

# OPSC

ODISHA PUBLIC SERVICE COMMISSION

**ODISHA PANCHAYATI RAJ ENGINEERING SERVICE**

Asst. Executive Engineer : Group -A

# GENERAL STUDIES

*with Special reference to 'Odisha'*

**Comprehensive Theory**  
*with Practice Questions*





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### **General Studies with Special reference to Odisha**

**Odisha Panchayati Raj Engineering Service Asst.**

**Executive Engineer : Group -A**

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# Preface

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The compilation of this book **General Studies with Special reference to Odisha** is motivated by the desire to provide a concise book which can benefit students who are preparing for Odisha Panchayati Raj Engineering Service (Asst. Executive Engineer : Group -A) Examination.



This textbook provides all the requirements of the students, i.e. comprehensive coverage of General Studies topics and objective types questions articulated in a lucid language. This book not only covers the syllabus of Odisha Panchayati Raj Engineering Service in a holistic manner but is also useful for other competitive examinations. All the topics are given the emphasis they deserve so that mere reading of the book helps aspirants immensely.

Our team has made their best efforts to remove all possible errors of any kind. Nonetheless, we would highly appreciate and acknowledge if you find and share with us any printing and conceptual errors.

It is impossible to thank all the individuals who helped us, but we would like to sincerely thank all the authors, editors and reviewers for putting in their efforts to publish this book.

With Best Wishes

**B. Singh (Ex. IES)**

CMD, MADE EASY Group

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*with Special reference to Odisha*

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## ODISHA PANCHAYATI RAJ ENGINEERING SERVICE

Asst. Executive Engineer :  
Group -A

# GENERAL SCIENCE

*with Special reference to Odisha*

Comprehensive Theory with Practice Questions

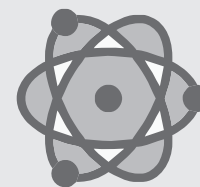
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# 1

# Physics

CHAPTER



Physics is a branch of science which is concerned with all aspects of nature on both the microscopic and macroscopic level. Its scope of study encompasses not only the behavior of objects under the action of forces but also the nature of gravitational, electromagnetic, nuclear forces among others. The ultimate objective of physics is to formulate comprehensive principles that bring together and explain all such phenomena.



- Unit is the chosen standard used for measuring a physical quantity.
- There are basically two types of unit:
  - 1. Fundamental Unit:** These units are a set of measurements, defined arbitrarily and from which other units are derived. Examples: meter, kilogram, second, etc.  
The fundamental unit of some of the physical quantities are given below:

International System of Units (S.I.)		
Physical	Fundamental	Symbol
Mass	Kilogram	kg
Length	Metre	m
Time	Second	s
Temperature	Kelvin	K
Electric-current	Ampere	A
Luminous intensity	Candela	Cd
Quantity of matter	Mole	mol

Systems of units	Length	Mass	Time
C.G.S. System	Centimetre	Gram	Second
F.P.S. System	Foot	Pound	Second
M.K.S. System	Metre	Kilogram	Second

- 2. Derived Unit:** All the units which are expressed in terms of fundamental units are known as derived units. Examples: Newton, Joule, etc.
- Internationally, there are four types of unit systems. These are:
    - 1. S.I. Units/System:** It is the modern form of the metric system, and is the most widely used system of measurement. It comprises a coherent system of units of measurement built on seven base units namely kilogram, meter, second, candela, ampere, kelvin and mol.
    - 2. CGS System:** The centimeter-gram-second (CGS) system of units is a variant of the metric system based on centimetre as the unit of length, gram as unit of mass, and the second as the unit of time.
    - 3. FPS System:** The foot-pound-second (FPS) system is a system of units built on three fundamental units: the foot for length, the pound for mass and the second for time.
    - 4. MKS System:** The MKS system of units is a physical system of units that expresses any given measurement using base units of the metre, kilogram, and second.



## Basics of Motion

A body is said to be in motion if it changes its position with respect to its surroundings as time goes on. A body is said to be at rest if it does not change its position with time, with respect to its surroundings.

### Types of Motion

- (i) When a particle or a body moves along a straight path, its motion is Rectilinear or translatory motion.
- (ii) When a particle or a body moves in a circular path, its motion is circular motion. When a body spins about its own axis, it is said to be in rotational motion.
- (iii) When a body moves to and fro or back and forth repeatedly about a fixed point in a definite interval of time, it is said to be in vibrational or oscillatory motion.

### Speed

The time rate of change of position of an object in any direction i.e. the rate of change of distance of an object with respect to time is known as speed.

$$\text{Speed} = \frac{\text{displacement}}{\text{time taken}}$$

### Velocity

The rate of change of displacement of an object with respect to time is known as velocity.

$$\text{Velocity} = \frac{\text{displacement}}{\text{time}}$$

### Acceleration

The rate of change of velocity with respect to time is called acceleration.

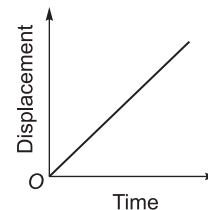
$$\text{Acceleration} = \frac{\text{Change in velocity}}{\text{time taken}}$$

When a body completes equal displacement in equal interval of time, its velocity is constant and hence, it does not have an acceleration. When a body shows equal change in velocity in equal interval of time its velocity is not constant but it has a constant acceleration.

