a balanced chemical equation with state symbols for the following reactions : Solution of barium chloride and sodium sulphate in water react to give insoluble barium sulphate and solution of sodium chloride. <http://www.mpboardonline.com>

Or

What is a balanced chemical reaction ?

Q. 11. Explain dispersion of white light ray through prism by diagram.

Or

What is long sightedness? Explain by diagram that how it can be removed ?

Q. 12. What precautions should be taken in using an electric circuit.

Or

Define induced current. Why they are produced ?

Q. 13. Explain main parts of electric motor.

Or

What is heating effect of current ?

Q. 14. Write characteristics of an ideal fuel (Any Five)

Or

Explain the origin of petroleum.

Q. 15. Write word equation and then balance equation for the reaction taking place when dilute hydrochloric acid react with iron filings.

Or

What happens when bleaching powder is left open in the air ?

Q. 16. How cloth is cleaned with the help of detergent ?

Or

What are the difference between soap and detergents ?

Q. 17. Write the names and functions of two hormones secreted by the thyroid gland.

Or

What is reflex action? Explain.

Q. 18. Draw labelled diagram of digestive system of man.

Or

Write difference between aerobic and anaerobic respiration.

Q. 19. What is electroplating ?

Or What do you mean by potential of 1 volt ?

Q. 20. What would you observe when zinc is added to a solution of iron (II) sulphate? Write the chemical reaction that takes place.

Or

Sodium potassium and Lithium are stored in oil. Why?

Q. 21. Write five difference between pollination and fertilization.

Or

Explain various stages of growth in animals.

Q. 22. Define reflection. Explain laws of reflection of light with ray diagram.

Or

Derive lens formula for convex lens.