

ALL INDIA **RPS** 2021 OLYMPIAD

Organized by : -
RPS Education Society
Mahendergarh,
Haryana

2nd mega All India Online & Offline Event

Where the Brilliants can also have chance to get bigger platform in 2021



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EXAMINATION (PHASE-I)

RPS Olympiad-2021

Class-7th

M.M. : 60**Time : 60 Mins.****English (15 Marks)****Direction (Q1-Q6)** Choose the most appropriate option.

1. _____! What a pity.
(a) Ah (b) Aha (c) Ouch (d) Hurrah
2. Mohan could not write because he _____his pen.
(a) lost (b) has lost (c) had lost (d) loses
3. Neha _____ for an hour when the lights went off.
(a) read (b) had been reading (c) had read (d) was reading
4. I have taken nothing _____ yesterday.
(a) from (b) for (c) since (d) out
5. He was assured by his friends _____ every type of help in an emergency.
(a) with (b) about (c) by (d) of
6. She pipped her rival _____ the gold medal.
(a) to (b) near (c) for (d) with
7. Choose the correct sentence.
(a) Everybody should protect himself from loo.
(b) Everybody should protect oneself from loo.
(c) Everybody should protect themselves from loo.
(d) Everybody should love their country.
8. Choose the incorrect sentence.
(a) Mukesh gave me some rupees.
(b) Did you give her any apples?
(c) There is not any ink in the bottle.
(d) He did not give me some milk.
9. While he was watering the plants, an insect _____ him.
(a) bit (b) bite (c) has been biting (d) None of these
10. It is high time she _____for the bus stop.
(a) has left (b) left (c) leaves (d) was leaving
11. Select the appropriate active form of the following sentence.
The wall is being built by the mason.

- (a) Mason has built the wall.
- (b) The mason was building the wall.
- (c) The mason is building the wall.
- (d) The mason has been building the wall.

12. Identify the correct passive voice of the sentence:

Obey me.

- (a) I should be obeyed.
- (b) Let I be obeyed.
- (c) Both 'a' and 'b'
- (d) None of these

13. Mohan said to Savita, "Can I borrow your book for a day?"

In reported speech, the above sentence will be

- (a) Mohan asked Savita if he could borrow her book for a day.
- (b) Mohan asked Savita if they could borrow her book for a day.
- (c) Mohan asked Savita that he could borrow her book for a day.
- (d) Mohan asked Savita that if he could borrow her book for a day.

14. I said to him, "I will not go there tomorrow."

In reported speech, the above sentence will be

- (a) I told him that I should not go there the next day.
- (b) I told him that I would not go there tomorrow.
- (c) I told him that I would not go there the next day.
- (d) I told to him that I would not go there the following day.

15. Fill in the blank with suitable question tag.

No one knows this matter, _____?

- (a) do they
- (b) don't they
- (c) do him
- (d) don't no one

Maths (15 Marks)

16. By how much is three fifth of 350 greater than four-seventh of 210?
(a) 90 (b) 110 (c) 120 (d) None of these
17. If $2^{m-7} = 32$, then find the value of 2^{m-3} .
(a) 256 (b) 512 (c) 1024 (d) 2048
18. The perimeter of triangle is $8 + 13a + 7a^2$ and two of its sides are $2a^2 + 3a + 2$ and $3a^2 - 4a - 1$, then third side of triangle is
(a) $2(a^2 + 7a + 1)$ (b) $2a^2 + 14a + 7$ (c) $a^2 - 14a + 7$ (d) $2a^2 - 14a + 7$
19. $5 - \left[\frac{3}{4} + \left\{ 2\frac{1}{2} - \left(\frac{1}{2} + \frac{1}{6} - \frac{1}{7} \right) \right\} \right] = ?$
(a) $1\frac{23}{168}$ (b) $2\frac{23}{84}$ (c) $3\frac{23}{168}$ (d) $4\frac{23}{168}$
20. The sum of the measures of two complementary angles is
(a) 180° (b) 70° (c) 72° (d) 90°
21. The average of 50 numbers is 38. If two numbers 45 and 55 are discarded, the average of the remaining set of number is :
(a) 38.5 (b) 37.5 (c) 37.0 (d) 36.5
22. The point of intersection of the right bisector of a triangle is called
(a) incenter (b) circumcenter (c) orthocenter (d) centroid
23. The perimeter of a square is 48 m. The area of a rectangle is 4 sq m less than the area of given square. If the length of the rectangle is 14m, find the breadth.
(a) 8 m (b) 9 m (c) 10.5 m (d) 10 m
24. If $\triangle ABC$ is an isosceles right triangle right angled at C such that $AC = 5\text{cm}$, then AB equals :
(a) 2.5 cm (b) $5\sqrt{2}$ cm (c) 10 cm (d) 5 cm
25. The mean of 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
26. A box contains 10 balls which are numbered 0 to 9. If one ball is drawn unseen, the probability of drawing a number greater than 6 is
(a) $\frac{2}{5}$ (b) $\frac{1}{8}$ (c) $\frac{1}{4}$ (d) $\frac{3}{10}$
27. Rohit scored 180 marks in the first test and 150 marks in the second test. The maximum marks in each test is 200. What is the decrease in his performance in percentage points?
(a) 20% (b) 15% (c) 25% (d) 23%

