IDEAL INDIAN SCHOOL, DOHA - QATAR

ANNUAL EXAMINATION, MARCH 2024

SUBJECT: SCIENCE

Class: VII **SET-2** **Max Marks: 80**

Date: 12.03.2024 **Duration: 3 hours**

General Instructions:

1. The Question Paper contains four sections.
2. Section A has questions of 1 mark each. It includes MCQs, fill in the blanks, assertion and reason, give one word, case study based questions and match the following.
3. Section B has 4 questions of 2 marks each with one internal choice.
4. Section C has 4 questions of 3 marks each with one internal choice.
5. Section D has 4 questions of 5 marks each with one internal choice.

	SECTION – A	
I.	**MULTIPLE CHOICE QUESTIONS:** Choose the correct option.	
1.	Which of the following has a heating element with a low melting point? a. Electric bell c. Electric iron b. Fuse d. All of these	1
2.	Which mirror is used in solar furnace? a. Concave mirror c. Plane mirror b. Convex mirror d. None of the above	1
3.	The fusion of the male gamete and the female gamete is called _____. a. Germination c. Fertilisation b. Pollination d. Fission	1
4.	Plants exchange gases with air through their _____. (i) Epidermis (iii) Stomata (ii) Alveoli (iv) Lenticels a. (i) and (ii) c. (ii) and (iii) b. (i) and (iii) d. (iii) and (iv)	1
5.	On which factor does the time period of a simple pendulum depend? a. Mass of bob c. Extent of swing b. Length of pendulum d. Volume of bob	1
6.	The process of separating solid from its solution as crystals is known as _____. a. Evaporation c. Crystallisation b. Condensation d. Rusting	1

7.	The S.I unit of speed is _____. a. s/m c. km/m b. min/km d. m/s	1
8.	An ant-bite contains _____ acid. a. Lactic acid c. Formic acid b. Carbonic acid d. Acetic acid	1
9.	Dodder is an example of _____. a. Saphrophyte c. Decomposer b. Parasitic Plant d. Symbiont	1
10.	In plants, food is transported through special tissues called _____. a. Phloem c. Xylem b. Dialysis d. Blood	1
II.	**FILL IN THE BLANKS:**	
11.	Sundew is an example of an _____ plant.	1
12.	Melting of wax is a _____ change.	1
13.	18km/h is equal to _____m/s.	1
14.	In plants, _____ does not take place at night.	1
15.	_____ are smaller than WBCs and help to clot the blood.	1
16.	The filament of the light bulb is made up of a metal which has _____ melting point.	1
III.	**ASSERTION AND REASONING:** Following questions consist of two statements- **Assertion (A)** and **Reason (R).** Answer these questions selecting the appropriate option given below: (a) Both A and R are true, and R is correct explanation of A. (b) Both A and R are true, but R is not the correct explanation of A. (c) A is true, but R is false. (d) A is false, but R is true.	
17.	**Assertion:** Copper is widely used in electrical appliances. **Reason:** It is a very good conductor of electricity.	1
18.	**Assertion:** In an image formed by a mirror, the left side of the object is seen as the right side of the image. **Reason:** The English capital letter 'I' does not show lateral inversion.	1
19.	**Assertion:** Green colour in leaves help in photosynthesis. **Reason:** Photosynthesis results in formation of proteins	1

20.	**Assertion:** When muscle cells in human respire anaerobically, cramps occur **Reason:** Accumulation of lactic acid causes cramps.	1
IV.	**GIVE ONE WORD FOR THE FOLLOWING:**	
21.	Which mirror is used in rearview mirror in a vehicle?	1
22.	What is the smallest particle of an element that retains its property called?	1
23.	Which device shows the speed of a car at any given time?	1
24.	What helps in opening and closing of stomata?	1
25.	Name the cellular respiration that does not use oxygen.	1
V.	**CASE STUDY BASED QUESTIONS**: Read the following passage and answer the following questions.	
26.	**Case-1** Foods contain various chemicals which give it specific taste. Broadly, chemicals that taste sour are classified as acids and that which tastes bitter are classified as bases. More often than not, every substance cannot be tasted to find out if it is acidic or basic, hence we use indicators which help us distinguish between acids and bases with observable colour changes. When acids react with bases, salt and water are obtained as products and the reaction is known as neutralisation reaction. Neutralisation reactions are very useful in our daily life. a. Why are factory effluents harmful to aquatic life? b. How are basic salts formed? c. The soda that we drink contains a base. i. True iii. False ii. Maybe iv. None of the above d. _____ turns blue litmus red. i. Acid iii. Indicator ii. Base iv. Salt e. Vinegar is _____ i. Acidic iii. Neutral ii. Basic iv. None of the above	5x1=5

