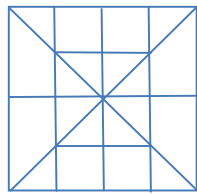


SAMPLE PAPER 3

REASONING

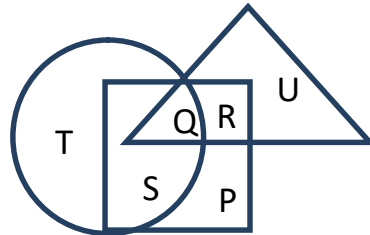
1. Count the number of squares in the figure given below:



- a. 20
b. 19
c. 16
d. 13
2. Find the odd one out:
- a. Hirakud Dam -- Odisha
b. Mettur Dam -- Kerala
c. Nagarjuna Dam -- Telangana
d. Tehri Dam -- Uttarakhand
3. If 'sit' represents "x", 'go' represents " \div ", 'when' represents "-", and 'sleep' represents "+" then what will be the value of "8 sit 12 sleep 16 go 2 when 10" :
- a. 94
b. 86
c. 67
d. 48



4. If the triangle represents Doctors, circle represents Girls, and square represents Parents, then the Girls who are not Doctors but staying with Parents are represented by:



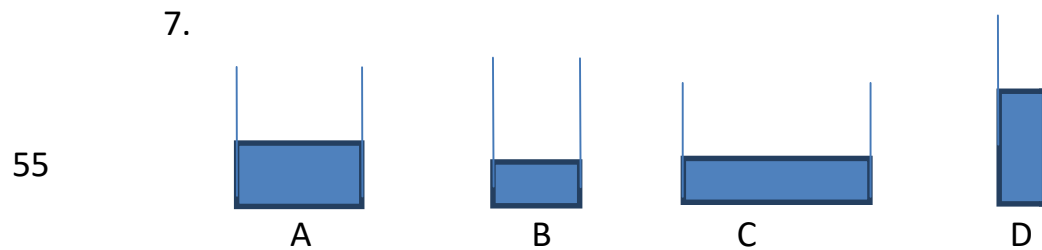
- P
- Q
- R
- S

5. In a code language 'GUIDANCE' is written as 'JRLADKFB' then 'Tutorial' will be written as:
- WRWLUFDI
 - WRWLUFID
 - QXQFNGCO
 - QXQFNCOG

SCIENCE

6. Ravi's grandmother had pain in her legs due to old age. The doctor asked her to put minimum pressure on her knees. Which of the following will exert minimum pressure on her knees:
- Standing
 - Walking
 - Jumping
 - standing and walking both exert the same pressure.





Above are four containers A, B, C and D of different dimensions.

Each contain same amount of water, as mentioned in the diagram. Which container will experience least pressure at the base.

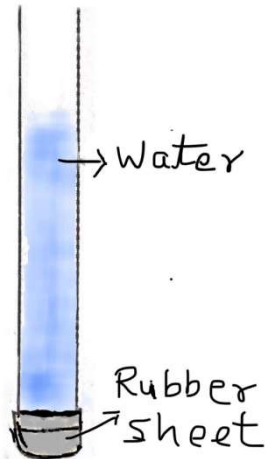
- a. A
- b. B
- c. C
- d. D

8. Which one of the following is the correct value of the atmospheric pressure at sea level.

- a. 2992 pascals
- b. 760 pascals
- c. 14.7 pascals
- d. 101325 pascals

9. A rubber sheet is tied on one end of a 12 inch glass tube, which is filled with water, as shown below:





After some time it is observed that:

- a. the rubber sheet bulges out
- b. the rubber sheet will shrink
- c. the rubber sheet will break
- d. any of the above 3 depends on the amount of water in the tube.

