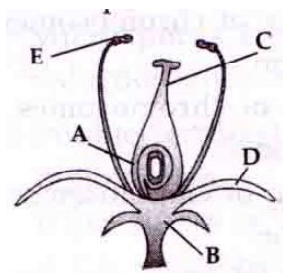


SECTION - I (BIOLOGY)

This section contains 40 multiple choice questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which ONLY ONE is correct.

- | | |
|---|---|
| <p>01. The internal (cellular) energy reserve in autotrophs is</p> <p>(A) glycogen (B) protein (C) starch (D) fatty acid</p> <p>02. Which is the correct sequence of air passage during inhalation ?</p> <p>(A) Nostrils → larynx → pharynx → trachea → lungs (B) Nasal passage → trachea → pharynx → larynx → alveoli (C) Larynx → nostrils → pharynx → lungs (D) Nostrils → pharynx → larynx → trachea → alveoli</p> <p>03. Which one of the following is connected with transport of water in plants ?</p> <p>(A) Phloem (B) Xylem (C) Epidermis (D) Cambium</p> <p>04. Ureotelic animals are those which eliminate the nitrogenous wastes predominantly in the form of</p> <p>(A) uric acid (B) ammonia (C) amino acids (D) urea</p> | <p>05. Amylolytic enzymes are produced from</p> <p>(A) salivary gland and liver (B) stomach and pancreas (C) salivary glands and pancreas (D) stomach and liver</p> <p>06. Assertion : Many advanced invertebrates have open circulatory system.</p> <p>Reason : The open circulatory system is open to the environment.</p> <p>(A) If both assertion and reason are true and reason is the correct explanation of assertion (B) If both assertion and reason are true but reason is not the correct explanation of assertion (C) If assertion is true but reason is false (D) If assertion is false but reason is true</p> <p>07. The bacteria present in contaminated water is</p> <p>(A) Clostridium (B) Mycobacterium (C) Coliform (D) Streptococcus</p> <p>08. Which of the following is a contraceptive device ?</p> <p>(A) Copper-T (B) Condom (C) Diaphragm (D) All of these</p> <p>09. A segment of DNA providing information for a protein is called</p> <p>(A) nucleus (B) chromosomes (C) trait (D) gene</p> |
|---|---|

10. Match the labelled parts of the given figure with the correct option

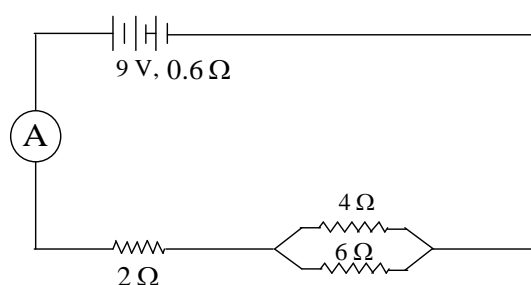


- (A) A- Ovary, B- Thalamus, C-Filament, D- Sepal ,E-Anther
 (B) A- Ovary, B- Thalamus, C-Style, D-Sepal, E-Anther
 (C) A- Ovule, B-Sepal ,C- Style, D-Thalamus, E- Filament
 (D) A-Ovule, B-Sepal, C- Style, D-Thalamus E-Stamen

SECTION-II(PHYSICS)

This section contains 25 multiple choice questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which ONLY ONE is correct.

11. From the following diagram, what is the current flowing through the ammeter.



- (A) 1.8 A (B) 4.5 A
 (C) 10 A (D) 2 A
12. In an electric circuit three bulbs are connected in series or in parallel. Consider the following statements.
- (I) In series combination, same current passes through the bulbs.
- (II) In parallel combination, same potential difference is applied across each bulb
- (A) I is correct II is wrong
 (B) I is wrong, II is correct
 (C) Both I & II are correct
 (D) Both I & II are wrong

13. A rectangular block of glass (Refractive index $3/2$) is kept in water (Refractive index $4/3$). The critical angle for total internal reflection is

(A) $\sin^{-1}\left(\frac{8}{9}\right)$ for a ray of light passing from glass to water

(B) $\sin^{-1}\left(\frac{8}{9}\right)$ for a ray of light passing from water to glass

(C) $\sin^{-1}\left(\frac{2}{3}\right)$ for a ray of light passing from water to glass

(D) $\sin^{-1}\left(\frac{2}{3}\right)$ for a ray of light passing from glass to water

14. Consider the following statements

(I) Both sound and light can travel on the surface of the earth.

