DITTO WS

ANSWER KEY

First YEAR HIGHER SECONDARY IMPVT EXAMINATION OCT 2022

PART-I/II/III

SUBJECT: Physics

CODE NO: FY 863   VERSION: A

60 SCORES   2 HOURS

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
1.		c. Gravitational force		1
2.		a. Distance		1
3		b. mass		1
4		a. True		1
5		c. Pa		1
6		a. mean free path		1
7		any two characteristics		2
8		correct defenition of equation		2
9		correct defenition		2
10		Statement		2
11		Definition of $x(t) = A \cos(\omega t + \phi)$		2
12		any two comparisons		2
13		statement OR Figure of equation only	3 2	3

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
14		correct statement	1	
		correct explanation	2	3
		OR		
		statement only	2	
15		correct statement	1	
		correct explanation of each term	2	3
		OR		
		equation only	2	
		OR		
		explanation of each term	2	
16		any three postulates		3
17		correct expression	3	3
		OR		
		Final equation (T) only	2	
18		correct complete set of three	3	3
		OR		
		any two	3	
19		any four rules		4
20	a.	correct derivation	2	
		Final equation only	1	4
	b.	correct derivation	2	
		Final equation only	1	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
21	a.	Statement or $F \propto \frac{dP}{dt}$	2	4
	b	Correct proof ~~of Statement~~ OR	2	
		Statement of conservation of momentum	1.	
22	a	i, Elastic region OR Obey Hooke's law	1	4
		ii, plastic region or permanent set	1	
			1	
	b	i, Yield point	1	
		ii, Fracture point	1	
23		A → Solid phase	1	4
		B → phase change	1	
		C → liquid phase	1	
		D → phase change	1	
24		for correct response OR	4 ⎫	4
		drawing of Carnot cycle only	2 ⎭	
25	a.	correct derivation	3 ⎫	5
	b.	correct derivation	2 ⎭	
26	a.	correct definition	2 ⎫	5
	b.	any two types such as Rolling friction--	2 ⎬	
	c	any one method	1 ⎭	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
27	a.	Definition with equation OR equation only	2 1	5
	b.	explanation or naming positive, negative and zero work	3	
28	a.	statement or equation	2	5
	b.	For the rod of mass M and length l $I = \dfrac{Ml^2}{12}$ using parallel axis theorem $I' = I + Ma^2$ where $a = \dfrac{l}{2}$ $\therefore I' = \dfrac{Ml^2}{12} + M\left(\dfrac{l}{2}\right)^2 = \dfrac{Ml^2}{3}$ OR if $\dfrac{Ml^2}{3}$ only	1 1 1 1	
29	a.	true	1	5
	b.	i correct expression ii correct expression OR equation only for i & ii 1 each	2 2	
30	a.	statement or equation	2	5
	b.	correct proof	3	