



**TNPSC-GROUP – VIII-2013**

1. **The** pressure on a swimmer 10m below the surface of the lake
- a) increase
  - b) decrease
  - c) does not change
  - A) (a) alone is correct
  - B) (b) alone is correct
  - C) both (a) and (c) are correct
  - D) both (b) and (c) are correct

Ans: A

2. **Choose** which is incorrectly matched
- A) Surface tension –  $\text{Nm}^{-1}$
  - B) Linear density -  $\text{Kg m}^{-3}$
  - C) Angular Velocity -  $\text{rads}^{-1}$
  - D) Pressure -  $\text{Nm}^{-2}$

Ans: B

3. **Assertion** (A): A cricket player while catching a ball lowers his hands in the direction of the ball.

**Reason** (R): To increase the time of contact between the ball and the hand.

- A) (A) and (R) are correct
- B) (A) is correct (R) is wrong
- C) (A) is wrong (R) is correct
- D) (A) is correct and (R) is the wrong explanation of (A)

Ans: A

4. **Choose** the correct answer:

‘The time taken by light to come from the sun’

- A) 18 minutes 20 sec
- B) 8 minutes 20 sec
- C) 20 sec
- D) 8 sec



Ans: C

**TNPSC-GROUP – II-2013**

1. Consider the following statements and select your correct answer:  
Assertion (A): Electron microscope can give better resolution than optical microscopes.  
Reason (R) : A high energy particle has short de Broglie wavelength and so can probe the small scale interior structure of other particles.
- A) Both (A) and (R) are true and (R) is the correct explanation for (A)  
B) Both (A) and (R) are true and (R) is not the correct explanation for (A)  
C) Both (A) and (R) are false.  
D) (A) is true but (R) is false.
- Ans: A

2. **Match** the following:
- |  |   |                     |
|--|---|---------------------|
| a) Moment of linear momentum   | - | 1. Buoyancy         |
| b) Ability of free surface of a liquid to minimize its surface area                | - | 2. Potential        |
| c) Work done per unit charge   | - | 3. Surface tension  |
| d) Upward force experienced by a body when wholly or partially immersed in a fluid | - | 4. Angular momentum |

Codes:

a      b      c      d



- A) 4 1 2 3  
B) 4 2 3 1  
C) 4 3 2 1  
D) 4 1 3 2  
Ans: C

**TNPSC-GROUP II-A-2014**

1. **consider** the following pairs:

- I. X rays - Rutherford  
II. Atomic Nucleus - Roentgen  
III. Artificial radioactivity - Curie and Juliet

Which of the pair given above is/are correct?

- A) I only  
B) II and III only  
C) I and II only  
D) III only

Ans: D

2. **Consider** the following statements and select the correct answer.

- I. The path of a projectile is a parabola  
II. The acceleration due to gravity at the centre of the earth is Zero.  
III. The gravitational constant does not have unit and dimensions

- A) Both I and II are correct but III is false  
B) Both I and III are correct but II is false  
C) I, II, III all are correct  
D) Both II and III are correct but I is false

Ans: A

3. What is the relation between the voltage 'V' across the ends of a resistor 'R' and the current 'I' which flows through it?

- A)  $V = \frac{I^2}{R}$   
B)  $I = VR$   
C)  $I = \frac{V}{R}$   
D)  $V = I^2R$

Ans: C



**TNPSC-GROUP – II-2015**

1. **Match** the following:

	Technology		Scientific Principles
a)	Aeroplane	1.	Newton's Law
b)	Air Balloon	2.	Bernoulli's Principle
c)	Rocket	3.	Law of thermo dynamics
d)	Steam Engine	4.	Buoyant Force

	a	b	c	d
A)	1	3	2	4
B)	3	1	4	2
C)	4	2	3	1
D)	2	4	1	3

Ans: D

2. **Which** of the following are correct?

