SUMMATIVE ASSESSMENT-1 .(2011)

TIME :3 HR

SCIENCE

MAX. MARKS:90

CLASS:IX

GENERAL INSTRUCTIONS :----

(1).The question paper comprises of two sections, A & B.you are to attempt both the sections.
(ii)All questions are compulsory.
(iii).There is no overall choice. However, internal choice has been provided in all the five marks Category.only one option in such questions is to be attempted.
(iv).All questions of section A & B are to be attempted separately.
(v).Question number 1 to 3 in section A are one mark questions ,these are to be answered in one Word or in one sentence.
(vi).Question number 4 to 7 in section A are two marks questions, these are to be answered in About 30 words each .
(vii) Question number 8 to 19 in section A are three mark questions,these are to be answered in about 50 words each .
(viii).Question number 20 to 24 in section A are five mark question,these are to be answered in about 70 words each.
(ix)Question number 25 to 42 in section B are multiple choice questions based on practical skills. Each question is a one mark question.you are to select one most appropriate response out of the four provided to you.

SECTION –A

1.Which cell organelle is responsible for release of energy as ATP ?

2.What is the momentum of the bullet and the gun before firing ?

3.What do you mean by free fall?

4.What is meant by concentration of a solution ? A solution contains 50 grams of sugar in 350 grams of water. Calculate the concentration of the solution.

5.Write four differences between a prokaryotic cell and an eukaryotic cell.

6.What are complex permanent tissues ? give two examples.

7.A scooterist is travelling at a uniform speed of 36 km per hour. Express the speed into m/minute and m/second.

8.What is evaporation ? state the factors (any four) on which the rate of evaporation depends.

9.a) Arrange the following substances in increasing order of forces of attraction between the Particles --- water , sugar ,oxygen .

b) Convert the following temperatures into the Celsius scale and Kelvin scale – 300 k , 25 C

10.A mixture contains powdered camphor and sand . name the process you will carry out to Separate the two components . draw a labelled sketch to show the same.

11.A substance x on heating gives y and z. what is x ? an element or a compound. State two Differences between an element and a compound.

12.List any three differences between a plant cell and animal cell.

13. Name the following:---

a)Tissues that stores fat in our body .

b) Tissues present in the brain .

c)Tissues that forms the inner lining of our mouth.

14.Write three features of the cardiac muscle.

15. a) A farmer grows gram crop between two cereal crops . which agricultural practice is he following.

b)What is mixed farming ?

c) State any two advantages of mixed cropping .

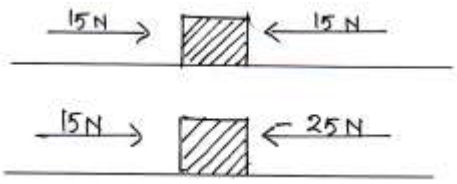
16. What are draught animals ? which two desired qualities will be seen in a cross breed Between a brown swiss and a sahiwal? What are concentrates in a cattle feed ?

17. a). Is displacement a scalar or a vector quantity ?

b)An object travels 16m in 4s and then another 16m in 2s. what is the average speed of the object ?

18. a) State newtons first law of motion.

b)Look at the diagrams given below and answer the following questions:--



In which case will the object move and in which direction ? give reason in support of Your answer.

19.State Newtons universal law of gravitation. Express it mathematically. Mention any two Phenomena which were explained on the basis of this law.

20.Which separation technique will you apply for the separation of the following :--

- **a. butter from curd .**
- **b. oil from water .**
- **c. tea leaves from tea .**
- **d. iron pins from sand .**
- **e. sodium chloride from its solution in water.**

(OR)

Classify each of the following as a physical or a chemical change and give reasons.

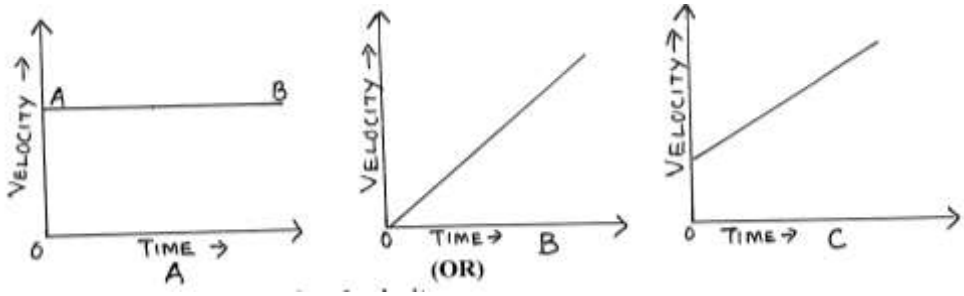
- **a. melting of butter in a pan .**
- **b. rising of hot air over a radiator .**
- **c. boiling of water to form steam.**
- **d. Burning of paper.**
- **e. Digestion of food.**

21.What is apiculture ? write any two varieties of bees used. What is pasturage and how it is Related to honey production ?

(OR)

What is mari culture and composite fish culture ? write the advantages of composite fish Culture .

22. a. what is the difference between uniform velocity and non-uniform velocity?
b.what types of motions are represented by the following velocity –time graphs.



(OR)

- **a. Distinguish between speed and velocity .**
- **b. Under what conditions is the magnitude of average velocity of an object equal to its Average speed.**
- **c. what does the odometer of an automobile measure?**

23.Define aceleration due to gravity. Derive an expression for aceleration due to gravity in Terms of mass of the earth (m) and universal gravitational constant (G).

