Holiday Homework Instructions

1. **Use separate folders:** Keep your holiday homework organized by using separate folders for each subject.
2. **Sheets and Size:** Please use presentation sheets of A-4 size
3. **Neat and legible work:** Ensure your work is neat, legible, and well-presented.
4. **Follow instructions:** Read and follow the instructions for each assignment carefully.
    a. **Complete all tasks:** Make sure to complete all tasks and assignments as given by your teachers.
    b. **Use appropriate stationery:** Use the required stationery, such as A4 sheets, graph paper, or drawing sheets, as specified for each assignment.
    c. Submit your holiday homework by July 25, 2025.
    d. Submission of all assignment of all subjects are mandatory.

Tips for neat work:

- Use a ruler to draw margins and keep your work tidy.
- Write your name, class, and subject on each sheet.
- Use clear and legible School handwriting.
- Keep your work free of scribbles and erasures.

St. Anthony's High School Faisal Town Lahore

Holidays Homework

Subject: Biology Class: 10 C Name: _____Admission #

Note: Attempt on assignment sheets

Worksheet # 1

1. Fig. 1.1 shows a bacterium, a virus and a fungus.

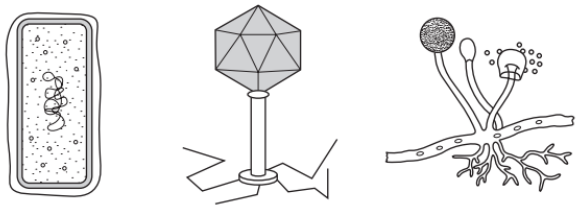


Fig 1.1 not to scale

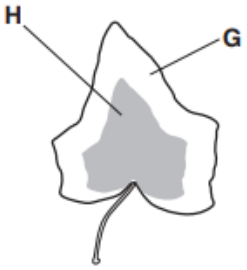
(a) Complete the table to compare the three organisms shown in Fig. 1.1 by using a tick (V) to indicate if the organism shows the feature, or a cross (x) if it does not. The first row has been completed for you.

feature	ba	virus	fungus
produces spores	X		✓
hyphae			
capsule			
nucleus			

(b) Explain how the fungus shown in Fig. 1.1 is adapted to obtain its food. **[3]**

(c) Explain how the fungus spreads to new sources of food. **[2]**

2 (a) Fig. **2.1** shows a diagram of a leaf.



• The part of the leaf labelled **G** contains no chlorophyll and is a white colour.

• The part of the leaf labelled **H** contains chlorophyll and is a green colour. Glucose produced during photosynthesis is stored in the leaf as starch. The leaf was boiled in ethanol to remove the chlorophyll.

The leaf was then tested for the presence of starch with iodine solution.

(i) Predict the colour of the part of the leaf labelled G after iodine solution has been added. **[1]**

(ii) Predict the colour of the part of the leaf labelled H after iodine solution has been added. [1]

(iii) State a conclusion about chlorophyll from this investigation. **[1]**

(b) A similar leaf was kept in the dark for 24 hours and then tested for the presence of starch. The leaf contained no starch. Explain why the leaf contained no starch. **[1]**

(c) Water is required for the process of photosynthesis.

(i) Describe where and how water enters a plant. **[3]**

(ii) Describe one function of water in a plant other than for photosynthesis. [1]

(iii) State the name of the tissue in a plant that transports water. [1]

(iv) State the name of the part of a leaf through which water vapour is lost from the plant. [1]

3. Figs. 3.1 and 3.2 are photographs of compound leaves, each consisting of a number of leaflets.

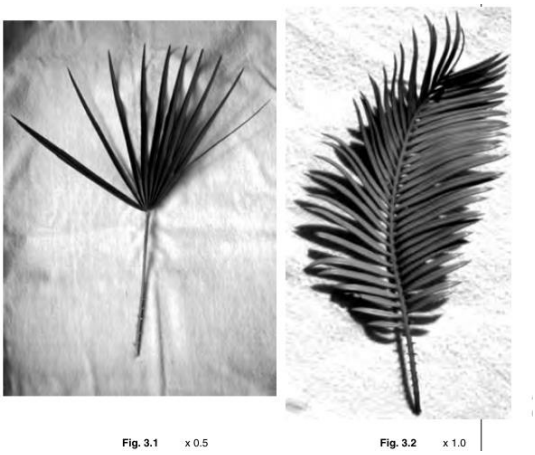


Fig. 3.1 x 0.5 Fig. 3.2 x 1.0

(a) State three visible features that are shown by both leaves. [**3**]

(b) State three differences shown by the leaves. (The features should be described for both leaves.) [6]

(c) Suggest one way in which the plant shown in Fig. 3.2 might benefit from having spines on the petiole. [1]

4 Fig. 4.1 is a photograph showing seeds inside a dry, flat fruit.

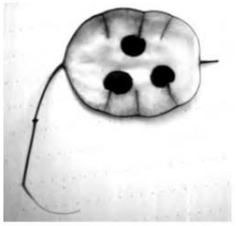


Fig. 4.1 x 1.5

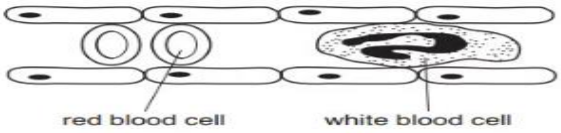
(a) (i) Make a clear, outline drawing to show one of the seeds and its attachment to the fruit. (Labels are not required.) [**1**]

(ii) Measure the seed in your drawing, and in the photograph, then use these measurements to calculate the magnification of the seed you have drawn, compared with the size of the seed that was photographed. **[3]**

Q5. (i) Name the enzyme that is found in the mouth cavity and state its substrate and product.
(ii) Explain why the reaction that this enzyme catalyses does not occur in the stomach, but does occur in the duodenum. [5]

Worksheet 2 Transport in man

1. Fig 1 shows a section through a blood vessel. Identify the type of blood vessel shown in Fig 1. **[1]**

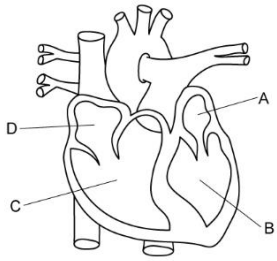


(b) Red blood cells are different to white blood cells. State three ways in which a red blood is different to a white blood cell. **[3]**

