Important Information for Students and Parents Regarding Summer Break

Summer Vacation Study Activities:

We have shared a PDF document outlining summer vacation activities for students. Please print a copy and keep it in a designated folder for easy reference.

The provided worksheets are based on the chapters covered before the break. To ensure success, students are encouraged to revise these concepts thoroughly.

Debate Competition:

An inter-class debate competition will be held after the summer break. Topics for debate are included in the English portion of the summer vacation materials.

Participation is mandatory for all students, and it will contribute 5 marks to your final exam score.

Summer Break Expectations:

Complete all assigned worksheets.

Prepare for the debate competition using the provided topics.

Teachers will evaluate both the worksheets and debate preparation upon return.

Encouragement for Parents:

We encourage parents to support their children in utilizing this summer break productively. This includes:

- Clearing any doubts they may have about previous lessons.
- Working on developing other skills by participating in co-curricular activities.

By following these guidelines, students can ensure a smooth transition back into the school year and achieve academic success.

We wish you all a relaxing and enjoyable summer break!

Physics Worksheet (8ᵗʰ)

Syllabus contents

1. Concept of sound
2. Concept of wave. Types of waves
3. Sound as a longitudinal wave
4. Production of sound
5. Propagation of sound
6. Characteristics of sound
7. Audible and inaudible sounds
8. Ultrasounds and infrasounds and their applications
9. Speed of sound in different media
10. How humans hear sound.
11. Structure and working of human ear
12. Definition of force and its effects
13. Equation of force and its units
14. Contact and non contact forces
15. Balanced and unbalanced forces

A. Short answer type questions.

1. What is decibel?
2. Write an equation that shows the relation between frequency and time period.
3. What is a mechanical wave?
4. Sound wave is a longitudinal wave. Justify the statement.
5. What is compression and rarefaction?
6. What is meant by net force
7. Why balanced forces not cause any change in the position of a body?
8. What is the difference between gravitation and gravity?

B. Choose the true and false statements. Also correct the false statement.

1. Frequency is measured in Hertz.
2. Shrill has a low frequency.
3. Male has a shrill voice.
4. The unit that is used to measure the loudness of sound is Hertz.
5. Wavelength is measured in Lambda.
6. In case of unbalances forces net force acting on body is zero
7. Force is a scalar quantity

8. Frictional force opposes the motion of a body

C. Unscramble the words.

S. No	Jumbled word
A	FERQEUNYC
B	DCEBLEI
C	WVAEGTHLEN
D	TRINGS
E	EFRLECIONT

D. Name the following the words:

1. The time taken by any object to complete one oscillation.
2. The distance between two consecutive crests or troughs.
3. The frequency of sound that is above 20,000 Hz.
4. The frequency of sound that is below 20 Hz.
5. The maximum displacement covered by a particle from its mean position.
6. Two thin membranous structures that control the production of sound.
7. The sound is produced in this part of the human body.
8. The force which binds us to the surface of the earth.
9. The vector sum of all the forces acting on a body.
10. The quality of the sound.

E. Numerical problems.

1. A sonar device on a submarine sends out a signal towards an object in water and receives an echo 5s later, calculate the speed of sound in water if the distance of the object from the submarine is 3625m?
2. A pendulum oscillates 40 times in 4 seconds. Find its time period and frequency.

F. Fill in the blanks.

1. Loudness of sound can be measured in_____ .
2. The sound produced by human beings is controlled by_____.
3. Sound is produced because of_____.
4. Sound cannot travel through _____.
5. Vibration is a repeated _____ and _____ motion.
6. The time taken by an object to complete one oscillation is called_____.
7. Loudness is determined by the _____ of vibration.

8. The unit of frequency is _____.

9. Unwanted sound is called _____.

10. Shrillness of the sound is determined by_____.

G. Assertion and reasoning questions.

Direction: In the following questions, a statement of assertion (A) is followed by a reason (R).

Mark the correct choice as:

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 A.

c. A is true but R is false.

d. A is false but R is true.

1. **Assertion A**: If the frequency of vibration is higher, we say that the sound is shrill and has a higher pitch.

