PT4/ANNUAL EXAMINATION, 2022-23

SCIENCE

Time - 3 hrs. **Class – VIII (Set-A)** **M.M. – 80**

Name of the student _____ Section ____ Date - 22.02.2023 (Wednesday)

GENERAL INSTRUCTIONS:

- All the questions are compulsory.
- This question paper consists of two sections A and B.
- Section A consists of total 30 objective questions from Q I to Q IV. (1 mark each)
- Section B consists of total of 19 subjective questions from Q V to QVII.

SECTION - A

I. MULTIPLE CHOICE QUESTIONS. **(1x18=18)**

(i) Which of the petroleum product is used for surfacing of road?

A) Diesel B) Petrol C) Kerosene D) Bitumen

(ii) Which of the following is a pair of exhaustible natural resources?

A) Coal and air B) Air and sunlight

C) Sunlight and petroleum D) Wildlife and minerals

(iii) Which of the following chemical is used in the rubbing surface provided for matchsticks in the match box?

A) Iodine B) Gold C) Red phosphorus D) White phosphorus

(iv) The ignition temperature of sodium is very _____i____. To prevent its _____ii_____ combustion, it is stored in _____iii_____.

The information in which of the options completes the given statements?

A) i-low, ii-rapid, iii-Kerosene B) i-low, ii-spontaneous, iii-Kerosene

C) i-high, ii-rapid, iii- water D) i-high, ii-spontaneous, iii-water

(v) Which of the following is a mode of asexual reproduction in amoeba?

A) Budding B Fragmentation C) Binary fission D) None of these

(vi) Which one of the following statements is <u>correct</u> about reproduction in humans?

A) Fertilisation takes place externally.

B) Fertilisation takes place asexually.

C) Fertilisation takes place internally.

D) Fertilisation takes place through fragmentation.

(vii) Which one of the following virus causes AIDS?

A) H1N1 virus B) Zika virus C) HIV D) Rhinovirus

(viii) Which one of the following is ***<u>not</u>*** an endocrine gland?

A) Pituitary gland B) Sweat gland C) Thyroid gland D) Adrenal gland

(ix) A person can hear an approaching train when he presses his ear to the railway track faster than one who simply stands on the tracks. What makes this possible?

A) The speed of sound in air is more than solid
B) The vibration of air
C) The speed of sound in solids is more
D) None of the above

(x) The three small bones of the middle ear are:

A) malleus, incus, stapes
B) malleus, incus, pinna
C) malleus, pinna, stapes
D) None of the above

(xi) Why do we add a little dilute sulphuric acid to copper sulphate solution during electroplating?

A) To increase acidity .
B) To increase conductivity.
C) So that the colour of the electrolyte becomes more prominent.
D) To burn copper sulphate.

(xii) Which one of the following observations can be observed when electric current is passed through an electrolyte?

A) Bubbles of gas may be formed on the electrodes.
B) Deposits of metal may be seen on electrodes.
C) Change in the colour of the solution may take place.
D) All the above.

(xiii) Which of the following statements is **incorrect**?

A) Anode is an electrode connected to the positive terminal of the battery.
B) Distilled water is poor conductor of electricity.
C) Electrolysis is used in the refining of impure metals.
D) Ions can have only a positive charge.

(xiv) Why is a lightning conductor installed on a building?

A) So that it conducts electric charge to the ground when lightning strikes the building.
B) So that it repels the lightning that falls on the building.
C) So that it forces the lightning to fall in an area where there are no buildings.
D) None of the above

(xv) Complete the following statement.

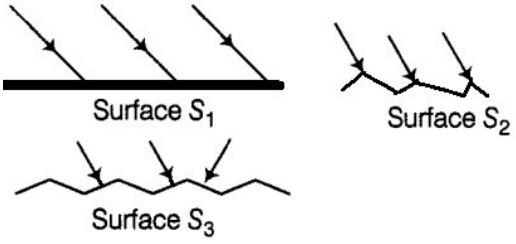
When a glass rod is rubbed with a piece of silk cloth the glass rod-

A) becomes negatively charged while the silk cloth has a positive charge.
B) becomes positively charged while the silk cloth has a negative charge.
C) and the silk cloth both acquire a negative charge.
D) none of the above

(xvi) When the angle between two plane mirrors is 60^0, how many images will be formed by the mirrors?

A) 5 B) 6 C) 7 D) 8

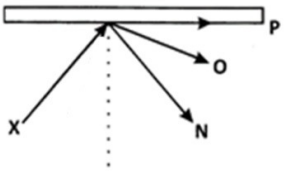
(xvii) Light is falling on surfaces S_1, S_2 and S_3 as shown in the figure.



Surfaces on which the angle of incidence is equal to the angle of reflection is/are -

A) Only S_1 B) S_1 and S_2 C) S_2 and S_3 D) All the three surfaces

(xviii) The diagram shows the incident ray X, directed at a plane mirror. Which of the following is the correct reflected ray?



A) P & O B) N C) O D) P

Q II. FILL IN THE BLANKS. (1x4=4)

A) Richter scale measure _____ of an earthquake.

B) The unit of frequency is _____

C) A tadpole develops into an adult frog by the process of_____.

D) Fuel must be heated to its _____ temperature before it starts burning.

