



GEETA DEVI DAV PUBLIC SCHOOL

BHANDARKOLA, SATAR ROAD, DEOGHAR

DEEPAWALI & CHHATH PUJA HOLIDAY HOME WORK-(2024-25)

Class: -VIII

MATHS

Class- Viii(MATHS)

*These questions must be done in The Holiday Home -Work Note book

*Assertion and Reason based Questions.

(1) In questions like these, you will usually be given an assertion (a statement) and a reason (an explanation) you must decide whether .

- (a). Both Assertion and Reason are correct, and Reason correctly explains the Assertion.
- (b). Both Assertion and Reason are correct, but Reason does not explain the Assertion.
- (C) Assertion is true, but Reason is false.
- (d) Assertion is false, but Reason is true.

(1.) Assertion(**A**): The square of any integer is always positive.

• Reason(**R**): The square of a negative number is positive because a negative times a negative equals a positive.

(2). Assertion(**A**): The square root of a perfect square is always a whole number.

• Reason(**R**): Every integer has a unique square root.

(3). Assertion(**A**): The square of an even number is always even.

• Reason(**R**): When an even number is multiplied by itself, the result is even.

(4) Assertion (**A**): If the cube of a number is positive, then the number must be positive.

Reason (**R**): The cube of a negative number is always negative.

(5) Assertion (**A**): $5^0 = 1$.

Reason (**R**): Any non-zero number raised to the power of zero is equal to 1.

(6) Assertion (**A**): $(-3)^4 = 81$.

Reason (**R**): When a negative number is raised to an even power, the result is positive.

(7) Assertion (**A**): cube root-27 = -3.

Reason (**R**): The cube root of a negative number is negative.

(8) Assertion (**A**): If two quantities x and y vary directly, then x/y remains constant.

Reason (**R**): In direct variation, as one quantity increases, the other quantity also increases at the same rate.

(9) .Assertion (**A**): If x and y vary inversely, then xy remains constant.

Reason (R): In inverse variation, as one quantity increases, the other quantity decreases in such a way that their product remains the same.

(10).Assertion (A): If a worker completes 5 units of work in 2 hours, then in direct proportion, they will complete 10 units in 4 hours.

Reason (R): In direct variation, the quantities change proportionally, so doubling one quantity will double the other.

(11).Assertion (A): If the speed of a vehicle increases, the time taken to cover a fixed distance decreases, following an inverse variation.

Reason (R): In inverse variation, if one quantity increases, the other decreases so that their product remains constant.

(12).Assertion (A): If the cost price (CP) of an article is less than the selling price (SP), there is a profit.

Reason (R): Profit is calculated as $CP - SP$.

(13).Assertion (A): If the selling price (SP) of an item is less than its cost price (CP), then the seller incurs a loss.

Reason (R): Loss is given by $Loss = CP - SP$.

(14).Assertion (A): Discount is calculated on the marked price (MP) of an article.

Reason (R): Marked price (MP) is the price printed or labeled on the product before any discount is applied.

(15).Assertion (A): Profit percentage is given by $(Profit/Sp) \times 100$.

Reason (R): To find the profit percentage, profit is divided by the cost price and then multiplied by 100.

(16).Assertion (A): The selling price after a discount is calculated by subtracting the discount from the marked price.

Reason (R): Selling price with a discount can be found using the formula $Selling\ Price = Marked\ Price - Discount$.

(17).Assertion (A): Compound interest is calculated using the formula $A = P(1 + R/100)^t$, where A is the amount, P is the principal, R is the rate of interest per annum, and T is the time in years.

Reason (R): Compound interest is calculated by adding interest to the principal at regular intervals, leading to interest being calculated on both principal and accrued interest.

(18).Assertion (A): Compound interest grows faster than simple interest over time.

Reason (R): In compound interest, interest is calculated on the original principal as well as on any previously accumulated interest.

(19).Assertion (A): The principal is the original sum of money, while the amount is the total sum after interest has been added.

Reason (R): In compound interest, amount A includes the principal P plus the compound interest.

(20).Assertion (A): When interest is compounded quarterly, the rate is divided by 4, and the time period is multiplied by 4.

Reason (R): For quarterly compounding, interest is calculated four times a year, hence the rate per quarter becomes $R/4$ and the number of compounding periods becomes $4T$.

(21). Assertion (A): The square of $(a + b)$ is given by $a^2 + 2ab + b^2$.

Reason (R): The formula for the square of a binomial can be derived by expanding $(a + b)(a + b)$ using the distributive property.

(22).Assertion (A): The cube of $(a + b)$ is given by $a^3 + 3a^2b + 3ab^2 + b^3$.

Reason (R): The expansion of $(a + b)^3$ involves terms with powers of a and b in decreasing and increasing order respectively.

(23).Assertion (A): If two parallel lines are cut by a transversal, then each pair of alternate interior angles is equal.

Reason (R): Alternate interior angles are equal when a transversal intersects two parallel lines.

