

Science Quiz: Feb. 2021

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There are two statements given- one labeled Assertion (A) and the other labeled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- (a) Both A and R are true, and R is correct explanation of the assertion.
- (b) Both A and R is true, but R is not the correct explanation of the assertion.
- (c) A is true, but R is false.
- (d) A is false, but R is true
- (e) both A and B are false

1. **Assertion:** Carbon and its compounds are some of major sources of fuels.
Reason: The problem faced with soap is overcome by detergents.
2. **Assertion:** Acetic acid is also called glacial acetic Acid.
Reason: Acetic acid often freezes during winter as its freezing point is 290 Kelvin.
3. **Assertion:** Soap gives a red colour with blue litmus solution:
Reason: hydrogen gas is not formed when sodium metal reacts with ethyl alcohol.
4. **Assertion:** Oil containing unsaturated fatty acid should be chosen for cooking.
Reason: Carbon burns in oxygen to give carbon dioxide along with the release of heat and light.
5. **Assertion:** Atomic radius decreases in moving from left to right in the periodic table.
Reason: As we move from left to right, the nuclear charge increases which tend to pull the electrons closer to the nucleus.
6. **Assertion:** Position of an element in the periodic table tells about its chemical reactivity.
Reason: There are 18 elements in the 4th period of the periodic table.
7. **Assertion:** Metalloids have properties intermediate between the metals and nonmetals.
Reason: Newlands gave the law of triads.
8. **Assertion:** There are 18 elements in the 6th period of the periodic table.
Reason: Modern periodic law was given by Einstein.
9. **Assertion:** Metals are sonorous.
Reason: They are generally brittle in the solid state, they break into pieces when hammered.
10. **Assertion:** Sodium reacts with water, producing a hissing sound.
Reason: Sodium reacts with water and produces hydrogen gas.
11. **Assertion:** The minerals from which the metals can be extracted conveniently and profitably are called ores.
Reason: All the ores are minerals but all the minerals cannot be ores.

12. **Assertion:** The xylem in plants is responsible for transport of water and food.
Reason: The autotrophic mode of nutrition requires carbon dioxide, water and sunlight.
13. **Assertion:** Molecular movements are needed for life.
Reason: Body structures made up of these molecules need continuous repair and maintenance.
14. **Assertion:** Diffusion does not meet high energy requirements of multicellular organisms.
Reason: Diffusion is a fast process but only occurs at the surface of the body.
15. **Assertion:** The opening and closing of the pores is a function of the guard cells.
Reason: Stomata pores are the site for exchange of gases by diffusion.
16. **Assertion:** Saliva contains pepsin enzyme.
Reason: Pepsin digests lipids.
17. **Assertion:** The inner lining of the small intestine has numerous fingers-like projections called villi.
Reason: The villi increase the surface area for absorption.
18. **Assertion:** Pyruvate is a six- carbon molecule.
Reason: It is prepared in the cytoplasm as the first step to cellular respiration.
19. **Assertion:** Rings of cartilage are present in the throat.
Reason: These ensure that the air passage does not collapse.
20. **Assertion:** In human beings, the respiratory pigment is hemoglobin.
Reason: It is a type of protein which has high affinity of carbon dioxide.
21. **Assertion:** Arteries are thick- walled and elastic in nature.
Reason: Arteries have to transport blood away from the heart.
22. **Assertion:** The purpose of making urine is to filter out undigested food from intestine.
Reason: Kidneys filter the waste and produce urine.

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20. (C)	19. (A)	18. (D)	17. (A)	16. (E)	15. (B)	14. (C)	13. (A)	12. (B)	11. (B)
10. (A)	9. (B)	8. (E)	7. (C)	6. (B)	5. (A)	4. (B)	3. (E)	2. (A)	1. (B)

ANSWERS

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