   Reason R: The frequency determines the shrillness or pitch of a sound.

2. **Assertion A**: The loudness of sound depends on its amplitude.

   Reason R: When the amplitude of vibration is large, the sound produced is loud. When the amplitude is small, the sound produced is feeble.

3. **Assertion A**: The loudness of the sound is directly proportional to the square of its amplitude.

   Reason R: The higher the amplitude, the higher is the displacement of particles and so loudness of the sound will be higher.

4. **Assertion A**: When we stop pedalling a bicycle, it gradually slows down and finally comes to rest.

   Reason R: No force appears to be acting on the object yet their speed gradually decreases and they come to rest after some time.

H. Choose the correct option.

1. The unit of that quantity on which pitch of the sound depends is:

   a. hertz

   b. meter

   c. meter/second

   d. second

2. The unit of that quantity on which loudness of sound depends is:

   a. hertz

   b. meter

   c. meter/second

   d. second

3. Sound travels

   a. faster in solids than gases.

    b. faster in gases than liquids.

    c. faster in vacuum, than anything else.

    d. faster in liquids than solids.

4. Sound is produced by

    a. a body at rest.

    b. a body moving with a uniform velocity.

    c. a body moving with constant acceleration.

    d. a vibrating body.

5. In the sound waves _____ are formed.

    a. crests and troughs

    b. nodes and antinodes

    c. compression and rarefactions

    d. none of the above

6. In a sound wave, the direction of propagation is

    a. in the direction of the vibrations of the vibrating body.

    b. opposite to the direction of vibrations of vibrating body.

    c. perpendicular to the direction of vibration of the vibrating body.

    d. at an angle of 60° to the direction of vibrating of the vibrating body.

7. With the rise of temperature, the velocity of sound

    a. decreases.

    b. increases.

    c. remains the same.

    d. is independent of temperature.

8. Human ear can hear

    a. audible sound.

    b. infra sound.

    c. ultra sound.

    d. All of the above

9. Sound of frequency below 20 Hz is called

    a. infrasonic.

    b. ultrasonic.

    c. supersonic.

    d. None of the above

10. The property which is common to both light waves and sound waves is that

    a. Both are electromagnetic waves

    b. Both are reflected by surfaces

c. Direction of propagation is perpendicular to the direction of vibration of the particles of the medium

d. Both need a material medium to travel from one place to another

11. The speed of wave is 340 ms^{-1}. What is the wavelength of the wave if its frequency is 500Hz?

a. 0.68m

b. 6.8m

c. 68m

d. 0.68cm

12. Middle ear consists of _____ bones.

a. 1

b. 2

c. 3

d. 4

Chemistry Worksheet (8th)

A. Tick the correct answers.

1. Fractional distillation is the process by which _____
   a. Petroleum is refined
   b. Coal is heated to give various products
   c. Natural gas is purified
   d. Petrochemicals are manufactured

2. According to the guidelines of the petroleum conservation research association, one should
   a. Drive at a high speed
   b. Keep the engines ON at the red light or at the place where they have to wait
   c. Ensure low pressure in the tyres
   d. Ensure regular maintenance of the vehicle

3. Which is the superior quality of coal?
   a. Anthracite
   b. Lignite
   c. Peat
   d. Bituminous

4. Largest producer of petroleum is
   a. Saudi Arabia
   b. China
   c. India
   d. Russia

5. Cool and petroleum are
   a. Inexhaustible resources
   b. Fossil fuels
   c. Renewable resources
   d. All of these

6. The amount of LPG in a domestic gas cylinder is about
   a. 14.2 kg
   b. 13.2 kg
   c. 12.2 kg
   d. 11.2 kg

7. Which of the following statements about Coke is correct
   a. It is used in the manufacture of Steel
   b. It is a think black liquid with an unpleasant smell
   c. It is used in place of coal tar for metallic the roads
   d. It is an impure form of carbon

8. Heating of coal in the absence of air is called
   a. Destructive distillation
   b. Carbonization
   c. Both a and b
   d. None