(OR)

a. **What will happen to the gravitational force between two bodies if the mass of one body is doubled**
b. **If a man weighs 600N on the surface of the earth, what is his mass? Take g—10m/s**
c. **What are the differences between the mass of an object and its weight? (any 3 differences)**

24.a. What is force ?
b. **when a force is applied to a body , what are the two essential effects it can produce ?**
c. **Why bicycles do begin to slow down when we stop pedaling ?**
d. **Which law of motion is also called the law of inertia ?**

(OR)

a. **What is force ?**
b. **What is the magnitude of the force which produces an acceleration of 1m/s in a body of mass of one kg.?**

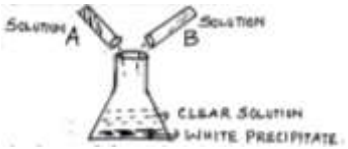
c.Which law of motion is related to action and reaction ?
d.Why is it advised to tie any luggage kept on the roof of a bus with a rope?

SECTION :B

25.Conversion of a solid into vapour is called
a.vapourization
b.fusion
c.sublimation
d.evaporation

26.When ice melts cooling is observed because of which one of the following ?
a.As ice melts it floats on water.
b.melting of ice is an endothermic change.
c.melting of ice is an exothermic change.
d.melting point of ice is 273 k at 1 atmospheric pressure.

27.Awhite precipitate is formed when two solutions A and B are mixed .what are the two solutions?



a.A—Copper sulphate and B --- Sodium nitrate.
b.A –lead nitrate and B ---sodium nitrate.
c.A---barium chloride and B – sodiumchloride.
d.A—barium chloride and B –sodium sulphate.

28.When dilute sulphuric acid is added to zinc granules ,it is observed that

a. a precipitate is formed .
b.the reaction mixture turns yellow .
c. the container becomes cool .
d. bubbles start coming out from the surface of zinc granules .

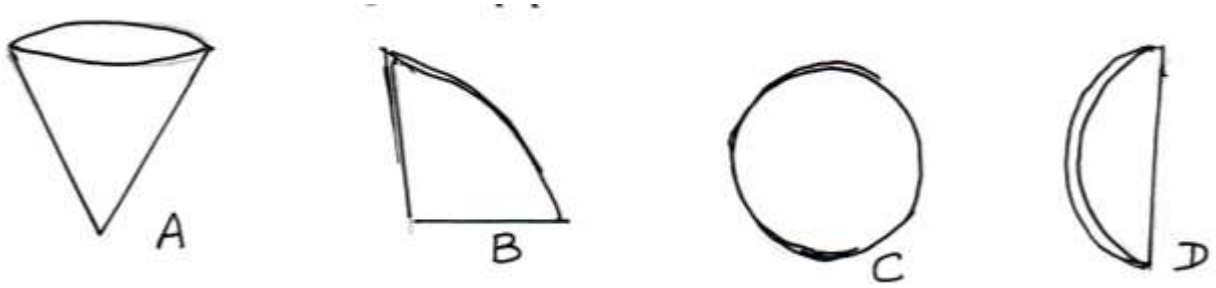
29.Sanjay a student of class ix was asked by his science teacher to prepare a suspension. He added the sample in water but forgot its name. what may be the correct name of the Sample ?

a.Barium chloride.
b.chalk powder .
c.alum.
d.Egg albumin.

30.When we start heating a mixture of sulphur powder and iron filings ,we would observe

a.Sulphur starts melting.
b.mixture evaporates .
c.mixture becomes red hot.
d.iron filings start melting .

31. The correct order of folding a filter paper is



a.A,B,C.D .
b.B,C,A,D.
c.A,B,D,C.
d. C,D,B,A .

32.The colour of sodium chloride and ammonium chloride is,

a.yellow and white.
b.white and green
c.both are white .
d.grey and yellow .

33.A strip of magnesium metal is burnt in the flame . it is observed that

a. ayellow light appears.
b.magnesium starts melting
c.a white dazzling light appears.
d.lot of black smoke is produced.

34. Sulphur dissolves in

a.water
b.alcohol
c.Hcl
d.carbon di sulphide.

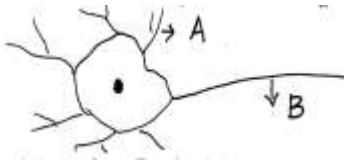
35.Which of the following liquids is not used in the preparations of stained temporary mount Of onion peel?

a)water
b)glycerine
c)safranin
d)methyl alcohol

36. Cross section of a plant part shows the following cells. Identify them.

a)sclerenchyma
b)parenchyma
c)collenchyma
d)T.S of phloem tissue

37. Label "A" and "B" correctly in the following diagram.



a) A- nucleus, B – dendrite
b) A –dendrite, B – axon
c) A –axon , B - dendrite
d) A – dendrite, B – nucleus

38.Substance "X" was added to a test tube containing water and grounded arhar dal to test the presence of metanil yellow. The colour of solution changed to pink. Identify "X".

a) water
b) sodium hydroxide
c) carbonic acid
d) hydrochloric acid

39.Which of the following is not parenchyma?
a)chlorenchyma
b)mesophyll cells
c)aerenchyma
d)collenchyma

40.A sample of pulse was taken and drop of iodine was added to test starch .the colour observed Will be
a)yellow
b)blue
c)black
d)blue black

41.The colour of copper sulphate solution in water is observed as

a)Dark green
b)Colour less
c)Red
d)Light blue

42. Your are shown two slides of plant tissues namely parenchyma and sclerenchyma. you can Identify the sclerenchyma by the

a)location of nucleus
b)size of cells
c)position of vacuoles
d)thickness of cell wall