SHARJAH INDIAN SCHOOL

REVISION PAPER (SCINCE) - Grade IX

MARKS: 90

TIME: 3 Hours

General Instructions:

- The question paper comprises of two sections A and B. You are to attempt both the sections.
- All questions are compulsory.
- There is no overall choice.
- All questions of section A and B are to be attempted separately.
- Question number 1 – 3 in section A are one mark question. These are to be answered in one word or in one sentence.
- Question number 4 – 7 in section A are two marks question. These are to be answered in about 30 words each.
- Question number 8 – 19 in section A are three marks question. These are to be answered in about 50 words each.
- Question number 20 – 24 in section A are five marks question. These are to be answered in about 70 words each.
- Question number 25 – 42 in section are multiple choice questions based on practical questions. Each question is a one mark question. You are to select one most appropriate response out of four provided to you.

SECTION - A

1. The speed of a car increases four times. What is the increase in the Kinetic energy? (1)
2. State the law of conservation of mass. (1)
3. What are isobars? Give example (1)
4. A boy and girl do the same work in 5 minutes and 10 minutes respectively. Which of these two has more power. Why? (2)
5. a) The number of protons electrons and neutrons present in X is 17,18, 18 respectively. Name the atomic species X and represent it. (2)
   b) Name an isotope used in the treatment of cancer.
6. Name two classes of waves. Which class of waves named by you does not require material medium for propogation. (2)
7. Name the causitive organism of AIDS. Why a person suffering from AIDS cannot fight even very Minor infections? (2)
8. What is notochord? Write its functions. (3)
9. You are given Leech, Neries, Prawns, Scorpion and all have segmented body organizations.Classify them into respective phylum based on the identifying character. (3)
10. Define the term time period and frequency of an oscillatory body. Give their units and write the relation between them. (3)
11. A body of mass 2 kg in thrown vertically upwards with an initial velocity of 20 m/s. What will be the potential energy at the end of 2 S? ($g = 10\ m/s^2$). (3)
12. What is loudness? Represent graphically by two separate diagram, two sound waves having the same amplitude but different frequencies. (3)
13. With help of a diagram explain the working of human ear. (3)

14. Two children are at the ends of iron pipe. One of them strikes the end of iron pipe with a stone. Find the ratio of time taken by the sound waves in air and in iron to reach the other child. (Speed of sound in air = 330 m/s. and speed of sound in iron = 5200 m/s.) (3)

15. a) Write chemical formulae of the following: (i) Aluminum carbonate (ii) Copper sulphate (3)
b) Calculate the formula unit mass of Na_2SO_4. Atomic mass: Na-23u, S-32u, O-16u
c) How many moles will be there in 7.1g Na_2SO_4?

16. Calculate the number of oxide ions present in 11.2g CaO.(Atomic mass: Ca-40u,O-12u) (3)

17. List three groups of plants. Which plants are referred to as vascular plants? Out of these which group is further classified on the basis of number of cotyledon? State its characteristics. (3)

18. List in the tabular form any three differences between the animals belonging to Aves and the Mammalia group. (3)

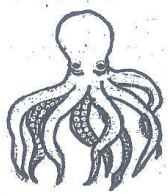
19. Write the symptoms when following organs are targeted by microbes. (3)
a) Lungs b) liver c) brain

20. Prabha has seen huge garbage dumps outside his school which are not being regularly disposed of by MCD (cleaning authority). Prabha discusses the problems with school mates and decides to organize rally to spread awareness among local people about public hygiene. (5)
a) Prepare a slogan for rally.
b) Name any two infectious diseases which may spread due to such unhygienic conditions at public place.
c) Mention the most appropriate step MCD should take to reduce this problem.

21. a) What is transformation of energy? Identify the transformation that takes place in: (5)
1) photo electric cell 2) solar battery 3) electric cell 4) dynamo
b) A 100w electric bulb is lighted for 2 hours everyday and five 40W tubes are lighted for 4 hours every day. Calculate the cost of electricity consumed at the rate of Rs. 3 per kwh for the month of June.

22. i) What are the main postulates of Bohr's model of atom? (5)
ii) Oxygen gas is a mixture of two isotopes, $^{16}_{8}O$ and $^{18}_{8}O$ distributed as 90% and 10% respectively. Find the average atomic mass of oxygen.
(iii) An element X (Z=12) combines with another element Y (Z=9).
a) Write the electronic configuration of X and Y.
b) Give the valency of X and Y
c) What would be the chemical formula of the compound formed when X and Y combine?

23. a) Identify the organism given in the figure. Name the Phylum to which this organism belongs. Write any two characteristic features of the phylum. (5)
b) Pick up the odd one out and justify your choice by giving reasons.
Crocodile, salamander, sparrow, bat
c) Write the common name for Ascaris, Wuchereria.



24. During summer holidays, Raju visited his native village. He observed that for washing clothes, villagers used water from the well. Out of curiosity, he drew water from the well and observed that the bucket of water appeared to be heavier as it came out of water. (5)
a) Name the principle used in the above passage.
b) Why bucket appears to be heavier in air?
c) Which values are reflected in Raju's behavior?

SECTION B (M.C.Q.)

25. Four students ABC & D verified the law of conservation of mass in a chemical reaction between Barium chloride and Sodium sulphate. All of them took 107.2 g Barium chloride solution and 116.1g of sodium sulphate solution and mixed them in a beaker of mass 150g. They reported their results as follows. Who did the experiment correctly?