27. 5x1=5

Case-2

The process by which young ones are produced from their parents is called reproduction. There are two types of reproduction-asexual and sexual reproduction. Only a single parent is required to carry out asexual reproduction. Asexual reproduction produces offspring that are identical to the parent organism. In sexual reproduction two individuals produce special cell known as gamete which are produced in their reproductive organs. In plants, the pollen grains from anther are transferred to stigma through a process called pollination.

a. What is germination?

b. Pollen grains are tiny bodies which develop inside the _____.

c. In sexual reproduction, the male gamete is known as _____
   i. Stock iii. Ovum
   ii. Scion iv. Sperm

d. Which of the following is not related to asexual reproduction?
   i. Budding iii. Zygote
   ii. Grafting iv. Tissue Culture

e. Which of these reproduces by fragmentation?
   i. Hydra iii. Yeast
   ii. Amoeba iv. Spirogyra

28. 5

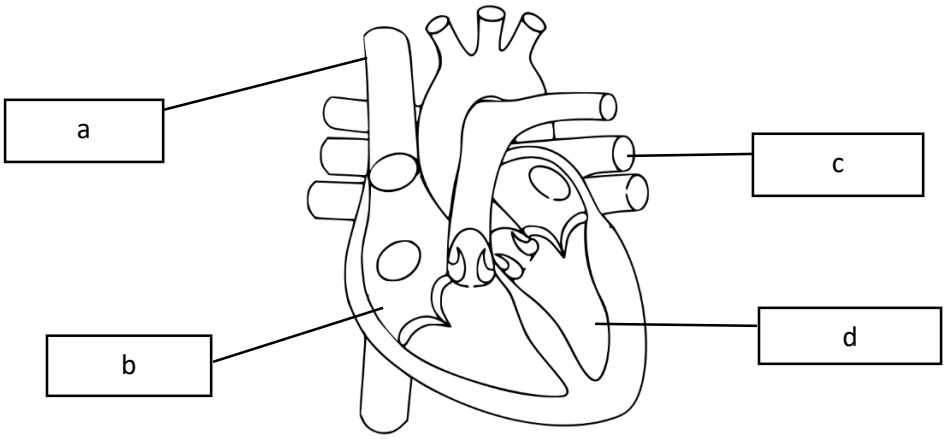
MATCH THE FOLLOWING:

A	B
i. Centre of Mirror	a. Century
ii. 10 decades	b. Sunlight
iii. Tadpoles	c. Pole
iv. Chlorophyll	d. Reversible change
v. Crystallisation	e. Gills

SECTION – B

VI. SHORT ANSWER QUESTIONS TYPE-I

Answer in brief.

29.	What is a real image? Which kind of mirror can give a real image?	2
30.	Describe any two properties of base. Give one example and its use.	2
31.	What is an electromagnet? In an electromagnet, does the iron core increase or decrease the magnetic effect?	2
32.	Differentiate between autotrophs and heterotrophs. **OR** Define photosynthesis. What are the products of photosynthesis?	2
VII.	**SECTION – C** **SHORT ANSWER QUESTIONS TYPE-II** Answer in brief.	
33.	a. Define lateral inversion b. Mention any two differences between concave and convex mirror	3
34.	Calculate the average speed of a car which covers a distance of 800km in 20hours. Write the final answer in m/s **OR** a. Define uniform motion b. Write a short note on sundials	3
35.	Label a, b, c and d in the following diagram and explain the function of the heart.  	3
36.	Name three electrical devices each that utilize the following effects of current. i. Heating Effect ii. Magnetic Effect	3
VIII.	**SECTION-D** **LONG ANSWER QUESTIONS:** Answer in detail.	

37.	Draw a labelled diagram of the human urinary system. Describe the function of each part	5
38.	a. Which process helps the body get energy from food? b. What is the difference between external and internal respiration	5
39.	a. Draw and label any 4 parts of a flower. b. What are the features of the flowers of a plant that are i. Insect-pollinated ii. Wind pollinated	5
40.	a. Name the atoms present in the following molecules: i. Water ii. Sodium Chloride b. An iron gate has to be painted regularly; if not, it may start rusting. Why? How can it be prevented? **OR** Write any four differences between chemical and physical changes. Give one example for each.	5

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