

HOLIDAY HOMEWORK (MATHS)

1. Classify the following as rational or irrational no.
i) $\sqrt{2}$, $\sqrt{1.5}$, $0.333...$, $\sqrt{49}$, π , $-\frac{3}{4}$

2. Write five rational no. between :-

a) 1 and 2 b) -1 and 0

3. Represent $\sqrt{3}$ and $\sqrt{5}$ on no. line using geometrical Construction. (use compass and scale)

4. Write the decimal expansion of :-

a) $\frac{1}{8}$ b) $\frac{22}{7}$ c) $\frac{1}{3}$

and state whether decimals are terminating or non-terminating recurring.

5. Without actual division, State whether the decimal representation of the following will terminate or not -

a) $\frac{7}{20}$ b) $\frac{23}{90}$ c) $\frac{5}{16}$ d) $\frac{4}{11}$

6. True or false (give reason) :-

- a) $\sqrt{2}$ is a rational number
- b) Every real number is either rational or irrational
- c) The product of two irrational no. is always irrational.

7. Express the following as a rational no. in the form of $\frac{p}{q}$

a) $0.6666\dots$ b) $1.272727\dots$ c) $0.818181\dots$

d) $0.999\dots$

8. Insert three irrational no. between $\sqrt{2}$ and $\sqrt{3}$

9. On the numbers line, mark the position of :-
 $0, 1, \sqrt{2}, \sqrt{4}$

English Holiday Homework

1. Words & Expression, Unit 1, 2, 3.
2. Revise rules of Tenses, Direct - Indirect and Active & Passive voice (Write five sentences for each).
3. To read chapter 1, 2, 3 of moments and write summary of these lessons in your words.

English holiday homework (class - 10th A)

1. Read chapters :-
 - * Fiction - 1, 2, 3
 - * Poem - 1, 2, 3
 - * Drama - 1
2. MCB and workbook :-
 - * UNIT :- 1, 2, 3
3. Revise :- Rules of tenses, Direct and Indirect and Active and passive.

English Holiday Homework - 9-C

- 1- Word Meaning Chapter - 2, 3, 4 (Beehive)
- 2- Word Meaning Chapter - 1, 2, 3 (Moment)
- 3- Solve Unit 1, 2, 3 of Work book
- 4- Revise Rules of Tenses (Active Passive) or (Direct Indirect)

IXC - HINDI



(Hindi)

Holiday Homework

औपचारिक पत्र - 2

अनौपचारिक पत्र - 2

अनुच्छेद लेखन - 5

अपठित - पद्यांश - 3 - लघुन्तरात्मक प्रश्नोत्तर - 5

अपठित वाद्यांश - 3 - लघुन्तरात्मक प्रश्नोत्तर - 10

1.

2.

3.

4.

5.

PM SHRI KV AMC LUCKNOW
SUMMER HOLIDAY HOMEWORK
CLASS-IX

Q1. Boiling points of diethyl ether, acetone and n-butyl alcohol are 35°C, 56 °C and 118 °C respectively. Which of the following set correctly represents the boiling points on the Kelvin scale?

- (a) 306 K, 329 K, 391 K
- (b) 308 K, 329 K, 392 K
- (c) 308 K, 329 K, 391 K

Q2. Evaporation is directly proportional to

- | | |
|------------------|------------------|
| (a) Surface area | (b) temperature |
| (c) wind speed | (d) all of these |

Q3. Plasma membrane is mainly composed of

- | | |
|---------------|------------------|
| (a) Cellulose | (b) lipids |
| (c) proteins | (d) both b and c |

Q4. Cell theory was proposed by

- | | |
|-------------------------|------------------|
| (a) Robert hook | (b) Leeuwenhoek |
| (c) Schleiden & Schwann | (d) Robert brown |

Q5. Cell wall is

- | | |
|----------------------------|--------------------------|
| (a) Dead and impermeable | (b) Dead and permeable |
| (c) Living and impermeable | (d) Living and selective |

Q6. Find out the false sentence.

