

## RPS Olympiad 2023-24 (Phase- I) Grade- VI

### English

Choose the correct alternative:

- Q1. Child is common noun. The abstract noun of child will be \_\_\_\_\_.
- (a) children
  - (b) childhood
  - (c) childish
  - (d) child
- Q2. Sheela has got short black \_\_\_\_\_.
- (a) hair
  - (b) hairs
  - (c) haire
  - (d) none of these
- Q3. The bus driver lost \_\_\_\_\_ keys.
- (a) he
  - (b) him
  - (c) his
  - (d) himself
- Q4. I have a son \_\_\_\_\_ I love very much.
- (a) whom
  - (b) whose
  - (c) which
  - (d) this
- Q5. John thinks that his car is \_\_\_\_\_.
- (a) expensive than my car
  - (b) more expensive than my car
  - (c) most expensive than my car
  - (d) expensiver than my car

- Q6. This actor is not as \_\_\_\_\_ as the other one.
- (a) funny
  - (b) funnier
  - (c) funniest
  - (d) more funny
- Q7. You were not listening to me \_\_\_\_\_.
- (a) when I will teach you
  - (b) when I teaching you
  - (c) when I teach you
  - (d) when I was teaching you
- Q8. Rewrite the given sentence in the negative form:  
His father went to Chandigarh yesterday.
- (a) His father not went to Chandigarh yesterday
  - (b) His father did not went to Chandigarh yesterday
  - (c) His father did not go to Chandigarh yesterday.
  - (d) His father did not gone to Chandigarh yesterday.
- Q9. Come to my office \_\_\_\_\_ nine o'clock.
- (a) at
  - (b) in
  - (c) on
  - (d) from
- Q10. We haven't seen him \_\_\_\_\_ two years.
- (a) since
  - (b) during
  - (c) for
  - (d) from
- Q11. He said to me, "I have been reading a novel since morning."
- (a) He asked me that I have been reading a novel since morning.
  - (b) He told me that he had been reading a novel since morning.
  - (c) He said that he has been reading a novel since morning.
  - (d) He told me if I have been reading a novel since morning.
- Q12. He said to her, "What are you eating?"
- (a) He asked her what she was eating.
  - (b) He asked her if what she was eating.
  - (c) He asked her that what she was eating.

(d) He asked her that what was she eating

Q13. I \_\_\_\_\_ for my purse. Have you seen it?

- (a) will look
- (b) looking
- (c) look
- (d) am looking

Q14. Every boy and girl \_\_\_\_\_ in the class today.

- (a) are present
- (b) have present
- (c) is present
- (d) had present

Q15. A horse runs \_\_\_\_\_ than Zebra.

- (a) fast
- (b) faster
- (c) more fast
- (d) more faster

### Maths

Q16. Find the value of

$DXXXIX + CCCLXVII - DCLXXXI$

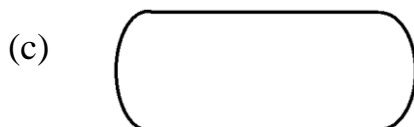
- (a) CCCXXV
- (b) DCLVI
- (c) DCCXI
- (d) CCXXV

Q17. If  $x : y = 4 : 5$ , then

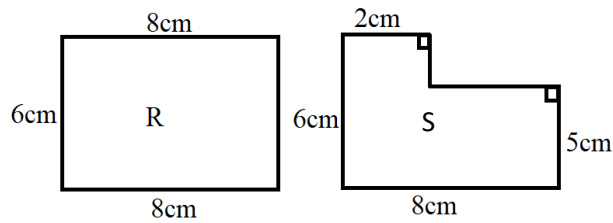
$(4x+5y) : (5x-2y)$  is equal to \_\_\_\_\_.

- (a) 41:10
- (b) 4:5
- (c) 16:25
- (d) 3:10

Q18. Which of the following figure is a polygon?