(c) Blood has many componenets. **(i)** State the name of the liquid component of blood. **[1]**

(ii) State **three** substances that are transported in the liquid component of blood. **[3]**

2. The heart is part of the circulatory system. Fig 1 shows a mammalian heart.



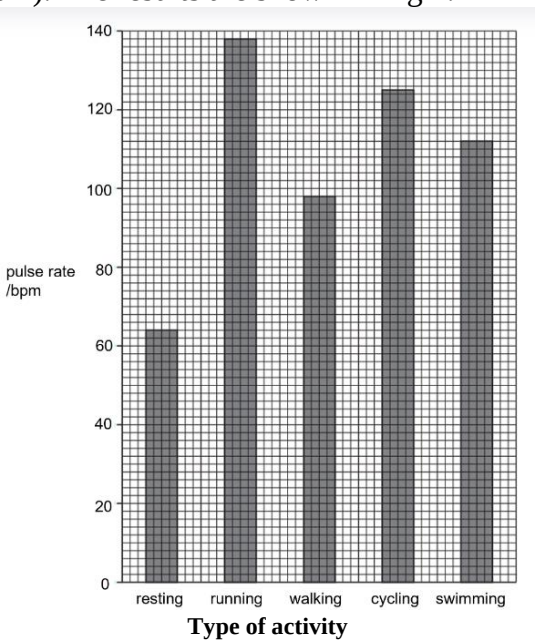
(a) Identify structures labelled A to D on Fig 1. **[4]**

(b) Identify the septum on Fig 1 from part **(a).** **[1]**

(c) Explain why the human circulation system is described as a double circulation system. **[1]**

(d) Describe the function of the right side of the heart. **[2]**

3. A student completed different types of activity. She measured her pulse rate during each type of activity in beats per minute (bpm). The results are shown in Fig 1.



Use Fig 1 to answer these questions.

(i) State he type of activity that results in the highest pulse rate. **[1]**

(ii) State the pulse rate of the student when she was cycling. Give your answer in bpm. **[1]**

(iii) Calculate the percentage increase in her pulse rate between resting and walking. Show your working and give your answer to the nearest whole number. **[2]**

(c) Describe the changes to a person's breathing during exercise. **[2]**

Biology Worksheet 3 Classification

Toads are amphibians. Only two species are native to Britain, the Common toad *(Bufo bufo*) and the Natterjack toad (*Bufo calamita*). Natterjack toads like warm sandy soil in open and sunny habitats, with

shallow pools for breeding. Examples of these habitats are heathland and sand dunes. Common toads like cooler, more shady habitats, such as woodland. Many areas of sand dunes are being developed for campsites. Heathland can easily change to woodland as trees grow on it. In the summer, woodland is colder than heathland due to the shade the trees create. These conditions suit the Common toad, but not the Natterjack. As a result of the changing habitats the Natterjack toad is becoming an endangered species.

(a) (i) Name one external feature that identifies an animal as an amphibian. [1]

(ii) Amphibians are a class of vertebrate. Name two other vertebrate classes. [2]

(b) State one piece of information from the passage to show that the Common toad and Natterjack toad

are closely related species. [1]

(c) From the information provided, state two reasons why Natterjack toads are becoming endangered. [2]

(d) Suggest measures that could be taken to protect the Natterjack toad from extinction. [2]

Fig. 1.1 shows a food web for British toads.

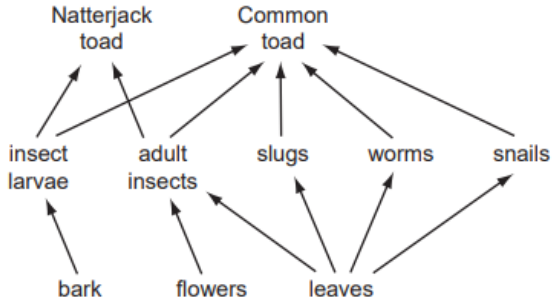


Fig 1.1

(e) (i) State the trophic level of toads. [1]

(ii) State which foods the two species of toad both eat. [1]

(iii) With reference only to food, suggest why the Common toad is more likely to survive when the two species are in competition. [1] **[Total: 11]**

2 . Table 1.1 shows some of the external features of the five classes of vertebrates. Complete the table by using a tick (√) to indicate if each class has the feature or a cross (×)if it does not. The first row has been completed for you. Table 1.1

feature		amphibia	reptiles	birds	mammals
mammary glands	×		×	×	✓
fur / hair					
scales / scaly skin					
external ears					
feathers					

[4]

St Anthony's High School Faisal Town Lahore

Name …… Adm #: ……

Class 10C **Summer Vacation Worksheet # 1** **Time: 40 min**

---

1 A school network has several computers.

Each computer in the network has a media access control (MAC) address.

Hexadecimal is used for MAC addresses.

Part of a MAC address is given.

97–5C–E1

Each pair of digits is stored as binary in an 8-bit register.

(a) Complete the binary register for these two pairs of digits.

97								
5C								

[4]

(b) Describe what is meant by a MAC address.

……

……

……

……

……

……

……

…… [4]

(c) Give **two other** uses of hexadecimal in computer science.

1 ……

2 …… [2]

(d) Another value is stored as binary in a register.

0	1	0	1	0	0	1	0

(i) A logical left shift of two places is performed on the binary value.

Complete the binary register to show its contents after this logical left shift.

[1]

(ii) State **one** effect this logical shift has on the binary value.

.....

..... [1]

(e) Negative **denary** numbers can also be represented as binary using two's complement.

Complete the binary register for the denary value −54.

You must show all your working.

Working space .....

.....

.....

.....

