DAV PUBLIC SCHOOLS
MID TERM EXAMINATION- 2025-26
CLASS: VIII
SUBJECT: SCIENCE
SAMPLE PAPER

TIME: 3 Hours **M.M: 80**

General instructions:

1. This question paper comprises five sections A, B, C, D and E. There are 39 questions in the question paper.
2. All questions are compulsory. However, internal choice has been provided in one question of Section -B, two questions of Section -C and three questions of Section -D. In Section -E, four parts to be attempted out of five.
3. Write the serial number of questions before attempting it.
4. Section- A consists of question number 1 to 20. These questions are MCQs and Assertion Reason questions. They carry one mark each.
5. Section-B consists of question number 21 to 26. These are short answer questions which carry two marks each.
6. Section- C consists of question number 27 to 33. These are also short answer questions which carry three marks each.
7. Section- D consists of question number 34 to 36. These are long answer questions and carry five marks each.
8. Section- E consists of question number 37 to 39. These are case study-based questions and carry four marks each.

SECTION- A

1. The structure which provides rigidity to the plant cell is: 1
   (A) Cell membrane
   (B) Cell wall
   (C) Chloroplast
   (D) Golgi body
2. The synthetic fiber which appears to resemble wool is: 1
   (A) Acrylon
   (B) Nylon
   (C) Rayon
   (D) PET
3. Coal is processed in industries to obtain some useful products. Identify the substance which is **NOT** obtained from coal: 1
   (A) Coal Tar
   (B) CNG
   (C) Coke
   (D) Coal Gas

4. The material that is commonly used to make soft drink bottles is: 1
   (A) Acrylon
   (B) PET
   (C) Terylene
   (D) Nylon

5. The microorganism which is used in the production of alcohol is: 1
   (A) Bacteria
   (B) Virus
   (C) Fungi
   (D) Algae

6. Choose the correct statement about inflammable substances from the following: 1

   (A) Low ignition temperature and cannot catch fire easily.
   (B) High ignition temperature and can catch fire easily.
   (C) Low ignition temperature and can catch fire easily.
   (D) High ignition temperature and cannot catch fire easily.

7. Name one natural resource that can never be used up: 1

   (A) Coal
   (B) Sun-light
   (C) Petroleum
   (D) Minerals

8. Identify the method of preservation from the following: 1

   (A) Fermentation
   (B) Dehydration
   (C) Pasteurization
   (D) Both B and C

9. The fuel that is known to be the cleanest and causes the least pollution, is: 1

   (A) Cow dung cake
   (B) Kerosene
   (C) Petrol
   (D) CNG

10. The statement that is true with respect to chromosomes is: 1
   (A) They are found only in plant cells.
   (B) They are made of protein only.
   (C) They are present inside the nucleus and carry genes.
   (D) They help in digestion.

11. Among the different types of forces, which one of them requires physical contact between objects? 1
    (A) Gravitational force
    (B) Magnetic force
    (C) Frictional force
    (D) Electrostatic force

12. What determines the amount of fluid friction experienced by an object moving through a fluid? 1
    (A) Only the shape of the object.
    (B) Only the speed of the object.
    (C) The shape and speed of the object, as well as the viscosity of the fluid.
    (D) The weight of the objec.t

13. The solution which **will not** conduct electricity is- 1
    (A) sodium chloride
    (B) copper sulphate
    (C) sugar dissolved in distilled water
    (D) silver nitrate

14. Arun, a mountain climber, was advised to replace his jute rope with nylon rope for his mountain climbing expedition. The reason is because nylon fiber is: 1
    (A) thermosetting plastic
    (B) having high tensile strength
    (C) lustrous
    (D) good absorber of sweat

15. The primary purpose of applying oil or grease to moving parts of machines is to: 1
    (A) increase friction
    (B) reduce friction
    (C) decrease speed
    (D) change direction

16. When electric current is passed through a conducting solution, there is a change of colour of the solution. This indicates: 1
    (A) heating effect of current
    (B) magnetic effect of current
    (C) lightning effect of current
    (D) chemical effect of current

Q. no 17 to 20 are Assertion - Reasoning based questions. These consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

(A) Both A and R are true and R is the correct explanation of A
(B) Both A and R are true and R is not the correct explanation of
(C) A is true but R is false
(D) A is False but R is true

17. **Assertion:** It is easier to walk on sand with flat shoes than with pointed heels. 1

Reason: Flat shoes have a larger surface area in contact with the sand, which reduces the pressure exerted on the sand.

