

Corporate Office: Aakash Tower, 8, Pusa Road, New Delhi-110005 Ph.:011-47623456

Aakash National Talent Hunt Exam 2021 Sample Paper

(Class VII Studying Moving to Class VIII)

ANSWERS

- 1. (4)
- 2. (2)
- 3. (3)
- 4. (3)
- 5. (1, 2, 4)
- 6. (3)
- 7. A(S), B(R), C(P), D(Q)
- 8. (2)
- 9. (4)
- 10. (4)
- 11. (2)
- 12. (1, 2, 4)
- 13. (1)
- 14. A(R), B(S), C(Q), D(P)
- 15. (4)
- 16. (1)
- 17. (1)
- 18. (3)

- 19. (1, 3)
- 20. (2)
- 21. A(Q), B(R), C(P, S), D(P)
- 22. (4)
- 23. (1)
- 24. (2)
- 25. (3)
- 26. (1, 2, 4)
- 27. (3)
- 28. A(R, S), B(R, S), C(P), D(Q)
- 29. (1)
- 30. (3)
- 31. (4)
- 32. (2)
- 33. (1)
- 34. (2, 4)
- 35. (1, 3)



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HINTS & SOLUTIONS

PHYSICS

Answer (4)

The pulse of a normal healthy adult at rest, beats 72 times in 1 minute.

Therefore, in 1 hour = 72×60

2. Answer (2)

> The temperature of a body is measured by a device called thermometer.

Answer (3)

Let the total distance covered by the moving object is x.

Time taken to cover 1st half distance = $\frac{\chi}{2 \times 5}$

$$=\frac{x}{10}$$

Again

For 2nd half distance

$$4 \times t + 6 \times t = \frac{x}{2}$$

$$\Rightarrow 2t = \frac{x}{10}$$

Average speed =
$$\frac{x}{\frac{x}{10} + \frac{x}{10}}$$

$$= 5 \text{ m/s}$$

Answer (3)

Warm air rises up, therefore air at 35°C will rise the highest.

- Answer (1, 2, 4)
- Answer (3) 6.

It is easier to drink hot tea from a porcelain mug because porcelain is a poor conductor of heat.

Answer A(S), B(R), C(P), D(Q)

Temperature – Celsius

Speed Meter/second

Distance Meter

Time Second

CHEMISTRY

8. Answer (2)

Yak wool is the most common wool in Tibet and Ladakh.

9. Answer (4)

Nali is a breed of sheep.

10. Answer (4)

'X' is hydrochloric acid.

11. Answer (2)

$$\begin{array}{c} \text{CO}_2 + \text{Ca(OH)}_2 \rightarrow \text{CaCO}_3 + \text{H}_2\text{O} \\ \text{'P'} \quad \text{'Q'} \end{array}$$

12. Answer (1, 2, 4)

Coffee is bitter in taste, but it is acidic in nature.

13. Answer (1)

Rusting of iron objects is faster in coastal areas than in deserts because greater is the humidity faster is the rate of formation of rust.

14. Answer A(R), B(S), C(Q), D(P)

Blue vitriol – $CuSO_4 \cdot 5H_2O$

Slaked lime – Ca(OH)₂

Milk of magnesia - Mg(OH)₂

Galvanisation – Coating of zinc on iron articles

BIOLOGY

15. Answer (4)

All of the given animals are ruminants, except starfish which is an aquatic animal.

16. Answer (1)

Monkey, tiger, gorilla and elephant are found in tropical rainforests.

17. Answer (1)

Due to the partial breakdown of glucose, our body experiences muscle cramps due to the formation of lactic acid.

18. Answer (3)

Diaphragm forms the floor of the chest cavity.

19. Answer (1, 3)

Nucleus and stomata are wrongly labelled in the given figure.

20. Answer (2)

Teeth help in breakdown of food into small pieces. They vary in appearance and perform different functions.

