North Nazimabad Boys Campus
PHYSICS Class 9
Revision Worksheet \# 001
Name: $\qquad$ Sec.: $\qquad$ Date: $\qquad$

Q1: Label the given diagram


Q2. What is the reading on the Vernier calipers below?
(2)


Q 3: What is the reading on the micrometer below?
(2)


Q4 List down Vector Quantities from the given physical quantities
(2)

Speed -Velocity- acceleration- mass-weight-time-distance - displacement-

Q5 Identify the following

| Quantity | Measuring Unit |
| :--- | :---: |
| Distance | - |
| Time | $\mathrm{m} / \mathrm{s}$ <br> $\mathrm{gms} / \mathrm{cm}^{3}$ |

Q6 Convert the following
(i) $250 \mathrm{~km} / \mathrm{hr}=$ $\qquad$ $\mathrm{m} / \mathrm{sec}$
(ii) $360 \mathrm{sec}=$ $\qquad$ day
(iii) $200 \mathrm{~N}=\ldots \mathrm{kgs}$

Q7 (a)Choose the best instrument for the each task
i)To measure the diameter of a solid cylinder
ii)To find quantity of a substance
$\qquad$
iii)To find the pull of earth on an object
(b)What qualities of the instrument you considered before selecting it for the above tasks

1) $\qquad$
2) $\qquad$
I $\qquad$
Q8 A reel of copper wire is labelled 'length 30 m ' and 'diameter 2 mm '. A student calculates the volume of the copper wire.

Which instruents does he use to measure accurately the length and the diameter of the wire?

|  | length | diameter |
| :---: | :---: | :---: |
| A | rule | calipers |
| B | rule | micrometer |
| C | tape | calipers |
| D | tape | micrometer |

Q9 Which row correctly shows examples of a vector quantity and a scalar quantity?

|  | vector | scalar |
| :---: | :---: | :---: |
| A | area | force |
| B | mass | density |
| C | velocity | acceleration |
| D | weight | volume |

Q10 A cyclist travels along a hilly road without using the pedals or brakes. Air resistance and friction are negligible. The speed/time graph of the cyclist is shown.

At which point did he reach the bottom of the first hill?


Q11 A student drops a table-tennis ball in air.
What happens to the velocity and to the acceleration of the ball during the first few seconds after release?

|  | velocity | acceleration |
| :---: | :---: | :---: |
| A | decreases | decreases |
| B | decreases | increases |
| C | increases | decreases |
| D | increases | increases |

Q12 The diagram shows a motorcyclist leaning over in order to move around a corner.
Which force causes him to move around the corner?
motorcyclist


Q13 The diagram shows a uniform balanced beam, pivoted about its centre.


What is the value of force $P$ ?
A 5 N
B 7 N
C $\quad 10 \mathrm{~N}$
D $\quad 13 \mathrm{~N}$

Q14 The diagram shows four shapes, cut from the same piece of card.
Which shape has its centre of mass nearest to the base line?


Q15 A metal wire, of initial length 1000 mm , extends by 4 mm when a load of 2 N is added to it.
What is the length of the wire when a further 3 N is added, assuming that the wire does not extend beyond the limit of proportionality?
A $\quad 1006 \mathrm{~mm}$
B $\quad 1008 \mathrm{~mm}$
C $\quad 1010 \mathrm{~mm}$
D 1012

Q16 Two major components of a coal-fired power station are a turbine and a generator.
What are the output forms of energy from the turbine and from the generator?

|  | turbine | generator |
| :---: | :---: | :---: |
| A | electrical | electrical |
| B | electrical | kinetic |
| C | heat | kinetic |
| D | kinetic | electrical |

Q17 What is efficiency?
A $\frac{\text { total energy input }}{\text { useful energy output }}$

B total power input useful energy output

C
useful energy output
total energy input

D
useful power output
total energy input
Q18 A fixed mass of gas is enclosed in a cylinder by a movable piston.


The piston is moved so that the volume occupied by the gas increases. The temperature remains constant.
What happens to the pressure of the gas and why does this happen?

|  | pressure | reason |
| :---: | :---: | :---: |
| A | decreases | the molecules move more slowly |
| B | decreases | the molecules collide with the piston less frequently |
| C | increases | the molecules move more quickly |
| D | increases | the molecules collide with the piston more frequently |

Q19 A student drops a table-tennis ball in air.
What happens to the velocity and to the acceleration of the ball during the first few seconds after release?

|  | velocity | acceleration |
| :---: | :---: | :---: |
| A | decreases | decreases |
| B | decreases | increases |
| C | increases | decreases |
| D | increases | increases |

Q20


What are the angle of incidence and the angle of reflection?

|  | angle of <br> incidence | angle of <br> reflection |
| :---: | :---: | :---: |
| A | $40^{\circ}$ | $40^{\circ}$ |
| B | $40^{\circ}$ | $50^{\circ}$ |
| C | $50^{\circ}$ | $40^{\circ}$ |
| D | $50^{\circ}$ | $50^{\circ}$ |

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& \text { North Nazimabad Boys Campus } \\
& \text { Comprehensive Assessment for Class } 9
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Time 40minutes

Max.Marks 25


1 A reel of copper wire is labelled 'length 30 m ' and 'diameter 2 mm '. A student calculates the volume of the copper wire.

Which instruments does he use to measure accurately the length and the diameter of the wire?

|  | length | diameter |
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motorcyclist


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|  | turbine | generator |
| :--- | :--- | :--- |


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| :---: | :---: | :---: |
| B | electrical | kinetic |
| C | heat | kinetic |
| D | kinetic | electrical |

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C useful energy output
total energy input
D $\frac{\text { useful power output }}{\text { total energy input }}$
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12 Four wet towels are hung out to dry as shown.
Which towel dries most quickly?
A

B

cloudy no wind towel unfolded
C

D


sunny windy
towel unfolded



13 The diagram shows a ray of light directed at a plane mirror.


What are the angle of incidence and the angle of reflection?

|  | angle of <br> incidence | angle of <br> reflection |
| :---: | :---: | :---: |
| A | $40^{\circ}$ | $40^{\circ}$ |
| B | $40^{\circ}$ | $50^{\circ}$ |
| C | $50^{\circ}$ | $40^{\circ}$ |
| D | $50^{\circ}$ | $50^{\circ}$ |

14 Light travels through a glass block as shown.
Which angle is the critical angle for light in the glass?


15 A man is short-sighted.
Which ray diagram shows what happens in his eye when he looks at a distant object?
A

B

C

D


