ANDHRA PRADESH COMMON EXAMINATIONS

SUMMATIVE ASSESSMENT-I - SEPTEMBER-2016

GENERAL SCIENCE , Paper – I

(Physical Sciences)

(English Version)

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

Q.No	Points for Evaluation	Marks allotted	Total Marks
1.	273 + 273 = 546 K **(any related point also suitable. Only one point is needed)**	1	1
2.	She moves with constant velocity **(any related point also suitable. Only one point is needed)**	1	1
3.	F force applied on A by B In South direction. (OR) -F force applied on A by B **(any related point also suitable. Only one or two points are needed)**	2x½ 1	1
4.	Sublimation (or) Heating **(any related point also suitable. Only one point is needed)**	1	1
5.	(i) Smoke from Dhoop stick spread out all the room. (ii) The Horlicks in milk diffuses over all the milk. (iii) The smell from scent is due to diffusion (iv) The gas filled in soda diffuses in water. **(any related points also suitable. Only two points are needed)**	2x1	2
6.	(i) If displacement is zero (ii) If the body is in rest position (iii) If the travelling body reaches to the origin at last. (iv) Throw a stone up and catch. The average velocity is zero **(any related points also suitable. Only two points are needed)**	2x1	2
7.	The impact of force experienced by the bus and fly are same. As per Newton's third law of motion force and anti forces are equal and in opposite direction **(any related point also suitable. Only two points are needed)**	1 1	2
8.	Newton's first law Until external net force acting on a body , the continues its state of motion. (or) The body still remains in its state of rest or uniform motion unless net force acts on it. **(any related point also suitable. Only two points are needed)**	1 1	2
9.	Immiscibility (or) Difference in densities Separating funnel (or) Burette (or) Extraction pump **(any related point also suitable. Only two points are needed)**	1 1	2

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10A.	Evaporation depends upon (i) Surface area (ii) Wind speed (iii) Temperature	1	4
	If surface area increases rate of evaporation increases	1	
	If wind speed increases rate of evaporation increases	1	
	If temperature increases rate of evaporation increases	1	
	(any related points suitable like humidity. Only 4 points are needed)		
	(OR)		
	Evaporation depends upon (i) Surface area (ii) Wind speed (iii) Temperature	1	4
	Take 5ml of spirit in small dish and big dish. We observe the spirit in big dish evaporates quickly. Thus evaporation depends upon surface area.	1	
	Take 5ml of spirit in two dishes. Keep one in sun light and other on floor. The spirit in sun light evaporates quickly. Thus evaporation depends upon temperature.	1	
	Take 5ml of spirit in two dishes. Keep one under fan and keep a lid on the other. The spirit under fan evaporates quickly. Thus evaporation depends upon wind speed.	1	
	(any related points suitable like humidity. Only 4 points are needed)		
	(OR)		
10B.	**(a)** Mass of salt = 100 gm Mass of water = 900 gm Total mass of solution = 1000 gm Mass percentage of salt = $\frac{Mass\ of\ salt}{Total\ mass\ of\ solution}$ X 100 = $\frac{100}{1000}$ x 100 = 10%	½ ½ ½ ½	4
	(OR) **(a)** Mass of salt = 100 gm Mass of water = 900 gm Mass percentage of salt = $\frac{Mass\ of\ salt}{Total\ mass\ of\ solution}$ X 100 = $\frac{100}{100+900}$ x 100 = $\frac{100}{1000}$ x 100 =10%	½ ½ ½ ½	
	True Solutions: Brass, Soda **Colloidal Solutions**: Fog, Milk, Spray, Starch Solution, Muddy water	$8x\frac{1}{4}$ Heading & 7 points	
	(any related point also suitable. Only 4 points for each are needed)		

