Answer key ,STD IX Physics

1. a)viscous (1)
   b)Kgm/s (1)

2.

drawing water from a well	Unbalanced force	gives rectilinear motion	(1)
stands with a load on head	Balanced force	stationary	(1)
A ball tied to arope is whirled	Centripetal force	circular motion	(1)

3. a)Beaker 2 (1)
   b)Sinks more ,Because density of fresh water is less than that of salt water,when density decreases buoyancy also decreases. (2)
4. a) Adhesive force (1)
   b) wet clothes cling to our body
   chalk powder stick to the black board (2)
   Any two examples

5. a)Capillary rise (1)
   b)capillary rise decrease.
   Capillary rise is due to the attractive force between water molecules and glass walls.These attractive forces just balance the force of gravity of the column of water that has risen to a particular height.When diameter increases volume of water increases and adhesive force can't balance the gravity,hence less is the capillary rise. (2)

   c)There are thousands of capillaries in soil. During summer these capillaries transport water to the surface by capillarity and water evaporates. When we plough the land ,diameter of capillaries increases and this decreases capillarity ,hence saves water. (2)
6. Pascals law (1)
   hydraulic jack,Hydraulic press (1)
7.
   a)displacement=Area of the velocity-time graph=1/2*10*20=100 m (2)
   b)Retardation (1)
   c) 12 m/s (1)

7. a) 300 b) 30 c) 160 d) 40 (4*1=4)
8. a)Mass of the objects,Distance between the objects (1)
   b) Four times (2)
9. a)inertia of rest
   b)inertia of motion
   c)inertia of rest
   d)inertia of motion (4*1/2=2)
10. a)A (1)
    b)v=u+at =0+5*3=15m/s (2)
11. a)The ball D is thrown off (1)
    b)law of conservation of momentum (1)
12. a)fig 2 (1)
    b)water (1)
    c)Hydrometer (1)
13. a)To every action ,there is an equal and opposite reaction (1)
    b)action:Man exerts a force on the floor (1)
    reaction:the floor exerts an equal force on the feet of the man (2)
    c)action and reaction act on different objects
    c) Necessary reaction is not obtained from ice. (1)

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