Student	Colour of reaction mixture after mixing	Mass of reaction mixture including mass of beaker
A	White precipitate	383.3 g
B	Brown precipitate	393.3 g
C	White precipitate	373.3 g
D	Brown precipitate	363.3 g

The correct conclusion is drawn by student:

a) D b) C c) B d) A

26. Colour of Barium chloride and sodium sulphate solutions are
(a) colourless and blue respectively (b) both are colourless
(c) Blue and colourless respectively (d) Green and blue respectively

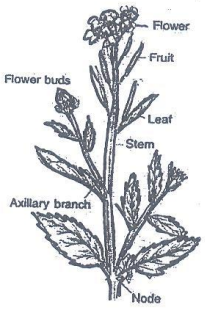
27. The major characteristics of arthropods are:
a) Jointed appendages and chitinous exoskeleton.
b) Jointed appendages and chitinous endoskeleton
c) Antennae and cephalothorax
d) Eyes and cephalothorax

28. In a female anopheles mosquito the organ used to suck animal blood is:
a) antennae b) proboscis c) spiracles d) wings

29. A sample of a member of group Aves was given to a student to identify the external features. The feature, the student would observe is :-
a) Vertebral coloumn b) Four chambered heart
c) Body covered with feathers d) Dorsal tubular nerve chord

30. Chloroplast of spirogyra is:
a) Spirally arranged and ribbon shaped without pyrenoids.
b) Circular
c) Cup shaped
d) Spirally arranged and ribbon shaped with many pyrenoids

31. Identify the division to which the following plant belongs:
a) Bryophyta b) Pteridophyta
c) Angiosperm d) Gymnosperm



32. A student observed a monocot plant and noted the following observation. The observation which is incorrect is:
   a) leaves have reticulate venation.
   b) three petals are seen in the flower.
   c) stem is hollow
   d) adventitious roots

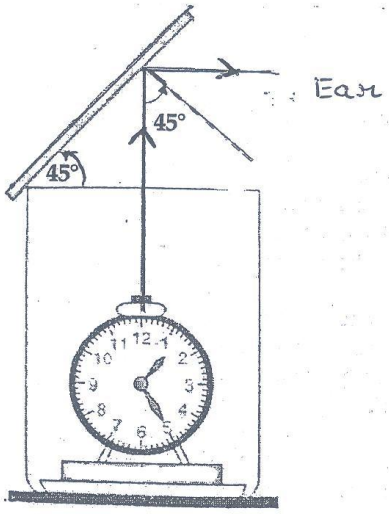
33. While determining the density of the metallic sphere using a spring balance and measuring cylinder a student noted the following readings:
   a) mass of the sphere = 30 gm
   b) i) reading of water level in the cylinder without sphere = 40 ml
      ii) reading of water level in the cylinder with sphere = 48 ml

   On the basis of these observations the density of the material of the sphere is:
   a) 3750 kg/m^3 b) 3000 kg/m^3
   c) 37.50 kg/m^3 d) 1500 kg/m^3

34. The density of an object of mass 0.01 kg and volume 4 cc is:
   a) 2.5 g/cc c) 25 g/cc
   b) 0.25 g/cc d) 0.02 g/cc

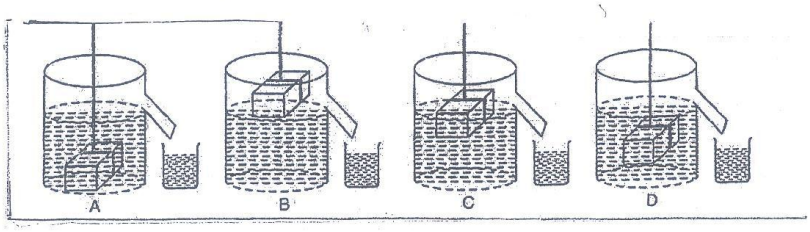
35. The distance between initial and final positions of the pulse generated in a slinky is 3m and the velocity is 3.6 m/s. Find the time taken.
   a) 1.20 s b) 0.83 s c) 10.8 s d) 1.60 s

36. Angle of incidence of a clock sound is 45°. The angle at which the ear should be placed to hear the clock sound clearly is :-



(a) 90° (b) 135° (c) 60° (d) 45°

37. To find the loss in weight of a solid immersed in water the correct set up is:



a) A b) B c) C d) D

38. Four students A, B, C and D are observing and comparing the pressure exerted by three different faces of metal cuboid of dimensions 15cm x 10cm x 5cm. They recorded their observations about the depressions observed by them in the sand by the different faces of the cuboid as follows:
   i) `A' records that the depression is minimum when the face of dimension 15cm x 10cm is in contact with the sand.
   ii) `B' records that the depression is minimum when the face of dimension 15cm x 5cm is in contact with the sand.
   iii) `C' records that the depression is minimum when the face of dimension 10cm x 5 cm is in contact with the sand.
   iv) `D' records that the depression is equal for all the faces.

   The correct conclusion is drawn by student:
   a) A b) B c) C d) D

39. While doing the experiment to verify the laws of reflection of sound, the sound received in the ear should be:
   a) The direct sound from the source.
   b) The sound reflected from the surface of the table.
   c) The sound coming through the tube after reflection.
   d) The sound coming through the tube after reflection and from the table.

40. A strong pulse created at one end of the string is observed to complete 6 up and down journeys along its length before fading out. If the pulse take 12 seconds to complete journeys and the length of the string is 5m the speed of the pulse through the string is:
   a) 0.5 m/s b) 1 m/s c) 5 m/s d) 10 m/s

41. To measure pressure exerted on sand, Vibha placed on sand a block of weight 50 N on a face of area 10^{-3} sqm. The correct pressure measured would be:
   a) $5x10^{-2}Nm^{2}$ b) $5x10^{4}Nm^{2}$ c) $5x10^{4}Nm^{-2}$ d) $5x10^{-2}Nm^{-2}$

42. The disease which is not transmitted by mosquitoes is:
   a) Dengue b) Malaria c) Brain fever d) Pneumonia