- 21. Answer A(Q), B(R), C(P, S), D(P)
 - A. A layer of fat Insulates its body under the skin from cold
 - B. Very strong Help it to locate and sense of smell catch prey
 - C. Wide and large Help it to walk on ice paws and to swim
 - D. Long curved Help it to walk on ice and sharp claws

MATHEMATICS

22. Answer (4)

$$\frac{0.4}{a} = \frac{3.2}{1.6} \qquad \left[\because \frac{b}{a} = \frac{e}{d} \right]$$

a = 0.2

c = 0.8

f = 6.4

- (0.2 + 0.8 + 3.2) (0.4 + 1.6 + 6.4) = -4.2
- 23. Answer (1)

$$x = -2$$
, $y = -5$, $z = -8$

$$(x-1) = (-2-1) = -3$$

$$x - 1 = z - y = -8 + 5$$

(Class VII Studying Moving to Class VIII) - Sample Paper

ANTHE-2021 (Foundation) (Hints & Solutions)

24. Answer (2)

Let CP of the watch be x

Sum of SP's =
$$\frac{6x}{5} + \frac{13x}{10} = \frac{25x}{10}$$

$$\Rightarrow$$
 2.5x = 8000

$$\Rightarrow x = 3200$$

25. Answer (3)

Let the numbers be x, y, z

$$x + y + z = 150$$

$$y-z=2$$

$$y = 2 + z$$

$$52 + 2 + z + z = 150$$

$$z = 48$$
, $y = 50$, $x = 52$

$$x \cdot y \cdot z = 124800$$

26. Answer (1, 2, 4)

$$\angle x = a$$
, $\angle y = 3a$, $\angle z = 4a$

$$a + 3a = 240^{\circ} - 4a$$

$$\Rightarrow a = 30^{\circ}$$

$$\angle x = 30^{\circ}, \angle y = 90^{\circ}, \angle z = 120^{\circ}$$

27. Answer (3)

A: Let the number be x

$$x - 53 = 95 - x$$

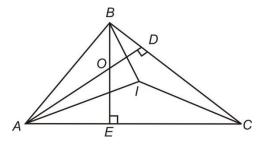
$$\Rightarrow x = 74$$

$$\therefore$$
 (-7 × -9) + 11 = 74 Assertion is true

R:
$$2x = 95 - 53$$

$$x = \frac{42}{2} = 21$$
 Reason is False

28. Answer A(R, S), B(R, S), C(P), D(Q)



(A)
$$\angle ACB = 16^{\circ}$$

$$\angle OBI = \frac{80^\circ - 16^\circ}{2} = 32^\circ$$

(B)
$$\angle CBI = 180^{\circ} - [\angle BEC + \angle ECB + \angle EBI]$$

$$\angle CBI - 10^{\circ} = 42^{\circ} - 10^{\circ}$$

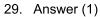
(C)
$$\angle ACI = \frac{16^{\circ}}{2}$$

(D)
$$\angle AIC = 180^{\circ} - [\angle IAC + \angle ICA]$$

$$= 180^{\circ} - (8^{\circ} + 40^{\circ})$$

$$= 132^{\circ}$$

MENTAL ABILITY



By observation

30. Answer (3)

$$+ \rightarrow \times, - \rightarrow + \text{ and } \div \rightarrow -$$

$$7 + 7 - 7 \div 7 = ?$$

$$7 \times 7 + 7 - 7 = 49$$

31. Answer (4)

Letter at difference of odd number.



$$(5-3)+(6-2)=6$$

$$(5-1)+(9-2)=11$$

33. Answer (1)

Net turn = $(270^{\circ} - 135^{\circ})$ Anti-clockwise

34. Answer (2, 4)

$$(4+2)^3 = 3 \times 4 + (2-3) = 11$$

$$(6+5)^2 = 2 \times 6 + (5-2) = 15$$

ANTHE-2021 (Foundation) (Hints & Solutions) (Class VII Studying Moving to Class VIII) - Sample Paper

35. Answer (1, 3)

 $12288 \div 4 = 3072, 3072 \div 4 = 768$

 $15120 \div 7 = 2160, 2160 \div 6 = 360$

 $360 \div 5 = 72, 72 \div 4 = 18, 18 \div 3 = 6$

 $768 \div 4 = 192, 192 \div 4 = 48, 48 \div 4 = 12$

6 ÷ 2 = 3 (Odd number)

 $12 \div 4 = 3$ (Odd number)



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