

KENDRIYA VIDYALAYA SANGATHAN, TINSUKIA REGION

SESSION ENDING EXAMINATION 2018-2019

SUBJECT – SCIENCE

Maximum Marks: 80

CLASS IX

Time: - 3 Hours

General Instructions

- (i) The question paper comprises of five sections – A, B, C, D and E. You are to attempt all the sections.
- (ii) All questions are compulsory
- (iii) Internal choice is given in sections B, C, D, and E.
- (iv) Question numbers 1 and 2 in Section- A are one mark questions. They are to be answered in one word or in one sentence
- (v) Question numbers 3 to 5 in Section-B are two marks questions. These are to be answered in 30 words each.
- (vi) Question numbers 6 to 15 in Section-C are three marks questions. These are to be answered in 50 words each.
- (vii) Question numbers 16 to 21 in Section-D are 5 marks questions. These are to be answered in 70 words each.
- (viii) Question numbers 22 to 27 in Section-E are based on practical skills. Each question is a two marks question. These are to be answered in brief.

Question No.	SECTION – A	Marks
1.	What is intercropping?	1
2.	Name the bacteria that converts ammonia into nitrites.	1
SECTION -B		
3.	Calculate molar mass of following: a) H ₂ O b) C ₆ H ₁₂ O ₆	2
4.	Define uniform circular motion? What is acceleration of a body moving with uniform velocity?	2
5.	Which type of wave is produced by a vibrating object in a medium reach your ear? Define it. OR What is reverberation? How can it be reduced?	2

SECTION- C		
6.	<p>We feel cool after doing vigorous exercise. Why?</p> <p style="text-align: center;">OR</p> <p>Give reasons to justify the following observations: (a) Water at room temperature is a liquid. (b) An iron almirah is solid at room temperature.</p>	3
7.	What do you understand by a colloidal solution? Why do they show Tyndall effect?	3
8.	(i) What are isotopes? Give two example. (ii) Write two applications of isotopes.	3
9.	(i) Define kinetic energy. (ii) A ball of mass 200g falls from a height of 5 meters. What is its kinetic energy when it just reached?	3
10.	Differentiate between voluntary and involuntary muscles. Give one example of each type.	3
11.	<p>Give examples for the following</p> <p>(a) First triploblastic animals are included in ——— phylum. (b) Worms causing disease elephantiasis is———. (c) Open circulatory system is found in———where coelom cavity is filled with blood.</p> <p style="text-align: center;">OR</p> <p>State reasons for the following: (i) Echidna and platypus lay eggs but are considered as mammals. (ii) Crocodiles have four chambered heart but are still reptiles.</p>	3
12.	(A)Who discovered 'vaccine' for the first time? (B)Name two diseases which can be prevented by using vaccines.	3
13.	What do you mean by hybridization? Name its different types.	3
14.	<p>An old man was waiting for a roadways bus at a bus stand with his heavy luggage bag in his hands; He was tiring and used to shift the bag from one hand to another and so on. Shashank was seeing this. He felt uneasy and requested the old man to put his bag on the floor of bus stand near him so that he may be free. Initially the old man looked suspiciously towards Shashank but on persuasion he agreed and put his heavy bag on the floor and carefully set on it. Now he was relieved and peaceful.</p> <p>a) Was the old man applying some force while holding the bag in his hand? If yes, of what type? b) Was the old man doing some work while holding the bag in his hand? Why? C) What value was shown by Shashank.</p>	3

15.	<p>(i) What is the range of frequencies associated with (a) infrasound (b) ultra sound</p> <p>(ii) A submarine emits a sonar pulse, which returns from an underwater cliff in 1.02 S. if the speed of sound in salt water is 1531m/s, how far away is the cliff?</p> <p style="text-align: center;">OR</p> <p>(i) Which wave property determines (a) loudness (b) Pitch?</p> <p>(ii) Calculate the wavelength of a sound wave whose frequency is 220Hz and speed is 440 m/s in a given medium.</p>	3
SECTION-D		
16.	<p>(i) Differentiate between three states of matter on the basis of following properties.</p> <p>(a) Intermolecular forces.</p> <p>(b) Inter particle space.</p> <p>(c) Fluidity.</p> <p>(ii) Liquids generally have lower density compared to solids. But you must have observed that ice floats on water. Give reason.</p>	5
17.	<p>Observe the following situations and identify the techniques associated with each:</p> <p>(a) Milk is churned to separate cream from it.</p> <p>(b) A mixture of sand and water is separated.</p> <p>(c) Air is liquefied to separate liquid O₂.</p> <p>(d) By using filter paper, different colours present in a dye are separated.</p> <p>(e) Mixture of ammonium chloride and sand is heated.</p> <p style="text-align: center;">OR</p> <p>a) What temperature in Kelvin scale is equal to 50° C ?</p> <p>b) Describe an activity to show that rate of evaporation increases with surface area.</p> <p>c) State two differences between evaporation and boiling.</p>	5
18.	<p>(i) A car of mass 200kg is moving with certain velocity. It is brought to rest by application of brake, within a distance of 20m when the average resistance being offered to it is 500N. What is velocity of motor car.</p> <p>(ii) Which law of motion is known as Law of Inertia. State that law of motion.</p>	5
19.	<p>(i) What are three differences between the mass of an object and its weight?</p> <p>(ii) Why is the weight of an object on the moon 1/6 th its weight on the earth?</p> <p>(iii) Why is it difficult to hold a school bag having a strap made of a thin and strong string?</p> <p style="text-align: center;">OR</p> <p>(i) Why does an object float or sink when placed on the surface of water?</p> <p>(ii) What is the importance of universal law of gravitation?</p> <p>(iii) The volume of 50 gm of a substance is 20 cm³. If the density of water is 1 gm/cm³, will the substance float or sink?</p>	5
20.	<p>What are the causes of water pollution? Discuss how you can contribute in reducing water pollution.</p> <p style="text-align: center;">OR</p> <p>Suggest some preventive measures for the diseases of poultry birds.</p>	5
21.	<p>(a) Differentiate between meristematic and permanent tissues in plants</p> <p>(b) Define the process of differentiation</p>	5

	<p>(c) Name any two simple and two complex permanent tissues in plants.</p> <p style="text-align: center;">OR</p> <p>Illustrate only a plant cell as seen under electron microscope. How is it different from animal cell?</p> <p style="text-align: center;">SECTION-E</p>	
22.	<p>How will you test the presence of adulterant metanil yellow in dal?</p> <p style="text-align: center;">OR</p> <p>How would you confirm in your school laboratory whether a given solution is a suspension or not? Give at least two tests.</p>	2
23.	<p>Draw a neat diagram of animal cell and label any three parts which differentiate it from Plant cell.</p>	2
24.	<p>What are wavelength, frequency, time period and amplitude of a sound wave? Draw the wave and indicate the all above parameters.</p>	2
25.	<p>What will be the value of gravitational acceleration at the planet whose mass and radius are double that of earth?</p> <p style="text-align: center;">OR</p> <p>A cube of wood and a spherical ball of iron having same volume were immersed in salty water. Find the relation between buoyant forces acting on both objects with reasons.</p>	2
26.	<p>How is a bacterial cell different from an onion peel cell?</p> <p style="text-align: center;">OR</p> <p>Distinguish between cockroach and earthworm by listing their specific features. (any two)</p>	2
27.	<p>When iron filings and sulphur powder are heated strongly then name of the compound formed on heating is</p> <p>(a) Ferric sulphide (b) Ferrous sulphide (c) Mixture of iron and sulphur (d) Mixture of ferric oxide and sulphur</p>	2