IDAUHHM

Marking Scheme

SUMMATIVE ASSESSMENT – I (2014-15)

Science (Class–IX)

General Instructions:

1. The Marking Scheme provides general guidelines to reduce subjectivity and maintain uniformity. The answers given in the marking scheme are the best suggested answers.

2. Marking be done as per the instructions provided in the marking scheme. (It should not be done according to one's own interpretation or any other consideration).

3. Alternative methods be accepted. Proportional marks be awarded.

4. If a question is attempted twice and the candidate has not crossed any answer, only first attempt be evaluated and 'EXTRA' be written with the second attempt.

5. In case where no answers are given or answers are found wrong in this Marking Scheme, correct answers may be found and used for valuation purpose.

भाग–अ / SECTION-A

1	Skeletal muscles	1
2	$a = \frac{v - u}{t} = \frac{21 - 0}{60} = \frac{7}{20} = 0.35\ m/s^2$	1
3	Gravitational force of attraction of the sun and gravitational force of the planets.	1

	4	Take the mixture in a china dish. Cover it with an inverted funnel. Close the stem of the funnel with cotton ball. Heat the mixture. Naphthalene powder forms vapours and gets condensed on the inner walls of the funnel. Common salt is left in the china dish. Diagram – Fig 2.7 Page 22.	2
	5	Diagram : 1, Labelling : 1	2
	6	(i) To increase the time of the athlete's fall to stop after making the jump. This decreases the rate of change of momentum so impact is less. (ii) Rate of change of momentum increases and hence force increases	2
	7	(a) Camphor has tendency to undergo sublimation even at room temp. (b) Humidity level in atmosphere is already high. (c) In a humid day, air around us has high percentage of water and rate of evaporation is low.	3
	8	(i) Highest solubility at 50°C = B Lowest solubility at 50°C = C (ii) B (iii) A	3

	9	1 mark for each characteristic. (a) Particles of matter have space between them (b) Particles of matter are continuously moving (c) Particles of matter attract each other	3
	10	(a) Very active, metabolic rate is fast because it is a dividing tissue. (b) Due to deposition of lignin. (c) To prevent loss of water.	3
	11	(a) Limbs (b) Adipose (c) Cuboidal	3
	12	Total distance = 20+45 = 65 km Total time = 5 h Average speed = 13 km/hr	3
	13	(a) s = 20.0 m (b) v = − 1.00 m/s (c) t = 4.5 s	3
	14	Here $F_1 = 100$ N $F_2 = 50$ N	3

		If r_1 is the original distance and r_2 is the distance between the two objects, then $F \alpha \frac{1}{r^2}$ $\frac{F_1}{F_2} = \left(\frac{r_2}{r_1}\right)^2 = \frac{100}{50} = 2$ $\frac{r_2}{r_1} = \sqrt{2}$ or $r_2 = \sqrt{2}\ r_1$ *i.e.* the distance between the objects should be increased. to $\sqrt{2}$ times.	
	15	a) Inertia of rest b) Inertia of direction c) Inertia of rest	3
	16	(a) Uniform motion (b) Displacement (c) uniform motion	3
	17	Expected Answer / Value Points of Test item – 14 (i) carbon, hydrogen, oxygen (ii) nutrients required in large quantities (N, P, K, Ca, Mg, S) (iii) mutual respect, healthy family relationships, acceptances of differences can be assessed	3

18	(a)	One point of difference between broilers' and layers' feed.	3
	(b)	Broilers,	
	(c)	Maintaining proper temperature and hygienic conditions in housing spraying disinfectants and cleaning regularly.	
19	Five difference b/w solid, liquid and gases in r/o properties given		5
20	(a)	Sugar remains as residue in the form of a solid mass.	5
	(b)	Potassium chloride crystallises out.	
	(c)	A black coloured compound is formed.	
	(d)	The path of the light becomes visible.	
	(e)	A colourless gas is evolved.	
21	(a)	Correct diagram Fig. 5.4 NCERT Text Book IX	5
	(b)	**Prokaryotic Cell**: (i) Lacks membrane bound cell organelles; (ii) Lack of nuclear Membrane **Eukaryotic Cell**: (i) Membrane bound cell organelles are present; (ii) Nuclear Membrane occurs	
22	(a)	vu – gt	5

		$h = ut - \frac{1}{2} gt^2$ $-2gh = v^2 - u^2$ (b) force of gravity (c) $9.8\ ms^{-2}$	
	23	(a) 20 km (b) Yes, at 9 h (c) 60 km (d) 10 km (e) A, slope is more	5
	24	Influence of biotic factors like insects rodents, fungi cause loss of stored grain. Rodents and insect eat them and cause loss of grains. Fungi degrade quality of crop. Influence of abiotic factors like temperature and moisture cause loss of weight, degradation of quality, poor germinality and discolouration and poor markability Preventive and control measures -	5
		भाग-ब / SECTION - B	
	25	(a) bread, wheat, corn flour	1

	26	(d)	Matenil yellow in dal	1
	27	(d)		1
	28	(b)		1
	29	(b)		1
	30	(c)		1
	31	(c)		1
	32	(c)	use of magnet, dissolving in water, filtration and evaporation	1
	33	(a)		1

	34	A mixture of sand and powdered glass will be left on filter paper. Salt solution will be filtrate.	2
	35	(i) Bulb of thermometer should dip into crushed ice. (ii) Bulb of thermometer should be above the surface of water.	2
	36	Mass of dry raisins $w_1 = 6g$ Mass of raisins soaked in water $w_2 = 9g$ Mass of water absorbed by raisins = 9-6 = 3g % of water absorbed by raisins = $\frac{w_2-w_1}{w_1}$ x100 $= \frac{3}{6}$ x100 = 50%	2