

SIDDEEQ PUBLIC SCHOOL

ENTRY TEST ... 48

ENGLISH

ADMISSION to GRADE: 8

Checked by (Service # & Initials)	Rechecked by (Service # & Initials)	Max. Marks	Marks Secured
		35	

Vocabulary

Q.1 (A) Encircle the Correct Spellings. (0.5x2)

- equivalent / equivalant / equivelent / equevalent
- aproprate / apporprate / appropraite / appropriate

(B) Provide Meanings of the following Words either in English or in Urdu. (1.0x3)

unexpectedly		fortunate		display	
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(C) Complete the Columns. (1.0x4)

Words	Opposites	Nouns	Verbs	Adjectives
reveal			follow	following
approval		explanation		explanatory

(D) Choose the Correct Word given in brackets to Complete each Sentence. (0.5×4)

- After holding her _____ for a few seconds, she finally began to _____ again. (breathe, breath)
- The _____ of the institute approved the design of the building based on the _____ of energy efficiency. (principal, principle)

Grammar

Q.2 (A) Fill in the Blanks by Choosing the Correct Options from the brackets. (1.0×7)

- Fast food _____ harmful for our health. (are/ were / is)
- Rice _____ not grow in cold climates. (do / does / has)
- We _____ in the park on weekends. (plays/ playing, play)
- Tears _____ down her cheeks when she saw an injured baby. (roll / rolled, rolls)
- The kids jumped _____ the fence and ran _____ the playground. (over/ after / into / on)
- _____ it was raining, I went outside _____ played soccer. (although / and / so / because)
- _____ unique policy was introduced by _____ M.N.A of the parliament. (a / an / the)

Roll No. _____

- Did Cheetahs run very fast? (Change into affirmative)

- The carpenter was building the desk. (Change into Passive Voice)

- They said to us," We will arrive a little late."

(Change into Indirect Speech)

Q.3 Make Meaningful Sentences of the given Words. (1.5×2)

- obviously _____
- educate _____

■ غریب آدمی سڑک کے کنارے سبزی بیچ رہا تھا۔

اس بار میں تقریری مقابلے میں حصہ نہیں لوںگا۔

[illegible]

My Hobby

SIDDEEQ PUBLIC SCHOOL

ENTRY TEST ... 48

MATHEMATICS

Max. Marks:35

ADMISSION to GRADE: 8

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1. Complete the following mathematical statements.

(1.0 × 4)

- (i) Irrational numbers are non-terminating and _____ decimals.
- (ii) If $(A + \frac{3}{4}) = (B + \frac{1}{3})$ shows commutative law then A= _____ and B= _____
- (iii) _____ should be added in x^2+3x+1 to get $3x+1$.
- (iv) If $P=\{ \}$ & $Q= \{ 1 \}$ then $P \cap Q =$ _____

2. Verify the associative property: $\frac{5}{12} \times (\frac{-2}{5} \times 1\frac{3}{10}) = (\frac{5}{12} \times \frac{-2}{5}) \times 1\frac{3}{10}$

(4.0)

3. If L= Set of first three multiples of 2 & M= Set of all possible factors of 4 then find L–M.

(4.0)

4. Evaluate: $\sqrt{\frac{529}{3025}}$

(4.0)

5. Factorize: $16a^2 + \frac{8}{3}ab + \frac{1}{9}b^2$

(4.0)

Roll No. _____

- [illegible]

- [illegible]

