

DAV PUBLIC SCHOOL, POKHARIPUT, BBSR-20
PERIODIC ASSESSMENT – 1(2021-22)
SUBJECT: MATHEMATICS
STD-VIII

Time: 1 hour

Max marks:40

Case Study Question: (Read the following paragraph carefully and answer the questions from 1 to 4)

Kusum always forgets how to convert miles to kilometers and back again. However, she remembers that her car's speedometer shows both miles and kilometers. She knows that travelling 50 miles per hour is same as travelling 80 kilometers per hour.



1. In the above situation, which variation exists between miles per hour and kilometers per hour?
 - i) Direct variation
 - ii) Inverse variation
 - iii) Compound variation
 - iv) No variation
2. To cover a distance of 200 km, how many miles Kusum would have to go?
 - i) 20 miles
 - ii) 125 miles
 - iii) 400 miles
 - iv) 1000 miles
3. If the speed of the car is 120km/hr, then how much distance will it cover in 1 second?
 - i) 50 metres
 - ii) 30 metres
 - iii) 33.33 metres
 - iv) 150 metres

4. When Kusum drives the car at a speed of 10 miles per hour then what should be reading of the speedometer in kilometers per hour at that time?
- i) 6.25 km/hr
 - ii) 16 km/hr
 - iii) 30 km/hr
 - iv) 1.6 km/hr

Case Study Question:(Read the following paragraph carefully and answer the questions from 4 to 8)

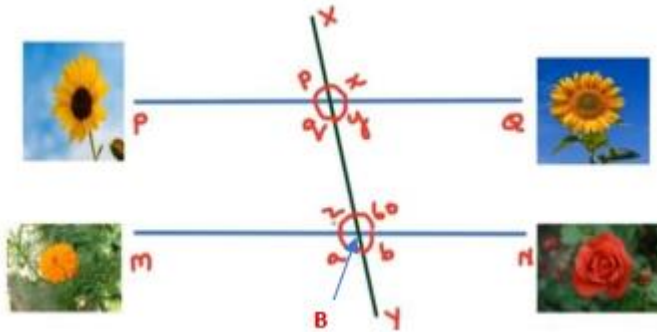
A king wanted to reward his advisor, a wise man of the kingdom. So he asked the wise man to name his own reward. The wiseman thanked the king but said that he would ask only for some gold coins each day for a month. The coins were to be counted out in a pattern of 1 coin for the first day, 3 coins for the second day, 5 coins for the third day and so on for 30 days.

5. How many coins the wiseman will collect at the end of 5th day?
- i) 20
 - ii) 25
 - iii) 26
 - iv) 9
6. How many coins the wise man will collect at the end of 30 days?
- i) 325
 - ii) 300
 - iii) 900
 - iv) 990
7. The difference between the sum of first 10 odd natural numbers and the sum of first 8 odd natural number is same as _____
- i) The sum of first 6 natural number
 - ii) The sum of first 2 natural number
 - iii) The sum of first odd natural number
 - iv) The sum of first 4 odd natural number
8. $\sqrt{1 + 3 + 5 + 7 + 9 + 11 + 13} =$ _____
- i) 49
 - ii) 7
 - iii) 13
 - iv) 4.5

Case Study Question: (Read the following paragraph carefully and answer the questions from 9 to 12)

Once 4 students of Std VIII were selected for plantation of flower plants in the school garden. The selected students were Pankaj, Raju, Deepak and Renu. As shown PQ and MN are the parallel lines of the plants. Pankaj planted a sunflower

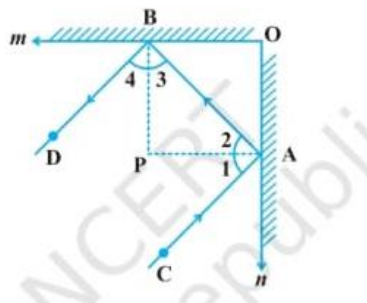
plant at P, then Raju planted another sunflower at Q. Further, Deepak was called to plant any flowering plant at point M. He planted a marigold there. Now it was turn of Renu. She was told to plant a flowering plant different from the three planted one. So she planted a rose plant at N. There was water pipeline XY which intersect PQ and MN at A and B and $\angle XBN = 60$ degree.