- (a) Plants absorb water by the process of osmosis.
- (b) Amoeba obtains its food by the process of endocytosis.
- (c) CO₂ move in and out of the cell by the process of diffusion
- (d) Unicellular fresh water organisms gain water through diffusion.

Q7. Which of this organelle is not present in human cheek cells?

- | | |
|---------------|------------------|
| (a) Nucleus | (b) Chloroplast |
| (c) Lysosomes | (d) mitochondria |

ASSERTION - REASON

Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).

(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).

(c) Assertion (A) is true but reason (R) is false.

(d) Assertion (A) is false but reason (R) is true.

Q8. **Assertion (A):** sponge is the solid matter which we easily compressed by our hand .

Reason (R): Sponge has minute hole which is full of air by pressing it the air is further absorbed in hole.

Q9. **Assertion (A):** Mitochondria and chloroplasts are semiautonomous organelles.

Reason (R): They are formed by division of pre-existing organelles and contain DNA but lack protein synthesizing machinery.

Q10. **Assertion (A) :** Rasin is swell up when it gets contacted with the water.

Reason (R) : Rasin gain oxygen from water by diffusion

SHORT ANSWERS:

Q11. A person takes concentrated solution of salt, after sometime, he starts vomiting. What is the phenomenon responsible for such situation? Explain

Q12. Liquids generally have lower density as compared to solids. But Rahul observed that ice float on water. Justify

Q13. Write three differences between plasma membrane and the cell wall. Also, write two functions of each.

Q14. If you are provided with some vegetables to cook. You generally add salt into the vegetables during cooking process. After adding salt, vegetables release water. What mechanism is responsible for this?

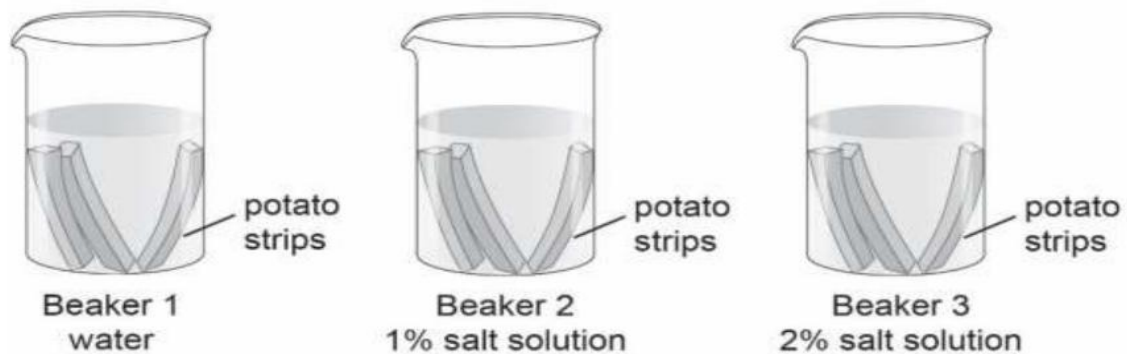
Q15. Why do the doctors advise to put strips of wet cloth on the forehead of a person having high fever?

Q16. 100 ml of water was placed in four vessels A, B , C , D. Vessel C , A and D are of same size , B is smaller. Vessel C is covered and C and D are placed under the fan

Q19. Sania conducts an experiment to know how plant cells lose or gain water through osmosis. She cuts out 5 cm long potato strips. She puts three potato strips in each of the following beakers:

Sania leaves the potato strips in the beaker for 5 hours.

- Beaker 3 containing 2% salt solution
- Beaker 2 containing 1% salt solution
- Beaker 1 containing only water



She records the length of the potato strips in each beaker after 5 hours.