## Position (Displacement)-Time Graphs

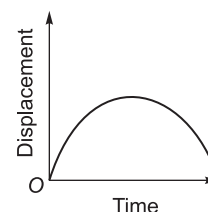
### For a body moving with a uniform velocity

This graph comes as a straight line because in a uniform velocity the particle completes equal displacement in an equal interval of time.



### For the motion of a body thrown vertically upwards

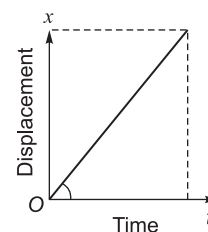
When the body moves up, its velocity continuously decreases due to gravity and finally becomes zero at the maximum height. Then, the body falls with an increasing velocity.



The slope of the position time graph is equal to the uniform velocity.

$$\text{Slope} = \frac{\text{Displacement}}{\text{Time}}$$

$$\text{or } V = \frac{x}{t}$$



## Physical Quantities

### Vectors

They have a definite magnitude and a definite direction, e.g. displacement, velocity, acceleration, force etc.

### Scalars

They have definite magnitudes only and not direction. e.g. distance, speed, work, energy, power, electric charge etc.

### Tensors

They have different magnitudes in different directions, e.g. Moment of inertia, stress etc.

In a motion, a body can have a constant speed but variable velocity like the motion of a body along a circular path. A particle may have zero displacement and zero velocity but non-zero distance and speed. When a body completes one revolution

along a circular path in a given time period, the net displacement and velocity of the body will be zero but the distance and speed of the body must be non-zero.

### Linear-Momentum

It is the quantity of motion which a body possesses and is measured as the product of the mass and velocity of the body.

$$\text{Linear momentum} = \text{mass} \times \text{velocity}$$

### Impulse

The total change in momentum is called the impulse. If a very large force acts for a very small time, the product of force and the time is equal to the impulse.

### Inertia

The inability of a body to change by itself its state of rest or state of uniform motion along a straight line is called inertia of the body.

The inertia of a body is measured by its mass. Heavier the body, greater is the force required to change its state and hence greater is its inertia. Inertia of a body may be inertia of rest, inertia of motion or inertia of direction.

## Newton's Laws of Motion

### First Law of Motion

Every body continues to be in a state of rest or uniform motion in a straight line, except in so far as it may be compelled by force to change that state.' Newton's first law of motion defines inertia.

**1. Inertia of Rest :** The inability of a body to change by itself its state of rest.

- When a branch of a fruit tree is shaken, the fruits fall down. This is because the branch comes in motion and the fruits tend to remain at rest. Hence, they get detached.
- The dirt particles in a durree fall off if it is stricken by a stick. This is because the striking sets the durree in motion whereas the dirt-particles tend to remain at rest and hence fall.
- When a train starts suddenly, the passenger sitting inside tends to fall backwards. This is so because the lower part of the passenger's

body starts moving with the train but the upper part tends to remain at rest.

- If a smooth paper having a coin on it placed on a table is suddenly drawn, the coin remains at the same place on the table due to inertia of rest.
  - When a horse starts suddenly, the rider tends to fall backwards due to inertia of rest
- 2. Inertia of Motion :** The inability of a body to change by itself its state of uniform motion.
- When a horse at full gallop stops suddenly, the rider on it falls forward because of inertia of motion of the upper part of the rider's body.
  - When an athlete takes a long jump, he runs first for a certain distance before the jump. This is because his feet come to rest on touching the ground and the remaining body continues to move owing to inertia of motion.
  - When train stops suddenly, a passenger sitting inside tends to fall forward. It happens because the lower part of the passenger's body comes to rest with the train but the upper part tends to continue its motion due to inertia of motion.
  - A person jumping out of a speeding train may fall forward due to inertia of motion of his body. Hence, he should run a few steps on the platform in the direction of motion of train.
- 3. Inertia of Direction :** The inability of a body to change by itself its direction of motion.
- The wheels of any moving vehicle throw out mud, if any, tangentially, due to the inertia of direction. The mud-guards over the wheels stop this mud, protecting the clothes, etc. of the person sitting on the bike.
  - Use of an umbrella to protect us from rain is based on the property of inertia of direction because the rain drops cannot change their direction of motion.
  - When a bus or a car rounds a curve suddenly, the person sitting inside is thrown outwards. It happens so because the person tries to maintain his direction of motion due to directional inertia while the vehicle turns.
  - When a knife is sharpened by pressing it against a grinding stone, the sparks fly off tangentially because of the inertia of direction.



- When a stone tied to one end of a string is whirled and the string breaks suddenly, the stone spins off along the tangent of its circular path. It happens so because of the pull in the string was forcing the stone to move in a circle. As soon as the string breaks, the pull disappears. The stone becomes free and in a bid to move along the straight line flies off tangentially.

### Second Law of Motion

The rate of change of linear momentum of a body is directly proportional to the external force applied on the body and this change takes place always in the direction of the applied force<sup>1</sup>.