28. The ratio of 1 dozen to 1 score is
(a) 5 : 3 (b) 3 : 5 (c) 2 : 5 (d) none of these
29. The length of a rectangle is 12m and the length of its diagonal is 15m. The width of the rectangle is
(a) 8m (b) 10m (b) 11m (d) 9m
30. The sum of the values of the expression $2x^2 - 2x + 2$ when $x = -1$ and $x = 1$ is
(a) 6 (b) 8 (c) 4 (d) 2

Science (15 Marks)

31. Trishu served some hot soup in a metal bowl. She carried the bowl with her bare hands to the dining table. What she did was unwise because the heat from the soup would _____.
(a) transfer through the air and burn her hand
(b) melt the bowl and the soup would burn her hand
(c) cause her hand to perspire and the bowl would slip from her hand
(d) transfer through the metal bowl and burn her hand
32. A plane mirror forms a virtual image. The distance between Mahima and her image in a plane mirror is 10 m. How much distance should she move in order to get the distance of 5 m between herself and her image?
(a) 2.5 m away from the mirror.
(b) 2.5 m towards the mirror.
(c) 5 m away from the mirror.
(d) 5 m towards the mirror.
33. The image of the teeth seen by a dentist while testing teeth is _____.
(a) erect and real
(b) erect and virtual
(c) inverted and virtual
(d) inverted and real
34. Overloading is _____.
(a) putting more current across a wire than it can handle
(b) touching of live wire with the earth wire
(c) touching of neutral wire with the earth wire

(d) touching of live wire with the neutral wire.

35. Time interval of 1000 years is called

- (a) A millennium (b) Trillion (c) Century (d) Decade

36. **List-1**

List-II

(P) Ant sting

1. Vinegar

(Q) Wasp sting

2. Milk of magnesia

(R) Antacid

3. Calamine solution

(S) Acidic soil

4. Slaked lime

Code:

	P	Q	R	S
(a)	4	2	3	1
(b)	1	3	4	2
(c)	3	1	2	4
(d)	2	4	1	3

37. Select the incorrect matches.

(i) Surface water - Rivers and lakes

(ii) Ground water - Rainwater

(iii) Usable water - Ocean

(iv) Saline water - Freshwater

(a) (i) and (iv)

(b) (iii) and (iv)

(c) (i), (iii) and (iv)

(d) (ii), (iii) and (iv)

38. Which of the following is representing a correct food chain?

(a) Rabbit → Grass → Fox → Lion

(b) Grass → Rabbit → Fox → Lion

(c) Lion → Fox → Rabbit → Grass

(d) Rabbit → Lion → Fox → Grass

39. Solid calcium oxide reacts vigorously with water to form calcium hydroxide accompanied by liberation of heat. This process is called slaking of lime. Calcium hydroxide dissolves in water to form its solution called lime water. Which among following is (are) true about slaking of lime and the solution formed?

