ITL Public School
Summative Assessment 1(2015-16)

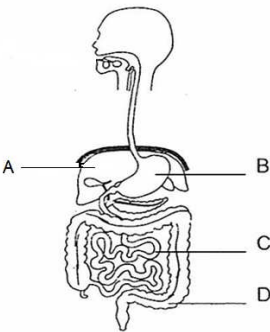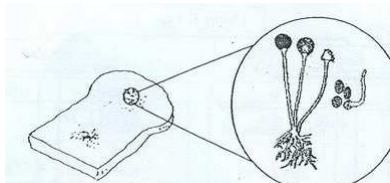**Date: 16/09/2015**   **Class: VII**

Marking Scheme SCIENCE (Set -A)

Time:3h   **M. M: 90**

1	Name the cells which surround stomatal opening. **Guard cells 1**	1
2	What is the function of gall bladder in the human digestive system? **To store bile juice. 1**	1
3	What is the range of clinical thermometer? **35^0C to 42^0C .5+.5**	1

4	Which part of digestive system is involved in:
	   a) Complete digestion of food. **Small intestine**
	   b) Absorption of water. **Large intestine 1+1**
		2

5	Why does shearing not hurt the sheep? **Upper layer of skin is dead which is peeled along with hair. 1**+1	2

6	Name an animal which can breathe through
	   a) Gills fish 1
	   b) Skin **earthworm 1**
		2

7	A microorganism lives in the root nodules of leguminous plants and is considered beneficial for soil fertility. In reference to this answer the following:
	   a) Name the microorganism**. Rhizobioum bacteria 1**
	   b) Name the relationship between plant and microorganism. **Symbiotic relationship 1**
	   c) What is the role of microorganism inn increasing soil fertility?
	   It fixes atmospheric nitrogen into soil 1
		3

8	Write appropriate term for the following:
	   a) Organism which depend on dead and decaying organic matter. **Saprotrophs**
	   b) An association of alga and fungus. **lichens**
	   c) Organism on which parasites is dependent. **host**
	   d) Pigment in plants which capture sunlight. **chlorophyll**
	   e) The part of plant modified to form spines in desert plants**. leaves**
	   f) Plants which feed upon insects. **Insectivorous** **.5x6=3**
		3

9	Give reasons:
	   i) Villi are present in small intestine. **To increase surface area for absorption of food**.
	   ii) Mucus is secreted in stomach. **To protect it from action of acid**
	   iii) ORS is given during diarrhea. **To compensate salt & ions in the body. 1x3**
		3

10	A component of food is easily digested by cows & buffaloes but not by human beings. Name the component & explain why it is not digested by human beings? **Cellulose. 1** **Herbivores have cellulose digesting bacteria in their caecum humans don't have . 2**	3
11	Explain the different stages of life cycle of silk moth with the help of diagrams. **Diag 2m. Egg ,larva,pupa,adult 1m**	3
12	Write three precautions to be taken while reading clinical thermometer.	3

	It should be washed before use. Mercury level should be below 35 Don't hold it by bulb. **1x3**	
13	When a candle burns, both physical and chemical changes take place. Identify these changes and give reason in support of your answer. **Melting of wax physical change as state changes. 1.5** **Burning of wax Chemical change as ash and gas is formed 1.5**	3

14	A car moves with a speed of 60 km/h for 30 min & then with a speed of 80km/h for next 30 min. Calculate:
	    a) **The total distance travelled by car**
	        D1=60x.5=30km .5
	        D2=80x.5=40km .5
	        Total distance=40+30=70km .5
	    b) **Average speed of the car=total distance/total time .5**
	                    =70/1=70km/h .5+.5
		3

15	Give reasons: **a)** Whales and dolphins often come to surface of water. **To breathe air as they have lungs to respire. 1** b) Mode of respiration in frog and tadpole is different. Frog is terrestrial and tadpole is aquatic 1 **c)** Yeast is used to make wine and beer. **It produces lots of CO_2 and alcohol during respiration. 1**	3
16	"Frequent situations of water crisis alarm us to conserve water". Explants three steps which can be taken for proper management of water. **Drip irrigation,rain water harvesting,reuse,recycle,reduce.explanation of any three. 1x3**	3
17	What do you mean by water table? What is the effect of droughts and heavy rain fall on water table? **The upper limit of water below soil. 1** **Droughts decreases it. 1** **Heavyrainfall increases it. 1**	3
18	 Differentiate between aerobic and anaerobic respiration.(two points).Give one similarity also. **Aerobic-in presence of oxygen,complete oxidation** **Anaerobic-in absence of O_2,incomplete oxidation..5x4** **Boht give energy 1**	3