(24).Assertion (A): If two lines are cut by a transversal and corresponding angles are equal, then the lines are parallel.

Reason (R): Corresponding angles are angles that lie on the same side of the transversal and in corresponding positions relative to the two lines.

(25).Assertion (A): If two parallel lines are cut by a transversal, then the sum of the interior angles on the same side of the transversal is 180° .

Reason (R): Interior angles on the same side of the transversal are supplementary when the lines are parallel.

(26).Assertion (A): If a transversal intersects two lines and makes a pair of alternate interior angles equal, then the two lines are parallel.

Reason (R): Two lines are parallel if and only if alternate interior angles formed by a transversal are equal.

(27).Assertion (A): If two lines intersect each other, then vertically opposite angles are always equal.

Reason (R): Vertically opposite angles are formed when two lines intersect, and they are equal irrespective of whether the lines are parallel.

(28).Assertion (A): The sum of the angles in a triangle is 180° .

Reason (R): If a transversal intersects two parallel lines, the sum of the interior angles on the same side of the transversal is 180° .

(29).Assertion (A): The coordinates of a point in the first quadrant are both positive.

Reason (R): In the first quadrant, both x and y values are positive.

(30).Assertion (A): The Cartesian plane is divided into four quadrants.

Reason (R): The x-axis and y-axis intersect at the origin, dividing the plane into four parts.

(31).Assertion (A): To plot the point (3, -4), move 3 units to the right and 4 units down from the origin.

Reason (R): The first coordinate represents the movement along the x-axis, and the second represents the movement along the y-axis.

(32).Assertion (A): A line graph is best for representing changes over time.

Reason (R): A line graph shows the relationship between two variables, usually with time on the x-axis.

(33).Assertion (A): The origin has the coordinates (0, 0).

Reason (R): The origin is the point of intersection of the x-axis and y-axis on the Cartesian plane.

***Solve the following questions by using appropriate steps .**

(34).By what smallest number must 180 be multiplied so that it becomes a perfect square? Also, find the square root of the number so obtained.

(35).Find the smallest number by which 3645 must be divided so that it becomes a perfect square. Also, find the square root of the resulting number.

(36).The area of a square plot is 800 m². Find the estimated length of the side of the plot.

(37).By which smallest number must 5400 be multiplied to make it a perfect cube?

If $4^x - 4^{x-1} = 24$, then find the value of x.

(38).  Scanned with CamScanner

(38). Solve the given exponential equations

$(\sqrt{6})^{x-2} = 1$ (ii) $3^{4x} = \frac{1}{81}$ (iii) $(\sqrt{2})^x = 2^8$ (iv) $2^{2x+1} = 4^{2x-1}$

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(39).If 12 women can weave 15 metres of cloth in a day, how many metres of cloth can be woven by 20 women in a day?(Show variation using table).

(40).In a camp, there is enough provision for 500 students for 30 days. If 100 more students join the camp, for how many days will the provision last now?

(41).A train 150 m long is running at 72 km/hr. It crosses a bridge in 13 seconds. Find the length of the bridge.

(41).A train 270 m long is running at 80 km/hr. How much time will it take to cross a platform 130 m long?

(42).By selling 35 greeting cards, a shopkeeper loses an amount equal to the selling price of five greeting cards. Find his loss per cent.

(44).The marked price of a computer is Rs. 22,000. After allowing a 10% discount, a dealer still makes a profit of 20%. Find the cost price of a computer

(45).Nidhi purchased two sarees for Rs 2,150 each. She sold one saree at a loss of 8% and the other at a gain. If she had a gain of 1,230 on the whole transaction, find the selling price of the second saree.

(46).The difference between the compound interest and simple interest on a certain sum of money at $20\frac{2}{3}\%$ per annum for three years is Rs .46. Find the sum.

(47).The annual rate of growth in population of a certain city is 8%. If its present population is 1,96,830, what was the population three years ago?

(48).(a). If $x + \frac{1}{x} = 8$ find the value of $x^2 + \frac{1}{x^2}$

(b). If $a - \frac{1}{a} = 5$ find the value of $a^2 + \frac{1}{a^2}$

(49). Factorise the following expressions.

(i) $z^2 - 4z - 77$

(ii) $x^2 + 25x + 144$

(iii) $x^2 + 5x - 104$

(iv) $49x^2 - 64$

(v) $x^2 - 1 - 2y - y^2$

(vi) $4(x - y)^2 - 12(x - y) + 9$

(vii) $x^2 + y - xy - x$

(viii) $81(x + 1)^2 + 90(x + 1)(y + 2) + 25(y + 2)^2$

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प्रश्न संख्या 13 और 14 केस स्टडी आधारित प्रश्न हैं। इनके सही उपयोग हैं, विषय से दो प्रतिक्रियात्मक प्रकार हैं, प्रत्येक एक अंक का है और एक लघु उत्तरीय प्रश्न 2 अंकों का है, जिसमें आंशिक विकल्प है। प्रत्येक प्रश्न के सही उत्तरों को हल कीजिए।

13. Case Study 1 (केस स्टडी 1)

A cycle merchant allows 20% discount on the marked price of a cycle and still makes a profit of 20%. He gains ₹ 360 over the sale of one cycle.



