CLASS-IX SUMMATIVE ASSESSMENT - II (2016-17) SUBJECT: Science Original

Section - A

1. State the law of conservation of mass.

2. How many maximum number of electrons can he present in the first shell of an atom.

3. Arrange the following groups from lower to higher level. Genus, class, Division, Family, order. .

4. Define Kinetic energy, write an expression for kinetic energy. Write the S.I. unit o kinetic energy.

5. (a) What are vectors?

(b) to many species of mosquitoes the males do not prefer blood, but females d state why.

6. Symbols of the following elements are incorrect. Give their correct symbols.

(a) Zinc ZN (b) Carbon C (c) Cabolt Co (d) Argon A (e) Iron I (f) Sodium So

7. Derive the valency of Aluminium having isotops.

(b) Name the subatomic particle whose number is not same in isotopic species ofan element

(c) Name the element which has no neutron in its atorn.

8. What were the observations of Rutherford's α - particle scattering experiment?

9. How does the sound produced by a vibrating body In a medium reach your ear'?

10. Give the mathematical formula that relates thrust and pressure. Define 1 pascal.

Calculate the thrust and pressure exerted by a block of 500N on the surface of table if the surface area in contact is 2.5 m^2

11. (a) State Archimedes principle. What dons it signify?

(b) A cork piece floats on water but an iron nail sinks in water. Why?

12. Define echo. State two conditions for an echo to heard.

13. In a factory 10 bulbs of 50 W each and 5 fans of 70 W each operate for 12 hours daily. Calculate the units of electricity consurned. Also find the total expenditure it 1 unit cots Rs.2.

14. (a) How do Poriferan animals differ from coelenterate animals. (Give two point(s)

(b) Which division among plants has the simplest organisms?

15. List a few flight adaptations in birds.

16. Smite came to school one day with running nose, reddish and watery eyes and coughed often.

She met Arushi in the morning assembly who advised her to sit on a separate desk in the classroom till she recovers.

(i) Name the disease from which Smita is suffering from.

(ii) Enlist any two preventive measures.

(iii) What is your view point on the Arushi's advice?

17. Give reasons for the following

(a) Isotopes of an element are chemically similar.

(b) An atom in electrically neutral.

(d) Ions are more stable than atoms.

(c) Noble gases show least reactivity.

(e) Na. has completely filled K and L shells.

18. Give reasons:

(a) Animals of phylum Platyhelminthes are called flatworms.

(b) Bryophytes are called amphibians of the plant kingdom. (c) Fungi are called saprophytes.

(d) Bacteria and tapeworm are different in body design. (e) Plants like Pious and Deodar are called gymnosperms.

19. List the following disease into communicable and non-communicable diseases:

(a) Cancer (b) High blood pressure (c) SARS (d) Night blindness

(e) Common cold (f) Typhoid (g) Diabetes (h) Chloera

(i) TB (j) Dengue

20. What is the work done by force of gravity on o satellite moving around the earth? Justify your answer?

(b) A man mass 60 kg run up a flight of 30 steps in 15sec .if each steps is 21 cm high, calculate the power developed by the man.

21.(a) Explain the working of SONAR.

(b) Draw graphs to show soft sound and loud sound.

Section – B (OTBA)

22. Waste management can help In improving the health status of our country. Justify the statement.

23. Rag pickers act as saviours for municipal corporations. Elaborate on their role in waste management

24. Suggest any one strategy for effective waste management being used in your area/locality in school.

Section - C

25. Metallic pipe are used in the experiment for verification of laws of reflection of sound waves. There pipes are highly polished so that they make the sound waves to

(a) Have multiple reflections and prevent spreading of sound. (b) Concentrate into powerful beam.

(c) More in straight lines. (d) get absorbed.

26. Chloroplast in spirogyra

(a) spirally Arranged and ribbon shaped with pyramids . (b) spirnlly nrrnnged without pyremicts.

(c) Circular (d) cup shaped

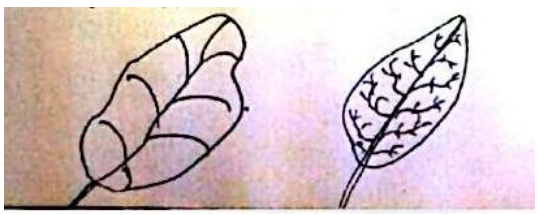
7. Correct expression for the relation between wave velocity, wave frequency end wavelength is:

(a) wavelength = wave frequency x wave velocity (b) wavelength x wave frequency .= wave velocity

(c) wave length/wave frequency = ware velocity . (d) Wave length + wave frequency = wave velocity.

28. In a chemical reaction between sodium sulphate and barium chloride, precipitate of barium sulphate is formed. The colour of precipitate is - (a) Pink (b) white (c) orange (d) yellow

29. Identify the type of venation in figures A and B?



(a) leaf B has reticulate venation and leaf A has parallel venations.

(b) A and B both have reticulate venetian.

(c) leaf A and B both have parallel venation.

(d) leaf B parallel venation and leaf A has reticulate venation.

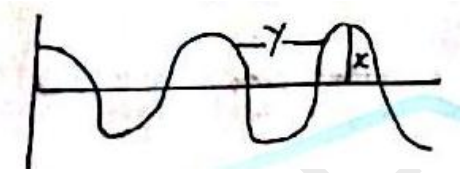
30. Which of the following is a characteristic feature of ferns

(a) They have male and female cones. (b) They have rhizoids.

(c) They have needle-shaped leaves. (d) Their plan body is differentiation Into root stem and leaves.

31. The number of legs in cockroach is: (a) 4 (b) 6 (c) 4 Pairs (d) 6 pairs

32. In the given wave 'x' and 'y' represents



(a) Y = amplitude, x = wavelength

(b) Y = wavelength, x = amplitude

(b) x = rest, Y= .trough

(d) x = wavelength, Y =rest.

33. Four objects of the dimensions as given below exerts pressure.

(a) Block (A) exerts maximum pressure (b) Block (B) exerts maximum pressure

(c) Block (C) exerts maximum pressure (d) Block (D) exerts maximum pressure.

34.(i) How many petals do monocot and Dicot flowers bear?

(ii) What type of stem do we see in monocot plants?

35. To determine the mass of a solid is on cube of side 2cm. Four spring balances are available, one best spring balance would have:

(a) range 0 to 500gm, and least count = 5gm.

(b) range 0 to 500gm, and least count = 10g

(c) range 0 to 100 gm, and least count = 1gm.

(d) range 0 to 100 gm, and least count = 5gm.

Give suitable reason for your answer

36. State the factors on which buoyant force acting on an object immersed in a fluid depend.