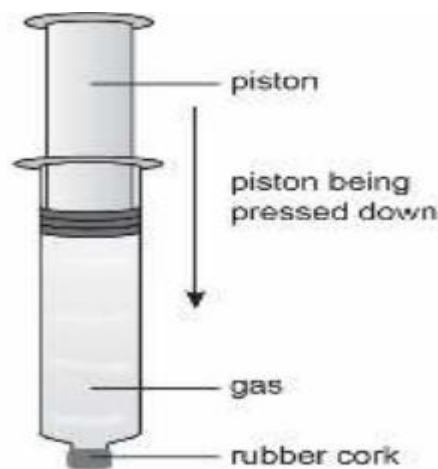
	Length of the potato strip before placing in the beaker (cm)	Length of the potato strip after 5 hours in the beaker (cm)
Beaker 1 water	5.0	5.3
	5.0	5.2
	5.0	5.2
Beaker 2 1% salt solution	5.0	5.0
	5.0	5.0
	5.0	4.9
Beaker 3 2% salt solution	5.0	4.8
	5.0	4.9
	5.0	4.7

What can Sania conclude from her experiment?

- Cells gain water through osmosis when kept in salt solution.
- Salt molecules from the cell move out when kept in water.
- Cells in salt solution first gain water and then gradually lose water.
- Water molecules move out of the cell based on the amount of salt in the solution.

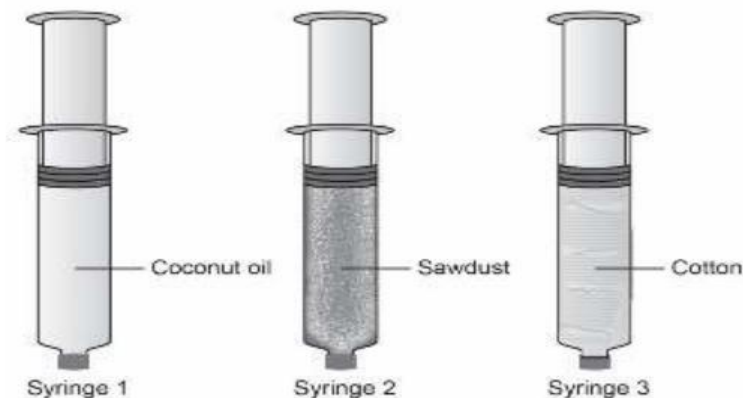
Q20. In which beaker was the concentration of water molecules inside and outside the potato cells likely to be the same? Explain your answer

Tina found a syringe in her science lab. The mouth of the syringe was closed with a rubber cork. Tina tried to press the piston of the syringe as much as possible.



- (a) Tina found that it was difficult to piston as it moved deeper. Explain the reason with reference to the change in space between the particles.

Tina found three more syringes of the same size closed with rubber cork. She took the piston out of each syringe and filled the with coconut oil, saw dust and cotton. Tina closed the end of each syringe with piston. She then tried to press the piston of each syringe as much as possible.



- (b) Arrange the syringes in increasing order of difficulty of pressing them

Key: less difficult □ more difficult

- A. Syringe 1 → Syringe 2 → Syringe 3
- B. Syringe 3 → Syringe 2 → Syringe 1
- C. Syringe 1 → Syringe 3 → Syringe 2
- D. Syringe 2 → Syringe 3 → Syringe 1

21. Explore new ideas for INSPIRE AWARD MANAK and prepare writeup beforehand for inspire award.

ग्रीष्मकालीन अवकाश गृहकार्य

कक्षा - 9

विषय - हिन्दी

1. औपचारिक , अनौपचारिक पत्र क्या है , उदाहरण सहित समझाये ?

2 . उपसर्ग और प्रत्यय से आप क्या समझते हैं कोई भी 10 उपसर्ग और 10 प्रत्यय से 5-5 शब्द बनाए।

3. वाक्य क्या है , अर्थ के आधार पर वाक्य भेद को सृजनात्मक लेखन द्वारा स्पष्ट

कीजिए ।

4. निम्नलिखित विषयों पर 100 शब्दों में अनुच्छेद लिखिए।

(क) मेरे जीवनकालक्षय/उद्देश्य

(ख) आतंकवाद: समस्या और समाधान

5. भक्तिकाल के तीन कवियों के बारे में जानकारी प्राप्त करके एक प्रोजेक्ट बनाइए।