Register:

1 A database table, `2018MOV`, is used to keep a record of movie details.

CatNo	Title	Genre1	Genre2	Blu-ray	DVD	Streaming
18m01	Power Rangers	Adventure	Fantasy	Yes	No	Yes
18m02	Baywatch	Comedy	Drama	Yes	No	Yes
18m03	Table 19	Comedy	Drama	Yes	Yes	No
18m04	Wonder Woman	Action	Fantasy	Yes	No	Yes
18m05	Justice League	Action	Fantasy	Yes	Yes	Yes
18m06	Twilight	Thriller	Action	Yes	Yes	No
18m07	Ant Man	Action	Fantasy	No	Yes	No
18m08	Venice Beach	Action	History	No	Yes	No
18m12	Fast Five	Action	Thriller	No	Yes	No
18m15	King Kong	Adventure	Fantasy	No	Yes	No
18m16	Transformers: The Last Knight	Action	Sci-Fi	Yes	Yes	Yes
18m17	The Dark Tower	Fantasy	Sci-Fi	Yes	Yes	No
18m19	Beauty and the Beast	Fantasy	Romance	Yes	Yes	Yes
18m21	The Mummy	Action	Fantasy	No	No	Yes
18m22	Star Wars: Episode VIII	Sci-Fi	Action	Yes	No	Yes
18m23	Guardians of the Galaxy	Action	Sci-Fi	Yes	Yes	Yes
18m26	Thor	Action	Sci-Fi	No	Yes	Yes
18m27	Twilight	Fantasy	Sci-Fi	No	No	Yes
18m30	Beneath	Action	Fantasy	Yes	No	No
18m31	Despicable Me	Animation	Action	Yes	Yes	No

(a) State the number of records in the database table.

..... [1]

(b) **(i)** Give the name of the field that would be used for the primary key.

..... [1]

(ii) State the reason for choosing this field for the primary key.

.....

..... [1]

c) Complete the table to identify the most appropriate data type for each field based on the data shown in the database table, `2018MOV`.

Field	Data type
`CatNo`	
`Title`	
`Genre1`	
`Streaming`	

[2]

d) Complete the structured query language (SQL) to return the category number and title for all Comedy movies.

```
SELECT CatNo, Title

..... 2018MOV

WHERE Genre1 =..... ;
```

10TH C, HOLIDAYS HOMEWORK 2025

Worksheet No 1 Date

Q1)

Which process will separate an ionic compound *PQ* into its elements *P* and *Q*?

A distillation

B electrolysis

C filtration

D precipitation

Q2)

Which products are formed at the anode and cathode when electricity is passed through molten lead(II) bromide?

	anode (+)	cathode (–)
A	bromide ions	lead ions
B	bromine molecules	lead atoms
C	lead atoms	bromine molecules
D	lead ions	bromide ions

Q3)

When dilute sulfuric acid is electrolysed between inert electrodes, which statements are correct?

1 Hydrogen is released at the negative electrode.

2 Oxygen is released at the positive electrode.

3 Sulfur dioxide is released at the positive electrode.

4 The acid becomes more concentrated.

A 1, 2 and 4 **B** 1 and 2 only **C** 2 and 3 **D** 3 and 4

Q4)

A concentrated aqueous solution of sodium chloride is electrolysed.

What are the equations for the reactions taking place at the cathode (negative electrode) and the anode (positive electrode)?

	cathode (–ve)	anode (+ve)
A	$2H^+ + 2e^- \rightarrow H_2$	$2Cl^- \rightarrow Cl_2 + 2e^-$
B	$2H^+ + 2e^- \rightarrow H_2$	$4OH^- \rightarrow O_2 + 2H_2O + 4e^-$
C	$Na^+ + e^- \rightarrow Na$	$2Cl^- \rightarrow Cl_2 + 2e^-$
D	$Na^+ + e^- \rightarrow Na$	$4OH^- \rightarrow O_2 + 2H_2O + 4e^-$

Q5)

What is observed during the electrolysis of aqueous copper(II) sulfate using carbon electrodes?

A A pink solid is deposited on the anode.

B Bubbles form on the negative electrode.

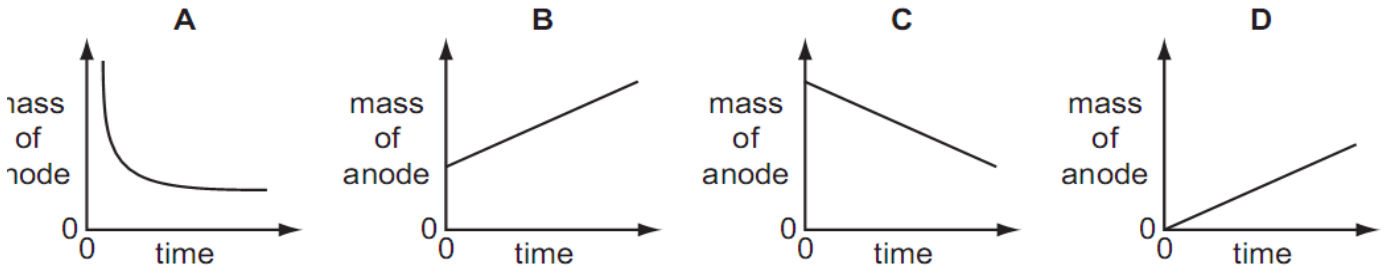
C The colour of the solution fades.

D The negative electrode becomes smaller.

Q6)

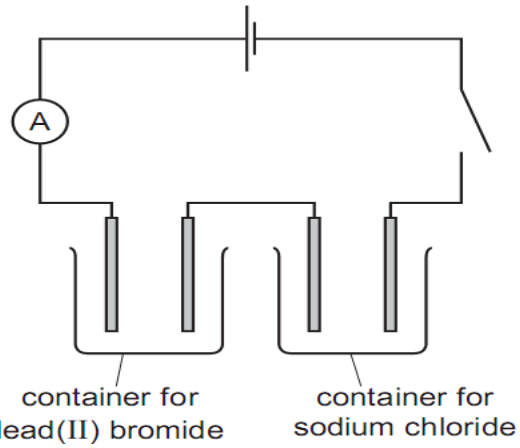
Aqueous copper(II) sulfate is electrolysed using copper electrodes. The current is constant and the anode (positive electrode) is weighed at regular intervals.

Which graph is obtained when the mass of the anode is plotted against time?



Q7)

The diagram shows the circuit for electrolysing lead(II) bromide and sodium chloride to liberate the metal.

