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Phase-I **22** SATURDAY Jan. 2022 (VI to VIII) **23** SUNDAY Jan. 2022 (I to V & IX, X)

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EXAMINATION (PHASE-I)

# RPS OLYMPIAD-2022

## CLASS-6<sup>th</sup>

**M.M.: 60****Time : 60 Mins.****English (15 Marks)**

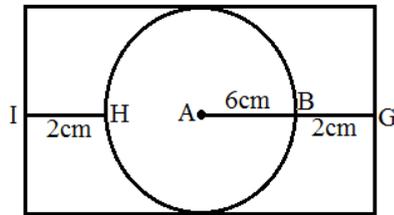
1. In the question below a sentence has been given in Direct/Indirect speech. From the given alternatives,  
choose the one which best expresses the given sentence in Indirect/Direct speech.  
He said, "If I had the key with me, I could give you the solution".
- a) He said that if he had the key with him, he could give him/her the solution.  
b) He said if he could have the key with him, he would give him/her the solution.  
c) He told that if he could have the key with him, he would give him/her the solution.  
d) He said that if he have had the key with him, he could have given him/her the solution.
2. In the question below, a sentence has been given in Direct/Indirect speech. From the given alternatives, choose the one which best expresses the given sentence in Indirect/Direct speech.  
The General said, "Bravo! Well done, my soldiers".
- a) The General told the soldiers that they had done well.  
b) The General applauded his soldiers saying that they would do well.  
c) The General applauded his soldiers for their excellent job.  
d) The General applauded his soldiers saying that they had done well.
3. The price \_\_\_\_\_, but I doubt whether it will remain so.  
a) will go down                      b) went down                      c) was going down                      d) has gone down
4. Look! A hamster \_\_\_\_\_ by a cat.  
a) has been chased                      b) was being chased                      c) is being chased                      d) is chased
5. John as well as his brothers ..... coming today.  
a) are                      b) were                      c) is                      d) have been
6. Kishan is one of the boys who ..... always on time.  
a) is                      b) are                      c) was                      d) None of these
7. There is widespread unemployment all \_\_\_\_\_ the country.  
a) around                      b) in                      c) about                      d) over
8. Given the uncertainty in the market, we've decided to hold \_\_\_\_ on the investment for the immediate future.  
a) Up                      b) In                      c) Off                      d) Out
9. Identify the type of noun that is highlighted in the sentence.  
Didn't he realize that your happiness had value too?
- a) Abstract noun                      b) Concrete noun                      c) Proper noun                      d) Countable noun

10. Which kind of noun is 'adversity'?
- a) Common noun      b) Proper noun      c) Abstract noun      d) Collective noun
11. Our school team has had many able captains, but in my opinion, the ..... was James. (able)
- a) able      b) ablest      c) abliest      d) ablesst
12. The ..... part of the novel is more interesting than the former.
- a) latter      b) lattest      c) former      d) lately
13. Which is the indefinite pronoun in the given sentence? "None of those books belonged to me."
- a) those      b) none      c) are      d) me
14. The old woman lived alone, with \_\_\_\_\_ to look after\_\_\_\_\_.
- a) someone/ her      b) anyone/herself      c) everyone/she      d) no one/ her
15. The police ..... mute spectator to the entire incident which took place right outside the hospital.
- a) are      b) were      c) is      d) was

**Mathematics (15 Marks)**

16. How many  $\frac{1}{6}$  of together make  $41\frac{2}{3}$ ?
- a) 125      b) 150      c) 250      d) 350
17. Simplify:  $-10 - \left[ \left\{ 20 \div (2 - \overline{9-8}) \right\} \right]$
- a) 30      b) -30      c) -10      d) -7
18. Which of the following is neither negative nor positive?
- a)  $(-x) + (-x)$       b)  $x - (-x)$       c)  $(-x) + x$       d)  $-[x+(x)]$
19. The value of  $(1 + 0.1 + 0.01 + 0.001)$  is \_\_\_\_\_.
- a) 1.001      b) 1.111      c) 0.111      d) 1.011
20. What is the least value of \* so that the number  $9274*5$  is divisible by 9?
- a) 0      b) 3      c) 4      d) 8
21. If  $x : y = 7 : 3$ , then the value of  $\frac{xy + y^2}{x^2 - y^2}$  is:
- a)  $\frac{3}{4}$       b)  $\frac{4}{3}$       c)  $\frac{3}{7}$       d)  $\frac{7}{3}$
22. The mean of the 10 numbers is 7. If each number is multiplied by 12, then the mean of new set of numbers is
- a) 82      b) 48      c) 78      d) 84
23. How many lines of symmetry does an isosceles triangle has?
- a) One      b) Two      c) Four      d) Three
24. Two complementary angles are in the ratio 2:3. The measure of larger angle is
- a)  $60^{\circ}$       b)  $54^{\circ}$       c)  $66^{\circ}$       d)  $48^{\circ}$