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-
-
-
-
-

SIDDEEQ PUBLIC SCHOOL

Answer key

Admission to Grade: 8

Mathematics

1. (i) non-recurring / non repeating (ii) $A = \frac{1}{3}$ & $B = \frac{3}{4}$ (iii) $-x^2$ (iv) $P \cap Q = \{ \}$ or \emptyset

$$\begin{array}{l} \text{2. L.H.S: } \frac{5}{12} \times \left(\frac{-2}{5} \times 1\frac{3}{10} \right) \\ = \frac{5}{12} \times \left(\frac{-2}{5} \times \frac{13}{10} \right) \\ = \frac{5}{12} \times \left(\frac{-1}{5} \times \frac{13}{5} \right) \\ = \frac{1}{12} \times \frac{-13}{5} = \frac{-13}{60} \end{array} \quad \begin{array}{l} \text{R.H.S: } \left(\frac{5}{12} \times \frac{-2}{5} \right) \times 1\frac{3}{10} \\ = \left(\frac{1}{6} \times \frac{-1}{1} \right) \times \frac{13}{10} \\ = \frac{-1}{6} \times \frac{13}{10} = \frac{-13}{60} \end{array}$$

As L.H.S = R.H.S so $\frac{5}{12} \times \left(\frac{-2}{5} \times 1\frac{3}{10} \right) = \left(\frac{5}{12} \times \frac{-2}{5} \right) \times 1\frac{3}{10}$

3. $L = \{ 2, 4, 6 \}$, $M = \{ 1, 2, 4 \}$, $L - M = \{ 6 \}$

$$4. \sqrt{\frac{529}{3025}} = \frac{\sqrt{529}}{\sqrt{3025}} = \frac{\sqrt{23 \times 23}}{\sqrt{5 \times 5 \times 11 \times 11}} = \frac{\sqrt{23^2}}{\sqrt{5^2 \times 11^2}} = \frac{23}{\sqrt{(5 \times 11)^2}} = \frac{23}{55}$$

5. $16a^2 + \frac{8}{3}ab + \frac{1}{9}b^2 = (4a)^2 + 2(4a)\left(\frac{1}{3}b\right) + \left(\frac{1}{3}b\right)^2 = (4a + \frac{1}{3}b)^2$ As $(a+b)^2 = (a^2 + 2ab + b^2)$

6. Let Saad's present age = x , Ali's present age = $x - 10$

Ages after 2 years : Saad's age = $x+2$, Ali's age = $x-10+2 = x-8$

According to given condition : $x+2 = 3(x-8)$

$$x+2 = 3x-24$$

$$2+24 = 3x-x$$

$$26 = 2x$$

$$\frac{26}{2} = 2x \quad \text{so } 13 = x$$

So Saad's present age is 13 years.

7. Let required time to read 45 pages is x .

pages	Time (minutes)
8	24
45	x

Direct proportion

$$45:8 :: x:24$$

$$45 \times 24 = 8x \quad (\text{Product of extremes} = \text{product of means})$$

$$1080 = 8x$$

$$\frac{1080}{8} = x$$

$$135 = x$$

So he will take 135 minutes to read 45 pages.

8. $d = 28\text{m}$, $r = \frac{d}{2} = \frac{28}{2} = 14\text{m}$

$$\text{Area of floor of pool} = \pi r^2 = \frac{22}{7} \times (14\text{m})^2 = \frac{22}{7} \times 196\text{m}^2 = 22 \times 28\text{m}^2 = 616\text{m}^2$$

$$\text{Cost of tiling } 1\text{m}^2 = \text{Rs } 200$$

$$\text{Cost of tiling } 616\text{m}^2 = \text{Rs } 200 \times 616 = \text{Rs } 123200$$

So cost of tiling the floor is Rs 123200.

SIDDEEQ PUBLIC SCHOOL

ENTRY TEST ... 48

SCIENCE

Max. Marks: 30

ADMISSION to CLASS: 8

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(Note: Erasing, cutting and over writing is not allowed in Q.1, 2 & 3)

Q.1 Choose the best option. (1.0×6)

- (i) Which cell organelle is involved in respiration?

(A) Mitochondria (B) Chloroplast (C) Vacuole (D) Nucleus
- (ii) Heart is divided into two parts. The part which is larger, thick-walled and more powerful is called:

(A) Aorta (B) Vena cava (C) Atrium (D) Ventricle
- (iii) Combustion is a chemical process in which carbon dioxide is released which is responsible for:

(A) Acid rain (B) Global warming
(C) Soil erosion (D) Land pollution
- (iv) An atom which has atomic number 12 has ____ electrons in its valence shell.