9. What is the value of $\angle z$?
 - i) 120 degree
 - ii) 130 degree
 - iii) 150 degree
 - iv) 60 degree
10. The value of $\angle p =$ _____.
 - i) $\angle b$
 - ii) $\angle x$
 - iii) $\angle q$
 - iv) 60 degree
11. The value of $(\angle p + \angle q + \angle z + \angle a)/6$ is = _____.
 - i) 36 degree
 - ii) 30 degree
 - iii) 180 degree
 - iv) 60 degree
12. Which of the following is not true?
 - i) $\angle q$ and $\angle z$ are co-interior angles.
 - ii) $\angle p$ and $\angle b$ are alternate exterior angles.
 - iii) Corresponding angles are congruent.
 - iv) $\angle z$ and $\angle y$ are co-interior angles.

CASE STUDY:(Observe the figure and read the given information carefully.
And answer the following questions from Q no.13 to 16)

In the given figure, m and n are two plane mirrors perpendicular to each other. The incident ray CA is parallel to the reflected ray BD . BP and AP are the angle bisectors of $\angle DBA$ and $\angle CAB$ respectively.



- 13.If $\angle 1 + \angle 2 = 90$ degree, then $\angle 3 + \angle 4 =$ _____
- 60 degree
 - 90 degree
 - 45 degree
 - None of these
- 14.Measure of angle P is equal to _____
- 60 degree
 - 45 degree
 - 90 degree
 - 80 degree
- 15.Which of the following is true for $\angle DBA$ and $\angle CAB$?
- Co-interior angles
 - Alternate interior angles
 - Corresponding angles
 - Alternate exterior angles
- 16.The sum of two co-interior angle is _____
- 180 degree
 - 90 degree

- iii) Any value between 0 to 90 degree
- iv) None of these

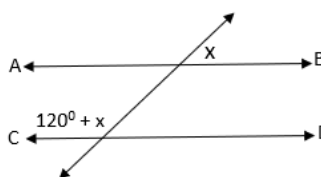
17. Assertion(A): The interior angles on the same side of a transversal intersecting two parallel lines are 60° and 110° .

Reason(R): When two lines are parallel then co-interior angles are supplementary.

- i) Both A and R are true and R is the correct explanation of A.
- ii) Both A and R are true but R is NOT the correct explanation of A.
- iii) A is true but R is false.
- iv) A is false but R is true.

18. In the given figure, if $AB \parallel CD$, then find 'x'

- i) 20°
- ii) 30°
- iii) 45°
- iv) 60°



19. Assertion(A): If line p is perpendicular to line l and line q is perpendicular to line l then line p and line q are parallel.

Reason(R): Two lines in the same plane perpendicular to a given line are parallel to each other.

- i) Both A and R are true and R is the correct explanation of A.
- ii) Both A and R are true but R is NOT the correct explanation of A.
- iii) A is true but R is false.
- iv) A is false but R is true.

20. Assertion(A): The sum of adjacent angles of a parallelogram is 180 degree.

Reason(R): When two lines are parallel then co-interior angles are supplementary.

- i) Both A and R are true and R is the correct explanation of A.
- ii) Both A and R are true but R is NOT the correct explanation of A.
- iii) A is true but R is false.
- iv) A is false but R is true.

21. If one number of the Pythagorean triplet is $2m$ then the other two are

- i) $m, m^2 + 1$
- ii) $m^2 + 1, m^2 - 1$
- iii) $m^2, m^2 + 1$
- iv) m, m^2

22. Assertion (A): The difference between the squares of 51 and 50 is 101.

Reason(R): The difference between the squares of two consecutive natural numbers is equal to their sum.

- i) Both A and R are true and R is the correct explanation of A.
- ii) Both A and R are true but R is NOT the correct explanation of A.
- iii) A is true but R is false.
- iv) A is false but R is true.