18. **Assertion**: All cells have the same shape and size. 1
Reason: The shape and size of a cell are related to its function

19. **Assertion:**Yeast is used in the baking industry 1
Reason: Yeast produces carbon dioxide, which makes the dough rise.

20. **Assertion**: Ignition of fire crackers is termed as explosion. 1
Reason: Fire crackers burn under control and release a limited amount of energy in a free supply of air.

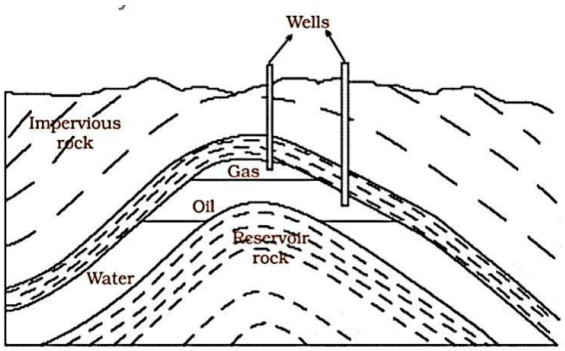
SECTION – B

21. Give two reasons to justify that it is not advisable to wear synthetic clothes while working in the kitchen. 2

22. Where are ribosomes located? What is their function? 2

23. A car is being pulled with a force of 500N to the right and 300N to the left. What is the net force acting on the car, and in which direction will it move? 2

24. 2



Observe the given picture shown above and answer the following questions:

A) Why do we find the oil layer above the water layer?
B) Write the full form of (i) PNG and (ii) LPG.

25. How do microorganisms help in keeping the earth free from dead and decaying organic matter? 2

26. Write one function of each of the following products- 2

(A) fuel oil
(B) Gasoline

(C) Paraffin Wax
(D) Asphalt

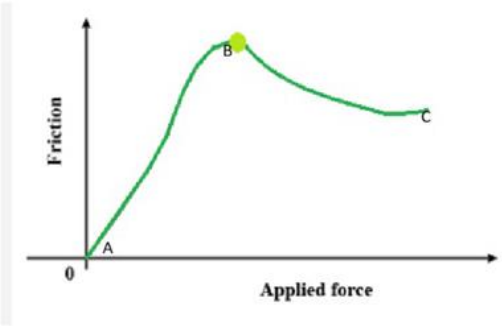
SECTION- C

27. Look at the image given below and answer the questions that follow: 3

A B

(A) Which two organisms are shown in the image above?
(B) Give one point of difference between the above mentioned organisms.

28. Consider the provided graph showing the relationship between the applied force and the frictional force acting on an object placed on a horizontal surface. 3



(A) What type of friction is represented by part AB of the graph?

(B) Name the specific term for the maximum frictional force shown at B point?

(C) What type of friction is represented by BC part of the graph?

29. (A) Categorise the following electrolytes into weak and strong electrolytes: 3

Sodium chloride solution, Oxalic acid, Ammonium hydroxide solution, Copper sulphate solution

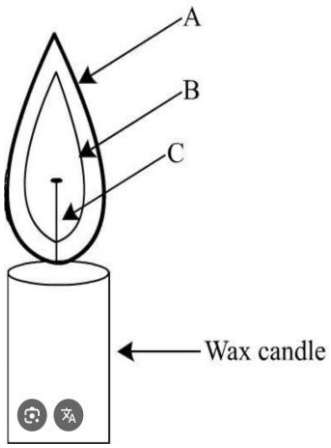
(B) Name the two metals used as the positive and negative electrodes in a voltaic cell.

30. The following image shows a method of food preservation. 3

(A) Which method of food preservation is shown here?
(B) Explain the principle on which it is based.