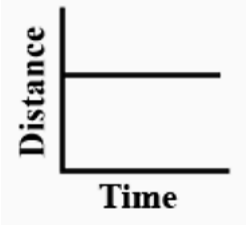
(A) 10 (B) 4 (C) 12 (D) 2
- (v) A distance-time graph is shown in the given figure. What information you get from it?

(A) The object is at rest

(B) The object is moving with uniform speed.

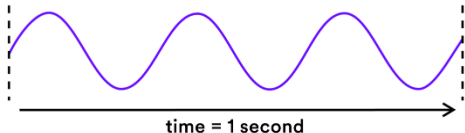
(C) The object is moving with increasing speed.

(D) The object is moving with decreasing speed.


- (vi) Which is the frequency of the given wave?

A) 6 Hz B) 3 Hz

C) 12 Hz D) 4 Hz



Q.2 Fill in the blanks. (1.0×6)

- (i) _____ immunity includes first and second line of defense, whereas, adaptive immunity is the third line of defense.
- (ii) Mode of heat transfer which do not require a material medium is called _____.
- (iii) The solution which has the ability to dissolve more solute is called _____ solution.
- (iv) Beryllium chloride is formed from Beryllium ion (Be^{2+}) and Chloride ion (Cl^-). The formula of Beryllium chloride is _____.
- (v) Bending of wire is a _____ change.
- (vi) The _____ transports food in the form of sugar solution from leaves to all other parts of the plant.

Q.3 Decide whether the given statements are True 'T' or False 'F'. (1.0×6)

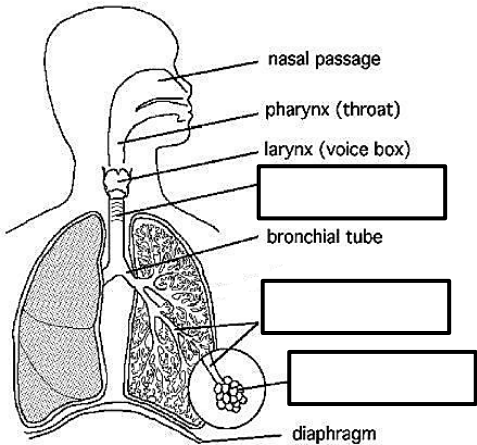
- (i) Red blood cells make the immune system. T / F
- (ii) Tarnishing of silver takes place due to the formation of coating of Silver oxide. T / F
- (iii) Atomic number is the number of neutrons. T / F
- (iv) Air resistance is an example of contact force. T / F
- (v) The particles at the hot end of the iron rod vibrate faster than its colder end. T / F
- (vi) In pickling, good bacteria is encouraged to grow against the bad bacteria in order to preserve the food. T / F

Q.4 Answer the following questions. (2.0×6)

(i) Briefly explain how the following factors affect the rate of transpiration.

Factors	Effect on rate of transpiration
<i>Increase in temperature</i>	
<i>Decrease in temperature</i>	
<i>Increase in humidity</i>	
<i>Decrease in humidity</i>	

(ii) Label alveoli, bronchiole and trachea in the given figure. Explain what is the function of trachea.



(iii) Photosynthesis is an example of a physical or a chemical change? Justify your answer.

_____ change

Justification: _____

(iv) Briefly explain the ionic bond formation in Sodium chloride. (Sodium at. no.: 11; mass no.: 23, Chlorine at. no.: 17; mass no.: 35)

(v) Why air is considered a solution? Mention solute and solvent in it.

Solute: _____ Solvent: _____

(vi) Convert 80°C into Fahrenheit scale.