The second law gives us a measure of force. When a force is applied on a body, its momentum and hence, velocity change. The change in velocity produces an acceleration in the body. The rate of change of linear momentum with time is equal to the product of the mass of the body and its acceleration which measures the magnitude of the applied force i.e.

$$\text{Force} = \frac{\text{Change in linear momentum}}{\text{time interval}}$$

$$= \text{mass} \times \text{acceleration}$$

$$\text{or, } F = ma$$

### Third Law of Motion

“To every action, there is always, an equal and opposite reaction.”

Here, the action is the force exerted by one body on the other body while the reaction is the force exerted by the second body on the first.

### Principle of Conservation of Linear Momentum

The total sum of the linear momentum of all bodies in a system remains constant and is not affected due to their mutual action and reaction. It means in a system of the two bodies, the total momentum of the bodies before impact is equal to the total momentum of the two bodies after impact. The law of conservation of linear momentum is universal i.e. it applies to both, the microscopic as well as macroscopic system.

### Uniform Circular Motion

When a body moves along a circular path or a curve with a uniform circular speed, the body is acted upon

by an inward acceleration. This acceleration acts towards the centre of a circular path or curve and is called as radial or centripetal acceleration which gives rise to the centripetal force. The centripetal force is an essential condition of the circular motion. Centripetal force ( $F_c$ ) = mass of the body ( $m$ )  $\times$  centripetal acceleration ( $a_c$ )

$$\text{or } F_c = ma_c$$

Centripetal acceleration

$$a_c = \frac{v^2}{r} = r\omega^2$$

where  $v$  = linear speed,  $\omega$  = angular speed or,  $r$  = radius of circular path or curve.

$$\therefore F_c = ma_c = \frac{mv^2}{r} = mv\omega = mr\omega^2$$

The centripetal force acting on a body is an action and an equal and opposite force called centrifugal force appears as a reaction.

### Rotational Motion

#### Torque (Moment of Force)

The product of force acting on a body and perpendicular distance of line of action of the force from the axis of rotation is called moment of force or torque.

Torque = Force  $\times$  Perpendicular distance from axis rotation

#### Angular Momentum

It is equal to the product of linear momentum of a body and the perpendicular distance from the axis of rotation. It follows the principle of conservation. It means the total angular moment of an isolated system remains always constant.

### Friction

When a body moves (slides or rolls) or even tries to move over the surface of another body a tangential force comes into action between their surfaces in contact, against their relative motion. This opposing force is termed as the force of friction.

The force of friction depends upon the mass of the body on a surface and roughness of the surfaces in contact between them and the magnitude of friction, which increases with increase in roughness and mass.

When a body is at rest on a surface, the friction is called static friction which is a self adjusting force. When the body is on the verge to move (slide or roll), the friction is called limiting friction but when the body moves, it gives rise to dynamic friction.

The limiting friction is the maximum force of friction and it is always more than static or dynamic friction.

Usually, smoothness decreases the force of friction. However, when the surfaces in contact are made too smooth by polishing, the binding force of adhesion increases and hence, the frictional force increases. This is called 'cold welding'.

Friction is a non-conservative force and hence, the mechanical energy (potential and kinetic energy) is not conserved. In fact, friction converts mechanical energy partly into heat, light (spark), sound, electricity, etc.

Generally, friction opposes motion. However, in certain cases friction is essential for motion. Without friction, motion cannot be started, stopped or transferred from one body to the other. Thus, friction is a necessary evil.



## Work

When a force is applied on a body and a displacement is carried out in any direction except in a direction perpendicular to the direction of the force, an amount of work is done by the force.

The amount of work done is equal to the product of the force and the distance travelled in the direction of the applied force i.e.

$$\text{Work} = \text{Force} \times \text{distance travelled}$$

or, 
$$W = F \times S$$

Unit of work is Joule 1 joule = 1 Newton  $\times$  1 metre.

Work done by a force may be zero, positive or negative depending upon the direction of the applied force and displacement.

## Power

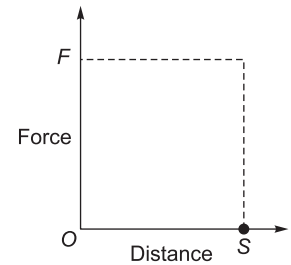
The time rate of change of work is power. When a body takes less time to do a certain work, its power

is said to be more and vice-versa.

$$\text{Power} = \frac{\text{work}}{\text{time}}$$

or, 
$$P = \frac{W}{t}$$

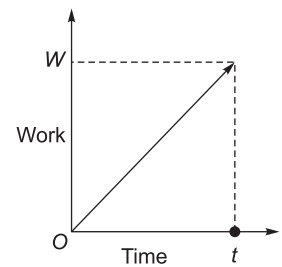
Its unit is watt (*w*). One kilowatt (1 kw) is equal to 1000 watt. One horse power (h.p.) is equal to 746 watt. Power of an agent measures how fast it can do the work. The area under the force versus distance graph is numerically equal to the work done by the agent.



$$\text{Work} = \text{Force} \times \text{Distance}$$

$$W = F \times S$$

The area under power-time graph gives the work done while the slope of work versus time graph gives the power.



$$\text{Work} = \text{power} \times \text{time}$$

$$= \text{area under } W-t \text{ graph}$$

or, 
$$W = Pt$$

$$\text{Power} = \text{Work/Time}$$

or, 
$$P = w/t = \text{slope of } W-t \text{ graph}$$

## Energy

The ability of a body to do work is called energy. When a body can do more work, it is said to have more energy and vice versa. Energy is different from power. Energy refers to the total amount of work a body can do and power determines the rate of doing work. Both the energy of a body and work done by the body are equivalent and are measured in Joule (*J*).