31. Differentiate between thermosetting plastics and thermoplastics. Give one example each. 3

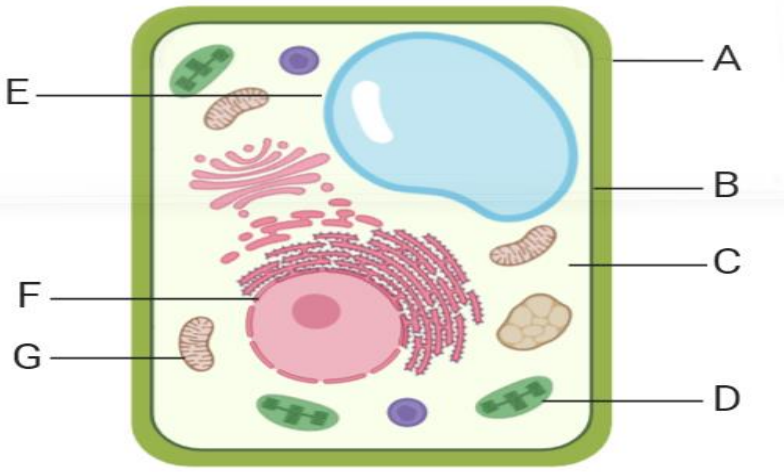
32. Identify A,B,C and mention the temperature of each zone of candle flame. 3



33. Mention the three different types of coals and write the percentage of carbon in each type of coal. 3

SECTION- D

34. Observe the following diagram and answer the following questions. 5



(A) Name the type of cell shown.Give one reason for the same.
(B) Label the parts A and B.
(C) Mention one structural difference between A and B.
(D) Give the main function of part F.
(E) What would happen in the absence of part D?

5

35. (A) When a pencil cell is released from a certain point on an inclined wooden board, it travels a distance of 35cm on floor A before it comes to rest. When the same pencil cell is released from the same point on the same inclined board, it travels a distance of 20cm on the floor B before coming to rest. Which floor, A or B offers greater friction? Justify your answer.

(B) Give reasons for the following statement:

(i) A pencil will write on paper but not on glass

(ii) Grooves are provided in the soles of shoes.

(C) What is the name given to the special shape when objects are moving through fluids?

36. Maneet wants to remove the impurities from the copper spoon given to him, 5

(A) Which application of electrolysis will be helpful for him?
(B) Explain the experimental set-up of the process.
(C) State any two reasons for coating bicycle handles with chromium metal.

SECTION- E

Question number 37 to 39 are case study-based questions and contain five sub-parts each. You are expected to answer any four sub-parts in these questions.

37. During a school health campaign, students found that villagers stored food in warm places for long hours, leading to frequent stomach problems. They 4

also observed that poor soil quality was linked to the absence of leguminous crops. In the local bakery, yeast fermentation failed in winter due to low temperatures. The team educated the villagers that certain micro organisms are of use to us such as in the preparation of vaccines.

Answer the following questions based on the case:

(A) What caused the stomach problems in the villagers according to the students' observation?
(B) Why was the soil quality poor in the village?
(C) What prevented yeast fermentation in the bakery?
(D) How are microbes beneficial to us in the health sector?
(E) In what ways can villagers increase soil fertility without relying on chemical fertilisers?

38. Natural resources are materials provided by nature that are used by humans for various purposes. These resources are broadly classified into renewable and non-renewable types. Renewable resources are those which can be replenished naturally in a short span of time, such as sunlight, wind, water, and biomass. They are sustainable and do not run out if used wisely. In contrast, non-renewable resources like coal, petroleum, and natural gas are formed over millions of years and exist in limited quantities. Once these are used up, they cannot be replaced easily. The overuse of non-renewable resources leads to pollution and depletion, making it essential to switch to renewable alternatives for a sustainable future. 4

(A) Name a natural resource that can be used again and again because nature replaces it quickly.
(B) Which resources take a very long time to form and can get used up if we are not careful?
(C) What problem can happen if we keep using limited resources too much?
(D) Can you name two natural things we can use for energy that won't run out easily.
(E) Why should we start using natural resources that don't run out quickly?

39. Ravi and his friends went on a trek to a high mountain. As they climbed higher, Ravi noticed that the packets of chips they had brought seemed to puff up more. Ravi wondered why this was happening. His friend Anjali explained that this is because of the variation in air pressure. Moreover, one of his friends was finding difficulty in breathing as well at the same place. So they went to a nearby hospital to rectify the problem a friend was facing. 4

(A) Why did the chip packets puff up at higher altitude?
(B) What would happen to a balloon taken to a high altitude if it was partially inflated at ground level?

(C) What Ravi and his friends would have done so that the medical problem faced by them could be minimised?
(D) Do you think air pressure varies with temperature too?
(E) Why is it that we do not feel the atmospheric pressure acting on us all the time?