

Entry Level Test

Std: IX

Subject: Science

Date:

- *Attempt all Questions.*
- *Number on the right side in bracket indicates total marks for each Question.*
- *Use pencil to draw the figure.*

Q - I. Tick (✓) the correct alternative in each of the following: (20 x ½=10)

1. A stone thrown with a catapult (Gulel) falls back on the ground because –
 - (a) The muscle apply force
 - (b) The stone applies force
 - (c) The earth exerts force
 - (d) The catapult applies force
2. Two forces are acting on object horizontally. The resultant of the forces is zero. It can be inferred from the given information that two –
 - (a) Equal forces are acting on the object in the same direction
 - (b) Equal forces are acting on the object in the opposite direction
 - (c) Unequal forces are acting on the object in the same direction
 - (d) Unequal forces are acting on the object in the opposite direction
3. Pressure is defined as-
 - (a) Force x Area
 - (b) Force x Distance
 - (c) Force per unit area
 - (d) Force per unit distance
4. In desert areas a camel can walk very easily as compared to horse because it has-
 - (a) Lesser weight
 - (b) Smaller feet
 - (c) Broader feet
 - (d) Heavier body

5. When a given force is applied on larger area of contact the pressure exerted by it
- (a) Increases
 - (b) Decreases
 - (c) Does not change
 - (d) None of these
6. The pressure exerted by a liquid-
- (a) Decreases with depth
 - (b) Does not change with depth
 - (c) Increases with depth
 - (d) Is different in different directions at the same depth
7. The force of friction between the two bodies is
- (a) Parallel to the contact surface
 - (b) Perpendicular to the contact surface
 - (c) Inclined at 30° to the contact surface
 - (d) Inclined at 60° to the contact surface
8. Which of the following is true about friction?
- (a) It is a force that occurs only between solids
 - (b) It is a force that occurs on rough surfaces
 - (c) It can only slow things down
 - (d) It is a force that occurs only when an object moves
9. Sound waves travel fast in-
- (a) Air
 - (b) Metals
 - (c) Vacuum
 - (d) Liquids
10. The amplitude of the sound wave decides it-
- (a) Speed
 - (b) Pitch
 - (c) Loudness
 - (d) Quality
11. The ray of light which falls on a mirror is called-
- (a) Reflected ray
 - (b) Transmitted ray
 - (c) Emergent ray
 - (d) Incident ray

12. Which among the following liquid does not conduct electricity?
(a) Common Salt (b) Distilled Water (c) Acidic Solution (d) None of these
13. A battery is used to-
(a) Convert chemical current into electric current
(b) Measure the current
(c) Maintain potential difference
(d) Measure the temperature
14. The splitting of white light into its seven constituent colours is called-
(a) Refraction (b) Dispersion (c) Deviation (d) Reflection
15. The amount of light entering the eye is controlled by-
(a) Eye lens (b) Cornea (c) Iris (d) Ciliary muscle
16. Science of studying composition of universe and other related information is called-
(a) Astronomy (b) Physics (c) Astrology (d) Anatomy
17. Galaxy to which the solar system belongs is called-
(a) Orion (b) Akash Ganga (c) Milky way (d) Ursa Major
18. The ratio of acceleration due to gravity on earth to that on moon is-
(a) $1/6$ (b) 6 (c) 9 (d) 4
19. Ursa major is –
(a) A Star (b) A Constellation (c) Natural Satellite (d) Dwarf Planet
20. Morning and evening stars are better known as –
(a) Venus (b) Mars (c) Mercury (d) Proxima Centauri

Q- II. Fill in the blanks using the appropriate word.

(10 x 1 =10)

1. The S.I unit of force is _____
2. Sounds having frequency less than 20 Hz are called _____
3. Distance between stars are measured in _____
4. The S.I unit of Pressure is _____
5. The positive charged ions are called _____ and the negatively charged ions are called _____
6. The force exerted by an electrically charged body is called _____ force.
7. If force is increased, pressure _____
8. A _____ force is used when we twist a wet cloth to squeeze out water.
9. Friction is more on a _____ surface than on a _____ surface.
10. Like charges _____ each other whereas unlike charges _____ each other.