### Kinetic Energy (K.E.)

It is the energy possessed by the body by virtue of its motion. The kinetic energy of a body is given as

$$\text{K.E.} = \frac{1}{2}mv^2$$

Where  $m$  = mass of the body and  $v$  = velocity of the body. Thus, K.E. of a body is equal to half the product of mass of the body and square of velocity of the body. The change in K.E. of a body measures the work done by the body.

Work = change in K.E. of the body

$$\text{or, } W = \frac{1}{2}mv^2 - \frac{1}{2}mu^2$$

Where  $u$  and  $v$  are initial and final velocities of the body of mass  $m$ .

When a heavy and a light body are moving with same K.E. and same retarding force is applied on each, both the bodies will stop after travelling the same distance.

K.E. of a body is also given as :

$$\text{K.E.} = \frac{1}{2}mv^2 - \frac{1}{2}mu^2$$

$$\text{or, } \text{K.E.} = \frac{p^2}{2m}$$

Hence, when a light and a heavy body are moving with the same linear momentum, the light body will have more K.E.

Every moving system is associated with a definite amount of K.E. e.g. a moving vehicle, wind, water flow, etc.

### Potential Energy (P.E.)

The energy possessed by a body by virtue of its position or configuration is known as its potential energy. The mechanical P.E. is of two types viz., gravitational P.E. and elastic P.E. The gravitational P.E. of a body at a certain height is due to gravity whereas the elastic P.E. is due to its property of elasticity.

**Gravitation P.E. = mass × acceleration due to gravity × height = mgh**

At the surface of the earth,  $h = 0$ ,  $\therefore$  P.E. = 0

### Different Forms of Energy

- Heat :** It is the energy possessed by a body by virtue of random motion of the molecules or particles of the body.
- Internal Energy :** It is the energy of a body due to the molecular configuration and molecular motion.

- Electrical Energy :** This energy arises due to work done in moving free charge carriers in a particular direction through a conductor.
- Chemical Energy :** It is the energy possessed by the body by virtue of chemical bonding of its atoms.
- Nuclear Energy :** It is the energy released during the nuclear reaction due to conversion of mass into energy.



Pressure is defined as force acting normally on unit area of the surface. SI unit of pressure is  $\text{N/m}^2$  also called Pascal ( $\text{Pa}$ ). Pressure is a scalar quantity.

$$\text{Pressure (P)} = \frac{F}{A} = \frac{\text{Normal force acting on the surface}}{\text{Area of the surface}}$$

### Atmospheric Pressure

Atmospheric pressure is that pressure which is exerted by the atmospheric gases and measured by a mercury column of 76 cm length at  $0^\circ\text{C}$  at  $45^\circ$  latitude at the sea-level. It is equal to weight of 76 cm column of mercury of cross-section area  $1 \text{ cm}^2$ . Generally, it is measured in bar.

Atmospheric pressure  $1 \text{ atm} = 1.01 \text{ bar} = 1.01 \times 10^5 \text{ N/m}^2$

### Do You Know?

- It is difficult to cook on the mountain as the pressure is low on mountain in comparison to plain areas as atmospheric pressure decreases with the increase of height.
- The fountain pen of a passenger leaks in aeroplane at height, due to reduction in atmospheric pressure.

### Measurement of Pressure

- Barometer measures the atmospheric pressure.
- Sudden fall in barometric reading is the indication of storm.
- Slow fall in barometric reading is the indication of rain.
- Slow rise in the barometric reading is the indication of clear weather.

- Q.1** A liquid is kept in a regular cylindrical vessel up to a certain height. If this vessel is replaced by another cylindrical vessel having half the area of cross-section of the bottom, the pressure on the bottom will
- Remain unaffected
  - Be reduced to half the earlier pressure
  - Be increase to twice the earlier pressure
  - Be reduced to one-fourth the earlier pressure
- Q.2** In SONAR, we use
- Ultrasonic waves
  - Infrasonic waves
  - Radio waves
  - Audible sound waves
- Q.3** Two identical piano wires have same fundamental frequency when kept under the same tension. What will happen if tension of one of the wire is slightly increased and both the wire are made to vibrate simultaneously?
- Noise
  - Beats
  - Resonance
  - Non-linear effects
- Q.4** Which one among the following correctly defines a unit magnetic pole strength in SI units?
- It is the pole which when placed in air at a distance of
- 1 foot from an equal and a similar pole repels it with a force of 1 pound
  - 1 metre from an equal and similar pole repels it with a force of 1 newton
  - 1 cm from an equal and a similar pole repels it with a force of 1 dyne
  - 1 metre from an equal and a similar pole repels it with a force of 1 newton/m<sup>2</sup>
- Q.5** Which one of the following phenomena is associated with the fire flies giving cold light in night?
- Fluorescence
  - Phosphorescence
  - Chemiluminescence
  - Effervescence
- Q.6** When you pull out the plug connected to an electric appliance, you will often observe a spark. To which property of the appliance is this related?
- Resistance
  - Inductance
  - Capacitance
  - Wattage
- Q.7** In scuba diving, while ascending towards the water surface, there is a danger of bursting the lungs. It is because
- Graham's law of diffusion
  - Archimedes' principle
  - Boyle's law
  - Henry's law
- Q.8** An athlete diving off high springboard can perform a variety of exercise in the air before entering the water body. Which one of the following parameters will remain constant during the fall?
- The athlete's linear momentum
  - The athlete's angular momentum
  - The athlete's kinetic energy
  - The athlete's moment of inertia
- Q.9** Why are the inner lining of hot water made up of copper?
- Copper has less heat capacity
  - Copper has high electrical conductivity
  - Copper does not react with steam
  - Copper is good conductor of both heat and electricity
- Q.10** Which one of the following forces lead to separation of the cream from the churned milk?
- Gravitational force
  - Cohesive force
  - Centripetal force
  - Centrifugal force