Q19. Sweety cut rectangle R from a sheet of paper and then cut figure S from R. All the cuts were made parallel to the sides of the original rectangle. In comparing



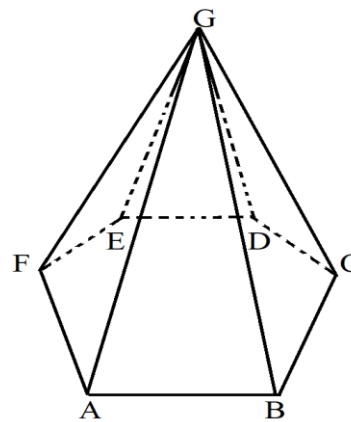
- (a) The area and perimeter both decrease.
- (b) The area decreases and perimeter increases.
- (c) The area and perimeter both increase.
- (d) The area decreases and the perimeter stays the same.

Q20. There are 1500 Americans working in a factory. The number of Chinese workers is  $\frac{3}{5}$  the number of American workers and the number of Indian workers is  $\frac{5}{9}$  the number of Chinese workers. How many workers are working in the factory?

- (a) 2800
- (b) 2900
- (c) 2700
- (d) 2600

Q21. The given figure has

- (i) Faces: \_\_\_\_\_
  - (ii) Edges: \_\_\_\_\_
  - (iii) Corners: \_\_\_\_\_
- |     | (i) | (ii) | (iii) |
|-----|-----|------|-------|
| (a) | 6   | 12   | 7     |
| (b) | 7   | 12   | 7     |
| (c) | 7   | 12   | 6     |
| (d) | 7   | 11   | 7     |



Q22. What should be subtracted from  $\frac{a}{b}$ , so that the resulting fraction will be reverse of the given fraction?

- (a)  $\frac{ab}{a^2-b^2}$
- (b)  $\frac{a^2-b^2}{ab}$
- (c)  $a^2 + b^2$
- (d)  $a^2 - b^2$

Q23. If  $x : y :: y : z$ , identify the correct statement from among the following:

- (a)  $xy = yz$

(b)  $y^z = xz$

(c)  $xyz = x$

(d)  $x^2 = zy$

Q24. The ratio of the price of product P to that of product R was 8:5. When the price of each product was increased by Rs 70, the ratio of the price became 5:4. Find the original price of each product:

(a) Rs. 48 and Rs. 30

(b) Rs. 16 and Rs. 10

(c) Rs. 24 and Rs. 15

(d) Rs. 80 and Rs. 50

Q25. Four classes, 6A, 6B, 6C and 6D, inflated balloons to decorate the school. The table below shows the number of balloons each class had inflated. The information for class 6D was missing.

Class	Number of balloons inflated
6A	20
6B	30
6C	40
6D	?

Class 6D inflated 3 more balloons than the average number of balloons that the 4 classes inflated. The number of balloons inflated are in whole numbers.

How many balloons did the 4 classes inflate altogether?

(a) 112 balloons

(b) 123 balloons

(c) 124 balloons

(d) 132 balloons

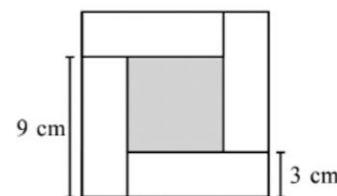
Q26. If the given figure is made up of a square and four identical rectangles, then find the ratio of shaded area to the area of the whole figure.

(a) 1:4

(b) 1:3

(c) 2:3

(d) 1:2



Q27. Four friends step off together from the same spot. Their steps measure 18cm, 36cm, 45cm and 72cm respectively. What is the minimum distance each should cover so that all can cover distance in complete steps?

(a) 280cm

(b) 340cm

(c) 360cm

(d) 420cm

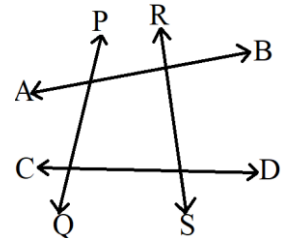
Q28. If P,Q and R represent the prime digits, then find the value of P and Q respectively.

