Brilliant Public School

Seepat Road, Bahatarai, Bilaspur (C.G.)
Final Term – 2017-18
Class - IX
Subject – Science

Time: 3:00 Hrs.   M.M. 80
Date: 26.02.2018   Monday

GENERAL INSTRUCTIONS :

(i)   The question paper comprises two sections A and B. You are to attempt both the sections.
(ii) All questions are compulsory.
(iii) All questions of Section A and B are to be attempted separately.
(iv) There is an internal choice in two questions of 3 marks each and three questions of 5 marks and one question (for assessing the practical skills) of 2 marks.
(v)   Question numbers 1 and 2 in Section A are one mark question. They are to be answered in one word or in one sentence.
(vi) Question numbers 3 to 5 in Section A are two marks questions. These are to be answered in 30 words each.
(vii) Question numbers 6 to 15 in Section A are three marks questions. These are to be answered in about 50 words each.
(viii) Question numbers 16 to 21 in Section A are 5 marks questions. These are to be answered in 70 words each.
(ix) Question numbers 22 to 27 in Section B are based on practical skills. Each question is a two marks question. These are to be answered in brief.

SECTION - A

Q.1   Why does the skin of your finger shrink when you wash clothes for a long time?   (1)

Q.2   Bryophytes and pteridophytes are called cryptogams. Why?   (1)

Q.3   It is said that cardiac muscles are immune to fatigue. Explain with reason.   (2)

Q.4   Give one similarity and one difference between a gas and a liquid.   (2)

Q.5   (a) Which quantity remains constant in uniform circular motion?

      (b) Which quantity changes continuously in uniform circular motion?   (2)

Q.6   What are the major differences between class Aves and Reptilia?   (3)

Q.7   What is soil erosion? Why do lichens not occur in Delhi whereas they commonly grow in Manali or Darjeeling?   (3)

OR

Draw and identify different elements of phloem.

Q.8* One day during the science period in Class – IX, after explaining the topic 'global warming' teacher asked the class "how do burning of fossil fuel causes a major impact on the atmosphere?"

At once Rahim raised his hand and answered "the combustion process releases CO_2, SO_2, NO_2 and many harmful gases of the fossil fuel. These gases contribute in global warming." (3)

a) Describe the impact of global warming on earth's climate.

b) What measures do you suggest to check global warming?

c) What values are shown by Rahim?

Q.9 What is meant by mixed farming? What are its advantages? (3)

Q.10 With the help of an activity show that air contains water vapour. (3)

Q.11 If Z= 20 what would be the valency of the element? Also name the element and write its electronic configuration. (3)

Q.12 Draw the structure of atom for Na^+, He and Al. (3)

Q.13 A train travels the first 15 Km at a uniform speed of 30 km/h. The next 75 km at a uniform speed of 50 km/h and the last 10 km at a uniform speed of 20 km/h. Calculate the average speed for the entire train journey. (3)

OR

A train, starting from rest, picks up a speed of 10m s-1 in 100 s. it continues to move at the same speed for the next 150 s. it is then brought to rest in the next 50 s.

a) Acceleration of the train while accelerating,

b) Retardation of the train while retarding, and

c) Total distance covered by the train.

Q.14 (a) State Newton's second law of motion. Write any two application of Newton's second law of motion.

(b) For how long should a force of 100N act on a body of mass 20Kg in order to acquire a velocity of 100m/s? (3)

Q.15 (a) Write two difference between weight and mass of a body

(b) An object has mass of 36 kg on earth. What will be its (i) mass and (ii) weight on the moon? ($g=10m/s^2$) where 'g' of earth = $10m/s^2$. (3)

Q.16 What is blood made up of? Describe the various components of blood. State one function of each component. (5)

Q.17 Write short notes on: a) AIDS   b) Malaria (5)

OR

Explain various factors that help in maintaining community health.

Q.18   (a) Give one point of difference between an atom and an ion.   (5)

       (b) Give one example each of a polyatomic cation and a polyatomic anion.

       (c) Identify the correct chemical name of $FeSO_3$ from the given names – ferrous sulphate, Ferrous sulphide, Ferrous sulphate.

       (d) Write the chemical formula for the chloride of magnesium and sodium.

Q.19   Give an example of mixture which exhibits the following characteristics and also suggest the methods of separation.

             (5)

       a) Two immiscible components.

       b) Two volatile components differing in their boiling points by 25^0C.

       c) Two coloured components.

       d) Water containing a soluble salt.

       e) Volatile and non-volatile solid components.

Q.20   (a) Define 1 watt.
       (b) Name two units of power bigger than watt.
       (c) A man weighing 500N carries a load of 100N up to a flight of stairs 5m high in 5s. calculate the power consumed.

                                              OR

       (a) Define kilowatt – hour.
       (b) Name the quantity whose unit is kilowatt –hour.
       (c) Six electric fans of 120 watt each are used for 5 hours. Calculate the electrical energy consumed in kilowatt – hours.   (5)

Q.21   (a) Distinguish between longitudinal and transverse waves.
       (b) A body vibrating with a time-period of 1/256 sec produces a sound wave which travels in air with a velocity of 350m/s. Calculate the wavelength.   (5)
                                              OR
       (a) If you want to hear a train approaching from far away, why is it more convenient to put the ear to the track?
       (b) Name two devices which word on the reflection of sound.
       (c) The echo of a sound is heard after 5 seconds .If the speed of sound in air be 342m/s. Calculate the distance of the reflecting surface.

Q.22   What sketch you will draw to keep earthworm in class annelids?   (2)
Q.23   Differentiate between monocot and dicot on the basis of their root system and flowering patterns.(2)
Q.24   Write the names of two chemical solutions used for verifying the law of conservation of   mass. (2)
Q.25   What happens when Magnesium ribbon is heated?   (2)

Q.26   How the experiment of reflection of sound is different from the experiment on laws of reflection of light?   (2)

                                              OR

       Name the factors on which the speed of longitudinal wave depends.

Q.27   Why is ti easier to swim in sea water rather than a swimming pool or river water?   (2)

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