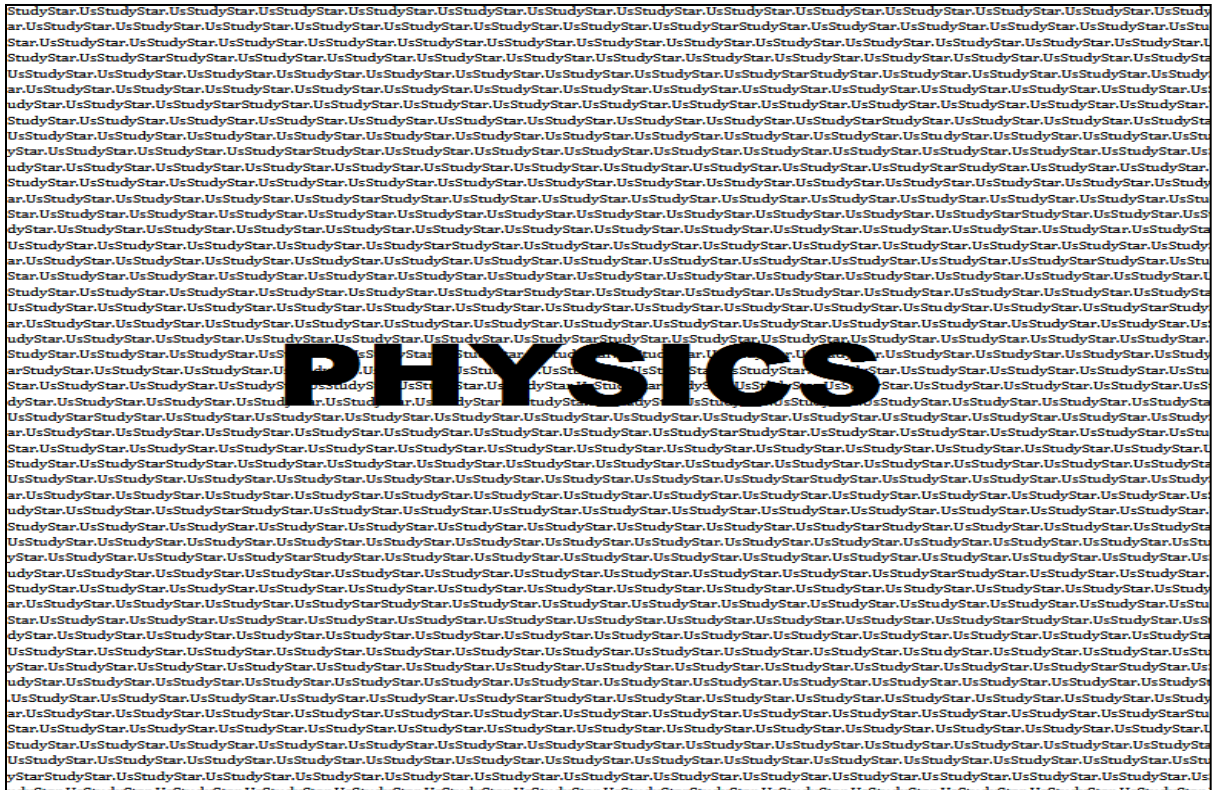




FORCES

Total Marks: 25

Duration: 0 hours, 25 minutes

Instructions to test takers

1. Answer all the questions in this paper
2. All the answers for the questions in this paper will be found on **Study Star** (www.studystar.me)
3. Using the answers on the website, mark yourself truthfully and carefully.

Turn this page, time yourself and begin the test

Section A [10 marks]

1. Which of the following is the best definition of a newton?
 - a. A force which accelerates for 1 m/s^2 .
 - b. A force which when applied to a body of 1 kg mass makes the body accelerate for 1 N .
 - c. A force which when applied to a body of 1 kg mass makes the body accelerate for 1 m/s^2 .
2. Which of the following is not an effect of a force?
 - a. Makes the body change its mass
 - b. Makes the body change its size
 - c. Makes the body change its direction of travel
3. What do you understand by the term inertia?
 - a. The resistance to the change in the state of uniform motion of a substance
 - b. The reluctance to the change in the state of mass of a body
 - c. The reluctance to the state of motion of a substance
4. Which law of motion is considered to be the law of inertia?
 - a. Newton's first law of motion
 - b. Newton's second law of motion
 - c. Newton's third law of motion
5. Inertia depends on _____
 - a. Weight
 - b. Mass
 - c. Force
6. Which of the following is newton's third law of motion?
 - a. The force acting = the force reacting
 - b. The force moving = the force removing
 - c. All forces in a closed system are equal
7. Constant velocity is always equal to _____
 - a. 0 m/s
 - b. 0 m/s^2
 - c. 0 m
8. A body with a mass of 3 kg was accelerating at 5 m/s^2 . What was its resultant force?
 - a. 0.6 N
 - b. 3 N

- c. 15N
- 9. Which newton's law of motion always has an action and a reaction?
 - a. Newton's first law of motion
 - b. Newton's second law of motion
 - c. Newton's third law of motion
- 10. Calculate the resultant force of a body which has a mass of 12kg and is accelerating at 3 m/s^2 .
 - a. 4 N
 - b. 0.25 N
 - c. 36 N

Section B [5 marks]

11. The reluctance to the change in the state of motion of a body is called _____
12. The force which opposes the sliding motion of two or more surfaces which are in contact is called _____
13. A force which when applied to a body of 1kg mass makes the body accelerate for 1m/s^2 is called _____
14. Passengers on a moving vehicle are always pushed forwards when the brakes are applied. This is an example of _____
15. Which force produces unnecessary heat?

Section C [10 marks]

16. State three effects of a force. [3]
17. State newton's second law of motion. [1]
18. State three usefulness of friction. [3]
19. State two methods of reducing friction. [2]
20. State newton's first law of motion. [1]



A top student's secret tool