- Q.40** Which among the following waves is used for communication by artificial satellites ?  
 (a) Microwaves  
 (b) Radio waves  
 (c) A. M.  
 (d) Frequency of 1016 series
- Q.41** Why the needle of iron swims on water surface when it is kept gently ?  
 (a) It will remain under the water, when it will displace more water than its weight  
 (b) the density of needle is less than that of water  
 (c) due to surface tension  
 (d) due to its shape
- Q.42** Rain drops fall from great height. Which among the following statements is true regarding it?  
 (a) they fall with that ultimate velocity, which are different for different droplets  
 (b) they fall with same ultimate velocity  
 (c) their velocity increases and they fall with different velocity on the earth  
 (d) their velocity increases and they fall with same velocity on the earth
- Q.43** Which one of the following is used for sun glasses ?  
 (a) Pyrex glass  
 (b) Flint glass  
 (c) Crooks glass  
 (d) Crystal glass
- Q.44** When the barometer reading dips suddenly, it is an indication of  
 (a) Hot weather  
 (b) Calm weather  
 (c) Storm  
 (d) Dry weather
- Q.45** Solar energy is converted into chemical energy during  
 (a) Transpiration  
 (b) Photosynthesis  
 (c) Diffusion  
 (d) Osmosis
- Q.46** In which of the following cases, kinetic energy is being used in performing work ?  
 (a) Paddling the bicycle to cover a distance  
 (b) Driving a car to cover a distance  
 (c) Wind mill grinding wheat grain  
 (d) Rowing a boat in the lake
- Q.47** If the velocity-time graph of a particle is represented by  $y = mt + c$ , then the particle is moving with  
 (a) constant speed  
 (b) constant velocity  
 (c) constant acceleration  
 (d) varying acceleration
- Q.48** Longitudinal waves cannot travel through  
 (a) Vacuum (b) Solid  
 (c) Liquid (d) Gas

## ANSWER KEY ► PHYSICS

- |         |         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. (c)  | 2. (a)  | 3. (b)  | 4. (b)  | 5. (c)  | 6. (a)  | 7. (c)  | 8. (b)  | 9. (d)  |
| 10. (d) | 11. (d) | 12. (c) | 13. (b) | 14. (b) | 15. (b) | 16. (b) | 17. (a) | 18. (d) |
| 19. (b) | 20. (a) | 21. (a) | 22. (b) | 23. (c) | 24. (c) | 25. (b) | 26. (a) | 27. (b) |
| 28. (c) | 29. (c) | 30. (c) | 31. (a) | 32. (c) | 33. (b) | 34. (b) | 35. (b) | 36. (a) |
| 37. (c) | 38. (c) | 39. (b) | 40. (a) | 41. (c) | 42. (a) | 43. (c) | 44. (c) | 45. (b) |
| 46. (b) | 47. (c) | 48. (a) |         |         |         |         |         |         |

# OPSC

ODISHA PUBLIC SERVICE COMMISSION

## ODISHA PANCHAYATI RAJ ENGINEERING SERVICE

Asst. Executive Engineer:  
Group -A

# GENERAL AWARENESS

*with Special reference to Odisha*

Comprehensive Theory with Practice Questions

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# Part II



# 1 History of Modern India & Indian Culture

## HISTORY OF Modern India

### HISTORY OF INDIA SINCE 1857

#### The Revolt of 1857

The Revolt of 1857 is an important landmark in the history of India which occurred during the governor-generalship of **Lord Canning**.

#### Causes of Revolt

1. Grievances of Native Rulers
2. Grievances of Sepoys
3. Grievances of Orthodox and Conservative People
4. Grievances of the Craftsmen, Peasants and Zamindars
5. Military causes
6. **Immediate cause**
  - Introduction of the Enfield rifle (January, 1857) with greased (supposedly with the fat of cows and pigs) cartridge, whose end had to be bitten off before loading it into the rifle caused, disaffection among the sepoy and led to disobeyal of orders by the sepoy of the 19th Native Infantry stationed at Berhampur of February 26, 1857, and its disbandment by the British Government (Colonel Mitchell-its commanding officer).
  - It also led to the mutiny of Mangal Pandey, a sepoy of the 34th Native Infantry stationed at **Barrackpore**, on 29th March, 1857 (Pandey severely wounded Lt. Baugh, Adjutant to the C.O. of Barrackpore, General Hearsey).

