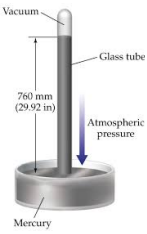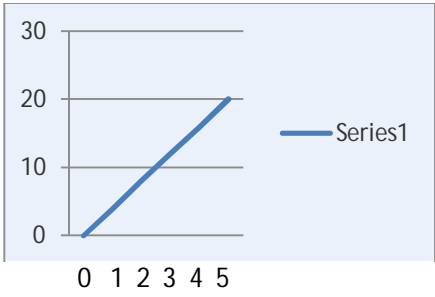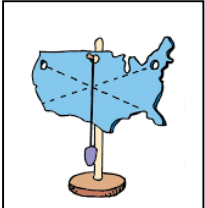**TELANGANA** – **WARANGAL**
DISTRICT COMMON EXAMINATION BOARD
SUMMATIVE ASSESSMENT-I - OCTOBER-2016
GENERAL SCIENCE , Paper – I
(Physical Sciences)
(Telugu Version)

Class-09 - Principles of Evaluation - PART-A &B

Q.No	Points for Evaluation	Marks allotted	Total Marks
1.	Rarer medium – water Denser medium - Kerosene **(any related point also suitable.)**	2x½	1

2.	Mass (m) = 10 Kg
	Weight (W) = mg
	            = 10 x 9.8 = 98 N
	(OR)
	Weight (W) = mg
	            = 10 x 10 = 100 N
	 (any related point also suitable.)
		
		½
		½
		
		½
		½
			1

3.	Solid CO_2 is called Dry Ice. Because It is colder than ice. (OR) Its temperature is below 0^oC **(any related point also suitable.)**	2x½	1
4.	(i) Valency of Fe in $FeCl_2$ - 2 (ii) Valency of Fe in $FeCl_3$ - 3 **(any related point also suitable.)**	2x½	1
5.	Impulse is a measure of how much momentum changes as a result of force acting on it in a period of time. (OR) Change in momentum in a period of time **(any related point also suitable)**	1	1
6.	Net force 10 N Towards F_2 direction (OR) Left side **(any related point also suitable.)**	2x½	1
7.	Refraction **(any related point also suitable. Only two points are needed)**	1	1
8.	Material required : Spirit lamp, Beaker, Water, Thermo meter (OR) Retard stand, Mesh, Spirit lamp, Beaker, Water, Thermo meter **(any related points also suitable.)**	4x½ ½ ½ 4x¼	2
9.	(i) Decomposition reaction (ii) Displacement reaction **(any related points also suitable.)**	1 1	2
10.	Homogeneous mixtures : Soda water, Air, Vinegar, Filtered tea Because these are identical at each part of mixture Non homogeneous mixtures : Wood, Clay Because these are not unique at each part. **(any related points also suitable.)**	4x½	2

11.		1½ ½	2
	(any related diagram also suitable. Only two parts are needed)		
12.		For Graph 1 Axis measure 1	2
	(any related graph also suitable. Only two points are needed)		
13.	(i) Take a circular disc. Keep the disc on a thin broom stick in balanced position. Stick on a tape to the stick and disc. Invert the disc. Repeat the same. The intersection of two sticks is the centre of gravity of Circular disc.	For process ½ For diagram ½	2
	(ii) Make three holes at three corners of triangular disc. Hang the disc from one hole. Suspend the plumb bob from one hole. The line shows the direction of weight at that point. Mark the line. Repeat the same with other holes. The concurrent point gives the centre of gravity of the Triangular disc.	For process ½ For diagram ½	
	(OR)		
	Make three holes at three corners of disc (Circular or triangular or any other). Hang the disc from one hole. Suspend the plumb bob from one hole. The line shows the direction of weight at that point. Mark the line. Repeat the same with other holes. The concurrent point gives the centre of gravity of the disc.	For process 1 For diagram 1	
	(any related points also suitable. Any related diagram also suitable)		