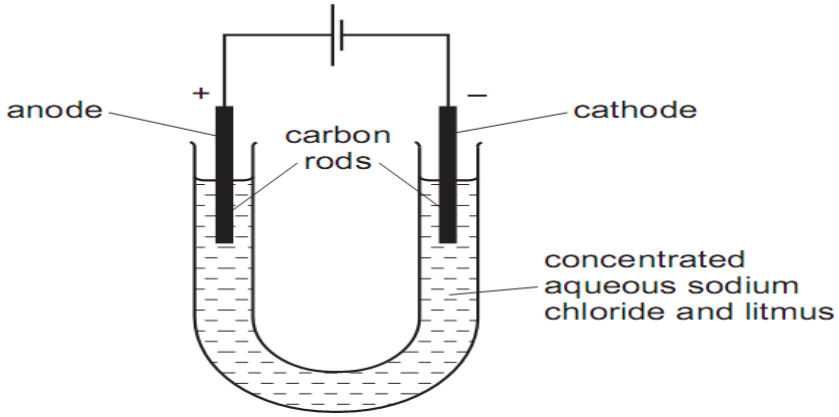


In what form are these salts electrolysed for liberating the metal?

	lead(II) bromide	sodium chloride
A	concentrated solution	concentrated solution
B	concentrated solution	molten
C	molten	concentrated solution
D	molten	molten

Q8)

The diagram shows the electrolysis of concentrated aqueous sodium chloride.



What is the colour of the litmus at each electrode after five minutes?

	colour at anode	colour at cathode
A	blue	red
B	red	blue
C	red	colourless
D	colourless	blue

Q9)

Concentrated aqueous sodium chloride is electrolysed using carbon electrodes. What is produced at each electrode?

	cathode (negative electrode)	anode (positive electrode)	
(a)	sodium	chlorine	☐
(b)	hydrogen	chlorine	☐
(c)	hydrogen	oxygen	☐
(d)	sodium	oxygen	☐

Q10)

Which arrangement would be used to electroplate copper onto a steel key?

	electrolyte	anode (positive electrode)	cathode (negative electrode)
A	aqueous copper(II) sulfate	piece of pure copper	steel key
B	aqueous copper(II) sulfate	steel key	piece of pure copper
C	aqueous sulfuric acid	piece of pure copper	steel key
D	aqueous sulfuric acid	steel key	piece of pure copper

Worksheet No 2 Date

Q1)

Only liquids that contain moving ions can be electrolysed. These liquids are called electrolytes.

(a) Complete the following table which shows the products formed when some liquids are electrolysed using inert graphite electrodes.

electrolyte	ions present in electrolyte	product formed at the positive electrode	product formed at the negative electrode
aqueous copper(II) sulfate	Cu^{2+}, H^+, OH^- and SO_4^{2-}	.....	.....
concentrated aqueous sodium chloride	H^+, Na^+, Cl^- and OH^-	chlorine	hydrogen
molten lead(II) bromide	Pb^{2+} and Br^-	.....	.....

[3]

(b) When concentrated aqueous sodium chloride is electrolysed, chlorine is formed at the positive electrode (anode) and hydrogen at the negative electrode (cathode).

(i) Construct the ionic equation to show the formation of chlorine at the positive electrode.

.....[1]

(ii) Explain why hydrogen is formed at the negative electrode rather than sodium.

.....

.....[1]

(c) A dilute solution of sulfuric acid contains hydrogen ions, hydroxide ions and sulfate ions. When this solution is electrolysed, hydrogen gas is formed at the cathode and oxygen gas is formed at the anode.

(i) Explain why hydrogen is formed at the cathode.

.....

..... [1]

(ii) Write the ionic equation for the reaction at the anode.

..... [2]

(d) **(i)** Name the products formed at the anode and cathode when molten calcium chloride is electrolysed.

anode .....

cathode .....[1]

(ii) Predict the product formed at the cathode when a dilute aqueous solution of calcium chloride is electrolysed.

.....[1]

(iii) Explain why solid calcium chloride does not conduct electricity.

.....[1]

Q2)

Aqueous silver nitrate can be electrolysed using inert electrodes.
Solid silver is formed on the cathode (negative electrode).

(a) The electrode reaction at the cathode is reduction.

(i) Construct the equation for the reaction which occurs at the cathode.

..... [1]

(ii) Explain why this reaction is reduction.

.....

..... [1]

(c) Explain why aqueous silver nitrate can be electrolysed but solid silver nitrate cannot.

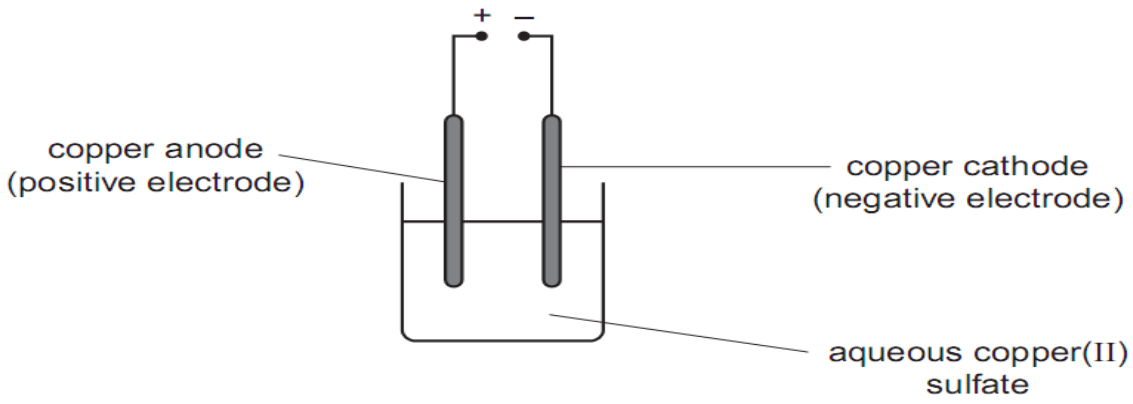
.....

.....

..... [2]

Q3)

A student investigates the electrolysis of aqueous copper(II) sulfate using the apparatus shown below.



The student weighs the copper cathode before and after the electrolysis.

experiment number	current used / A	time taken / s	mass of cathode	
			before starting / g	after electrolysis / g
1	2.0	180	1.24	1.36
2	4.0	180	1.20	1.44
3	2.0	360	1.34	1.58

(i) Explain, with the aid of an equation, why the cathode increases in mass.

.....

.....

.....[2]

(ii) In experiment **2** the student measures the mass of the anode both before and after the electrolysis.
At the start the anode has a mass of 1.45 g.
Determine the mass of the anode at the end of the electrolysis.

mass of anode at end = ... g [1]

(iii) The student does a fourth experiment, this time using a current of 8.0 A for 90 seconds. At the start the cathode has a mass of 1.51 g.
Predict the mass of the cathode at the end of the electrolysis.

mass of cathode at end = ... g [1]

(iv)

Describe how impure copper can be purified.