#### Centres of Revolts & their Leaders

Delhi	Bahadur Shah was the nominal leader. The real command was under General Bakht Khan.
Kanpur	The revolt was led by Nana Sahib. Most of the fighting was done by Tantia Tope. Azimullah Khan was another loyal servant of Nana Sahib.
Lucknow	The revolt was led by Hazrat Mahal the begum of Awadh. Maulvi Ahmadullah of Faizabad was also one of the great leaders.
Jhansi	Rani Laxmi Bai assumed the leadership of the sepoy. Later, she captured Gwalior with the help of Tantia Tope and Afghan guards.
Bareilly	Khan Bahadur Khan proclaimed himself as Nawab Nazim.
Arrah	Kunwar Singh, the ruined Zamindar of Jagdishpur was the main leader.

#### Opinion of the Historians about the Nature of Revolt

1. **V.D. Savarkar** : First War of Indian Independence
2. **Disraeli** : A National Revolt
3. **R.C. Majumdar** : Neither first nor National nor War of Independence
4. **Abul Kalam Azad** : Indian National character had sank very low

## Indian National Movement

The second half of the 19<sup>th</sup> century witnessed the full growth of an organised National Movement in India.

Important factors of growth of Indian Nationalism are:

- Administrative, economic and political unification of the country.
- Influence of western education and thought.
- A renaissance in the society as a result of socio-religious reform movements.
- Development of rapid means of transport and communications.
- Emergence of a modern press and Impact of contemporary European movements.
- Practice of racial discrimination by the British in almost every sphere of life.
- Acceleration provided by Lord Lytton's regime and the Ilbert Bill controversy.
- The history of the Indian Nationalist Movement can be studied under three phases:
  - (i) Moderate phase or early nationalist phase (1885-1905)
  - (ii) Extremist phase (1905-1919)
  - (iii) Gandhian phase (1919-1947)

### Formation of Indian National Congress (I.N.C.)

- The Indian National Union was formed in 1884 by **A.O. Hume** an Englishman and a retired civil servant, in association with various national leaders who called for a conference in Pune in December 1885.
- The conference received the unanimous support of all Indian leaders, but the venue was shifted to Bombay for various reasons (esp. outbreak of cholera in Pune).
- Further, the leaders decided to rename Indian National Union as Indian National Congress.
- The first session of the Indian National Congress was held at Gokuldas Tejpal Sanskrit College in **Bombay** under the presidency of **W.C. Bannerji**, a veteran lawyer of Calcutta.

### Important Moderate Leaders

- Dada Bhai Naroroji, A.O. Hume, Badruddin Tayebji, M.G. Ranade, W.C. Bannerji, Surendra Nath Bannerji, Gopal Krishna Gokhale, Anand Mohan Bose.

### Important Extremist Leaders

- Bal Gangadhar Tilak, Lala Lajpat Rai, Bipin Chandra Pal, Aurobindo Ghosh.

## Important Events

### Surat Split of 1907

Surat session of congress 1907 was held on the bank of river Tapi, under the presidentship of **Ras Bihari Ghosh**. In this session, congress was split into two groups which are - Moderates and Extremists.

### Partition of Bengal (1905)

On the ground of efficient administration of Bengal, on 20th July, 1905 Lord Curzon issued an order dividing the Province of Bengal into two parts— **Eastern Bengal** and **Assam**.

### The Ghadar Movement

- Ramnath Puri issued a *circular-a-Azadi* in America in favour of Swadeshi Movement.
- Next Pre-Ghadar revolutionary activities had been carried on by G.D. Kumar, Taraknath Das, Sohan Singh Bhakna and Lala Hardayal who reached USA and Canada in 1911.
- Finally, Lala Hardayal established a *Hindi Association* at Portland in 1913. The publication of a weekly newspaper **The Ghadar** was started from its headquarters at **San Francisco**.
- Thus, the Ghadar Party was a revolutionary group organised around the newspaper 'The Ghadar'.
- The plans of the Ghadar were encouraged by two events in 1914 - the Komagata Maru incident and the outbreak of the First World War.

### Lucknow Pact (1916)

- After the Surat split of 1907, again at the Lucknow Session in 1916, the extremists were, however, welcomed back into Congress by the Moderates due to the rapidly changing political situation in the country as well as the sincere efforts of Annie Besant (An Irish lady) to forge unity among the nationalists.
- Lucknow session was presided by **Ambika Charan Majumdar** and in this session, a famous Lucknow pact was signed between the Indian National Congress and the Muslim League. This Pact marked an important step forward in the Hindu - Muslim unity.



### The Home Rule League Movement (1916-1917)

- Establishment of two Home Rule Leagues; One by **Bal Gangadhar Tilak** in April 1916 at Poona and the other by **Annie Besant** at Adyar Ashram near Madras in September 1916.
- Under this movement, Tilak covered Karnataka, Central province and Berar while rest of India was covered by Annie Besant. In this movement, Annie Besant was supported by Motilal Nehru, Surendra Nath Banerjee and Mohammad Ali Jinnah.
- The idea of starting a Home Rule League originated with Annie Besant in as early as 1914 and it was influenced by an Irish revolution.