ENTRY TEST ... 48
ADMISSION TEST TO GRADE: 8
SCIENCE
KEY

Q. 1. Choose the best option.

- (i) A (ii) D (iii) B (iv) D (v) A (vi) B

Q. 2 Fill in the blanks.

- (i) Innate (ii) radiation (iii) unsaturated
 (iv) BeCl₂ (v) physical (vi) phloem

Q. 3 True/False

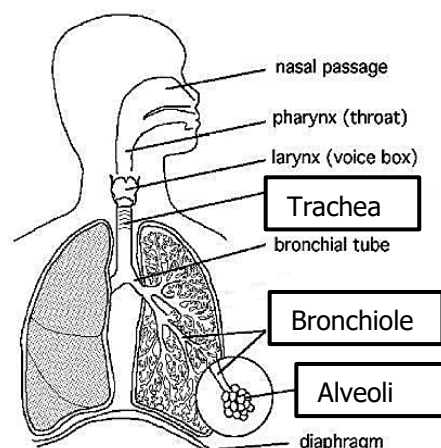
- (i) F (ii) F (iii) F (iv) T (v) T (vi) F

Q. 4 Answer the following questions.

(i)

Factors	Effect on rate of transpiration
<i>Increase in temperature</i>	Increase
<i>Decrease in temperature</i>	Decrease
<i>Increase in humidity</i>	Decrease
<i>Decrease in humidity</i>	Increase

- (ii) Trachea: Passage for inhaled air; filters and moisten the air.



- (iii) Chemical
 Water reacts chemically with carbon dioxide to form sugar and oxygen new substances are formed with different composition.
- (iv) Distribution of electrons in sodium is 2, 8, 1, it will lose 1e to attain noble gas configuration and form sodium ion (Na⁺). Chlorine has 2, 8, 7 electrons in K, L and M shells respectively. It requires 1e to attain noble gas configuration. Sodium will donate its one electron to chlorine to form chloride ion (Cl⁻). Due to the strong electrostatic force Na⁺ and Cl⁻ ions comes closer to form ionic bond. As a result, Sodium chloride (NaCl) is formed.
- (v) Air is considered a solution because it is a homogeneous mixture of different gases, like nitrogen, oxygen, carbon dioxide, which are uniformly distributed throughout.
 Solute: Oxygen, carbon dioxide and other gases.
 Solvent: Nitrogen

$$\begin{aligned} \text{(vi)} \quad T(^{\circ}\text{F}) &= 1.8 T(^{\circ}\text{C}) + 32 \\ &= 1.8 \times 80 + 32 \\ &= 144 + 32 \\ &= 176^{\circ}\text{F} \end{aligned}$$

SIDDEEQ PUBLIC SCHOOL

ENTRY TEST: 46 ENGLISH MAX. MARKS: 20 ADMISSION TO CLASS:8

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Vocabulary

Q.1 (A) Encircle the correct spelling. (0.5x2)

- alkaline / alkeline / alkiline / allkaline
- lencar / linear / lineer / linnear

(B) Provide meanings either in English or in Urdu. (0.5x4)

- awkward _____
- fraction _____
- expand _____
- remedy _____

(C) Complete the columns. (0.5x6)

Words	Opposites	Nouns	Verbs	Adjectives
	nasty	addition		
stubborn			bore	

Grammar

Q.2 Fill in the blanks with suitable Articles and Prepositions. (0.5x4)

_____ unparalleled efforts of our scientists have made this world _____ better place _____ live in. With the inventions _____ many devices, man can overcome any hurdle whatsoever.