.....

.....

.....

.....[2]

Worksheet No 3 Date

Q4)

The student does more experiments using the apparatus in **(a)** with **graphite** electrodes but, in each case, using a different electrolyte.

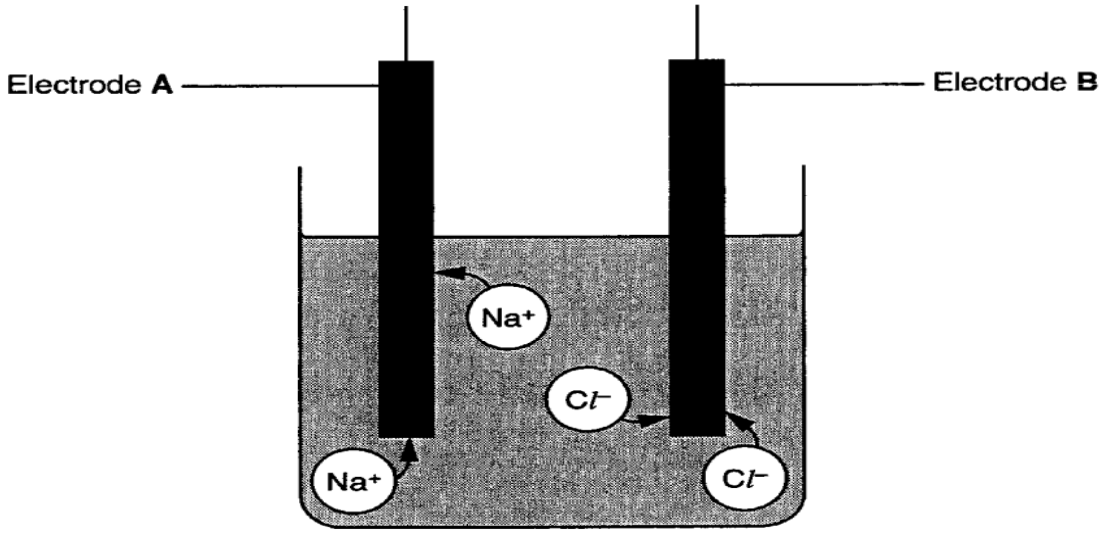
Complete the table below.

electrolyte	product at the anode (+ electrode)	observations at the anode (+ electrode)	product at the cathode (– electrode)	observations at the cathode (– electrode)
(i) dilute sulfuric acid		bubbles of colourless gas		
(ii) concentrated aqueous potassium iodide				bubbles of colourless gas
(iii) molten lead bromide				silvery grey liquid

[9]

Q5)

The diagram shows the movement of the ions Na^+ and Cl^- during the electrolysis of molten sodium chloride.



(a) Which electrode, **A** or **B**, is the positive electrode? Explain your choice.

.....

.....[2]

(b) Which ion is attracted to the cathode?

.....[1]

(c) Name the two elements formed by the electrolysis of molten sodium chloride.

1. .....

2. .....[2]

(d) Give **one** expected observation during this electrolysis.

.....[1]

Worksheet No 4 Date

Q6)

Many cars are fitted with air-bags which inflate in an accident. Air-bags contain the solid sodium azide, NaN_3, which decomposes rapidly to form sodium and nitrogen. The nitrogen formed fills the air-bag.

(a) Construct the equation, including state symbols, for the decomposition of sodium azide.

.....[2]

(b) In a crash, an air-bag fills with 72 dm^3 of nitrogen at room temperature and pressure. What mass of sodium azide is needed to provide the nitrogen?

[3]

(c) Sodium azide, NaN_3, reacts with dilute hydrochloric acid to give sodium chloride and a compound **A**.
Compound **A** contains 2.33 % hydrogen and 97.7% nitrogen by mass.

(i) What is the empirical formula for compound **A**?

(ii) Construct the equation for the reaction between sodium azide and dilute hydrochloric acid.

.....[3]

Q7)

Potassium superoxide, KO_2, is an ionic solid. It can be used in spacecraft to supply oxygen according to the following equation.

$$4KO_2(s) + 2H_2O(l) \longrightarrow 4KOH(s) + 3O_2(g)$$

The potassium hydroxide formed removes carbon dioxide.

Show that 1.0 g of potassium superoxide will supply about 0.25 dm^3 of oxygen at room temperature and pressure.

[3]

Q8)

Hydrazine, N_2H_4, is a liquid that has been used as a rocket fuel. It reacts with oxygen as shown in the equation.

$$N_2H_4 + O_2 \longrightarrow N_2 + 2H_2O$$

Calculate the volume of oxygen, measured at room temperature and pressure, needed to completely combust 1.00 tonne of hydrazine.

[One tonne is 10^6 grams. One mole of any gas at room temperature and pressure occupies a volume of 24 dm^3.]

volume of oxygen = ... dm^3 [3]

Worksheet No 5 Date

Q9)

Phosphine, PH_3, is a gas which has a smell of garlic. It is formed when white phosphorus is warmed with aqueous sodium hydroxide.

$$4P + 3NaOH + 3H_2O \rightarrow PH_3 + 3NaH_2PO_2$$

(a) Draw a 'dot-and-cross' diagram for phosphine.

Show only the outer electrons.

[1]

(b) **(i)** Calculate the maximum mass of phosphine formed when 1.86 g of phosphorus reacts with excess aqueous sodium hydroxide.

[2]

(ii) Calculate the volume of phosphine formed from 1.86 g of phosphorus at r.t.p.

[1]

(c) Phosphine decomposes into its elements on warming. Write an equation for this reaction.

.....[2]

Q10)

(i) State what is meant by the term *empirical formula*.

.....

.....

(ii) A chromium compound contains 28.4% of sodium and 32.1% of chromium by mass, the remainder being oxygen.
Calculate the empirical formula of this compound.

.....

.....

.....

.....

(4 marks)

Q11)

An organic compound **P** has the following percentage composition by mass:

C = 17.83% H = 2.97% Br = 79.20%

(i) Use the figures to show that the empirical formula of **P** is $C_3H_6Br_2$.

(2)

(ii) What extra information is needed to obtain the molecular formula of **P**?

.....

(1)

Worksheet No 6 Date

Q12)

Glucose has the following composition: C = 40%, H = 6.7%, O = 53.3%.

(i) Calculate the empirical formula of glucose. Working must be shown.