### Gandhian Phase (1917–1947)

- On January 9, 1915, Gandhi returned from South Africa where he was worked as a barrister but due to some racial discrimination he returned to India. Gandhi's Satyagraha was actually started in South Africa initially.
- The first participation of Gandhi in congress session was in 1901, Calcutta session under the presidentship of Bal Krishna Gokhale. Gandhi assumed Gokhale also as his political guru.
- Gandhi emerged as the most popular and acceptable figure in Indian politics because of his technique of mass mobilization.

#### (i) Champaran Satyagraha

- The British indigo planters in Champaran (Bihar) oppressed the Indian cultivators most severely. He forced the Indian farmers to grow indigo in 3/20th part of the land which is under the control of British Planters, for which Indian farmers would also pay rent/taxes.
- Gandhi went to Champaran on instance of **Rajkumar Shukla**, a local farmer and started making enquiries of the grievances of the cultivators.

#### (ii) Ahmedabad Mill Workers Strike

- In the year 1917-18, severe famine conditions and plague affected the Indian farmers and people's. So, in Ahmedabad mill owners given bonus to the workers and asked them to return the bonus partially.
- After conditions got improved, workers demanded extension of salary but the mill owners were against the demand. So, in 1918, Gandhi intervened in a dispute

between the workers and mill owners and he took a fast unto death to force a compromise.

- Finally, the mill owners agreed to give a raise of 35 per cent in wages to the workers.

#### (iii) Kheda Satyagraha

- In 1918, a terrible famine had struck Kheda and a large part of Gujarat and virtually destroyed the agrarian economy.
- The British government insisted that the farmers not only pay full taxes, but also pay the 23% increase stated to take effect that very year but the farmers demanded the exemption of land revenue due to the famine conditions.
- To protest the government's decision, a Satyagraha was called which was initiated by Mohanlal Pandya along with the support of Gandhi, Vallabh Bhai Patel, Indulal Yagnik, Mahadev Desai.
- The government finally sought to foster an honourable agreement for both parties.

#### Anti-Rowlatt Satyagraha

- In 1919, Sedition Committee headed by Justice Rowlatt, passed the Rowlatt Act on 18 March, 1919.
- This Act authorised the government to imprison any person without trial and conviction in a Court of Law.
- This Act also enabled the government to suspend the **Right of Habeas Corpus** which had been the foundation of civil liberties in Britain.

#### Jallianwala Bagh Massacre

- A large crowd had gathered on 13 April, 1919 (Baisakhi Day) at Amritsar in the **Jallianwala Bagh**, to protest against the arrest of their popular leaders, Dr. Saifuddin Kitchlew and Dr. Satyapal.
- **General Dyer**, the military commander of Amritsar, ordered for the infamous massacre in which almost 2000 people were killed.
- To enquire into this massacre, British government appointed **Hunter Committee** but in 1920, the committee said that only 379 people were killed. Later on, this report was called by Gandhi as a **Official Whitewash**.
- To show his protest against the massacre, **Rabindranath Tagore** returned his Knighthood.
- In 1940, **Sardar Udham Singh** murdered Michel O' Dwyer in England, who gave orders for Jallianwala Bagh massacre.

### The Khilafat And Non-Cooperation Movement (1919–22)

- A Khilafat Committee was formed under the leadership of the Ali Brothers, Maulana Abul Kalam Azad and Hakim Ajmal Khan, and a countrywide agitation was organised.
- The All - India Khilafat Conference held at Delhi in November, 1919 decided to withdraw all co-operation from the government if their demands were not met.
- The Khilafat Committee launched a Non-Cooperation Movement on August 31, 1920.
- Gandhi became one of the leaders of the Khilafat Movement to maintain Hindu-Muslim unity.
- Non-Cooperation Movement progressed powerfully from January, 1920 to early February, 1922 and it was the first well organised Indian movement.
- The attack on a local police station by angry peasants at Chauri Chaura, in Gorakhpur district of UP, on February 5, 1922, changed the whole situation. Gandhi shocked by this incident and withdrew the Non-Cooperation Movement to prevent the public mass from demoralisation.

### Swaraj Party (1922)

- In December 1922, Gaya session of congress, under the presidentship of C.R. Das, council entry resolution not passed. As a result, C.R. Das has left the post of congress president and announced an other party known as '**Swaraj Party**' in which C.R. Das appointed as president and M.L. Nehru as secretary.

### Simon Commission and Its Boycott

- In November 1927, the British Government appointed an all white, Indian Statutory Commission, known as the *Simon Commission* (after the name of its Chairman Sir John Simon). The commission was appointed to review the performance of reforms of 1919 and suggest further reforms.
- In 1928, Simon commission report came in India. Indians objected and Anti Simon commission agitation was started and call for 'Simon Go Back' begins. In Oct. 1928, the agitation in Lahore led by Lala Lajpat Rai in which Saunders announced lathi charge and Lala Lajpat injured and later on, died due to internal injuries.
- After his death, Bhagat Singh and his comrades killed Saunders in December 1928.