Q.3 (A) Complete each sentence by choosing the correct word. (1.0x3)

- A hundred dollars _____ a great value. (have / was / has)
- He _____ not reported about the theft to the police. (do/ did/ had)
- Has the caged bird _____ away? (flew/ flown / flown)

(B) Do as Directed. (1.0x3)

- That architect has not designed this house. (Change into Passive Voice)
- Did the students take the test? (Change into Future Simple Tense)
- Saim said, "My mother will meet you today." (Change into Indirect Speech)

Sentence Construction

Q.4 Make meaningful sentences of these Words. (1.0x3)

- fainted: _____
- shocking: _____
- expertly: _____

Q.5 Translate into English. (1.0x3)

■ وہ مضمون لکھنا ختم کر چکا ہے۔

■ کیا تمہارا گھر میرے دفتر کے قریب تھا؟

■ وہ نئے جوڑے کا انتظار نہیں کر رہی تھی۔

Answer Key to Class: 8

ENGLISH

Q1. A) Correct Spelling

- alkaline
- linear

B) Words/Meanings

Awkward: clumsy, inappropriate, rude

Fraction: fragment, chunk, portion

Expand: increase, grow, enlarge

Remedy: cure, treatment

عجيب •

حصہ •

پھیلاؤ •

علاج •

C) Words/Opposites

Nasty: calm, nice, delightful

Stubborn: flexible, nice, kind

Noun-Verb-Adjective

- addition-add-additional/ additive

- boredom-bore-boring/ bored

Q2: Articles, Prepositions

The unparalleled efforts of our scientists have made this world **a** better place **to** live in. With the inventions **of** many devices, man can overcome any hurdle whatsoever.

Q3: Sentence Completion

- A hundred dollars **has** a great value.
- He **had** not reported about the theft to the police.
- Has the caged bird **flown** away.

B) Do as directed.

- This house has not been designed by that architect.
- Will the students take the test?
- Saim said that his mother would meet you that day.

Q4: Sentence Construction

- Fainted
- Shocking
- Expertly

Q5: Translation

- He has finished writing the essay.
- Was your home close to my office?
- She was not waiting for the new dress.

SIDDEEQ PUBLIC SCHOOL

ENTRY TEST ... 46 MATHEMATICS Max. Marks: 20 ADMISSION TO CLASS: 8

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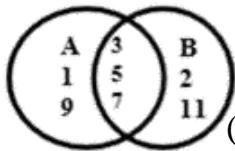
1. Complete the following mathematical statements. (1.0 × 4)

i.If area of a square is $(x - y)^2$ then length of its each side is _____ .

ii. $\sqrt{\frac{16}{9}}$ is a/an _____number. (Insert: Rational or Irrational)

iii. If we take product of $(a^2 - b^2)$ with zero polynomial, the result is _____.

iv.Set A = { _____ }, by looking at given Venn diagram



2. Find the square root of $1\frac{1287}{2809}$ by Division method. (4.0)

3. (i) Factorize: $4x^2 - 12xy + 9y^2$

(ii) If $p:q = \frac{1}{3} : \frac{1}{6}$ & $r: q = 4:1$, find p: r. (2.0×2)

(Give your answer in most simplified form)

4. A man cycles for 5 hours at a speed of 18km /h and then walks for 2 hours at a speed of 4km/h. Find his average speed for the whole journey? (4.0)

5. Ayesha has 45 sweets and Sadia has 75 sweets. How many sweets must Ayesha give to Sadia, so that Sadia will have 4 times as many sweets as Ayesha. (4.0)

(Write equation for given situation and find solution)

MATHEMATICS- 8

ANSWER KEY

1. (i) $x - y$ (ii) Rational (iii) zero polynomial / zero (iv) $A = \{ 1, 3, 5, 7, 9 \}$

$$2. \text{ Square root of } 1 \frac{1287}{2809} = \sqrt[2]{1 \frac{1287}{2809}} = \sqrt[2]{\frac{4096}{2809}} = \frac{\sqrt[2]{4096}}{\sqrt[2]{2809}} = \frac{64}{53} = 1 \frac{11}{53}$$

Working:

	64		53
6	40 96	5	28 09
	36		25
124	4 96	103	3 09
	4 96		3 09
	0		0

$$3. (i) \quad 4x^2 - 12xy + 9y^2 = (2x)^2 - 2(2x)(3y) + (3y)^2 = (2x - 3y)^2$$

$$(ii) \quad \text{If } p : q = \frac{1}{3} : \frac{1}{6} = \frac{1}{3} \times 6 : \frac{1}{6} \times 6 = 2 : 1$$

$$r : q = 4 : 1 \quad \& \quad q : r = 1 : 4$$

$$\mathbf{p : q : r}$$

$$2 : 1$$

$$1 : 4$$

$$\hline 2 : 1 : 4$$

$$\text{So } p : r = 2 : 4 = 1 : 2$$

$$4. \text{ Distance covered on cycle} = \text{speed} \times \text{time} = 18\text{km/h} \times 5 \text{ h} = 90\text{km}$$

$$\text{Distance covered on foot} = \text{speed} \times \text{time} = 4\text{km/h} \times 2 \text{ h} = 8 \text{ km}$$

$$\text{Total distance covered} = 90\text{km} + 8\text{km} = 98\text{km}$$

$$\text{Total time taken} = 5\text{h} + 2\text{h} = 7\text{h}$$

$$\text{Average speed for the whole journey} = \frac{\text{Total Distance}}{\text{Total time taken}} = \frac{98\text{km}}{7 \text{ h}} = 14 \text{ km/h}$$

$$5. \text{ Sweets Ayesha has} = 45, \quad \text{Sweets Sadia has} = 75$$

Let x be the sweets which Ayesha gives to Sadia.

According to given condition

$$75 + x = 4(45 - x)$$

$$75 + x = 180 - 4x$$

$$x + 4x = 180 - 75$$

$$5x = 105$$

$$x = 105 / 5 = 21$$

So Ayesha must give 21 candies to Sadia.

SIDDEEQ PUBLIC SCHOOL

ENTRY TEST ... 46

SCIENCE

Max. Marks: 10

ADMISSION to CLASS: 8

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Objective

Q.1 Fill in the blanks. (1.0×4)

- (i) Tiny air sacs present in our lungs responsible for transferring oxygen to blood capillaries are called _____.
- (ii) Plants in which pollination through _____ take place have bright coloured petals, nectar and pleasant smell.
- (iii) Boron has $5p^+$, $6n^0$ and $5e^-$, its atomic number is _____ and mass number is _____.
- (iv) Sound waves are _____ waves.

Short-Answer Questions (Best three will be considered.) (2.0×3)

Q.2 Answer the following questions.

- (i) Differentiate between population and community with the help of examples.

POPULATION	COMMUNITY
<i>Difference</i>	
<i>Example</i>	

- (ii) When we dip a metal spoon in a cup of hot water it becomes hot after sometime. Explain how this happens.



- (iii) To make a fruit salad, different fruits are cut into small pieces and if the salad is kept outside for few days it is spoiled. Mention with justification which change is physical and which is chemical.



- (iv) What do you understand by the term 'voltage'? Also briefly explain the relationship between voltage and resistance.

Use backside of the sheet to answer.

ADMISSION TEST TO CLASS: 8
SCIENCE
KEY

Q.1 Fill in the blanks.

- (i) alveoli (ii) animals (iii) 5; 11 (iv) longitudinal

Q.2 Answer the following questions.

(i)

POPULATION	COMMUNITY
<i>Difference</i>	
Organisms of the same kind living and reproducing in a particular area.	All the populations of different kinds of organisms living together in an area.
<i>Example</i>	
Number of wolves in a forest	Wolves, all other animals, plants and microorganisms.

- (ii) The presence of free electrons in the metal spoon speeds up the transfer of heat. When the metal spoon is dipped in hot water it gets heated, the free electrons gain kinetic energy and move farther towards colder parts and transfer heat energy to them.
- (iii) Cutting of fruits: physical change because the composition does not change. Spoilage: Chemical change because the composition change.
- (iv) The difference of potential between two points in a circuit or battery is called voltage.
Resistance is the hindrance to the flow of current.

Resistance= $\frac{\text{voltage}}{\text{current}}$