

# PHYSICS Exam Paper

Subjective Questions

1. Explain Newton's laws of motion and provide real-life examples for each.

Answer:

2. Describe the process of nuclear fission and how it differs from nuclear fusion.

Answer:

3. What is the concept of work and energy in physics? Explain with examples.

Answer:

4. Explain the law of conservation of momentum with an example.

Answer:

5. Describe the structure and properties of an atom according to the Bohr model.

Answer:

6. What is the principle of superposition of waves?

---

Answer:

---

7. Explain the phenomenon of diffraction of light with an example.

---

Answer:

---

8. Discuss the concept of entropy and its significance in thermodynamics.

---

Answer:

---

9. How does the Doppler effect apply to sound and light waves?

---

Answer:

---

10. Describe the working of an electric motor and explain the factors affecting its efficiency.

---

Answer:

---

11. who was einstien?

---

Answer:

---

## MCQ Questions

12. What is the speed of light?

- |                 |                 |
|-----------------|-----------------|
| a) 300,000 km/s | b) 400,000 km/s |
| c) 500,000 km/s | d) 600,000 km/s |
- 

13. What is the force on an object with mass 10kg and acceleration 5m/s<sup>2</sup>?

- |          |          |
|----------|----------|
| a) 50 N  | b) 100 N |
| c) 150 N | d) 200 N |
- 

14. What is the formula for kinetic energy?

- |                |                    |
|----------------|--------------------|
| a) $KE = mv^2$ | b) $KE = 1/2 mv^2$ |
| c) $KE = mv$   | d) $KE = m^2v^2$   |
- 

15. What is the unit of electric current?

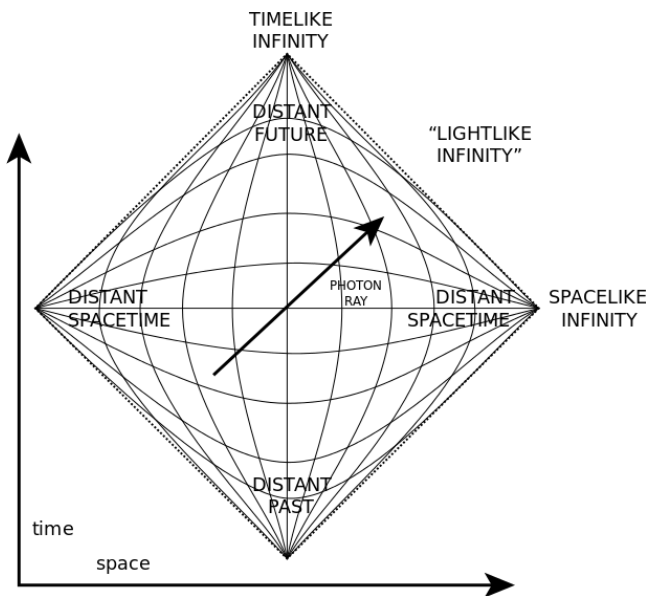
- |         |            |
|---------|------------|
| a) Volt | b) Ampere  |
| c) Ohm  | d) Coulomb |
- 

16. What is the value of gravitational acceleration on Earth?

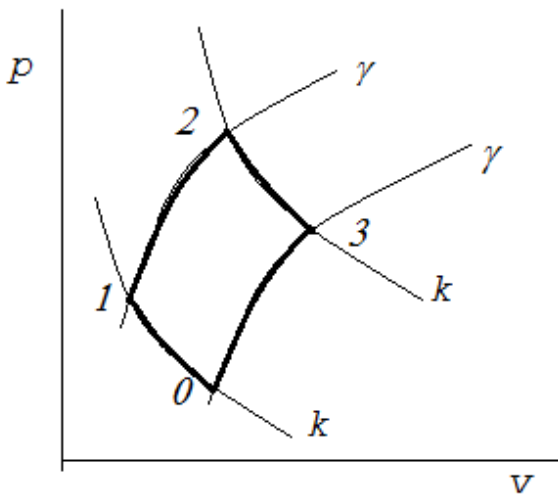
- |                         |                         |
|-------------------------|-------------------------|
| a) 9.8 m/s <sup>2</sup> | b) 10 m/s <sup>2</sup>  |
| c) 9.5 m/s <sup>2</sup> | d) 9.2 m/s <sup>2</sup> |
-

Diagram Questions

17. Draw and label a free body diagram of an object on an inclined plane.



18. Illustrate the electric field lines around a positive and negative charge.



# ATOM STRUCTURE