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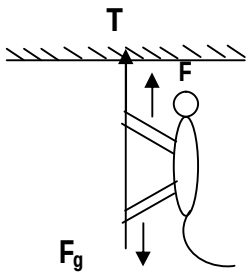
11A.	(i) Take the glass tube. (ii) Take two pieces of cotton. (iii) Soak one in hydrochloric acid and other in Ammonia solution. (iv) Keep the cotton wools at each ends of the glass tube (v) Close the ends of the tube with rubber corks. (vi) After few seconds a white colour gas ring is formed (vii) Measure the distance of the white gas ring from each wools. (viii) Observed the speed of diffusion of two gases. (ix) 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 four points.)**	*	4
	(OR)		
11B.	(i) Take a long plastic tube of 2m length (ii) Place books under tube at one edge like an inclined plane. (iii) Keep a steel plate at the other edge. (iv) Hold a marble at top edge of tube (v) Start the stop clock simultaneously. (Distance (s) = 200 cm) (vi) On marble hits the plate , stop the stop clock. (vii) Note down the time taken as t_1. (viii) Repeat the same procedure two times and find t_2 and t_3. (ix) Find the average time $\frac{(t_1+t_2+t_3)}{3}$. (x) Find acceleration a = $\frac{2s}{t^2}$. **(any related point also suitable. No need of number of points. Concept should be clear in minimum four points.)**	*	4
	(OR)		
	(i) Take a long plastic tube of 2m length and cut it in half along the length of the tube to make like a track. (ii) Mark the readings on the track from '0' to 200 cm with a marker pen. (iii) Place the books under the tube at one edge such that it looks like an inclined plane. (iv) Keep a steel plate at the other edge. (v) Hold a marble at certain point say 40 cm on the track and release the marble. (vi) Start the stop clock simultaneously. (Distance (s) = 40 cm) (vii) The marble hits the plate and produced sound on reaching the ground. Then stop the stop clock. (viii) Note down the time taken by the marble to travel 40 cm on inclined plane as t_1. (ix) Repeat the same procedure two times and find t_2 and t_3. (x) Note down the readings and find the average time $\frac{(t_1+t_2+t_3)}{3}$. (xi) Find acceleration a = $\frac{2s}{t^2}$. **(any related point also suitable. No need of number of points. Concept should be clear in minimum four points.)**	*	4

12A.	(a) Uniform motion (or) Constant velocity (or) non acceleration	1	4
	(b) Velocity at 10 Seconds = $\frac{d}{t}$ = $\frac{20}{10}$ = 2 m/s As it is uniform motion, velocity at 5 seconds = 2 m/s	1	
	(c) Distance covered in 5 seconds = vt = 2 x 5 = 10 m **(OR)** Distance travelled in 10 s = 20 m Distance travelled in 5 s = $\frac{5}{10}$ x 20 = 10 m **(OR)** Velocity at 5 s = 2 m/s $\frac{d}{t}$ = 2 ➔ d = 2t = 2 x 5 = 10m	1	
	(d) Zero (or) no velocity **(any related point also suitable. Only four points are needed)**	1	
	(OR)		
12B.	Situation-A : A truck colloids a wall and comes to rest. Situation-B : A truck colloids a heap of grass and comes to rest. In both cases the change in momentum is equal. But the time taken for coming to rest is less in situation-A Due to impulse, the damage is more in Situation-A **(OR)** Situation-A : A truck colloids a wall and comes to rest. Situation-B : A truck colloids a heap of grass and comes to rest. In both cases the change in momentum is equal. But the time taken for coming to rest is more in situation-B Due to impulse, the damage is less in Situation-B **(any related point also suitable. Only four points are needed)**	4x1	4
13A.	(i) Upward (ii) ma = 5x1 = 5 N (iii) mg = 5 x 10 = 50 N (iv) T = 5 + 50 = 55 N  **(any diagram related is sufficient. Meaningful diagram is enough. As this question is given under AS-3. Consider the diagram only.)**	*	4
	(OR) This question is not for testing drawing skill.		

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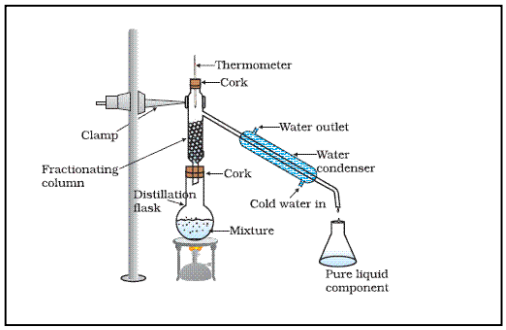
13B.		*	4
	Fractional distillation **(any diagram related is sufficient. Meaningful diagram is enough. As this question is given under AS-3. Consider the diagram only.)**		

Section - IV

S. No	Ans.	S. No	Ans.	S. No	Ans.	S. No	Ans.
14	D	19	D	24	B/D	29	A
15	B	20	D	25	A/B/D	30	C
16	D	21	C	26	B	31	B
17	A	22	B	27	A	32	C
18	A	23	C	28	A	33	B

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

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