.....

.....

.....

.....

.....

.....

(3)

(ii) The relative molecular mass of glucose is 180. What is the molecular formula of glucose?

.....

.....

.....

.....

(2)

Q13)

When 5.74 g of hydrated zinc sulphate, $ZnSO_4.xH_2O$, is heated, 3.22 g of anhydrous zinc sulphate is formed. Use these figures to find the value of x.

.....

.....

.....

.....

.....

.....

.....

.....

(4)

Q14)

Analysis of compound **X** shows it has the following composition.

element	percentage by mass
nitrogen	11.1
hydrogen	3.20
chromium	41.3
oxygen	44.4

Show that **X** has the formula $N_2H_8Cr_2O_7$.

[3]

Q15)

Analysis of gas **V** showed it contained 40.0% sulfur and 60.0% oxygen by mass.

Calculate the empirical formula of gas **V**.

empirical formula of **V** is ..... [2]

St. Anthony's High School Faisal Town Lahore
English Worksheet 2025
Class: 10C

WORKSHEET 1

INSTRUCTIONS:

Answer the given questions according to your Cambridge board pattern.

Do it on assignment sheets.

The Mysterious Island

The sea was calm, yet the sky bore the colour of stormy ink. On the horizon, a speck of green broke the endless blue — an island, unknown and uncharted. As the small boat drifted closer, the scent of salt and strange flowers filled the air. No maps showed this place, and the sailors spoke of it only in whispers. The trees towered unnaturally tall, and birds with colours never seen before darted through the leaves.

Question 1:

1. What was the colour of the sky in the passage?
2. What did the sailors say about the island?
3. What unusual features did the narrator describe about the trees and birds?

Question 2:

1. Why do you think the island was not on any map?
2. What mood or atmosphere does the writer create in this passage?
3. What might the birds' strange colours suggest about the island?

- **Descriptive Writing Topic:**

"A Night in a Busy City"

Describe the sights, sounds, smells, and atmosphere of a busy city at night. Focus on creating a vivid picture through sensory details. Think about how the environment changes as the night deepens.

St. Anthony's High School Faisal Town Lahore
English Worksheet 2025
Class: 10C

WORKSHEET 2

INSTRUCTIONS:

Answer the given questions according to your Cambridge board pattern.

Read **Text** and answer **Question 1** and **Question 2** on the assignment sheet.

A Lesson from Grandfather

I used to spend summers at my grandfather's farm. He would wake up before sunrise, drink his tea in silence, and walk slowly to the fields. One day, I asked him why he always picked weeds with his own hands. He looked at me and smiled, "Because caring for something means doing even the smallest jobs with love." I didn't understand then, but now I know he was talking about more than just weeds.

Question 1:

1. When did the narrator visit his grandfather?
2. What did the grandfather do every morning?
3. What did the grandfather say about picking weeds?

Question 2:

1. What does the grandfather's statement reveal about his character?
2. What lesson did the narrator learn later in life?
3. Why do you think the narrator still remembers this moment?

- **Narrative Writing Topic 1:**

"The Day Everything Went Wrong"

Write a story about a day where nothing went as planned. It could be funny, frustrating, or even life-changing. Build suspense by showing how one problem led to another.

St. Anthony's High School Faisal Town Lahore
English Worksheet 2025
Class: 10C

WORKSHEET 3

INSTRUCTIONS:

Answer the given questions according to your Cambridge board pattern.

Read **Text** and answer **Question 1** and **Question 2** on the assignment sheet.

Technology and Silence

In a world buzzing with notifications and endless scrolling, silence has become rare. People feel uncomfortable without their phones, fearing they might miss something. Yet, studies show that moments of quiet improve focus and creativity. Silence, once considered ordinary, is now a luxury. To truly think, one must disconnect — not from the world, but from the noise.

Question 1:

1. What has become rare in today's world, according to the passage?
2. Why do people feel uncomfortable without their phones?
3. What are the benefits of silence mentioned in the passage?

Question 2:

1. What does the writer imply about modern technology's impact on the human mind?
2. Why is silence referred to as a "luxury"?
3. How does the phrase "disconnect — not from the world, but from the noise" reflect the writer's message?

- **Narrative Writing :**
- **"The Secret in the Attic"**

Imagine you discover a mysterious object or letter in your attic that reveals a family secret. Narrate the events that follow and how the discovery changes things for you or your family.

St. Anthony's High School Faisal Town Lahore
English Worksheet 2025
Class: 10C

WORKSHEET 4

INSTRUCTIONS:

Answer the given questions according to your Cambridge board pattern.

Text A: "Plastic Waste in Cities"

Recent surveys show that over 60% of urban waste in major cities consists of plastic packaging, single-use bottles, and disposable cutlery. Despite efforts to promote recycling, many citizens are unaware of proper disposal methods. Environmental experts warn that plastic pollution is clogging drainage systems, leading to flooding during rains and increased breeding of disease-carrying insects. Some cities have started banning plastic bags, but enforcement remains inconsistent.

Text B: "Students Lead the Change"

At Greenfield Secondary School, a student-led campaign called "No Plastic, Please!" has drastically reduced single-use plastic consumption on campus. The campaign included awareness sessions, competitions to reuse waste, and collaboration with local authorities. As a result, the school's plastic waste dropped by 40% in just three months. Inspired by the success, students now aim to expand the initiative to nearby schools and public parks.

📄 Report Writing Task for Students:

Write a report for your school magazine, summarising the information in Text A and Text B.
In your report:

- compare the problems caused by plastic waste and the solutions being tried
- explain how student action can help reduce plastic waste
- suggest how your school can adopt similar practices

Use an appropriate report format and tone.

St. Anthony's High School Faisal Town Lahore
English Worksheet 2025
Class: 10C

WORKSHEET 5

Email Writing Topic:

"Write an email to your school principal requesting permission to organize a charity event on campus."