- (a) 3,5
- (b) 7,2
- (c) 1,7
- (d) 2,7

$$\begin{array}{r}
 \begin{array}{r}
 P \quad P \quad 3 \\
 \times \quad Q \quad Q \\
 \hline
 1 \quad R \quad 6 \quad 1 \\
 + \quad 1 \quad R \quad 6 \quad 1 \quad 0 \\
 \hline
 1 \quad 7 \quad 1 \quad 7 \quad 1
 \end{array}
 \end{array}$$

Q29. Which of these statements are true for the give figures?

- (a) The lines AB and CD will never intersect each other
- (b) The lines AB and CD will intersect to the right of line PQ.
- (c) The lines PQ and RS will intersect above the line AB
- (d) The lies PQ and RS will never intersect each other.



Q30. Which number is equal to?

- $\left(\frac{0.1}{0.01} + \frac{0.01}{0.1}\right)?$
- (a) 10.1
  - (b) 1.10
  - (c) 1.01
  - (d) 10.01

### Physics

Q31. Two identical metal balls A and B moving in opposite directions hit each other at point X as shown in the figure. Changes are most likely to be appear in their:

- (i) Mass                      (ii) Speeds                      (iii) Directions                      (iv) Volumes
- (a) (i) & (iv) only
- (b) (ii) & (iii) only
- (c) (ii) & (iv) only
- (d) (iii) & (iv) only

Q32. A ray of light enters a periscope and undergoes first reflection. What is the angle between the incoming ray and the ray after first reflection?

- (a) 30°
- (b) 60°
- (c) 90°
- (d) 120°

Q33. Soft iron pieces are placed across the ends of bar magnets when stored. What are such pieces called?

- (a) Preservatives
- (b) Keepers
- (c) Compasses



(d) Poles

- Q34. Statement I : Primary cells can be recharged but secondary cells cannot be recharged.  
Statement II: Chemical reactions involve in primary cells are irreversible and in secondary cells are reversible.
- (a) Both statements I and II are correct.
  - (b) Both statements I and II are incorrect.
  - (c) Statement I is correct but statement II is incorrect.
  - (d) Statement I is incorrect but statement II is correct.
- Q35. 12 blocks were arranged one above the other. Their total height was 7cm and 2mm.  
The thickness of each block is:
- (a) 0.6cm
  - (b) 6cm
  - (c) 7.2cm
  - (d) 7.2mm

### Chemistry

- Q36. Loading is a process in which \_\_\_\_\_.
- (a) impurities become heavy and sink to the bottom.
  - (b) impurities float on the top.
  - (c) impurities vaporize
  - (d) None of these
- Q37. \_\_\_\_\_ air is used to inflate tyres of vehicles.
- (a) Heavy
  - (b) Compressed
  - (c) Condensed
  - (d) Liquid
- Q38. There are about 118 different types of?
- (a) Elements
  - (b) Molecules
  - (c) Mixture
  - (d) Compounds
- Q39. What is the ratio of oxygen and Nitrogen in atmosphere?
- (a) 3.5:1
  - (b) 1:3.5
  - (c) 3.71:1
  - (d) 1:3.71

- Q40. We should choose a material to make an object depending on its properties and the purpose for which object is to be used. Based on this knowledge, Ankita made a few choices. Select the incorrect choice made by her.
- (a) A windowpane made up of glass to look through
  - (b) A pan made up of Steel to cook food.
  - (c) A bucket made up of plastic to fill water.
  - (d) A tumbler made up of cotton cloth to drink water.

**Biology**

- Q41. Following are the properties of four minerals P,Q,R and S. Identify them and select the correct option.

P: It is required for proper functioning of thyroid gland.

Q: It helps in maintaining body's water balance.

R: It is important for haemoglobin formation.

S: It strengthens bones and teeth and helps in blood clotting

- (a) Deficiency of 'P' causes dryness of eyes and inflammation of tongue
- (b) Q is also required for the proper functioning of nervous system.
- (c) Deficiency of R causes goitre
- (d) S also helps to fight infections and keeps skin and mouth healthy.

