



SEVEN SQUARE ACADEMY
Academic Year – 2020-2021
Secondary Section (PA– II - Revision)

Name: _____

Subject: Science

Date: 22/ 10 /2020

Class: X

Time: 1:30 Hours

Total Marks: 50

General Instructions:

1. All questions are compulsory.
2. Write question number as it is given in the question paper. Do not change or modify the question number.
3. Draw a neat and labelled diagram wherever required.

SECTION A

**Q. I. Choose the correct option:-
(Marks)**

(25 x 1 = 25)

- 1) The part that does not belong to carpel is
 - a) Stigma
 - b) Style
 - c) Ovary
 - d) Filament
- 2) In human males, the testis lie in the scrotum, because it helps in the
 - a) Process of mating
 - b) Formation of sperm
 - c) Easy transfer of gametes
 - d) All of these
- 3) Unwanted pregnancy can be controlled by using
 - a) Barrier methods
 - b) Chemical method
 - c) IUD's
 - d) All of these
- 4) *Plasmodium* divides by
 - a) Binary fission
 - b) Multiple fission
 - c) Budding
 - d) Spore formation
- 5) The correct sequence of organs in male reproductive system for transport of sperms is
 - a) Testis -vas deferens-urethra
 - b) Testis-ureter-urethra
 - c) Testis-urethra-ureter
 - d) Testis-vas deferens-ureter
- 6) A cross between a tall pea plant (TT) and short pea plant (tt) resulted in progeny that were all tall plants because
 - a) Shortness is the dominant trait
 - b) Tallness is the recessive trait



- c) Tallness is the dominant trait
 - d) Height of pea plant is not governed by gene 'T' or 't'
- 7) A character that is not able to express itself is called
- a) Co-dominant
 - b) Recessive
 - c) Dominant
 - d) None of these
- 8) From the list given below, select the character which can not be inherited
- a) Colour of eye
 - b) Colour of skin
 - c) Size of body
 - d) Nature of hair
- 9) Who stated The right hand thumb rule
- a) Oersted
 - b) Fleming
 - c) Einstein
 - d) Maxwell
- 10) The magnetic field line always begins from
- a) North Pole and on South Pole
 - b) South Pole and end on North Pole
 - c) Start from the middle and end at North Pole
 - d) Start from the middle and end at South pole
- 11) In optics an object which has higher refractive Index is called
- a) optically denser
 - b) Optically rarer
 - c) Optical density
 - d) Absolute refractive index
- 12) Image formed by reflection from plane mirror is
- a) Real and inverted
 - b) Virtual and erect
 - c) Real and erect
 - d) Virtual and inverted
- 13) By which instrument the presence of Magnetic field be determined
- a) Magnetic needle
 - b) Ammeter
 - c) Galvanometer
 - d) Voltmeter
- 14) The radius of curvature of Mirror is 20 centimeter the focal length is
- a) 20cm
 - b) 10cm
 - c) 40cm.
 - d) 5cm
- 15) Material of the core of a strong magnet is
- a) aluminium
 - b) soft iron



- c) copper
- d) steel

- 16) If an incident ray passes through the focus the reflected Ray will
- a) Be parallel to the principal axis
 - b) pass through the pole
 - c) refract its path
 - d) pass through the centre of curvature
- 17) An ant's sting can be treated withwhich will neutralise the effect of the chemical injected by the ant's sting into our skin.
Choose the correct option from the following to be filled in the blank space:
- a. Methanoic acid
 - b. formic acid
 - c. Baking soda
 - d. Caustic soda
- 18) In the following reaction, identify the salt formed
 $\text{NH}_4\text{OH} (\text{aq}) + \text{H}_2\text{SO}_4 (\text{aq}) \rightarrow \text{_____} + 2\text{H}_2\text{O} (\text{l})$
- a. NH_4NO_3
 - b. $(\text{NH}_4)_2\text{SO}_4$
 - c. $(\text{NH}_4)_3\text{PO}_4$
 - d. $(\text{NH}_4)_2\text{S}$
- 19) Which of the following salt will give acidic solution when dissolved in water?
- a. NH_4Cl
 - b. NaCl
 - c. Na_2CO_3
 - d. CH_3COONa
- 20) Bleaching powder is used as a disinfectant for water to:
- a. Make water tastier
 - b. Remove all the dirt from water
 - c. Make water germ-free
 - d. Make water clear
- 21) Which one of the following salts will dissolve in water to form an alkaline solution?
- a. Potassium carbonate
 - b. Sodium chloride
 - c. Sodium carbonate
 - d. Potassium sulphate
- 22) Which of the following pairs will give displacement reactions?
- (a) NaCl solution and copper metal
 - (b) MgCl_2 solution and aluminium metal
 - (c) FeSO_4 solution and silver metal
 - (d) AgNO_3 solution and copper metal