- i) Work = Force x Displacement
- ii) Power = Work / Time
- iii) Force = Mass x Velocity
- iv) Acceleration = Velocity / Time

A)	I, II and III	B)	II, III and IV
C)	I, III and IV	D)	I, II and IV

Ans: D

3. **Why** the wings of an aeroplane are shaped with lower surface being flat and the upper surface being curved?

- A) To reduce vibration
- B) To make difference in pressure to lift the plane vertically
- C) To accommodate more passengers in the wing
- D) To strengthen the wheels fitted in wings

Ans: B

4. Match the following:

Famous Indian Scientist	Their Contribution
-------------------------	--------------------





- a) C.V. Raman                      1. Ultra Short Radio Waves  
b) J.C. Bose                        2. Thermal Ionization  
c) M.N. Saha                        3. Quantum Statistics  
d) S.N. Bose                        4. Inelastic Scattering

- a    b    c    d  
A) 1 2 3 4  
B) 2 3 4 1  
C) 3 4 1 2  
D) 4 1 2 3

Ans: D

5. Which one of the following is not an allotrope of carbon?

- A) Diamond                                      B) Graphite  
C) Fullerene                                      D) Butane

Ans: D

**TNPSC-GROUP – IIA -2016**

1. Match List I with List II correctly and select your answer using the codes given below:

List I

- a) Infrared spectrometer  
b) Polarimeter  
c) Barometer  
d) Strain gauge

List II

1. Measures the purity of sugar  
2. Test aeroplane  
3. Study of molecular structure  
4. Measure atmospheric pressure

- a    b    c    d  
A) 2 4 1 3  
B) 2 3 4 1  
C) 3 1 4 2  
D) 4 3 1 2

Ans: C

2. Select the pair, which are dimensionally alike among the following

- I. Product of force and time  
II. Product of momentum and time



- III. Product of Ariel velocity and linear density  
IV. Product of work and time  
A) I and II only                      B) II and III only  
C) III and IV only                    D) I and III only

Ans: D

3. Arrange the following in the increasing order of their penetration Powers

- I. Alpha rays  
II. Beta particles  
III. Gamma rays  
A) I - II - III                      B) II - I - III  
C) II - III - I                      D) III - II - I

Ans: A

**TNPSC-ASSITANT ENGINEER -2014**

1. Oxidation number of Mn in  $\text{KMnO}_4$  is  
A) +5                                  B) +6  
C) +7                                  D) 0

Ans: C

2. Water gas is a mixture of  
A)  $\text{H}_2$  and  $\text{NO}_2$                       B)  $\text{H}_2$  and  $\text{CO}$   
C)  $\text{H}_2$  and  $\text{CH}_4$                       D)  $\text{CO}$  and  $\text{NO}_2$

Ans: B

3. **Rutherford's** experiments on scattering of alpha particles by thin foils established that

- I. most of the mass of an atom is located in its nucleus  
II. the nucleus of an atom has a positive charge  
III. the nucleus of an atom contains protons and neutrons  
IV. the electrons revolve around the nucleus of an atom

Choose the right answer:

- A) I and III are correct              B) II and III are correct  
C) III and IV are correct            D) I and II are correct

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Ans: D

4. **A Voltmeter** is an instrument used to measure
- |            |                               |
|------------|-------------------------------|
| A) voltage | B) e.m.f. of a cell           |
| C) current | D) electrochemical equivalent |

Ans: D

5. **The** deviation of the charge distribution of a nucleus from spherical symmetry can be estimated by measuring its
- |                           |                               |
|---------------------------|-------------------------------|
| A) Electric charge        | B) Electric dipole moment     |
| C) Magnetic dipole moment | D) Electric quadrupole moment |

Ans: D

**TNPSC HEALTH OFFICER - 2015**

1. For an adiabatic process, which is the wrong statement?
- |                                      |   |
|--------------------------------------|---|
| A) $PV = \text{Constant}$            | B) $PV^\gamma = \text{Constant}$                |
| C) $TV^{\gamma-1} = \text{Constant}$ | D) $\frac{PV^{\gamma-1}}{TV} = \text{Constant}$ |