- Q42. Ginger shows brown scale like leaves on it. The part of ginger that we use in cooking is actually a:

- (a) Stem
- (b) Root
- (c) Leaf
- (d) Fruit

- Q43. Which statement means 'Gait'?

- (a) Manner of nutrition in animals
- (b) Manner of movement
- (c) Manner of reproduction
- (d) The habitat of animals

- Q44. Which among the following plants have parallel venation in their leaves?

- (a) Wheat
- (b) Mustard
- (c) Orange
- (d) Tamarind

- Q45. Aestivation is an adaptation for:

- (a) Escaping extreme cold weather
- (b) Escaping extreme hot weather



- (c) Loss of water
- (d) None of these

**Reasoning**

- Q46. If 63578 is to 1415, 56732 is to 185 and 34124 is to 86, then, 72648 is to?
- (a) 1215
  - (b) 1415
  - (c) 1512
  - (d) 1514
- Q47. K is 40m South-West of L. If M is 40m South-East of L, then M is in which direction of K?
- (a) East
  - (b) West
  - (c) North-East
  - (d) South
- Q48. Introducing a man, a woman said, "He is the only son of the mother of my mother." How is the woman related to the man?
- (a) Mother
  - (b) Sister
  - (c) Niece
  - (d) Maternal aunt
- Q49. Complete the series:  
002B, 009I, 028J, \_\_\_\_\_, 126I
- (a) 048L
  - (b) 065K
  - (c) 172G
  - (d) 186N
- Q50. Seismograph : Earthquake :: Barometer : ?
- (a) Landslides
  - (b) Volcano
  - (c) Pressure
  - (d) Resistance
- Q51. A clock is started at Noon. By 10 minutes past 5, the hour hand has turned through:
- (a) 145°
  - (b) 150°
  - (c) 155°
  - (d) 160°

Q52. The last day of a century cannot be

- (a) Monday
- (b) Wednesday
- (c) Tuesday
- (d) Friday

Q53. If '+' means 'x', '-' means '÷', 'x' means '-' and '÷' means '+' then  $9+8\div 8-4\times 9=?$

- (a) 26
- (b) 17
- (c) 65
- (d) 11

Directions to solve (Q54-Q55):

A,B,C,D,E,F and G are sitting in a row facing North:

1. F is to the immediate right of E.
2. E is 4th to the right of G.
3. C is the neighbor of B and D.
4. Person who is third to the left of D is at one of ends.

Q54. Who are to the left of C?

- (a) Only B
- (b) G,B and D
- (c) G and B
- (d) D,E,F and A

Q55. What is the position of A?

- (a) Between E and D
- (b) Extreme left
- (c) Centre
- (d) Extreme right

Q56. Which one will replace the question mark?

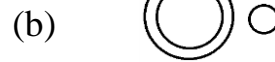
- (a) 121
- (b) 240
- (c) 156
- (d) 225

5	2	17	3	11	7
	45		95		?
3	8	7	5	2	21

Q57. Find the odd one out:

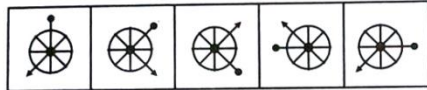
- (a) 36-64-100
- (b) 49-81-121
- (c) 4-16-36
- (d) 144-196-256

Q58. Which one of the following diagrams indicates the best relation between Sun, Star and Moon?



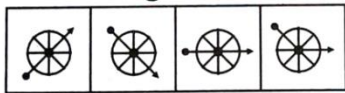
Direction Q59-Q60: Select a figure from amongst the Answer Figures which will continue the same series as established by the Problem Figures.

Q59. Problem figures:



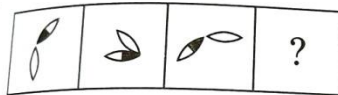
(a) (b) (c) (d) (e)

**Answer Figures :**



(1) (2) (3) (4)

Q60. Problem figures:



(a) (b) (c) (d)

**Answer Figures :**



(1) (2) (3) (4)