10.If the width of the tyre of a truck is halved then the pressure on the road due to the new tyre becomes:

- a.Twice the earlier pressure
- b. Half the earlier pressure
- c. One fourth the earlier pressure
- d. Four times the earlier pressure

11.When will fire a bullet from a gun,we get a backward jerk. The above phenomena is due to Newton's :

- a. Zeroth law of motion
- b. First law of motion
- c. Second law of motion
- d. Third law of motion



12. The friction force between two surfaces depends upon:

- i. Pressure between the surfaces
- ii. Amount of surface area in contact
- iii. Smoothness of the surfaces
- iv. Force acting in the direction of the motion

a. i & ii

b. i, ii, & iii

c. ii & iv

d. i, ii, iii, & iv

13. The needle of the syringe is able to pierce the skin very easily. The reason behind that is



a. free movement of the piston.

b. lesser pressure by the needle.

c. smaller surface area of the tip.

d. Small amount of the medicine.

14. Factors contributing to forest fires are :

i. blowing of wind

ii. humid climate

iii. camp fires

iv. friction

a. i, iii and iv

b. iii and iv

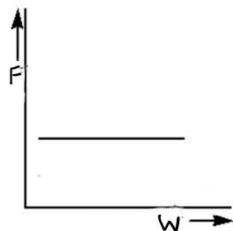
c. ii and iii

d. i, ii, iii and iv

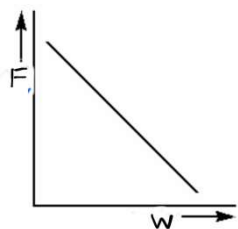


15. Which of the following graph is correct for the frictional force (F) experienced by objects and their weights (W).

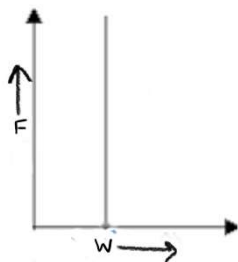
a.



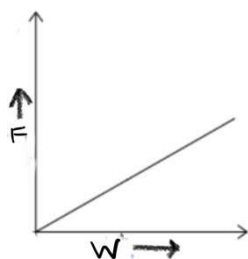
b.



c.



d.



ACHIEVER'S SECTION

16. If a box of 10 Kg is resting on the ground in a park, then the force exerted by the earth on the box is about:

- a. 0 N
- b. 10 N
- c. 100 N
- d. 110 N

17. **Assertion (A)**- The force of friction between two bodies will be parallel to the surface in contact with each other.

Reason (R)-The frictional force is always opposite to the direction of the motion..

- a. A and R both are correct, and R is the correct explanation of A.
- b. A and R both are correct, but R is not the correct explanation of A.
- c. A is correct but R is wrong.
- d. A and R both are wrong.

18. **Assertion (A)**- A packet of potato chips will deflate when it is taken deep underwater.

Reason (R)-The packet of chips contain nitrogen gas which is inert.

- a. A and R both are correct, and R is the correct explanation of A.
- b. A and R both are correct, but R is not the correct explanation of A.
- c. A is correct but R is wrong.
- d. A and R both are wrong.



Read the following passage carefully and answer question **19** and **20**.



Maglev trains are high speed trains which run at about 500 kilometres per hour. Even at such a high speed the turbulence faced by the passengers is very less. These trains float on the cushion of air above the tracks reducing the friction between the train and the track. The only friction experienced by these trains is that of air.

19. What in these trains keep the train afloat

- a. propeller
- b. magnets
- c. Upward thrust
- d. Lift of air



20. The shape of the maglev trains are designed for a very high
the unique shape helps in:

- Keeping the train afloat
- pulling in of the train in the stations.
- beautification of the train
- reducing the friction caused by the air.

Answer Key

1.(c)	2.(b)	3.(a)	4.(d)	5.(a)	6.(a)	7.(c)	8.(d)	9.(a)	10.(d)	11.(d)	12.(b)	13.(c)	14.(a)	15.(d)
16.(c)	17.(a)	18.(b)	19.(b)	20.(d)										

