

15.LAW OF MOTION AND GRAVITATION

1. **Force** is one which changes or tends to change the state of rest or of uniform motion of a body
2. Force is a **vector** quantity
3. Force SI unit is **Newton**
4. If we apply a force by pulling the string **X** the block begins to move to the **right**
5. If we pull the string **Y** the block moves to **the left**
6. Forces acting on an object which do not change the state of rest or of uniform motion of it are called **balanced forces**
7. The block moves in the direction of the **greater force**
8. These two opposite forces acts on an object and brings it to motion. These opposite forces are called **unbalanced forces**
9. The tendency of object to stay at rest or to keep moving with the same velocity unless compelled to it is acted by an external force is called **inertia**
10. The first law of motion is also known as the **law of inertia**
11. A quantity of motion was called momentum by **Issac Newton**
12. Who was the first to make a study of the motion of a body under the gravity of earth **Galileo**
13. Total momentum before collision **is equal** to total momentum after collision
14. Force necessary to change momentum of the objects depends on **time**
15. **Weight** is the force which a given mass feels due to the gravity at its place
16. **CRYOGENICS** is the study of the production of very low temperature below 123K
17. Dewar flasks are generally **6** feet tall and **3** feet in diameter
18. How many images have been transmitted by chandrayan camera in 75 days
? 40000
19. Liquid helium can reduce the temperature of the coil to **around 4K**
20. Forces acting on an object which do not change the state of rest is **balanced force**
21. **Momentum** of an object is defined as the product of mass and velocity

22. Who conducted in absence of air all bodies will fall at the same rate **Galileo**
23. The commercial cryogenic processing industry was founded by **Ed busch**
24. Chandrayan-1 carried **6** payloads from other space agencies
25. For every action there is an **equal and opposite reaction**
26. When the force rotates the body in clockwise direction then it is **anticlockwise** momentum
27. Who concluded that all objects in the universe attracts each other ?
newton
28. **Mass** is the quantity of matter contained in a body
29. **Weight** is the gravitational force acting on a body
30. Acceleration due to gravity g is **9.8 ms^{-2}**
31. Who was the project direction of chandrayan -1 and chandrayan -2
mysamy annadurai
32. **Chandrayaan-1** was Indians first unmanned lunar probe
33. How many ISRO payloads did chandrayaan-1 carried ? **5**
34. Bulgarian payload called **radiation dose monitor**
35. **Liquid nitrogen** is the most commonly used element in cryogenics
36. Liquid nitrogen is held in special container called **Dewar flasks**
37. Metals frozen to low temperature shared resistance to wear and tear is known as **cryogenic hardening**
38. **MRI** is used to scan inner organs of human body by penetrating very intense magnetic field
39. **Space stations** is an artificial structure designed for humans to live and work in the outer space for a certain period time
40. The field of cryogenics advanced during **world war-II**
41. The commercial cryogenic founded in **1966**
42. Cryogenics use **Kelvin** scale of temperature
43. Inertia of a body depends mainly upon **mass**
44. Momentum direction is same as that of **velocity**
45. Liquid hydrogen has been used as **rocket fuel**
46. The term cryogenic derived from **greek**
47. A person studies elements under extremely cold temperature is called **cryogenicist**

48. Chandrayaan-1 operated for **312** days
49. Chandrayaan-1 was launched on **October 2008**
50. Chandrayaan-1 was launched from **srihari kota**
51. The unit of momentum of force is **Nm**
52. Give an example for space stations **almaz**
53. The last military used space station **Salyut-5**
54. Salyut-5 was launched by **soviet union**
55. Which cryogen used in MRI scan ? **liquid helium**
56. Chandrayan's **moon mineralogy mapper** has confirmed that moon was once completely molten
57. **Chandrayaan -1** is a moon traveler
58. Mass is measured using spring balance
59. Weight is measured in **newton**
60. The SI unit of force is **kg**
61. SI unit of force is **vector**
62. **Force** changes the state of rest
63. **Terrain mapping camera** of chandrayaan-1 acquired of peaks and craters is moon
64. Space stations are used to study the effects of long duration space flight on **the human body**
65. The space stations so far launches are broadly classified into how many types? **Two types**
66. The space stations so far launched are broadly classified into two types , **Salyut and skylab** were **monolithic**
67. The term cryogenics is form Greek and means **the production of freezing cold**
68. Liquified gases such as liquid nitrogen and liquid helium are used in many **cryogenic** applications
69. The freezing of biotechnology products vaccines requires **nitrogen** freezing system
70. The acceleration in a body is due to **unbalanced force**.

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