Ans: A

**TNPSC ASSIATANT MEDICAL OFFICER- 2015**

1. Short circuit occurs when the resistance in the external circuit is
- |             |            |
|-------------|------------|
| A) Infinity | B) Maximum |
| C) Minimum  | D) zero    |

Ans: D

2. The distance travelled by light in an year is
- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| A. $1.578 \times 10^{15} \text{ m}$ | B. $9.467 \times 10^{15} \text{ m}$ |
| C. $3.156 \times 10^{15} \text{ m}$ | D. $9.467 \times 10^{15} \text{ m}$ |

Ans: B

3. Which of the following is an incorrect statement of diamond
- |   |
|---|
| A) diamond is the purest form of carbon |
| B) diamond is amorphous in nature       |

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- C) diamond has the highest melting point  
D) diamond is the hardest variety of carbon

Ans: B

4. Which one of the following metal is occurs in the native form?  
A) Au B) Na  
C) Pb D) U

Ans: A

5. Choose the correct answer for the following statement:  
One of the following process is employed to introduce a foreign gene into a cell.

- A) Electroporation B) Plasmid  
C) Ligation D) Electrolysis

Ans: A

6. Which is a defect of the eye?  
A) Coma B) Echo  
C) Resonance D) Osmosis

Ans: A

7. Match List I with List II correctly and select your answer using the codes given below:

- | List I              |  | List II       |  |
|---------------------|--|---------------|--|
| a) Recoil Velocity  |  | 1. Galaxy     |  |
| b) Remote sensing   |  | 2. Gun        |  |
| c) Source of energy |  | 3. Sun        |  |
| d) Milky way        |  | 4. Satellites |  |

- |    | (a) | (b) | (c) | (d) |
|----|-----|-----|-----|-----|
| A) | 4   | 3   | 2   | 1   |
| B) | 2   | 4   | 3   | 1   |
| C) | 3   | 2   | 1   | 4   |
| D) | 1   | 3   | 2   | 4   |

Ans: B





**TNPSC ASSIATANT STATISTICAL INVESTIGATOR – 2015**

1. Which of the following statements are incorrect with respect to the allotropes of carbon?
- I. Diamond is extremely hard while graphite is soft.  
II. Diamond is ionic but graphite is covalent  
III. Diamond is a non-conductor but graphite is a good conductor of electricity.  
IV. Diamond has a layered structure while graphite has a network structure.
- A. I and II  
B. I, II and IV  
C. I, III and IV  
D. II and IV
- Ans: D
2. The atomic symbol used for the element Tungsten is
- A) U  
B) V  
C) W  
D) Ti
- Ans: C
3. Which one of the following states stands first generating e-waste according to the Central Pollution Control Board for the year 2005?
- A) Tamil Nadu  
B) West Bengal  
C) Maharashtra  
D) Delhi
- Ans: C
4. When Aluminium is bombarded with fast neutrons it changes into Sodium with emission of particle 'x' according to the equation.
- $${}_{13}^{27}\text{Al} + {}_0^1n \rightarrow {}_{11}^{24}\text{Na} + x$$
- what is x?
- A) Electron  
B) Proton  
C) Neutron  
D) Alpha particle
- Ans: D
5. Capillarity of a liquid is due to



- A) its elastic property                      B) gravity  
C) its surface tension                      D) its mass

Ans: C

6. Consider the following statements:

Assertion (A) : One cannot hear any sound in space

Reason (R) : In the absence of medium, no sound waves can travel

- A) Both (A) and (R) are individually true but (R) is not the correct explanation of A  
B) Both (A) and (R) are individually true and (R) is the correct explanation of (A)  
C) (A) is true (R) is false.  
D) (A) is false (R) is true.

Ans: B

7. Which of these spectral line series lie in the near infrared region of spectrum?

- A) Lyman    B) Balmer  
C) Paschen    D) Pfund

Ans: C