

KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION

SESSION ENDING EXAM: 2023-2024

CLASS XI

SUBJECT PHYSICS

MARKING SCHEME

1. (c) 1 mark
 2. (c) 1 mark
 3. (b) 1 mark
 4. (c) 1 mark
 5. (b) 1 mark
 6. (b) 1 mark
 7. (b) 1 mark
 8. (d) 1 mark
 9. (d) 1 mark
 10. (a) 1 mark
 11. (b) 1 mark
 12. (a) 1 mark
 13. (c) 1 mark
 14. (a) 1 mark
 15. (a) 1 mark
 16. (d) 1 mark
 17. correct dimensions of each term + correct dimensions of the expression with correct calculations 1+1 mark
 18. correct formula ,calculation and answer with unit . 2 mark
- Or
- Derivation with graph 1+1 mark 19. Correct expressions $\frac{1}{2} + \frac{1}{2}$ mark
Explanation 1 mark
20. Definition or explanation of meaning 1 mark
SI Unit, correct relation 0.5+0.5 mark
 21. Correct formula $\frac{1}{2}$ mark
Explanation and correct formula 1 $\frac{1}{2}$ mark
 22. Examples $\frac{1}{2} + \frac{1}{2}$ mark Statement and Proof 2 marks
 23. Statement 1 mark Derivation for the magnitude of the resultant 2 mark
- OR**
- Calculation for time with correct diagram (15 minute)1 mark
Calculation for distance with correct diagram (750 m)1 mark
angle wrt each direction = $45.1^0 - 45^0 = 0.1^0$ 1 mark 24.
Formulae 1 mark Calculation of velocity = 9 m/s 2 marks 25.
(a) Definition 1 mark (b)calculation of $X_{cm}=\frac{7}{6}$, $Y_{cm}=-\frac{3}{2}$ 2 marks 26. Statement 1 marks

Explanation of expansion and importance 2 marks 27. Statement
1 mark Calculation for diatomic gas 1 mark Calculation for poly
atomic gas 1 mark 28. (a) calculation of time period 1 ½ marks
(b) correct graph with labelling 1 ½ marks 29. i) (a) 1 mark ii) (c)
1 mark iii) correct explanation 1 mark iv) (b) 1 mark OR
(b) 1 mark 30. i) (a) 1 mark ii) d 1 mark iii) 5m 1 mark iv)
100m/s 1 mark OR

-10m/s² 1 mark 31. (i) expression 2 marks (ii) (a) 105 kg ,(b)
70 kg and (c) 0 kg 3 marks OR

Definition, need 1+1 mark Derivation with diagram 3 marks 32.

(i) statement and explanation of working 1+ 2 marks (ii)
calculation of pressure ≈ 2 atm. 2 marks OR

Statement, derivation, Explanation 1+3+1 marks

33.(a) Explanation of meaning of the terms 1 + 1marks (b)
Explanation with diagrams 3 marks OR

(a) Six diagrams 3 mark

(b) Correct formula and answer with correct calculation 2 marks
(second harmonic as $v = 550$)