Q- III. Read the following statements carefully and encircle 'T' if the statement is true and 'F' if the statement is false.

(20 x ½ =10)

1. Earthquakes of intensity between 3 to 8 are moderate earthquakes **T / F**
2. Deficiency of vitamin C causes poor vision **T / F**
3. Intensity of an earthquake is measured by an instrument called seismograph on the Richter scale **T / F**
4. The angle of incidence is always equal to the angle of reflection. **T / F**

5. Ultrasonic vibrators are used to drive rats & cockroaches away from godowns. **T / F**
6. Lubricants increases friction between the rubbing surfaces **T / F**
7. The characteristic of sound by which we can distinguish between different sounds of the same loudness is the Quality of sound. **T / F**
8. The sound of tabla normally has lower pitch than the sound of violin. **T / F**
9. All vegetable oils are non electrolytes **T / F**
10. The atmospheric pressure changes from place to place and from time to time. **T / F**
11. Gravity is a contact force. **T / F**
12. A short air column produces shrill note of high frequency. **T / F**
13. The friction acting on the body always acts in the direction of motion of the body. **T / F**
14. A new truck tyre will cause less friction with the road than an old worn out one. **T / F**
15. The greater the tightness of the string in musical instruments the higher the frequency of sound it produces. **T / F**
16. Sliding friction is much less than rolling friction. **T / F**
17. When you stand on a foam mattress, it depresses more than when you lie flat on it, because area remains same but thrust changes. **T / F**

18. The atmospheric pressure gradually falls as we go up above the earth's surface.

T / F

19. Powder applied on a carrom board increases friction.

T / F

20. Force always has a particular direction.

T / F

Q - III. Give reasons for the following:

(11 x 1= 11)

1. Though atmospheric pressure is very high, we do not get crushed under it.

2. It is difficult to walk on a muddy road.

3. Athletes wear specially designed shoes with spikes on the soles.

4. When bee flies, we can hear the sound produced by its wings, but we can't hear a crow's fly.

5. The foundation of high-rise building is kept very wide.

6. Mountaineers suffer from nose bleeding at high altitudes.
7. A vibrating simple pendulum does not produce any sound.
8. Electricians wear rubber sandals or shoes while working.
9. An eraser gets smaller and smaller as it gets used.
10. Painters use sandpaper in whitewashing the walls and in polishing doors.
11. It is easier to cut with a sharp knife than a blunt one.

Q-IV. Solve the Puzzle:

$(6 \times 1 = 6)$

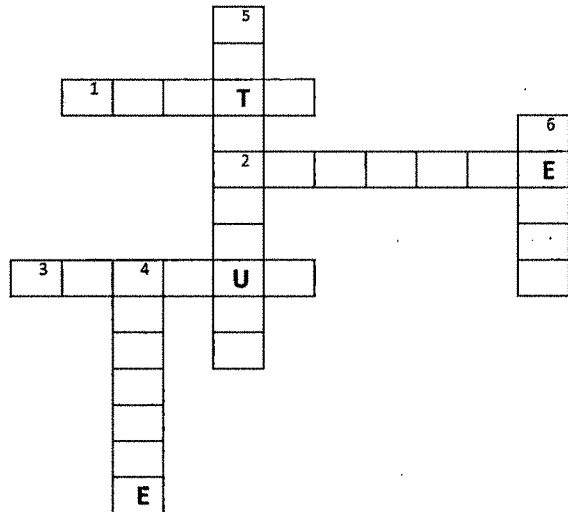
Across:

1. Air inside it vibrates (5)
2. It is from 20 Hz to 20000 Hz (7)
3. We cannot talk to each other without it

(6)

Down:

4. Unit of loudness. (7)
5. Used for detection of heartbeats of foetus. (10)
6. Unit of frequency. (5)



Q - V. Draw the labeled diagram of Human Eye.

(3)