9. Ointments and candles are made from
   a. Lubricating oil
   b. Paraffin wax
   c. Bitumen
   d. Kerosene

10. Tiny sea plants and animals subjected to pressure and heat over a period of million of yours gave rise to
    a. Coal
    b. Petroleum
    c. Coke
    d. LPG

B. Fill in the blanks.

1. Fossil fuels are…………………….., ……………......... and ……………………………..
2. Process of separation of different constituents from petroleum is called………………………….
3. List polluting fuel for a vehicle…………………………………………..
4. ……………….………. is used in the construction of roads.
5. The conversion of dead plant matter into coal is called…………………………
6. Fossil fuels or considered as ………............................ resources as they take million of yours to form.
7. ………………..……… is also called black gold.
8. ………………………………….. is also called black diamond.
9. …………………………………………. is also called Rock oil.
10. First oil well was found in…………………………………. in the year……………………..

C. Write T for true and F for false and also correct the false statements.

1. The rate of formation of fossil fuel is very slow
2. Forests are exhaustible resources
3. Natural gas is produced during the fractional distillation of coal
4. Cook is an almost to pure form of carbon
5. Cool tower is a mixture of various substances.

D. Assertion - Reasoning questions.

Direction: Given below are two statements- An assertion (A) and the reason (R). Select the appropriate response given below.

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

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

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

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

1. Assertion(A): Coal and petroleum cannot be prepared in labs.

   Reason(R): The formation of coal and petroleum is a very slow process and conditions cannot be created in a lab.

2. Assertion(A): In petroleum and natural gas to deposits, the layer of oil is present above the layer of water.

   Reason(R): Oil is heavier than water.

3. Assertion(A): Coal, petroleum and natural gas are called fossil fuels.

   Reason(R): they are obtained from the dead remains of plants and animals.

E. Give one word for the following:

1. A thick black liquid that arises as a by-product of destructive distillation of coal.

2. Petroleum product that is used in place of Coal tar for metalling the roads.

3. Substance that produces heat and energy on burning.

4. The process by which petroleum is refined.

5. The process in which dead vegetation slowly gets converted into coal.

6. The process of separation of different components of petroleum based on their difference in boiling point.

F. Short answer type questions.

1. How is CNG different from LPG?

2. What are the conditions essential for the formation of coal?

3. Why petrol is an exhaustible natural source of energy where is sunlight is not?

4. Define calorific value of fuels. Give two examples.

5. Why should we conserve fossil fuels? Explain the tips how you will conserve them.

G. Long answer type questions.

1. Name any five constituents of petroleum. Give at least one use of each.

2. We read in newspapers that the burning of fossil fuels is a major cause of global warming. Explain why?

3. Suggest some ways that can help in the conservation of fossil fuels.

4. Differentiate between inexhaustible and exhaustible natural resources.

Biology Worksheet (8ᵗʰ)

A. Multiple choice questions.

1. Which of the following is not a type of microorganism?

   a) Bacteria

   b) Fungi

   c) Plants

   d) Virus

2. Which microorganism is used in the production of yogurt?

   a) Yeast

   b) Lactobacillus

   c) Penicillium

   d) Rhizobium

3. The disease tuberculosis is caused by:

   a) Virus

   b) Bacteria

   c) Protozoa

   d) Fungi

B. True or false.

1. Yeast is a type of fungi.
2. Viruses can reproduce on their own without a host.
3. Bacteria are always harmful to humans.

C. Short answer questions.

1. What are microorganisms? Give two examples.
2. Name two beneficial and two harmful effects of microorganisms.
3. Explain how bacteria help in the nitrogen cycle.

D. Match the microorganism to its role:

1. Yeast
2. Rhizobium
3. Penicillium
4. Plasmodium

   a) Causes malaria
   b) Helps in nitrogen fixation
   c) Used in bread making
   d) Produces antibiotics

E. Fill in the blanks.

1. Microorganisms that cause diseases are called _____.
2. The process of converting sugar into alcohol by yeast is called _____.
3. _____ is a microorganism that can live in extreme conditions like hot springs.

