STUDY mate
helps excel in boards

Chapter End Test

Date : _____ Duration: 40 Min. Max. Marks : 25	**Physics** **Topic :** Force and Pressure & Synthetic Fibre and Plastics	**BATCH** **VIII**

General instruction:

1. This paper consist of two Sections. Students has to attempt both sections.
2. Section – A is MCQ carry 1 mark each.
3. Section – B is subjective.

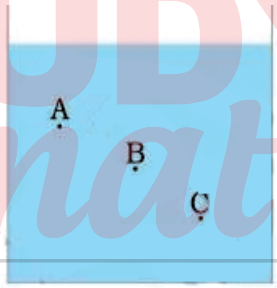
[Section – A]

1. Two objects repel each other. This repulsion could be due to

(a) frictional force only (b) electrostatic force only

(c) magnetic force only (d) either a magnetic or an electrostatic force

2. Fig shows a container filled with water. Which of the following statements is correct about pressure of water?



(a) Pressure at A > Pressure at B > Pressure at C

(b) Pressure at A = Pressure at B = Pressure at C

(c) Pressure at A < Pressure at B > Pressure at C

(d) Pressure at A < Pressure at B < Pressure at C

3. Pick the synthetic fiber out of the following?

(a) Cotton (b) Jute

(c) Nylon (d) Wool

4. Which is a thermosetting plastic?

(a) Melamine (b) Polythene

(c) PVC (d) Nylon

5. The magnitude of force is expressed in the unit of force is called

(a) Pascal (b) Kelvin

(c) Newton (d) Magdeburg

6. When two forces act in opposite directions, then net force acting two forces

(a) sum of two factors (b) difference between two factors

(c) both (d) none of these

7. Force acts on an object may change

(a) Direction (b) Shape

(c) Speed (d) All the above

8. Which of the following groups contain all synthetic substances?

(a) Nylon, Terylene, Wool (b) Cotton, Polycot, Rayon

(c) PVC, Polythene, Bakelite (d) Acrylic, Silk, Wool

9. The material which is commonly used for making kitchen containers is

(a) PVC (b) Acrylic

(c) Teflon (d) PET

10. Which of the following is not the example of force of gravity?

(a) A leaf falling from tree (b) A boy pushing a cart on a level plane

(c) A diver jumping into a swimming pool (d) A stone falling from the top of cliff

11. A fiber like wool is _____.

(a) Acrylic (b) Rayon

(c) Nylon (d) Polyester

12. Polycot is obtained by mixing

(a) Nylon and wool (b) Nylon and cotton

(c) Polyester and wool (d) Polyester and cotton

13. Which of the following is not a common property of plastics?

(a) Non – reactive (b) Light in weight

(c) Durable (d) Good conductor of electricity

14. When a force of 5 N acts on a surface, it produces a pressure of 500 Pa. the area of surface then must be:

(a) 10 cm^2 (b) 50 cm^2

(c) 100 m^2 (d) 0.01 cm^2

15. The strength of force is expressed by?

(a) weight (b) mass

(c) magnitude (d) longitudinal force

[Section – B]

16. (a) Where do we apply a force while walking?

(b) A girl is pushing a box towards east direction. In which direction should her friend push the box so that it moves faster in the same direction? **[1]**

17. Explain the difference between the thermoplastic and thermosetting plastics. **[1]**

18. What is the difference between contact and non-contact forces? **[1]**

19. (a) Why do some people suffer from nose bleed at higher altitudes?

(b) A force of 1200 N acts on the surface of area 10 cm^2 normally. What would be the thrust and pressure on the surface? **[2]**

20. (a) Terrycot is made by mixing two types of fibers. Write the names of the fibers.

(b) Write the importance of synthetic polymers in our life. **[2]**

21. (a) Why do Eskimos wear ski-like shoes?

(b) How gases exert pressure on the walls of container.

(c) Define atmospheric pressure. **[3]**

❖❖❖❖❖

Hints/Solutions to Chapter End Test

Date : _____ Duration: 40 Min. Max. Marks : 25	Physics **Topic :** Force and Pressure & Synthetic Fibre and Plastics	BATCH VIII

1. d **2.** d

3. c **4.** a

5. c **6.** b

7. d **8.** c

9. d **10.** b

11. a **12.** c

13. d **14.** C

15. c

16. (a) While walking we apply force on the ground in the backward direction as a result, we get a forward push by the earth.

(b) Towards east.

17.

Thermoplastic	**Thermosetting plastic**
Can be remolded.	Cannot be remolded.
It is not fire-resistant.	It is fire-resistant.
Used for making toys, buckets, mugs, etc.	Used for making switches, switchboards, utensils, etc.

18. Difference between contact and non–contact forces:

Contact Force	**Non-contact force**
This force needs to touch the object in order to exert its effect.	This force does not need to touch the object in order to exert its effect.
Example: muscular force, friction	Example: magnetic force, electrostatic force

19. (a) At higher altitudes the atmospheric pressure decreases, and our body's blood pressure is comparatively higher than the atmospheric pressure. Therefore, some of the mountaineers suffer from nose bleeding at higher altitudes.

(b) **Given:**

Force F = 1200 N

Area A = 10 cm^2 = 10 $\times 10^{-4}$ m^2 = 10^{-3} m^2

Thrust = Normal pressure

F = 1200 N

Pressure P = F/A

P = 1.2×10^6 N/m^2

20. (a) Terylene and cotton

(b) Write uses of synthetic polymers like nylon, acrylic, Terylene, PET, plastics, etc.

21. (a) Eskimos wear ski-like footwear. Wider area of the footwear reduces pressure and thus prevents the Eskimo's feet from sinking in ice.

(b) The Particles in gases are loosely packed and have high kinetic energy and due to this they move with a high speed in random direction due to this random motion of the particle they hit the walls of the container and thus, exert pressure on the walls of container.

(c) Atmospheric pressure is defined as the force per unit area exerted against a surface by the weight of the air above that surface.

❖❖❖❖❖