

PGT Chemistry

Q 1). Who among the following has become the world's youngest and fastest female para swimmer to swim solo across the English Channel Successfully recently?

- (A) Shivani Kataria
- (B) Dolly Nazir
- (C) Devanshi Satija
- (D) Jiya Rai

Correct Answer: (D)

Q 2). Recently, an Indian-origin lecturer named Prasanthi Ram at Nanyang Technological University has won Singapore Literature Prize for English fiction for her short story named _____.

- (A) Nine Yard Sarees
- (B) House of Cards
- (C) Dollar Bahu
- (D) The Very Expensive Coconut

Correct Answer: (A)

Q 3). Recently, WHO has declared Dhulikhel Municipality as the second healthiest city in Asia. This Dhulikhel Municipality is in which of the following countries?

- (A) India
- (B) Bhutan
- (C) Nepal
- (D) Myanmar

Correct Answer: (C)

Q 4). If a teacher first explains the rule and then gives examples. Which type learning style is this?

- (A) Inductive
- (B) Deductive
- (C) Indo-Deductive
- (D) Illustration

Correct Answer: (B)

Q 5). In which stage, children are able to think about things in terms of consistent physical features?

- (A) Sensory Motor
- (B) Concrete Operational
- (C) Pre-Operational
- (D) Formal Operational

Correct Answer: (C)

Q 6). Which of the following is not the main feature of RTE Act?

- (A) Free Elementary Education for all children in age group 6-14 years in a neighbourhood school.
- (B) Completion of Elementary Education even after fourteen years of age.
- (C) Private Tuitions by teachers is not prohibited.
- (D) No child is denied admission due to lack of age certificate.

Correct Answer: (C)

Q 7). Which of the following is the correct hybridization in Methane Molecule?

- (A) sp
- (B) sp^2
- (C) sp^3
- (D) sp^3d^2

Correct Answer: (C)

Q 8). An Isotope of cobalt is used in the treatment of which disease?

- (A) Kidney failure
- (B) Hepatitis
- (C) Cancer
- (D) Mental Confusion

Correct Answer: (C)

Q 9). Two substances having slightly different in their boiling points (less than 10°C) can be separated by which of the following?

- (A) Fractional Distillation
- (B) Simple Distillation
- (C) Crystallization
- (D) Sublimation

Correct Answer: (A)

Q 10). Protecting steel and iron from rusting by coating them with a thin layer of zinc is called _____.

- (A) Tinning
- (B) Galvanisation
- (C) Cladding
- (D) Anodising

Correct Answer: (B)

Q 11). Which of the following acid is the strongest?

- (A) HBr
- (B) HCl
- (C) HI
- (D) HF

Correct Answer: (C)

Q 12). The right option for the statement “Tyndall effect is exhibited by” is:

- (A) NaCl solution
- (B) Glucose solution
- (C) Starch solution
- (D) Urea solution

Correct Answer: (C)

Q 13). Water stored in a dam possesses which of the following energies?

- (A) No Energy
- (B) Kinetic Energy
- (C) Potential Energy
- (D) Electrical Energy

Correct Answer: (C)

Q 14). Which of the following solids is known as “Dry ice”?

- (A) H₂O
- (B) Camphor
- (C) CO₂
- (D) NH₄Cl

Correct Answer: (C)

Q 15). From the following pairs of ions which one is not an iso-electronic pair?

- (A) O²⁻, F⁻
- (B) Na⁺, Mg²⁺
- (C) Mn²⁺, Fe³⁺
- (D) Fe²⁺, Mn²⁺

Correct Answer: (D)

Q 16). Which of the following has the highest nucleophilicity?

- (A) F⁻
- (B) OH⁻
- (C) CH₃⁻
- (D) NH₂⁻

Correct Answer: (A)

Q 17). α -D - (+) - Glucose and β -D - (+) - Glucose are _____.

(A) Conformers

(B) Epimers

(C) Anomers

(D) Enantiomers

Correct Answer: (C)

Q 18). Among the species O_2^{-2} , O_2 , O_2^+ , O_2^- , which have highest bond strength?

(A) O_2^{-2}

(B) O_2

(C) O_2^+

(D) O_2^-

Correct Answer: (C)

Q 19). In Cannizaro reaction given below:

$2\text{PhCHO} \rightarrow \text{PhCH}_2\text{OH} + \text{PhCOO}_2^{-1}$ the slowest step is:

(A) The attack of OH^{-1} at the carboxyl group

(B) The transfer of hydride to the carbonyl group

(C) The abstraction of proton from the carboxylic group

(D) The deprotonation of PhCH_2OH

Correct Answer: (B)

Q 20). What will be the pH of a 5.0×10^{-2} M KOH solution?

(A) 12.7

(B) 10.7

(C) 8.7

(D) 10

Correct Answer: (A)
