

# TNPSC - VAO

## GENERAL STUDIES - 2016 (ENGLISH)

### PHYSICS

- To hear a distant echo, the surface reflecting the sound should atleast be at a distance (Take velocity of sound in air = 340 m/s)  
(A) 34 m  
(B) **17 m**  
(C) 51 m  
(D) 10 m
- When steam is passed over red hot iron, the products formed are  
(A) FeO and H<sub>2</sub>  
(B) Fe<sub>2</sub>O<sub>3</sub> and H<sub>2</sub>  
(C) **Fe<sub>3</sub>O<sub>4</sub> and H<sub>2</sub>**  
(D) Fe and H<sub>2</sub>O
- Identify the process(es) from the following which involves absorption of heat :
  - Condensation
  - Sublimation
  - Evaporation(A) 1 and 2 only  
(B) 1 and 3 only  
(C) **2 and 3 only**  
(D) 1 only
- 1 KM (A), 1 Light year (B) and 1 Astronomical unit (C) are related as  
(A) A = B = C  
(B) A < B < C  
(C) **A < B > C**  
(D) A > B > C
- Mass of an object is 10 kilogram. Its weight on the earth and in space respectively are  
(A) 5 N, 10 N  
(B) 10 N, 10 N  
(C) 10 N, zero N  
(D) **98 N, zero N**
- Some metals are used to manufacture coins. Among the metals, which are called coinage metals?  
(A) Cu, Co, Hg  
(B) **Au, Ag, Cu**  
(C) Ag, As, Sb  
(D) Fe, At, Pb

### CHEMISTRY

- Which one is not nitrogen fertilizer?  
(A) Ammonium sulphate  
(B) CAN  
(C) Urea  
(D) **Gypsum**
  - Sodium hydroxide is used to remove grease stains from cloths.
  - Calcium hydroxide is used in the manufacture of wax.
  - Ammonium hydroxide is used in the white washing of buildings.
  - Magnesium hydroxide is used as a medicine for stomach troubles.
- Of these
- 1 and 2 correct
  - 2 only correct
  - 3 and 1 correct
  - 4 only correct**

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### ZOOLOGY

9. Match List I with List II and select correct answer using the codes below the lists.

List I	List II
(a) Glycolysis	1. O <sub>2</sub> is not utilized
(b) Kreb's cycle	2. ATP are produced
(c) Electron Transport chain	3. Oxidation of pyruvic acid
(d) Fermentation	4. Occurs in Cytoplasm

	(a)	(b)	(c)	(d)
(A)	3	4	2	1
<b>(B)</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
(C)	1	3	4	2
(D)	2	4	1	3

10. Parotid gland is affected by

- (A) A(H1N1) virus
- (B) Hepatitis B-virus
- (C) Polio virus
- (D) Mumps virus**

11. Consider the following statements :

Assertion (A) : Mitochondria are called power houses of the cell.

Reason (R) : Mitochondria contain necessary for the oxidation of food during respiration and release energy in the form of ATP molecules.

**(A) Both (A) and (R) are true (R) explains (A)**

(B) Both (A) and (R) are true (R) does not explains (A)

(C) (A) is true but (R) does not explains (A)

(D) (A) is false but (R) is true

12. The cells which provide nourishment to developing sperms

- (A) Sertoli cells**
- (B) Interstitial cells
- (C) Egg cells
- (D) Follicle cells

13. What is Mediasteanum?

- (A) Membrane around the lungs
- (B) Membrane around the heart
- (C) Membrane around the kidney
- (D) Space between the two lungs**

14. Hazardous bio-medical wastes are usually disposed off by means of

- (A) Land fills
- (B) Deep well injection
- (C) Incineration**
- (D) Surface impoundment

15. Match the following List I – List II with suitable options :

List I (Source)	List II (Acid)
(a) Lemon	1. Malic acid
(b) Grapes	2. Oxalic acid
(c) Tomatto	3. Citric acid
(d) Apple	4. Tartaric acid

	(a)	(b)	(c)	(d)
<b>(A)</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>1</b>
(B)	3	2	4	1
(C)	2	4	1	3
(D)	4	2	3	1

### BOTANY

16. Plants which grow in saline swamps develop numerous upright aerial roots from normal roots that are called

- (A) Respiratory roots**
- (B) Prop roots
- (C) Parasitic roots
- (D) Epiphytic roots