Based on the above information, answer the following questions :

(i) C.P. of the cycle is-

- (a) ₹ 1800 (b) ₹ 2000
(c) ₹ 1640 (d) ₹ 720

(ii) S.P. of the cycle is-

- (a) ₹ 1800 (b) ₹ 2160
(c) ₹ 1440 (d) ₹ 1080

(iii) Find the marked price of the cycle.

OR

Due to competition in the market, if the marked price of the cycle is reduced to 2400, then find the selling price at the same discount.

VII-Mathematics

(6)

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PROJECT - WORK 🧡 (Should be done on colourful chart paper)

(i) Write all Algebraic identity on chart paper

(ii) To verify first algebraic identity paper cutting and pasting method.

(iii) Prepare Mind- Maps of profit/loss and Discount.

Diwali Holiday homework of English

Class- VIII

Reader book- Read unit 4 'NATURE' and fill up the worksheets.

Grammar -Write down the rules of subject verb agreement with examples in creative way in a chat paper.

Literature-Learn Question Answer of ch- 7.

PHYSICS

- Define refractive index. Write the relation between refractive index, optical density and velocity of light.
- Draw all the diagrams related to refraction of light given in chapter Refraction and dispersion of light.

BIOLOGY

- Solve Something to do of Ch- 14 page no-266 and 267
- Project:-
Draw a well labelled diagram of (i) the reproductive system of the human female (ii) the male reproductive system.

CHEMISTRY

Write answer of the following questions.(In home work copy)

1. What is an alloy? Give five examples of alloy with their constituents.
2. What is metal reactivity series? Write metal reactivity series. Mention most and least reactive metal.
3. Differentiate between Peat, Lignite, Bituminous and Anthracite coal.
4. Explain occurrence of petroleum with the help of diagram.
5. Write five chemical properties of metal. Write the balanced chemical equation of each properties.
6. What is combustion? Explain all the types of combustion.
7. Define ignition temperature. How ignition temperature affects combustion? Explain with the help of examples.
8. What is fuel? Categorise the fuel on the basis of its physical state by giving three examples of each.
9. What are the main factors that affect combustion? And how?
10. What precautions should be taken in case of power failure?

Project Work of Chemistry

- Write activity on the following topics.(In stick file)
 - i) Burning of magnesium ribbon.
 - ii) Reaction of magnesium with water
 - iii) Air is necessary condition of combustion.
 - iv) Evolution of Hydrogen gas (metal and acid)
 - v) Displacement reaction (Magnesium ribbon and Copper Sulphate)

NOTE-

Mention each steps properly with good handwriting such as (a) Aim of experiment. (b) Materials required (c) Theory of experiment (d) procedure (e) observation (f) conclusion.

- How a soda acid fire extinguisher work?

NOTE- Do this project on chart paper properly with diagram

HINDI

विषय -हिंदी कक्षा-अष्टम

- 1) एक औपचारिक तथा एक अनौपचारिक पत्र लिखें।
- 2) निम्न विषयों पर 70-100 शब्दों का अनुच्छेद
(i) परीक्षा की तैयारी
(ii) पशु हमारे मित्र
- 3) 20 कठिन शब्द चुनकर उनके अर्थ लिखें तथा वाक्य भी बनाएँ।
- 4) समास व उसके भेदों के नाम लिखकर चार-चार उदाहरण लिखें।
- 5) अनुप्रास तथा यमक अलंकार की परिभाषा उदाहरण के साथ लिखें।

परियोजना कार्य- 'निर्माण' कविता की 12 पंक्तियाँ लिखकर संबंधित चित्र भी बनाएँ। (कॉपी में)

SANSKRIT

परियोजना कार्यम्

नमः शुभं भू चित्र फल के लिखित्वा दर्शयतु। (चार्ट पेपर)

गृहकार्यम् - ऊपपद विभक्ति - पञ्चमी विभक्तिः सप्तमी पर्यन्तं लिखित्वा स्मरत। "गृह कार्य पुस्तिकायाम्"

HISTORY / CIVICS

On an outline political map of India, locate and name the state where the tribal live and also collect information about their traditions and culture of any five tribal communities of India.

GEOGRAPHY

Rain Water Harvesting: Diagram of Rain Water Harvesting, Mechanism of rain water harvesting, Advantages of rain water harvesting, Application of rain water harvesting.

ICT (COMPUTER SCIENCE)

Answer the following questions;-

- 1) What is <TABLE> tag?
- 2) Difference the between cellpadding and cellspacing.
- 3) Explain the all attributes of <TABLE> tag with examples.
- 4) Difference the between tag and tag.
- 5) Write an HTML code to display the fruits and vegetable list (any four) using tag.