25. 6 times  $x$  to which 2 is added is  
 a)  $2x - 6$                       b)  $2x + 6$                       c)  $6x + 2$                       d)  $2 - 6x$
26. Two lines are said to be perpendicular if angle between them is  
 a)  $90^\circ$                               b)  $45^\circ$                               c)  $30^\circ$                               d) None of these
27. A circle is inscribed in a rectangle as shown in the figure. If the radius of the circle is 6 cm, then the perimeter of rectangle is



- a) 56 cm                              b) 58 cm                              c) 24 cm                              d) 52 cm
28. In  $\triangle ABC$ ,  $\overline{AB} > \overline{BC} > \overline{CA}$  which of the following is the smallest angle?  
 a)  $\angle A$                               b)  $\angle B$                               c)  $\angle C$                               d)  $\angle A = \angle B = \angle C$
29. Simplify:  $\frac{1}{2} + \left[ \frac{1}{2} \times \frac{1}{2} \div \left\{ \frac{1}{2} \times \frac{1}{2} \div \frac{1}{2} + \left( \frac{1}{2} \div \frac{1}{2} \right) \right\} \right]$   
 a)  $\frac{2}{3}$                                       b)  $\frac{1}{2}$                                       c)  $\frac{1}{4}$                                       d)  $\frac{1}{5}$
30. The ratio of the areas of two squares, one having its diagonal double to that of the other is  
 a) 2:1                                      b) 3:1                                      c) 3:2                                      d) 4:1

### Science (15 Marks)

#### Physics (5 Marks)

31. A car travels 100m with the speed of 10 m/s. Calculate the time taken by the car to travel this distance.  
 a) 11s                                      b) 12 s                                      c) 14 s                                      d) 10 s
32. If you break a magnet into 6 pieces, how many north and how many south poles would there be in all?  
 a) N = 6, S = 6                      b) N = 3, S = 3                      c) N = 12, S = 12                      d) N = 6, S = 12
33. An electromagnet  
 a) Is a temporary Magnet  
 b) Is made by wounding a current carrying wire around soft iron  
 c) Will have more magnetism if current in wire is more  
 d) All of the above
34. Choose the correct statement  
 a) All mirror forms image of smaller size  
 b) Some mirrors form image of smaller size  
 c) Angle of incidence may not be equal to angle of reflection  
 d) All of the above

35. A positively charged body has –

- a) Excess of electron
- b) Deficiency of electron
- c) may be (a) or (b)
- d) Deficiency of proton

### Chemistry( 5 Marks)

36. Mountaineers carry oxygen cylinders with them because

- a) There is no oxygen on high mountains.
- b) There is deficiency of oxygen on mountains at high altitude.
- c) Oxygen is used for cooking.
- d) Oxygen keeps them warm at low temperature.

37. Now a days we do not need to depend upon plants for yarn. Why ?

- a) Today cutting trees is a crime by law.
- b) Alternative natural yarns are available in the market.
- c) There is no remarkable progress in textile industry.
- d) Technology is developed to make synthetic yarn.

38. A mixture of salt, sand, oil and water is given. Which of these sequence can be used to separate salt?

- a) Decantation > Filtration > Evaporation
- b) Filtration > Evaporation > Condensation
- c) Filtration > Boiling > Decantation
- d) None of the above

39. An iron ring is heated. Which of the following statements about it is incorrect ?

- a) The ring expands.
- b) The ring almost comes to the same size on cooling
- c) The change in this case is reversible
- d) The ring changes its shape and the change cannot be reversed.

40. A process in which an object becomes smaller or shrinks is called

- a) Chemical change
- b) Irreversible change
- c) Contraction
- d) Expansion

### Biology (5 Marks)

41. Match the items given in column -I suitably with column – II

#### Column – I

- (i) Protective foods
- (ii) Test for proteins
- (iii) Dietary fibres
- (iv) Iodine
- a) i-d, ii – b, iii – d, iv – a

#### Column – II

- (a) Present in sea food like lobsters
- (b) Vitamins and Minerals
- (c) Copper sulphate and caustic soda
- (d) Prevent constipation
- b) i – a, ii – c, iii – b iv – d

c) i – b, ii – d, iii – c, iv – a      d) i – b, ii – c, iii – d, iv – a

42. The number of cervical vertebrae present in man is  
a) ten                                      b) five                                      c) seven                                      d) eight
43. When a flower has all the sets of whorls it is described as ..... flower.  
a) Complete                                      b) Incomplete                                      c) Zygomorphic                                      d) Actinomorphic
44. Apple and Neem trees are :-  
a) Xerophytes                                      b) Hydrophytes                                      c) Mesophytes                                      d) None of these
45. Our hair and nail contain :-  
a) Calcium                                      b) Phosphorus                                      c) Fluorine                                      d) Proteins

