

21 March 2017

Set-A

SUMMATIVE ASSESSMENT - II (2016-17)

**SCIENCE
Class - IX**

Time allowed: 3 hours

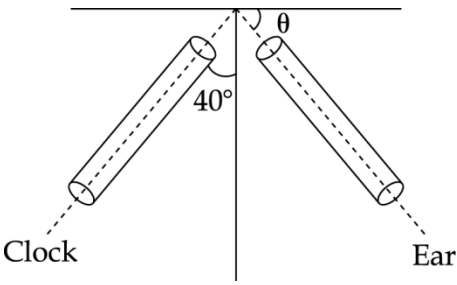
Maximum Marks: 90

General Instructions :4

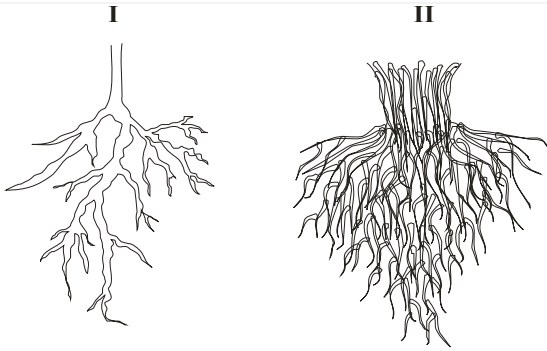
- (i) The question paper comprises of **three Sections, A, B and C**. You are to attempt all the sections.
- (ii) **All** questions are **compulsory**.
- (iii) **All** questions of **Section-A, Section-B and Section-C** are to be attempted separately.
- (iv) Question numbers **1 to 3** in **Section-A** are **one mark** questions. These are to be answered in **one word** or in **one sentence**.
- (v) Question numbers **4 and 5** in **Section-A** are **two marks** questions. These are to be answered in about **30 words** each.
- (vi) Question numbers **6 to 16** in **Section-A** are **three marks** questions. These are to be answered in about **50 words** each.
- (vii) Question numbers **17 to 21** in **Section-A** are **five marks** questions. These are to be answered in about **70 words** each.
- (viii) Section B has **3 OTBA** questions. Question number **22** is **two marks**, Question number **23** is **three marks** and Question number **24** is **five marks** question.
- (ix) Question numbers **25 to 33** in **Section-C** are multiple choice questions based on practical skills. Each question is a **one mark** question. You are to select one most appropriate response out of the four provided to you.
- (x) Question numbers **34 to 36** in section C are **two marks** questions based on practical skills. These are to be answered in about **30 words** each.

SECTION-A

1	An element X has only one proton and one electron in its atom. Name the element X.	1
2	Which atom was chosen as the standard reference for measuring atomic masses in the year 1961 ?	1
3	Why do you think that a plant cell is categorised under eukaryotic cell ? Give two reasons.	1
4	The radius of solid gold sphere is 0.25 cm. If density of gold is 19.6g/cc, calculate its mass.	2
5	Explain in brief the working of stethoscope.	2
6	(a) What are the limitations of J.J Thomsons model of an atom. (b) Describe the α -particle scattering experiment carried out by Rutheford.	3
7	(a) Define atomicity. (b) State the atomicity of the following molecules : (i) Oxygen (ii) Phosphorous (iii) Sulphur (iv) Argon	3

19	<p>(a) Name any one disease caused by each of the following -</p> <p>(i) Protozoa (ii) Virus</p> <p>(iii) Bacteria (iv) Fungi</p> <p>(b) How is malaria disease transmitted?</p> <p>(c) What are the common preventive measures taken against communicable diseases?</p>	5
20	<p>(a) Name the physical quantity described by</p> <p>(i) maximum displacement of a particle from its mean position.</p> <p>(ii) distance between two consecutive crests.</p> <p>(b) Identify the characteristics of sound which depend respectively on amplitude and frequency.</p> <p>(c) What is meant by the statement "300 Hz frequency?"</p> <p>(d) Establish the relation between velocity of sound, wavelength and time period.</p>	5
21	<p>(a) State the law of conservation of energy.</p> <p>(b) Illustrate the energy changes which occur when a stone of mass 'm' is dropped freely from a height 'h'.</p> <p>(c) A truck weighing 200 kg is moving with an energy of 16×10^4 J. Find its velocity.</p>	5
<p>SECTION - B (OTBA)</p> <p>(* Please ensure that open text of the given theme is supplied with this question paper.)</p> <p>Theme: Solid Waste Management</p>		
22	State any four benefits of waste management.	2
23	Suggest some amendments in the present rules which would help in better management of solid waste.	3
24	Mention any five steps by which you can sensitize learners for waste disposal.	5
<p>SECTION - C</p>		
25	<p>While studying the laws of reflection of sound, the tube facing the clock is placed as shown below. In order to hear the reflected sound clearly, the second tube should be placed such that θ equals :</p>  <p>(a) 40° (b) 50° (c) 60° (d) 80°</p>	1

26	<p>Smitha performed the experiment, to find the pressure exerted by different faces of a cube of side 4 cm on a loose sand, she observed that pressure exerted by the cube :</p> <p>(a) is same for each face (b) is different for each face (c) is dependent on the volume of cube. (d) is dependent on the total area of the cube.</p>	1
27	<p>Speed of the pulse in a slinky is independent of the :</p> <p>(a) length of slinky (b) material of slinky (c) area of coil of slinky (d) both (a) and (b)</p>	1
28	<p>Which one of the following statement is incorrect with respect to algae ?</p> <p>(a) All algae are microscopic (b) Algae are thallophytes (c) Three groups of algae are blue-green algae, brown algae and red algae (d) Algae manufacture food</p>	1
29	<p>In a chemical reaction 63.8 g of copper sulphate solution completely reacts with 42.4 g of sodium carbonate solution. After the reaction 56.8 g of sodium sulphate and some amount of copper carbonate were formed. The exact mass of copper carbonate formed is :</p> <p>(a) 43.4 g (b) 56.4 g (c) 106 g (d) 49.4 g</p>	1
30	<p>Sodium chloride reacts with silver nitrate to form silver chloride and sodium nitrate, then</p> <p>(a) mass of sodium chloride is equal to mass of sodium nitrate (b) mass of silver nitrate is equal to mass of silver chloride (c) total mass of sodium chloride and sodium nitrate is equal to the total mass of silver nitrate and silver chloride. (d) total mass of sodium chloride and silver nitrate is equal to the total mass of silver chloride and sodium nitrate.</p>	1
31	<p>Observe the diagrams of two kinds of roots I and II given below, and choose the correct option :</p>	1



- (a) I and II both are dicotyledonous roots
 (b) I and II both are monocotyledonous roots
 (c) I is a monocotyledonous root and II is a dicotyledonous root
 (d) I is a dicotyledonous root and II is a monocotyledonous root

32	In legumes food is stored in :	1
	(a) endosperm (b) seed coat (c) cotyledons (d) perisperm	
33	The stage in the life cycle of a mosquito in which the rapidly moving creature is seen in stagnant water is:	1
	(a) Larva (b) Pupa (c) Adult (d) Egg	
34	The relative density of mercury is 13.6. What does this statement means?	2
35	A body of mass 200g has volume of 300cm ³ . Will this body float or sink in water?	2
36	A student noted down the weight of an object in air and tap water, as 70 gm wt and 60 gm wt respectively. Are his observations correct ? Explain.	2
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