Q III. GIVE ONE WORD ANSWER- (1x4=4)

A) An instrument that records seismic waves-

B) Sounds having frequency less than 20 Hz are called-

C) The process of the fusion of the male & female gametes is called -

D) The electrode connected to the positive terminal of the battery -

Q IV. In the following statements, tick 'T' against those which are true and 'F' against those which are false. (1x4=4)

A) Outer most zone is the hottest zone of a flame.

B) CNG is more polluting fuel than petrol.

C) Kaleidoscope is based on the principle of dispersion of light.

D) Diabetes is caused due to the deficiency of adrenaline hormone.

SECTION – B (SUBJECTIVE QUESTIONS)

QV. VERY SHORT QUESTIONS. (ANY FIVE) (2x5=10)

i) It is difficult to burn a heap of green leaves but dry leaves catch fire easily. Give reason.

ii) What is cataract? How it can be treated?

iii) A tadpole is kept in iodine deficient water. How will it affect its growth? Explain.

iv) Explain why, an owl can see well in the night but not during the day whereas an eagle can see well during day but not in the night.

v) Suppose you want to deposit silver on an iron spoon using silver nitrate as electrolyte.

(a) Which terminal of the battery you should connect the spoon?

(b) What material should the other electrode be made of?

vi) During construction of a building, the lightning conductor was a little shorter and cannot be buried in the ground. Would the lightning conductor be still effective? Explain.

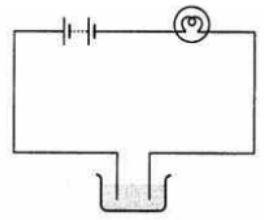
Q.VI SHORT ANSWER QUESTIONS. (ANY 5) (3x5=15)

i) a) Define fertilization.

b) Hens and frogs are both oviparous exhibiting different types of fertilisation. Explain.

ii) Define frequency. Can we differentiate sounds of whistle & drum on the basis of their frequencies? Explain how?

iii) The bulb does not glow in the setup shown in Fig. List any 3 possible reasons.



iv) a) How can we charge a neutral plastic straw?

b) Explain why –

(i) a charged balloon is repelled by another charged balloon.

(ii) an uncharged balloon is attracted by another charged balloon?

v) Draw a well labeled (any 4 labellings) diagram of <u>any one</u> of the following.

a) Structure of human eye

b) Structure of human ear

c) Image formation by a plane mirror (ray diagram)

vi) Give reasons -

a) Water is not used to control fires involving electrical equipment.

b) LPG is a better domestic fuel than wood.

c) Outermost zone of candle flame is used for melting gold & silver.

Q.VII LONG ANSWER QUESTIONS. (ANY 5) (5x5=25)

i) Write any five products of fractional distillation of petroleum with their uses.

ii) Answer the following -

(a) Define endocrine gland. Name the gland which is both endocrine as well as exocrine gland.

(b) Complete the given table:

ENDOCRINE GLAND	HORMONE RELEASED	FUNCTION
Thyroid	a.	Controls the metabolic rate
Pituitary	Growth hormone	b.
c.	Adrenaline	d.
Pancreas	e.	f.

iii) Observing that the bulb does not glow in the circuit shown in Fig. (A) Boojho changed the circuit as shown in Fig. (B). He observed deflection in the magnetic compass.

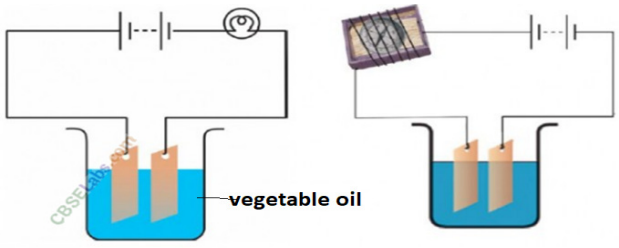


Fig- (A) Fig-(B)

Answer the following questions:

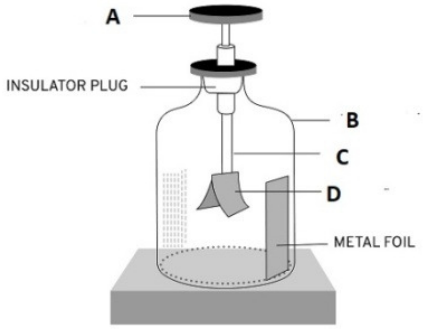
(a) What does the deflection in the needle of magnetic compass indicate?

(b) Why the bulb does not glow in Fig. (A)?

(c) Give reason that whether the bulb glows or not if the solution in fig A is changed to:

(i) Sulphuric acid (ii) Distilled water (iii) Vinegar

iv) Observe the figure & answer the following questions

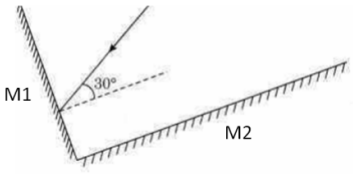


a) Identify the diagram & write its name.

b) Label A, B, C, D.

c) The strips of an electroscope diverge when a charged body is brought in contact with A. What will happen to the strips if we gently touch the part A with hands? Give reason why?

v) a) Two mirrors meet at right angles. A ray of light is incident on one at an angle of 30° as shown in Fig. Draw the reflected ray from the second mirror (M2). Also find the angle of incidence & reflection from the second mirror (M2).



b) State the laws of reflection.

vi) a) Define calorific value of a fuel. Write its unit.

b) 60 kg of fuel was completely burnt for an experiment. The amount of heat energy was found to be 1,80,000 kJ. Calculate the calorific value of the fuel.

vii) Define asexual reproduction. Describe two methods of asexual reproduction in animals.