### Aptitude (15 Marks)

**Direction (Q46-Q47):** - Find the next term: - ?

46. 16, 9, 10, 16, 33 ?  
a) 75.5                                      b) 60.5                                      c) 83.5                                      d) 80.5
47. 90, 180, 12, 50, 100, 200, ? 3, 50, 4, 25, 2, 6, 30, 3  
a) 150                                      b) 175                                      c) 225                                      d) 250

**Direction (Q48-Q49):**- In the each of the following questions, find out the alternative which will replace the question marks.

48. 9:8::16: ?  
a) 27                                      b) 17                                      c) 16                                      d) 19
49. 16:56:: 32: ?  
a) 96                                      b) 112                                      c) 120                                      d) 128

**Direction (Q50-Q51):**- In each of the following questions, some groups of numbers are given, all which, except one, share a common similarity, while one is different. Choose the odd one out.

50. a) Deck                                      b) Quay                                      c) Stern                                      d) Bow
51. a) Skull                                      b) Appendix                                      c) Pelvix                                      d) Vertebra
52. Pointing to a photograph, a lady tells Pramod, “ I am the only daughter of this lady and her son is your maternal uncle. ‘How is the speaker related to Pramod’s father?  
a) Wife                                      b) Sister – in – law                                      c) Daughter                                      d) Niece
53. If VISHAL is coded as 22102111517, then, what will be the code for SACHIN?  
a) 1925311191                                      b) 1295111319                                      c) 1925111319                                      d) 1925112911
54. The length and breadth of a room are 8m and 6m respectively. A cat runs along all the four walls and finally along a diagonal order to catch a rat. How much total distance is covered by the cat?  
a) 10m                                      b) 14 m                                      c) 38m                                      d) 48m
55. A clock runs 6 min slow per day. By what percentage is it running slow?

a) 6%

b) 1/10 %

c) 12/5 %

d) 5/12 %

56. Environment Day falls on Thursday, then on which day Children Day will fall in the same year?

a) Friday

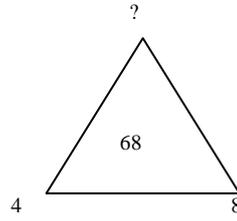
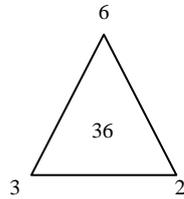
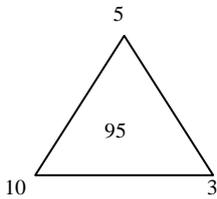
b) Saturday

c) Sunday

d) Monday

**Direction:** Which one will replace the question mark:- ?

57.



a) 3

b) 2

c) 4

d) 6

**Direction:** In an imaginary language, the digits 0,1,2,3,4,5,6,7,8 and 9 are substituted by a, b, c, d, e, f, g, h, i and j. And 10 is written as ba, then

58.  $(cd + ef) \times be$  is equal to

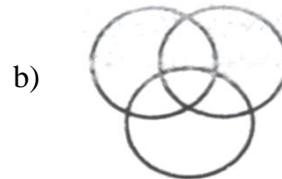
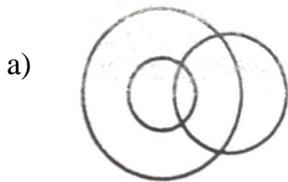
a) 684

b) 816

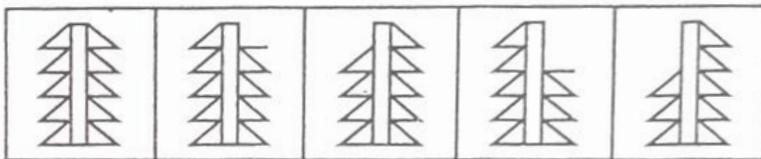
c) 916

d) 952

59. Teacher, Parents and Guardians ?



60. Problem figure:



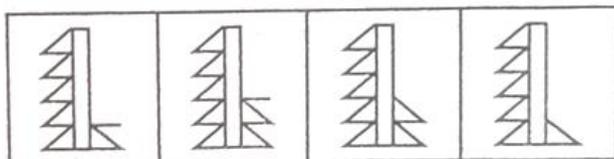
(1)

(2)

(3)

(4)

(5)



(a)

(b)

(c)

(d)

a) a

b) b

c) c

d) d