14A.	(i) The scattering of a beam of light is called Tyndall effect. (ii) Colloids and Suspensions Shows Tyndall effect. (iii) True solutions doesn't show Tyndall effect We can observe this (i) When sunlight coming from window (ii) In the path of light coming from projector in Cine theatre (iii) When sun light falls on Fog (iv) When sun light passes through canopy of dense forest **(any related points also suitable.)**	1 Any two 2x1 Any two 2x1	4
14B.	True solutions: Ink, Soda water, Brass, Black coffee, Air Colloids: Fog, Blood, Milk, Shoe polish Suspensions: Fruit salad, Nail polish Pure substances : Oil, Water (OR) Pure substance: Oil, Water Mixtures: Ink, Soda water, Brass, Black coffee, Air, Fog, Blood, Milk, Shoe polish, Fruit salad, Nail polish **(Any other classification is also acceptable)**	4x1 2x2	4
15A.	Draw a thick line just above the bottom of filter paper using marker. Pour some water in the beaker and hang the paper strip with the help of a pencil and cello tape in such a way that it should just touch the surface of water. Allow the water to move up the paper for 5 minutes and then remove the strip from water. Let it dry. Colours from ink are separated. This is chromatography. (OR) Take 20 ml of spirit in a watch glass. Draw a line horizontally just above the bottom of a chalk. Place the chalk vertically in spirit in watch glass. Spirit do not touch the line. Colours from ink are separated. This is chromatography. **(any related points also suitable. Procedure in 4 points are needed)**	4x1	4
15B.	**Diffusion:** The particles of substance move from one place to another place. This is called diffusion. Experiment : (i) Take the glass tube. Take two pieces of cotton. (ii) Soak one in hydrochloric acid and other in Ammonia solution. (iii) Keep the cotton wools at each ends of the glass tube (iv) Close the ends of the tube with rubber corks. (v) After few seconds a white colour gas ring is formed (vi) Measure the distance of the white gas ring from each wools. (vii) Observed the speed of diffusion of two gases. (viii) Ammonia gas diffuses quickly and Hydrogen chloride gas diffuses slowly. **(any related point also suitable. No need of number of points. Concept should be clear in minimum three points.)**	1 3	4

16A.	Mass of object (m) = 10 Kg. Initial velocity (u) = 20 m/s Time (t) = 20 s Final velocity (v) = 50 m/s Applied force (F) = ma $\qquad = m\left(\frac{v-u}{t}\right)$ $\qquad = 10 \times \left(\frac{50-20}{20}\right)$ $\qquad = 10 \times \left(\frac{30}{20}\right)$ $\qquad = \frac{30}{2} = 15$ N **(any related points also suitable.)**	Data Formula Substitute Answer 4x1	4
16B.	Mass of Lady (m_1) = 70 Kg Mass of daughter (m_2) = 20 Kg Distance (R) = 10 m Universal Gravitation constant (G) = 6.67 x 10^{-11} Nm^2/Kg^2 Force $(F) = G.\frac{m_1 m_2}{R^2}$ $\qquad = 6.67 \times 10^{-11} \times \frac{70 \, X \, 20}{10^2}$ $\qquad = 6.67 \times 10^{-11} \times \frac{70 \, X \, 20}{100}$ $\qquad = 6.67 \times 10^{-11} \times 14$ $\qquad = 93.38 \times 10^{-11}$ N **(any related points also suitable.)**	Data Formula Substitute Answer 4x1	4
17A.	An optical fibre is small pipe works on the principle of total internal reflection. An optical fibre is very thin fibre made of glass (or) plastic having radius about a micrometer . A bunch of such thin fibres form a light pipe. Because of the small radius of the fibre, light going into it makes a nearly glancing incidence on the wall. The angle of incidence is greater than the critical angle and hence total internal reflection takes place. The light is thus transmitted along the fibre. agent . **(any related points also suitable.)**	1 Any three points 3x1	4
17B.	Constant velocity means both magnitude and direction are constant. If velocity is constant, the average velocity over any time interval is equal to instantaneous velocity at any time. $\qquad\qquad \overrightarrow{V_{average}} = \overrightarrow{V_{instant}}$ **(any related points also suitable. Only four points are needed.)**	2x2	4

PART - B

S. No	Ans.	S. No	Ans.
1	A/D	6	B
2	A	7	B
3	A	8	D
4	A	9	D
5	C	10	C

Note : * means allot full marks. Each question carries ½ mark.