📝 Instructions for Writing the Email:

1. Use the correct format for an email:
   - To: [principal's email]
   - Subject: Request for Permission to Organize Charity Event
   - Salutation: (e.g., Dear Sir/Madam,)
   - Sign-off: (e.g., Yours sincerely, followed by your name and class)
2. Include the following in your email:
   - Purpose of writing the email clearly in the opening paragraph
   - Details about the charity event: what it is, when it will be held, where, and who will participate
   - Reasons for organizing the event (e.g., helping a local cause, promoting student involvement)
   - Specific requests (e.g., permission for using the school hall, making announcements, involving staff)
   - Tone: Keep the tone formal, polite, and respectful throughout
3. Keep your email concise and focused (around 150–200 words)

Passage: "The Benefits of Reading"

Reading is more than just a way to pass time—it is a powerful tool for mental development. When you read, especially fiction, your brain imagines settings, characters, and emotions, which enhances creativity and empathy. Non-fiction, on the other hand, improves your knowledge, vocabulary, and analytical skills. Research shows that regular readers perform better academically and have stronger concentration. In a world dominated by screens and distractions, reading also offers a much-needed mental break, helping to reduce stress and improve sleep. Even reading for just 20 minutes a day can have long-lasting positive effects on both your academic and personal life.

✒ Summary Writing Instructions:

Write a summary of not more than 100 words on the benefits of reading based on the passage above.

St. Anthony's High School Faisal Town Lahore
English Worksheet 2025
Class: 10C

WORKSHEET 6

List of Idioms

1. Bite the bullet
2. Burn the midnight oil
3. Cry over spilled milk
4. Let the cat out of the bag
5. A blessing in disguise
6. Add fuel to the fire
7. Hit the nail on the head
8. Kill two birds with one stone
9. The ball is in your court
10. Barking up the wrong tree
11. Burn your bridges
12. Throw someone under the bus
13. Jump on the bandwagon
14. Cut corners
15. Put all your eggs in one basket
16. Steal someone's thunder
17. Take something with a grain of salt
18. Go the extra mile
19. A penny for your thoughts
20. Between a rock and a hard place

📝 Student Task Instructions

📌 Assignment: Mastering Idioms

For each of the 20 idioms listed above, do the following:

1. Write the meaning of the idiom in simple words.
2. Give one real-life example of when this idiom could be used (contextual explanation).
3. Construct your own sentence using the idiom correctly.

✍️ Be creative but accurate.
📏 Word count: Around 3–4 lines per idiom.

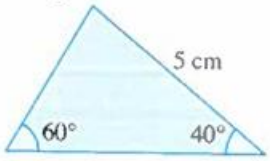
Worksheet # 1 Class 10C

Name: …… Adm. # ……

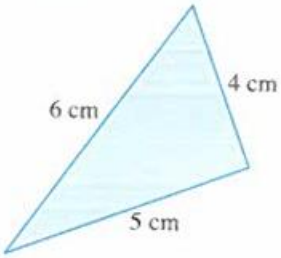
1.

1. Identify a pair of congruent triangles from the following triangles (not drawn to scale), based on each of the following congruence tests:
   - **(a)** SSS Congruence Test,
   - **(b)** SAS Congruence Test,
   - **(c)** AAS Congruence Test,
   - **(d)** RHS Congruence Test.

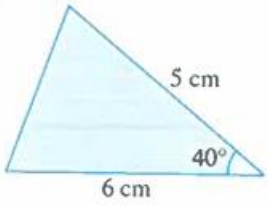
(i)



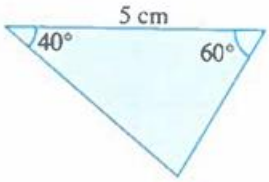
(ii)



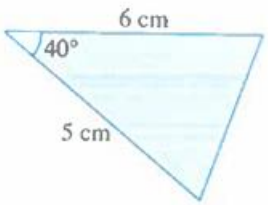
(iii)



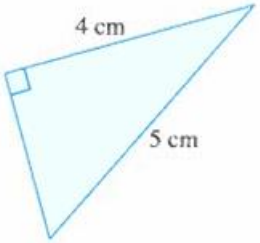
(iv)



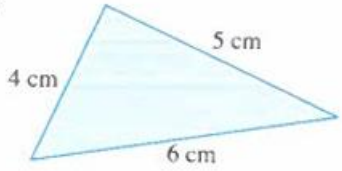
(v)



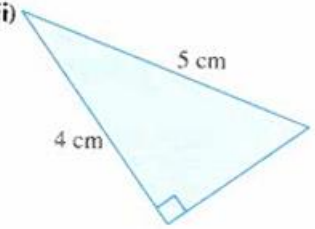
(vi)



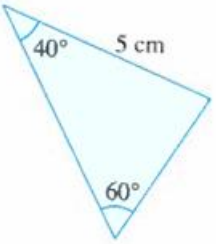
(vii)



(viii)

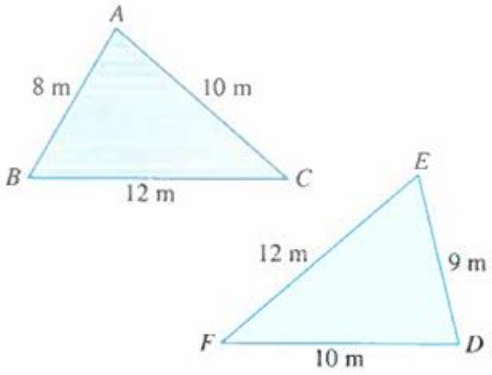


(ix)

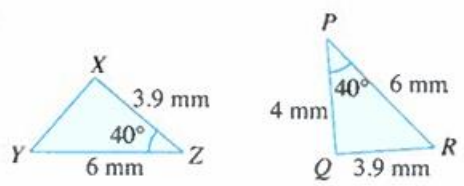


2. Determine whether each of the following pairs of triangles are congruent.

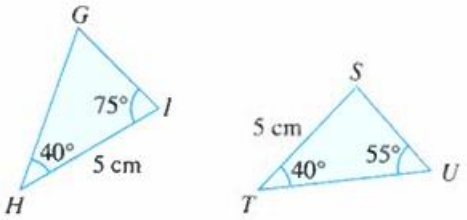
(a)



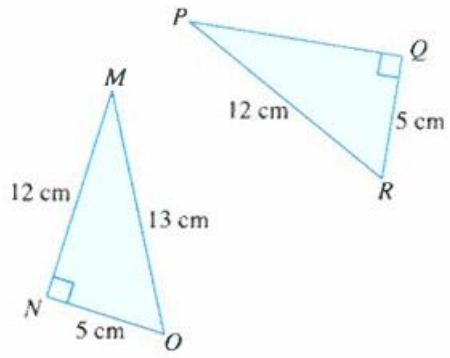
(b)



(c)



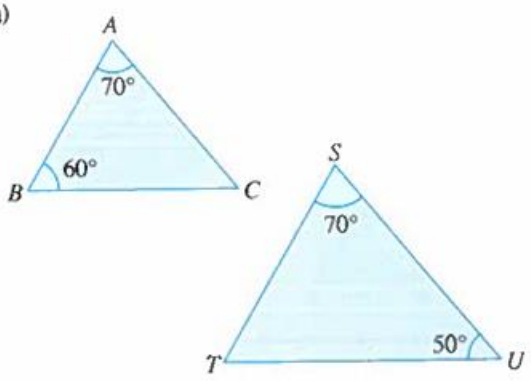
(d)



3.