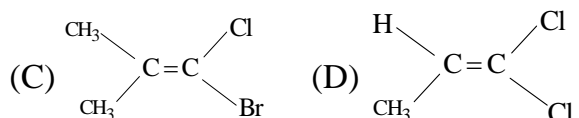
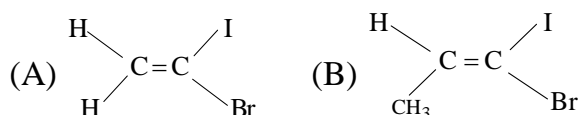
(II) Both sound and light can travel on the surface of the moon

- (A) Both I and II are correct
(B) Both I and II are wrong
(C) I is correct but II is wrong
(D) I is wrong but II is correct

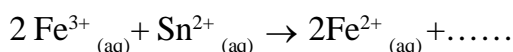
SECTION-III (CHEMISTRY)

This section contains 25 multiple choice questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which ONLY ONE is correct.

15. Geometrical isomerism is shown by



16. The missing term in equation is

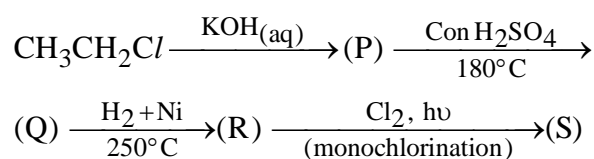


- (A) $\text{Sn}^{3+}_{(\text{aq})}$ (B) $\text{Sn}^{2+}_{(\text{aq})}$
(C) Sn (D) $\text{Sn}^{4+}_{(\text{aq})}$

17. Which one of the following sets of ions represents a collection of isoelectronic species ?

- (A) $\text{K}^+, \text{Cl}^-, \text{Ca}^{2+}, \text{Sc}^{3+}$
(B) $\text{Ba}^{2+}, \text{Sr}^{2+}, \text{K}^+, \text{S}^{2-}$
(C) $\text{N}^{3-}, \text{O}^{2-}, \text{F}^-, \text{S}^{2-}$
(D) $\text{Li}^+, \text{Na}^+, \text{Mg}^{2+}, \text{Ca}^{2+}$

18. Identify the final product 'S' in the following sequence of reactions



- (A) ethyl alcohol (B) 2-chloro ethanol
(C) methyl chloride (D) chloro ethane

SECTION - IV

(ENGLISH & REASONING)

This section contains 25 multiple choice questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which ONLY ONE is correct.

19. Choose the correct **antonym** for the given word: PRUDENT

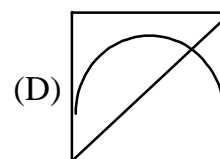
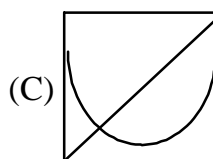
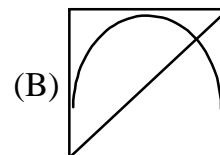
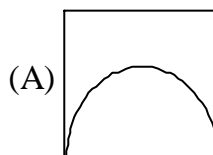
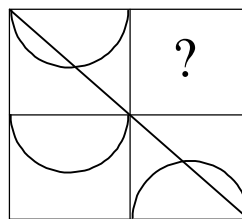
(A) obsolete (B) foolish
(C) proud (D) austere

20. **Directions :** Choose the option which contains a pair of words related to each other in the same way as the pair given in capital letters.

MARATHON : RACE

(A) hock : pawn
(B) wax : wane
(C) contaminate : spread
(D) hibernation : sleep

21.



KEY

| | | | | | | |
|------|------|------|------|------|------|------|
| 01.C | 02.D | 03.B | 04.D | 05.C | 06.C | 07.C |
| 08.D | 09.D | 10.B | 11.A | 12.C | 13.A | 14.C |
| 15.B | 16.D | 17.A | 18.D | 19.B | 20.D | 21.A |