<u>Mathematics Worksheet</u>

Topic: Number system

Q1. What is result of

   a) $1\frac{5}{8} + 3/10$ b) 37/41 - 19/30   c) $2(\frac{3}{5}) - 4(7/10) + 2(4/15)$

Q2. Divide:

   a) 9/16 by 6   b) 10 by 100/3   c) $3/10 \div 10/3$ d) $4 \div 2(\frac{2}{5})$

Q3. Verify the following: Also, write the name of property used in this question.

      $(-3) \times [(-7) + (-5)] = [(-3) \times (-7)] + [(-3) \times (-5)]$

Q4. Find:

   a) 101.01×0.01 b) 11.2×0.15 c) 0 x 9000

Q5. By what number should 6(2/9) be multiplied to get 40?

Q6. Fill in the blanks with the correct symbol > , < , = :

   a) -3/7 ____ 6/-13   b) 49 + (-8) - 7 ____ 9 – (-13) + 12   c) 0.8 _____ 0.88

Q7. Subtract:

   a) ¾ from ⅓   b) -7 from -4/7

Q8. Divide the sum of 65/12 and 8/3 by their difference.

Q9. Arrange the following in Ascending order : -5/7, 4/3, -2/5, -7/9, -1/2.

Q10. Find the Prime Factors of following numbers and also find LCM.

   a) 512 and 216   b) 315 and 729

Q11. Write true or false and explain why?

   a) Is addition associative for rational numbers
   b) Is difference of two integers always an integer.
   c) Is -1 a multiplicative identity of integers.
   d) Is the division of two rational numbers always a rational number.

Q12. _____ is the identity for the addition of rational numbers.

   (a) 1   (b) 0   (c) – 1   (d)1/2

Q13. Solve:

   a) $1 \div 2\frac{2}{5}) + (1 \div 1\frac{1}{2}) + (1 \div 1\frac{4}{5})$

b) $(1\frac{1}{3} \div 1\frac{1}{2}) \div 1\frac{1}{2}$

c) $(1 \div 2\frac{3}{4}) + (1 \div 3\frac{1}{2})$

d) $(^{-12}/_7 \times {}^{-56}/_{27}) - (^{-8}/_{45} \times {}^5/_{24})$.

Topic: ALGEBRA

Q1. What is the value of X if

a) $X + 3/7 = 7/17$

b) $\frac{x}{3} + \frac{x}{2} = \frac{3}{5}$

c) $\frac{(x+4)}{3} + \frac{(x+9)}{2} = 16$

d) $2(y - 5) + 3(y - 2) = 11 + 2(y - 3)$

e) $\frac{2X-1}{3} - \frac{x}{4} + \frac{3X}{5} = 7$

f) $\frac{(5x+4)}{3x+2} = \frac{7}{4}$

g) $\frac{x}{3} - x = \frac{6}{5}$

h) $7(x - 4) + 3(3x - 1) - 9(-4x - 3) = -3(2x + 1)$

i) $\frac{4}{3} - \frac{1}{7} + \frac{2x}{9} = \frac{x}{9} + \frac{4}{3}$

Q2. Four-fifths of a number is greater than three-fourths of a number by 8. Find the number.

Q3. Ten added to thrice a whole number gives 40. Find the number.

Topic: Geometry

Q1. Find the Perimeter of:

a) Rectangle with L= 13 cm, B= 23 cm

b) Square with side 17cm

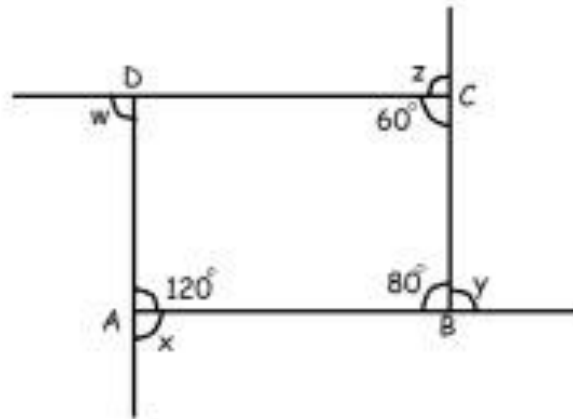c) Equilateral triangle with side 31cm

d) Circle with diameter 14 m

Q2. Write down the area formulas of given names.