19	a) Observe the following diagram and label the parts A,B,C,D.
	
	    b) Which component of food is digested in stomach and how?
	    c) What are the end products of digestion of proteins?
	    a) A=liver,B=stomach,C=small intestine,D=large intestine .5x4=2
	    b) Protein by action of digestive enzymes .5+.5=1
	    c) Glucose,amino acids,fatty acids ,glycerol. .5x4=2
		5

20	a) Why is selective breeding done in sheep? To get good quality wool. 1
	    b) Name two types of hair present in skin of sheep. Which among the two is used to make wool?
	        coarse,fine hair 1 fine hair are used .5
	    c) Mention the steps to obtain wool by processing of fleece of sheep.
	        Shearing,scouring,sorting,combing,dyeing .5x5=2.5
		5

21	a) Convert 45^0C into ^{0}F. **c/5=f-32/9 .5** **45/5=f-32/9** ➢ **9x9+32=f .5** **F=81+32=113^{0}F 1** b) i) Digital thermometers are preferred over mercury thermometers. **Mercury is poisonous and difficult to dispose 1** ii) Wearing more layers of clothes are suggested during winters. **It traps air which doesn't let heat move out. 1** Iii) False ceiling keeps the room warm during winters. **It traps air which doesn't let heat move out. 1**	5
22	a) An iron nail is kept in copper sulphate solution w the colour of which is blue . After sometime the colour of solution changes to green & there is a brown deposit on iron nail. • What type of change has taken place? **Chemical 1** i) Write word equation/chemical equation for the above change. **Copper sulphate+iron-------------iron sulphate+copper 2** b) Classify the following changes into chemical or physical: a) Digestion of food chemical **b) Rusting of iron chemical** c) Photosynthesis **chemica**l **d) Crystallization. P**hysical **.5x4=2**	5
23	a) Complete the following table on the basis of movements occurring during respiration: 	S.NO	parameter	inhalation	exhalation
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1	movement of ribs	**outward**	**inward**
2	movement of diaphragm	**downward**	**upward**
3	movement of air	**inward**	**outward**	 .5x6 ii) Rahul's friend insisted him to try smoking once but Rahul refused. What reasons he give to him for it? What value is depicted by his action? **Smoking may cause lung cancer. 1** **Caring, aware 1**	5
24	A bus starts its journey at 8:00am.It reaches its destination at 10:00am.The distance travelled by the car at various intervals of time is as follows: | Distance(km)	0	20	40	60	80
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Time(h)	8:00	8:30	9:00	9:30	10:00 | **a) Draw a distance time graph for above data. 1.5** **b) From graph find out the distance covered at 8:45am. 30km 1** **c) Calculate average speed of bus in km/h.** **Average speed=total distance/total time .5** **=80/2=40km/h 1.5** **d) What is the nature of motion exhibited by bus? Uniform .5**	1
25	Identify following organism and write mode of nutrition in it. 	1

	Bread mould,saprotrophic .5=.5	
26	Bacteria present in teeth convert sugar in food into a substance X .Name the substance X and mention its effect on teeth. **Acid,it decays the tooth. .5+.5**	1
27	Name the process by which heat travels from heater to our body. **Radiation 1**	1
28	What is the chemical name of baking soda? **Sodium bicarbonate 1**	1
29	Rita lives near coast. She always complains that her iron article get rusted very fast. What do you think is the reason for this? **Moisture is more in air. 1**	1
30	What would happen if a plant is overwatered? **Roots will not get air and plant dies 1**	1
31	Why do we sneeze on inhaling lots of dust laden air? **To clear nasal tract as dust irritates lining of nose. 1**	1
32	When is world water day celebrated & why? **22 march,To create awareness about water conservation. .5+.5**	1
33	How can you minimize use of water while working in kitchen? **Reuse RO water. 1**	1
34	Write two advantages of constructing dams. **Water is used :to get electricity, irrigation purpose.1+1**	2
35	A simple pendulum completes 20 oscillations in 40 sec.Calculate its time period. **Time period=time/no of oscilations .5** ** =40/20 .5** ** =2sec 1**	2
36	Renu's mother stopped her from talking while eating. What can be the reason for this? What is the value depicted by mother's action? **Food may enter wind pipe. 1** **Caring,aware,scientific mind. Any one 1**	2