Copy and complete the proof to show that each of the following pairs of triangles are similar.

(a)



$S\hat{T}U = 180° - 70° - 50°$ (∠ sum of a Δ)

$= \_\_\_°$

$A \leftrightarrow \_\_\_$

$B \leftrightarrow \_\_\_$

$C \leftrightarrow \_\_\_$

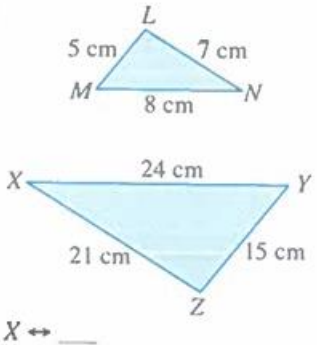
$B\hat{A}C = \_\_\_\_ = 70°$

$A\hat{B}C = \_\_\_\_ = \_\_\_°$

$\therefore \Delta ABC$ is similar to $\Delta\_\_\_\_$

(____ pairs of corr. ____ equal).

(b)



$X \leftrightarrow \_\_\_$

$Y \leftrightarrow \_\_\_$

$Z \leftrightarrow \_\_\_$

$\frac{XY}{NM} = \frac{24}{\_\_\_} = \_\_\_$

$\frac{XZ}{\_\_\_} = \frac{\_\_\_}{\_\_\_} = \_\_\_$

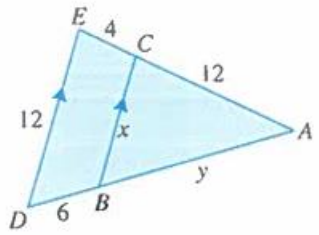
$\frac{YZ}{\_\_\_} = \frac{\_\_\_}{\_\_\_} = \_\_\_$

$\therefore \Delta XYZ$ and $\Delta\_\_\_\_$ are similar

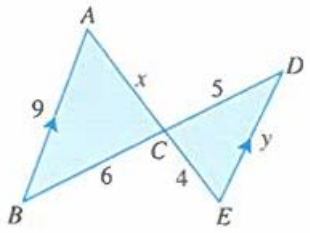
(____ ratios of corr. ____ equal).

4. In each of the following figures, identify the similar triangles and find the value of x and of y. All lengths are given in cm.

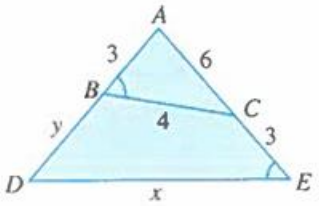
(a)



(b)

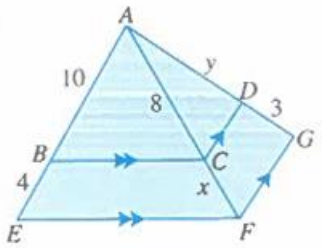


(c)



$A\hat{B}C = A\hat{E}D$

(d)

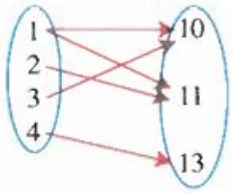


Worksheet # 2 Class 10C

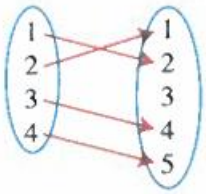
Name: …… Adm. # ……

1. Each of the following relations has the set of integers {1, 2, 3, 4} as its domain. State whether each of the following arrow diagrams defines a function. If the answer is no, state the reason.

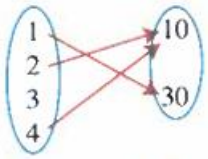
(a)



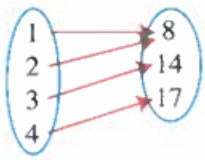
(b)



(c)



(d)



2. A function f is defined by $f : x \mapsto \frac{1}{2}x + 2$ for all real values of x. What are the images of –20, 6, $\frac{1}{8}$ and $-\frac{2}{3}$ under f?

3. Given the function $f : x \mapsto 12 - 5x$, evaluate each of the following.

(i) f(2) **(ii)** f(–3)

(iii) f(0) **(iv)** f(3) + f(–5)

4. If $f(x) = 10x - 3$ and $F(x) = \frac{3}{4}x + 2$, express

(i) $f(a)$, **(ii)** $F(8a + 1)$,

(iii) $f\left(\frac{1}{2}a\right) + F(2a - 4)$,

in terms of a.

Worksheet # 3 Class 10C

Name: …… Adm. # ……

1. If y is directly proportional to x and $y = 6$ when $x = 2$,

(i) express y in terms of x,

(ii) find the value of y when $x = 11$,

(iii) calculate the value of x when $y = 12$,

(iv) draw the graph of y against x.

2. If A is directly proportional to B and $A = 1\frac{2}{3}$ when $B = \frac{5}{6}$, find

(i) the value of A when $B = \frac{1}{3}$,

(ii) the value of B when $A = 7\frac{1}{2}$.

3. If y is directly proportional to x^3 and $y = 108$ when $x = 3$,

(i) find an equation connecting x and y,

(ii) find the value of y when $x = 7$,

(iii) calculate the value of x when $y = 4000$,

(iv) draw the graph of y against x^3.

4. The total monthly charges, SC, for a fixed phone line consists of a fixed amount of \$9.81 and a variable amount which depends on the usage. For every minute used, \$0.086 is charged.

(i) If the duration of usage is 300 minutes, find the total monthly charges for the fixed phone line.

(ii) If the total monthly charges for the fixed phone line are \$20.56, calculate the duration of usage.

(iii) Write down a formula connecting C and n, where n is the number of minutes of usage. Hence, state the two variables which are directly proportional to each other.