a) Parallelogram

b) Triangle

c) Trapezium

d) Circle

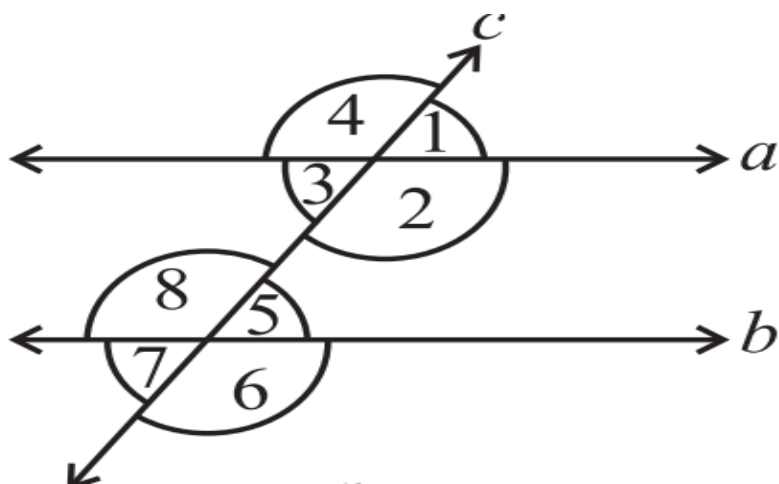Q3. Sum of interior angles of a polygon of 10 sides is _____.

Q4. How many diagonals are there in a polygon having 16 sides?
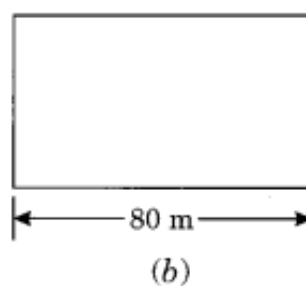
Q5. Find x + y + z + w in the given figure

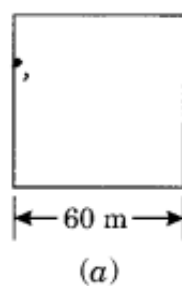Q6. In the adjoining figure, identify:

a) The pairs of corresponding angles.
b) The pairs of alternate interior angles.
c) The pairs of interior angles on the same side of the transversal.
d) The vertically opposite angles.

Q7. A square and a rectangular field with measurements as given in the figure have the same perimeter. Which field has a larger area?

دبئی گرینڈ انٹرنیشنل اسکول سرینگر

ورک شیٹ اردو

ہدایات:

۱۔ ورک شیٹ کو اردو کاپی (fare note book Urdu) پر اندراج (index) کے ساتھ تحریر کریں.

۲۔ کیلیگرافی قلم (calligraphy) سے لکھیں گے۔ جو قلم کشمیری کاپی کے لئے استعمال کرتے ہیں۔

۳۔ صاف صاف صبر و تحمل کے ساتھ اپنی تحریر میں سدھار لانے کی حتی الامکان کوشش کرتے ہوئے تحریر کریں۔

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(1) 10 جولائی 2024ء کے اُردو روزنامہ "کشمیر عظمٰی" کی اپنی من پسند تین سرخیاں تحریر کیجئے۔
(یاد رہے کہ 10 جولائی کے اس اخبار سے متعلق آپ کو سوالات پوچھے جائینگے۔)

(2) 12 جولائی کے 2024ء "روزنامہ آفتاب" کی کوئی من پسند ایک خبر کی رپورٹ پوری تحریر کیجئے۔

(3) درج ذیل اُردو شعراء کے کوئی بھی من پسند تین تین اشعار زبانی یاد کر کے صاف صاف تحریر کیجئے۔

۱۔ علامہ اقبال

۲۔ غالب

۳۔ فیض احمد فیض