### Nehru Report

- All-important Indian leaders and parties held the conference in February 1928, to meet the challenge of the Simon Commission and appointed a subcommittee under the chairmanship of **Motilal Nehru** to draft a Constitution.
- The report was finalised by August 1928, and called *Nehru Report*.
- For the dominion, Nehru Report recommended 'Dominion Status on lines of self-governing dominions as the form of government desired by Indians.

### Lahore Session and Poorna Swaraj (Dec., 1929)

- Jawaharlal Nehru replaced Motilal Nehru as the Indian National Congress President at Lahore and the major decisions taken at Lahore Session were:
  - (i) Round Table Conference to be boycotted.
  - (ii) Poorna Swaraj or complete independence as the main aim of Congress.
  - (iii) Launched a Program of Civil Disobedience including non-payment of taxes.
  - (iv) On December 31, 1929 the tricolour was hoisted on the bank of River Ravi.
  - (v) January 26th, 1930 fixed as the First Independence Day to be celebrated every year.

### The Civil Disobedience Movement (1930)

- To achieve the goal of Complete Independence, Civil Disobedience Movement (CDM) was started by Gandhi with the Dandi March on March 12, 1930. He started his march alongwith 78 followers from Sabarmati Ashram to the small village Dandi (Navsari District) to break the Salt Law. Gandhi covered a distance of 240 miles in 24 days.
- The Civil Disobedience Movement differed from the earlier Non-Cooperation Movement (1921-22) because the policy of Non-Cooperation Movement was affecting the administration of the Government by non-cooperation whereas the Civil Disobedience Movement aimed at paralysing the administration by performance of specific illegal acts.

### First Round Table Conference (1930)

- The First Round Table Conference summoned in **London** in 1930, between British and Indians to discuss the Simon Commission Report.
- The National Congress boycotted the Conference.
- Muslim League was represented by Mohammed Ali, Agha Khan and Jinnah.
- Hindu Mahasabha was represented by Moonje.
- Depressed class was represented by B. R. Ambedkar.

- Q.1** The award winning film Nuabou' was directed by:  
(a) Gour Prasad Ghose  
(b) Ratikanta Padhi  
(c) Prafulla Sengupta  
(d) Prasanta Nanda
- Q.2** How many times has the veteran Odia film actor Prasanta Nanda been conferred with National award for his acting?  
(a) Once (b) Twice  
(c) Thrice (d) Four times
- Q.3** Which of the following is the first Odia colour film?  
(a) Anuraga  
(b) Gapa Hele bi Sata  
(c) Seeta Rati  
(d) Niraba Jhada
- Q.4** Odisha Film Development Corporation came into being in the year:  
(a) 1976 (b) 1978  
(c) 1984 (d) 1991
- Q.5** In which year was the Kalinga Studio established?  
(a) 1976 (b) 1980  
(c) 1982 (d) 1987
- Q.6** In what way did the early nationalists undermine the moral foundations of the British rule with great success?  
(a) By their agitation for Constitutional reforms  
(b) By advocating open revolt  
(c) By seeking foreign help against the British  
(d) By seeking the support of the Indians living abroad
- Q.7** Which one of the following was the 'newspaper' of Annie Besant ?  
(a) The Hindu  
(b) Indian Express  
(c) The Times of India  
(d) New India
- Q.8** Of the following, who was not the leader of the Extremists ?  
(a) Lokmanya Tilak (b) Aurobindo Ghosh  
(c) Lala Lajpat Rai (d) A. O. Hume
- Q.9** The Swaraja Party was organised by  
(a) Lala Lajpat Rai and Feroz Shah Mehta  
(b) Sarojini Naidu and Annie Besant  
(c) C. R. Das and Motilal Nehru  
(d) C. Rajagopalachari and C. Y. Chintamani
- Q.10** The Non Co-operation Movement was abandoned because  
(a) the non Co-operators were not enthusiastic  
(b) the leaders like Subhas Chandra Bose were against it  
(c) Gandhiji bowed to the pressure of the British government  
(d) of the Chauri Chaura incident
- Q.11** Which of the following statements regarding the Nehru Report are correct?  
1. It favoured Dominion Status.  
2. It favoured a federal system.  
3. It rejected the system of Communal Electorate.  
4. It was against the setting up of a Supreme Court.
- Select the correct answer from the codes given below:  
(a) 1 and 4 (b) 1 and 3  
(c) 2, 3 and 4 (d) 1, 2 and 3
- Q.12** Who led the Bardoli Satyagraha in 1928 ?  
(a) Morarji Desai (b) M. K. Gandhi  
(c) Mahadev Desai (d) Vallabhbai Patel
- Q.13** Which of the following statements about the Government of India Act of 1935 is not correct?  
(a) Dyarchy was established in the provinces.  
(b) The Viceroy was given special powers.  
(c) The federal executive was to consist of the Viceroy, councilors and the ministers.  
(d) The federal legislature was to be bicameral.
- Q.14** The 'August Offer' of 1940, rejected by the Congress was made by  
(a) Lord Wavell  
(b) Lord Linlithgow  
(c) Sir George Stanley  
(d) Lord Willingdon