- 23) Which among the following is the most abundant metal found in the earth's crust?
- Magnesium
 - Aluminium
 - Oxygen
 - Iron
- 24) Which of the following pairs of reactants will go undergo a displacement reaction?
- $\text{CuSO}_4 + \text{Fe}$
 - $\text{ZnSO}_4 + \text{Fe}$
 - $\text{MgSO}_4 + \text{Fe}$
 - $\text{Ca}(\text{SO}_4)_2 + \text{Fe}$
- 25) An element X is soft and can be cut with the help of a knife. It is very reactive to air and cannot be kept open in the air. It reacts vigorously with water. Identify the element from the following:
- Mg
 - Na
 - P
 - Ca

SECTION B

Answer the following questions in short (Any 5) (5 x 3 =15 Marks)

- Differentiate between concave and convex lens .Write two uses of them
- What is a solenoid? Explain magnetic field due to a current in solenoid.
- With the help of diagram, describe fertilisation in plants.
- Explain sex determination in human beings with the help of a flow chart.
- What are olfactory indicators? Explain it with the help of an example and it's observation with an acid and a base.
- Write the electron dot structure for i) sodium. ii) oxygen and iii) magnesium.

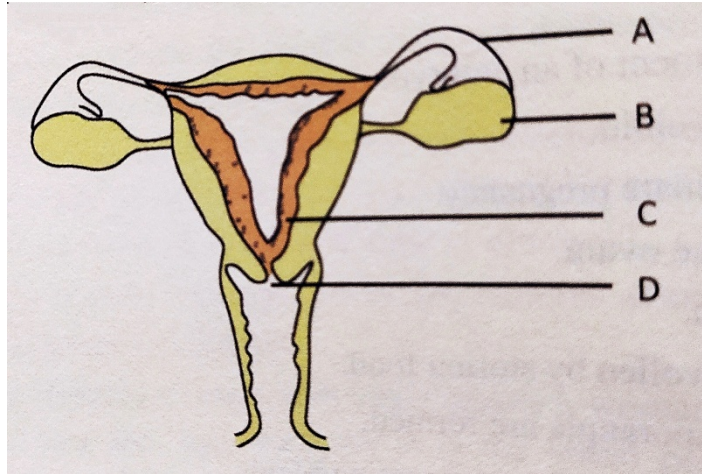
SECTION C

Answer the following questions in brief (Any 2) (2 x 5 =10 Marks)

- Describe electric motor, its construction, principle and it's working.



2) Observe the given diagram, and answer the following questions:



- i. Name the parts labelled as A, B, C and D.
 - ii. Name parts associated with (a) fertilisation, (b) production of an egg.
 - iii. What happens to the lining of uterus (a) before the release of fertilized egg and (b) if no fertilisation occurs.
 - iv. Name the surgical methods of birth control.
- 3) A metal carbonate X on reacting with an acid gives a gas which when passed through a solution Y gives the carbonate back. On the other hand a gas G that is obtained at anode during electrolysis of brine is passed on dry Y, it gives a compound Z used for disinfecting drinking water. Identify X,Y, G and Z.