(i) It is an endothermic reaction

- (ii) It is an exothermic reaction
(iii) The pH of the resulting solution will be more than seven
(iv) The pH of the resulting solution will be less than seven
(a) (i) and (ii)
(b) (ii) and (iii)
(c) (i) and (iv)
(d) (iii) and (iv)
40. Which of the following options correctly represents the sequence of steps of wool production?
(a) Scouring, sorting, shearing, carding, dyeing, spinning
(b) Shearing, scouring, carding, dyeing, sorting, spinning
(c) Shearing, spinning, dyeing, scouring, sorting, carding
(d) Shearing, scouring, sorting, carding, dyeing, spinning
41. The pressure of blood flow is higher inside_____.
(a) veins (b) capillaries (c) arteries (d) heart muscles.
42. Breathing is a _____ process and respiration is a _____ process.
(a) mechanical, mechanical
(b) physical, bio-chemical
(c) bio-chemical, physical
(d) chemical, chemical
43. Refer to the given relationship based on mode of seed dispersal.
Hiptage : Xanthium : Coconut
Select the option which satisfies the same relationship.
(a) Urena : Balsam : Castor
(b) Acer : Calotropis : Lotus
(c) Pea : Dandelion : Water lily
(d) Drumstick : Urena : Lotus
44. Which of the following statements is true?
(a) Stomata give root, the ability to convert sun's energy into food.
(b) Cuscuta converts atmospheric nitrogen into soluble nitrogenous compounds.
(c) Leaves send food down to the roots through xylem vessels.
(d) Parasitic plants have special roots called haustoria that penetrate the stem of host plant.
45. Digestive juice of stomach contains pepsin enzyme which breaks down _____.

- (a) complex carbohydrates into sugars
- (b) proteins into simpler form
- (c) fat into fatty acids
- (d) All of these

Aptitude (15 Marks)

46. Complete the series.

5, 6, 9, 15, ?, 40

- (a) 27
- (b) 21
- (c) 33
- (d) 25

47. If $Z = 52$ and $ACT = 48$ then BAT will be equal to

- (a) 39
- (b) 44
- (c) 46
- (d) 50

48. Which two months in a year have same calendar ?

- (a) June, October
- (b) March, November
- (c) April, November
- (d) October, December

49. In a coding system, PEN is written as NZO and $BARK$ as $CTSL$. How can we write $PRANK$ in that coding system?

- (a) $CSTZN$
- (b) $NSTOL$
- (c) $NTSLO$
- (d) $NZTOL$

50. Javed's brother's sister's father's brother is karim and karim's daughter is Dolly. How is Javed related to Dolly?

- (a) Brother
- (b) Cousin
- (c) Sister
- (d) Uncle

51. A man walks 6 km South, turns left and walks 4 km again turns left and walks 5 km, which direction is he facing now?

- (a) South (b) North (c) East (d) West

52. How many such pairs of letters are there in the word INSTRUCTION which have as many letters between them in the word as in the English alphabet ?

- (a) One (b) Three (c) Four (d) Two

53. If + means \div , - means \times , \times means +, \div means -, then give the value for $45 + 9 - 3 \times 15 \div 2$?

- (a) 40 (b) 36 (c) 56 (d) 28

54. Insert the missing character in the figure:

84		81		88	
14	12	18	9	?	11

- (a) 7 (b) 16 (c) 21 (d) 28

55. At what angle the hands of the clock are inclined at 15 Min Past 5?

- (a) $72\frac{1}{2}^\circ$ (b) $67\frac{1}{2}^\circ$ (c) $58\frac{1}{2}^\circ$ (d) 64°

56. Find the angle traced by hour hand of a clock between 3 O'clock and 9 O'clock?

- (a) 180°
 (b) 150°
 (c) 210°
 (d) 200°

Direction (Q57-58) Alka is older than Mala. Gopal is older than Mala but younger than Alka, Kapil is younger than Ram and Mala. Mala is older than Ram.

57. Whose age is between Gopal and Ram?

- (a) Mala
 (b) Kapil
 (c) Alka
 (d) None of these

58. Whose age is between Mala and Kapil?

- (a) Gopal
 (b) Ram
 (c) Alka
 (d) None of these

59. If Ram finds that he is twelfth from the Right in a line of boys and fourth from the left, how many boys should be added to the line such that there are 28 boys in the line.
- (a) 12 (b) 13 (c) 14 (d) 20
60. In a certain code KINGDOM is written as JMCLJHP. How is QUANTUM written in that code?
- (a) VOLVPZS
(b) SZPLOVV
(c) RVBOUVN
(d) PZSLVOV