

MP BOARD CLASS 10 EM SCIENCE MODEL PAPER SET 6 2020

म.प्र. बोर्ड कक्षा 10 EM विज्ञान मोडल पेपर सेट 6 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 of the following is not a physical change :

- (a) Formation of water vapour in boiling water.
- (b) Melting of ice into water
- (c) Dissolving of salt in water (d) Combustion of L-PG.

2. Usually non-metals are bad conductor of electricity which of the following non- metal is good conductor of electricity : <http://www.mpboardonline.com>

- (a) Diamond (b) Graphite (c) Sulphur (d) Chlorine.

3. The water is absorbed in :

- (a) Large intestine (b) Small intestine (c) Liver (d) None of these.

4. The mirror formula for spherical mirror is :

- (a) $\frac{1}{f} = \frac{1}{v} + \frac{1}{u}$ (b) $\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$ (c) $f = R/2$ (d) None of these.

5. Dispersion takes place in :

- (a) Mirror (b) Rectangular glass-slab (c) Prism (d) Lens.

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

Q. 2. Fill in the blanks :

1. With increase in temperature and pressure the rate of reaction
2. The substances whose odour changes in acidic or basic medium are called as.....
3. The modern periodic table has horizontal rows which are called as
4. The age of rocks and fossils can be determined with the help of isotopes.
5. The Ganga action plane come about in the year

Ans. 1. Increases, 2. Olfactory indicator, 3. 7, periods, 4. Radio, 5. 1985.

Q. 3. Match the columns :

'A'

1. $\text{CH}_4 + 2\text{O}_2 + \text{CO}_2 + 2\text{H}_2\text{O} + \text{Heat}$
2. Earth worm
3. Auxin
4. Darwin theory
5. Power of lens

'B'

- (a) Cutaneous respiration
- (b) Growth in plants
- (c) Exothermic reaction.
- (d) Dioptre
- (e) Survival of fittest.

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

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

1. By which process do the green plants prepare their food ?
2. How many types of plants hormones are there?
3. Which part of human eye regulate the intensity of light entering in the eye ?
4. The mixing of unwanted harmful materials in air water and soil is called ?
5. The system kuhl of water conservation is related to which state ?

Ans. 1. Photo synthesis, 2. Four, 3. Pupil, 4. Pollution, 5. Himachal Pradesh.

Q. 5. Why does the colour of copper sulphate solution change when an iron nail is dipped in it ?

Or

Why is respiration considered as exothermic reaction?

Q. 6.

Write names of elements of zero group.

Or

Which element has two shells both of which are completely filled with electrons ?

Q.7. Describe the female reproductive organ of a flower with diagram.

Or

Draw a neat and labelled diagram of female reproductive system of humans.

Q. 8. Write the salient feature of gene concept.

Or

What are vestigial organs ?

Q.9. What is lens ? write its type.

Or

Define reflection.

Q. 10. What is a balanced chemical equation? Why should chemical equations be balanced ?

Or

Write difference between exothermic and endothermic reaction.

Q. 11. Twinkling of stars is the example of which process? Explain.

Or

What are complementary colours ? Give example.

Q.12. In the domestic circuit the appliances are kept in parallel combination. Why?

Or

What is short circuit ?

Q. 13. What is meant by magnetic effect of current ?

Or

What precautions should be taken in using the electric circuit ?

Q. 14. What are the benefits of using solar cooker ?

Or

Define nuclear fission and nuclear fusion ? Give its example.

Q. 15. Which gas is usually liberated when an acid reacts with a metal? illustrate with an example ? How will you test for the presence of this gas? <http://www.mpboardonline.com>

Or

Why should curd and sour substances not be kept in brass and copper vessels ?

Q. 16. What would be the electron dot structure of carbon dioxide which has the formula CO_2 ?

Or

Define alcohol. Write the common name, IUPAC name and structural formula of first four member of alcohol series.

Q. 17. Draw labelled diagram of reflex action.

Or

Describe the functions of hormones secreted by the pituitary gland.

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

Or

Write differences between lymph and blood.

Q. 19. Three resistances R_1 , R_2 and R_3 , are connected in series obtain equivalent resistance of combination.

Or

Draw the circuit diagram for verification of Ohm's law.

Q. 20. Which gas is produced when dilute hydrochloric acid is added to a reactive metal? Write the chemical reaction when iron react with dilute H_2SO_4 .

Or

Aluminium is a highly reactive metal yet it is used to make utensils for cooking. why?

Q. 21. Draw a labelled diagram of longitudinal section of flower.

Or

Draw a next and labelled diagram of male reproductive system.

Q. 22. A concave lens of focal length 15cm forms an image 10cm from the lens. How far is the object placed from the lens ? Draw the ray diagram.

Or

Establish relation between u , v and f for concave mirror.