

MATHS

Q1. Find the value of x, if

1. $2^x + 2^x + 2^x = 192$

Ans. _____

2. $2^3 + 2^x = 2^4$

Ans. _____

3. $8^{255} = 32^x$

Ans. _____

4. $7^x \times 3^x \times 2^x = 1764$

Ans. _____

5. $4\left(\frac{10}{x}\right)^2 - 6\left(\frac{10}{x}\right)^2 + 3\left(\frac{10}{x}\right)^2 = 1$

Ans. _____

Q2. TRUE OR FALSE.

1. We cannot find discount when discount percent is given.

2. VAT means Value Added TAX.

3. $(x + a)(x + b) = x^2 + (a + b)x + ab$.

4. $(a + b)(a - b) = a^2 + b^2$

5. A cone is a polyhedron.

6. A glass is cylindrical in shape.

7. All the congruent figures are equal in area.

8. Total surface area of a cuboid is equal to lateral surface area + 2 × area of base.

9. When length and the height of the cuboid are interchanged, so to get a new cuboid then its lateral surface area also changes.

10. Very small numbers can be expressed in standard form using negative exponents.

Q3. One word or One sentence.

1. A car bought at 54000. its value depreciates at the rate of 5% per annum, find its value after one year.

Ans. _____

2. Write the formula of profit %

Ans. _____

3. Solve the expression $9x(3x^2 + 2)$ for $x = 5$.

Ans. _____

4. Find the product of $(6.8m - 4.6n)$ and $(4.6n + 6.8m)$

Ans. _____

5. If a cube is 3-dimensional figure, then how many dimensions does a cylinder has?

Ans. _____

ENGLISH

Q1. Fill in the blanks in the following sentences choosing suitable adverbs from the list given here.

very, yesterday, always, when, quite, often, never, here, too, totally, tomorrow, how, once, ago, why

1. Bring the box of chalk _____
2. This old building was built many years _____
3. The teacher does not like him because he is _____ late to school.
4. His uncle smokes _____ much.
5. We went to see a film _____
6. He has visited us only _____
7. _____ does your school begin?
8. The first Test match between India and Pakistan will begin _____
9. Your answer is _____ right.
10. Wood _____ floats on water.

Q2. Complete the given degrees table.

POSITIVE	COMPARATIVE	SUPERLATIVE
Sweet		
White		Whitest
Big		
Busy		
		Heaviest
		Thinnest
Difficult	More Difficult	
Learned		
Industrious		Most Industrious
Hot		

Q3. Fill in the blanks with the noun forms of the verbs given in the brackets.

1. A _____ fell down from the second floor and was seriously injured. **(work)**
2. He sent an _____ to his friends to attend his birthday party. **(invite)**
3. Edison was the _____ of the gramophone. **(invent)**
4. He wrote an _____ for fee concession. **(apply)**
5. The _____ of this house is an old widow. **(own)**

GENERAL KNOWLEDGE

Q1. Read the following descriptions and identify the forms of martial arts. Choose your answer from the help box.

Help Box

Kendo

Karate

Taekwondo

Gatka

Sumo wrestling

1. It is a competitive full-contact sport where a wrestler (rikishi) attempts to force another wrestler out of a circular ring (dohyo) or to touch the ground with anything other than the soles of the feet. The sport originated in Japan, the only country where it is practiced professionally.

2. Originated in the Punjab region, a Sikh martial art used by the Sikhs against the Mughal forces. Today it has evolved into a sport and exhibition form shown at Sikh festivals.

3. Developed in Korea, a defensive sport whose principle is never to attack first and it does not teach hand-to-hand combat. It makes use of flying kicks.

4. Developed in Japan, martial art of unarmed self-defense in which directed or focused blows of the hand and feet, accompanied by special breathing and shouts, are dealt from poised positions.

5. It is a modern Japanese martial art of sword-fighting based on traditional Japanese swordsmanship. It is a physically and mentally challenging activity that combines strong martial arts values with sport-like physical elements.

Q2. Fill in the missing letters in the circles to get the full names of the Indian dishes.

4. Punjabi ⇒ ○ H ○ O L ○
5. Madhya Pradesh ⇒ ○ S ○ E ○ R K ○ ○ ○ D
6. Andhra Pradesh ⇒ ○ E S ○ ○ A ○ T ○
7. Oriya ⇒ ○ A ○ ○ A
8. Gujarati ⇒ ○ H ○ K ○ ○

Q3. Write Whether following are True / False.

1. Margaret Thatcher was the British Prime Minister from 1979 to 1990. ☐ True ☐ False
2. Chrysanthemum is the national emblem of Japan. ☐ True ☐ False
3. Madagascar is known as the Land of Lilies. ☐ True ☐ False
4. Edward J. Smith was the captain of the Titanic. ☐ True ☐ False
5. The Zaire river is also known as Nile river. ☐ True ☐ False

APTITUDE

Q1. A, B, C, D, E and F are six members of a family. A is the mother of B, who is the husband of D. F is the brother of one of the parents of C. D is the daughter-in-law of E and has no siblings. C is the son of D.

1. How is C related to A?

- ☐ Nephew ☐ Son-in-law ☐ Grandson ☐ Father

2. How is F related to D?

- ☐ Cousin ☐ Brother-in-law ☐ Brother ☐ Father

3. How is E related to F?

- ☐ Mother ☐ Mother-in-law ☐ Father ☐ Sister

4. If F is married to G, then how is G related to B?

- ☐ Sister ☐ Sister-in-law ☐ Cousin ☐ Mother

5. How many male members are there in the family?

- ☐ Two ☐ Three ☐ Four ☐ Five

Q2. What should come in place of question mark (?) in following number series.

1. 36 31 27 24 22 ?

- ☐ 18 ☐ 23 ☐ 20 ☐ 21

2. 22 23 27 36 52 77 ?

- ☐ 111 ☐ 109 ☐ 113 ☐ 117

3. 32 37 47 62 ?

- ☐ 77 ☐ 82 ☐ 72 ☐ 87

4. 1728 1000 512 216 64 ?

- ☐ 6 ☐ 4 ☐ 27 ☐ 8

5. 108 228 288 318 333 340.5 ?

- ☐ 344.25 ☐ 343.25 ☐ 344.75 ☐ 353.25

Q3. Find the odd one out from the given list:

1. ☐ Big ☐ Tall ☐ Large ☐ Bulky ☐ Massive

2. ☐ Jumper ☐ Jacket ☐ Sweater ☐ Jersey ☐ Pulllover

3. ☐ Cabin ☐ Deck ☐ Quarters ☐ Compartments ☐ Berth

4. ☐ House ☐ Residence ☐ Home ☐ Dwelling ☐ Building

5. ☐ Cruise ☐ Holiday ☐ Voyage ☐ Passage ☐ Trip