BLOOM PUBLIC SCHOOL
Vasant Kunj, New Delhi
<u>**SAMPLE PAPER PERIODIC ASSESSMENT II (2018–2019)**</u>
SCIENCE:- IX

TIME : 3 Hrs.   **M.M:- 80**
Date:-
<u>**General Instructions**</u> **:-**

(i) The question paper comprises of two sections, *A* and *B*. You are to attempt both sections
    separately.

(ii) All questions are compulsory. However, an internal choice is provided in three questions of 3 marks
    each and two questions of five marks.

(iii) Question numbers 1 to 2 in section A are one mark questions. These are to be answered in one
    word or in one sentence.

(iv) Question numbers 3 to 5 are two marks questions. These are to be answered in about 30 words
    each.

(v) Question numbers 6 to 15 are three marks questions. These are to be answered in about 50 words
each.

(vi) Question numbers 16 to 21 are five marks questions. These are to be answered in about 70 words
    each.

(vii) Question numbers 22 to 27 are explanatory questions based on practical skills and each question
    carries two marks. There is an internal choice.

Q1.   Why do we get the smell of hot food from a distance but not that of cold food?   **1**

Q2.   State universal law of gravitation.   **1**

Q3.   What is sustainable development? How can it be obtained?   **2**

Q4.   Convert   **2**

 (a)   500 K to Celsius

 (b) 102^0C to kelvin

Q5.   A force of 5N gives a mass of m_1 an acceleration of $10m/s^2$ and a mass m_2 an acceleration of
$20m/s^2$.What acceleration would it give if the masses were tied together.   2

Q6.   Give three factors that affect the rate of evaporation and how?   3
                         OR

Evaporation is a surface phenomena and boiling is a bulk phenomenon. Explain.

Q7.   Give reason for the following: **3**

 (a)   Xylem is called a complex tissue.

 (b)   Water hyacinth floats on water surface.

 (c)   Ligaments are very flexible.

                   OR

Name the three types of simple permanent tissue give their function and locations

Q8.   Give the mathematical expression and SI unit for   **3**

   (a) Force

   (b) Acceleration

   (c) Universal gravitation constant.

Q9.   Comment on the following   **3**

   (a) Cotton clothes should be worn in summers.

   (b) Gases have lower density as compared to liquids.

   (c) Water at room temperature is a liquid.

Q10.   Give reasons   **3**

   (a) Leaves fall when branch of a tree is shaken.

   (b) Fielder moves his hands gradually with a moving ball while holding a catch.

   (c) As the sailor jumps in forward direction and the boat moves backward.

Q11.   What are the advantages are of inter cropping and crop rotation?   3

Q12.   What do we mean by concentration of a solution? A solution contains 40g of common salt in 320g of water. Calculate the concentration in terms of mass by mass percentage of the solution.   3

Q13.   Give the terminology for the following:

   a) The process of crossing between two or more genetically dissimilar plants to produce new variety.
   b)   Crop production along with cattle farming.
   c) Crossing between different varieties of crops.
   d) Crops like wheat, paddy maize and barley.
   e) Methods of improving crops by introducing a gene that will provide desirable characteristics.
   f) Factors that affect crops like heat, cold, frost, soil and drought.

Q14.   What are weeds? Explain the different methods of weeding.

Q15.   A ball is gently dropped from a height of 20m.If the velocity increases uniformly at the rate of 10m/s^2, with what velocity will it strike the ground? After what time will it strike the ground?   **3**

                                     OR

A bullet of mass 10g travelling horizontally with velocity of 150m/s strikes a stationary wooden block and comes to rest in 0.03s. Calculate the distance of penetration of the bullet into the block. Also calculate the magnitude of force exerted by the wooden block on the bullet.

Q16.   Name the technique used to separate   **5**

   (a) oil from water

   (b) iron pins from sand.

   (c) tea leaves from tea.

(d) fine dust particles suspended in water.

(e) Different pigments from extract of flower petals.

Q17. State third law of motion. Give two examples. Derive the recoil velocity of a gun.   5

Q18. Differentiate between Muscular tissues and nervous tissue.5

b) Simple and complex tissue.

OR

a) Differentiate between Bone and cartilage

b) Intercalary meristem and apical meristem.

Q19. How will you separate a mixure of two miscible liquids? State its principle. Explain it with the help of an example and a diagram.   **5**

Q20.(a) Derive v =u + at graphically   **5**

(b) A trolley while going down an inclined plane has an acceleration of $2 cm/s^2$.What will be its velocity after start.

OR

a)   What is the difference between uniform acceleration and non-uniform acceleration?
b)   Define retardation with an example.
c)   A train starting from a railway station and moving with uniform acceleration attains a speed of 40km/h in 10 min. Find its acceleration.

Q21   a) How plant cells are different from animal cells.

b) What are the main functional parts of a cell? Explain with the help of a diagram.

Practical based questions

Q22   Name the gas evolved when dil HCl is added to a mixture of iron and sulphur.Give its chemical equation.   2
OR
The correct representation for the formation of iron sulphide from iron and sulphur on heating is:

$$(a)\ 2Fe + S \xrightarrow{\Delta} Fe_2S$$
$$(b)\ 2Fe + 2S \xrightarrow{\Delta} Fe_2S_2$$
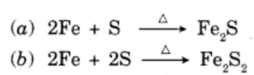
a)   Choose the correct option.
b)   What happens when you add dilute sulphuric acid to the compound.

Q23 List two precautions to be taken when you determine the density of an object.   2

2

Q24. A student used a red stain for making peel of onion. This corresponds to which stain? What is the special characteristic of plant cell by which it can be identified?   **2**

Q25. How are colloidal solution and suspension different

Q26.   Name the device used to measure volume of a liquid. list one precaution used while using it.   2

Q27.   While observing a slide of animal tissue under a microscope, Heena observed light and dark bands. The slide is of which type of muscle .Give one more feature of the same muscle.   **2**