23. Which numbers is not a perfect square?

- i) 144
- ii) 169
- iii) 1028
- iv) 441

24. The square root of 3.052009 has _____ decimal places.

- i) 3
- ii) 4
- iii) 5
- iv) 1

25. The smallest number added to 6080 to obtain a perfect square is _____

- i) 4
- ii) 5
- iii) 3
- iv) 2

26. Assertion (A): Cube of 18 is divisible by 27.

Reason(R): The cube of any multiple of 3 is divisible by 27.

- i) Both A and R are true and R is the correct explanation of A.
- ii) Both A and R are true but R is NOT the correct explanation of A.
- iii) A is true but R is false.
- iv) A is false but R is true.

27. Find the cube root of 0.000001

- i) 0.1
- ii) 0.001
- iii) 0.0001
- iv) None of these

28. The smallest number by which 1944 should be multiplied so that it becomes a perfect cube is

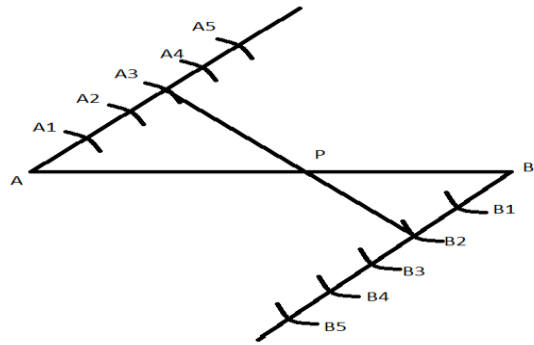
- i) 3
- ii) 2
- iii) 5
- iv) 4

29. If two quantities x and y vary inversely with each other, then
- x/y remains constant
 - $(x-y)$ remains constant
 - $(x+y)$ remains constant
 - (xy) remains constant
30. Which of the quantities vary inversely with each other?
- Distance travelled and cab fare
 - Area of land and its cost
 - Number of workers and time taken to finish a job
 - Number of workers and amount of work done
31. A train 270 m long is running at 80 km/hr. How much time will it take to cross a platform 130 m long?
- 18 sec
 - 18 min
 - 80 sec
 - 1 min 18 sec
32. If 52 men can do a piece of work in 35 days. In how many days will 28 men complete the same work?
- 75 days
 - 65 days
 - 70 days
 - 105 days
33. If a deposit of Rs 2000 earns an interest of Rs 500 in 3 years, how much interest would a deposit of Rs 36000 earn in 3 years with same rate of interest?
- Rs 9000
 - Rs 10000
 - Rs 11000
 - Rs 12000
34. 100 persons had food provision for 24 days. If 20 persons left the place, the provision will last for
- 30 days
 - 120 days
 - $96/5$ days
 - 40 days
35. How many digits will be there in the cube root of 46656?
- 3
 - 4
 - 2

iv) None of these

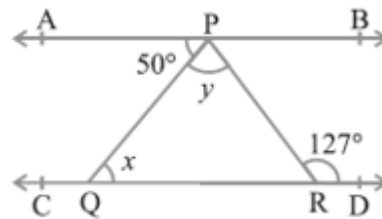
36. State the value of the ratio AP:PB

- i) 3:5
- ii) 3:2
- iii) 2:3
- iv) 2:5



37. In the figure, if $AB \parallel CD$, $\angle APQ = 50^\circ$ and $\angle PRD = 127^\circ$. Determine the value of y .

- i) 77 degree
- ii) 50 degree
- iii) 130 degree
- iv) 57 degree



38. The cube root of $686/-2662$ is _____

- i) 14/-11
- ii) -7/11
- iii) -7/-12
- iv) 7/11

39. How many non-square numbers lie between 100^2 and 101^2 ?

- i) 200
- ii) 202
- iii) 201
- iv) None of these

40. Estimate the cube root of 373248.

- i) 62
- ii) 68
- iii) 72
- iv) None of these