# ST. LAWRENCE HIGH SCHOOL
## A JESUIT CHRISTIAN MINORITY INSTITUTION

**Sub: Physical Science**          **Class: 8**          **Date: 16.04.20**

**Duration: 40 min**          **Worksheet 30** (Solutions)          **Full Marks: 15**

### FORCE AND PRESSURE/ PRESSURE

## Choose the Correct options:

1) In physics, pressure is defined as the _____ over a given area.
- A). Work
- B). Velocity
- **C). Force**

2) Finish the formula: Pressure = Force divided by _____
- A). Time
- **B). Area**
- C). Speed

3) What is the standard unit of measure for pressure?
- A). Joule
- B). Newton
- **C). Pascal**

4) Will air pressure be higher on top of a mountain or on the beach?
- **A). Beach**
- B). Mountain
- C). It's always the same

5) What pressure will be exerted by a 10 N box that has equal sides of 1 meter?
- A). 5 Pa
- **B). 10 Pa**
- C). 20 Pa

6) A 40 N block exerts 20 Pa of pressure on a table. What is the area of the block that is touching the table?
- A). 0.5 meters squared
- B). 1 meters squared
- **C). 2 meters squared**

7) A red cube with sides of 3 meters and a blue cube with sides of 2 meters are on a table. They both weigh the same. Which cube exerts more pressure on the table?
- **A). Red cube**
- B). Blue cube
- C). Both are the same

8) Does water pressure increase or decrease the deeper you are?
- **A). Increase**
- B). Decrease
- C). Stays the same

9) What type of tool is used to measure air pressure?
- A). Aerometer
- B). Anemometer
- **C). Barometer**

10) Which of the following is not a unit of measure for pressure?
- A). Atmosphere
- **B). Joule**
- C). Pascal

11) Which would be the least likely to sink into soft ground?
- A). a loaded lorry with four wheels
- **B). an empty lorry with six wheels**
- C). an empty lorry with four wheels

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12) If the pressure exerted on a floor by a box is 200 kPa, find the weight of the box, given that the bottom of the box has a contact area of 20 cm$^2$

      **A). 400 N**
      B). 3000 N
      C). 600 N

13) A force of 16N acts on an area of 50 cm$^2$. What is the pressure in pascal?

      **A) 3200 Pa**
      B) 4200 Pa
      C) 5200 Pa

14) When area is doubled pressure is_____

      A). Doubled
      **B). Is halved**
      C). Becomes four times

15) A cube of side 2 m and mass 10 kg is placed on a table. What is the pressure developed by the block on the table.

      **A). 2.5 Pa**
      B). 40 Pa
      C). 5 Pa

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