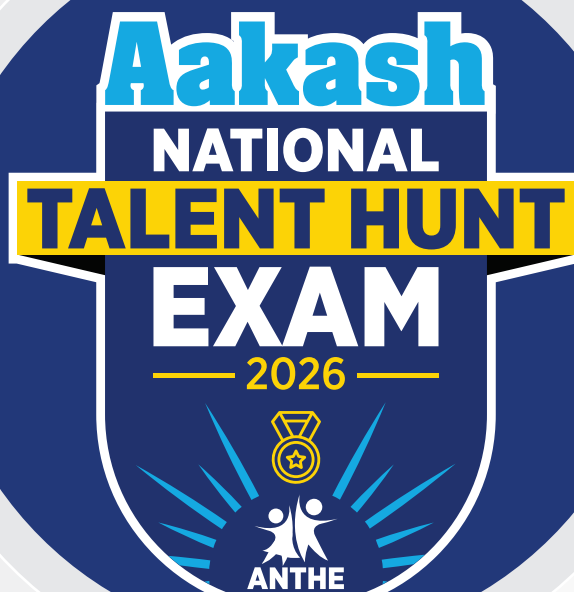


Sample Paper

FOUNDATIONS



(Class VIII Studying Moving to Class IX)

Science, Mathematics & Mental Ability

INSTRUCTIONS FOR CANDIDATE

1. Duration of Test is 1 hr.
2. The Test Booklet consists of **40** questions. The maximum marks are **90**. There is **no negative marking** for wrong answer.
3. Pattern of the questions are as under:
 - (i) The question paper consists of three parts *i.e.*, **Science, Mathematics** and **Mental Ability**. Each part has **two sections**.
 - (ii) **Section-I**: This section contains **35** multiple choice questions, which have **only one** correct answer. Each question carries **+2 marks** for correct answer.
 - (iii) **Section-II**: This section contains **5** multiple choice questions, in which **one or more than one** choice(s) is(are) correct. Each question carries **+4 marks** for correct answer.

Aakash National Talent Hunt Exam 2026

Sample Paper

(Class VIII Studying Moving to Class IX)

(The questions given in sample paper are indicative of the level and pattern of questions that will be asked in ANTHE-2026)

Time : 1 Hour

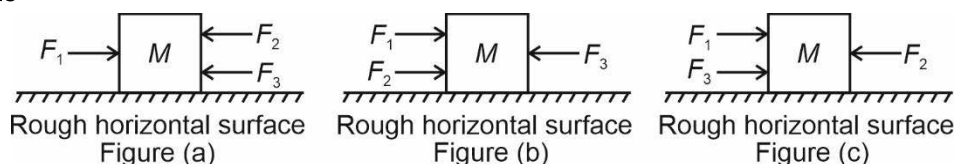
MM : 90

SCIENCE

SECTION-I : SINGLE CORRECT ANSWER TYPE

This section contains 18 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

- A liquid is filled in three containers-A, B and C upto height $\frac{h}{2}$, $\frac{2h}{3}$ and $\frac{5h}{2}$ respectively. If P_A , P_B and P_C are the pressures exerted by the liquid at the bottom of the containers-A, B and C respectively. Then $P_A : P_B : P_C$ is
 (1) 3 : 4 : 15 (2) 1 : 2 : 5
 (3) 2 : 3 : 2 (4) 3 : 4 : 5
- Three forces F_1 , F_2 and F_3 of 20 N, 30 N and 50 N respectively are acting on three blocks each of mass M as shown in the figures (a), (b) and (c). Assuming that the blocks remain at rest, the force of friction acting on the block is



- Maximum in figure (a) (2) Maximum in figure (b)
 (3) Maximum in figure (c) (4) Equal in figures (a), (b) and (c)
- A body of mass 5 kg is moving with uniform speed of 20 m/s on a straight smooth surface. The extra force required to keep it moving with same speed is
 (1) 4 N (2) 100 N
 (3) Zero (4) $\frac{1}{4}$ N
- Select the **incorrect** statement for sea-breeze.
 (1) Air over sea is cooler and has higher pressure (2) Direction of wind is from sea to land
 (3) Air over sea is warmer and has higher pressure (4) It flows during day
- The longer lead of an LED is always connected to
 (1) Positive terminal of the battery (2) Negative terminal of the battery
 (3) Any of the terminals of the battery (4) None of the terminals of the battery
- What happens to the strength of an electromagnet if the current flowing through it is increased?
 (1) The strength decreases (2) The strength remains the same
 (3) The strength increases (4) The electromagnet become permanent magnet
- The interparticle attractive force between the constituent particles is maximum in S_1 whereas thermal energy of the particles is minimum in the case of S_1 , intermediate in S_2 and maximum in S_3 . S_3 , S_1 and S_2 respectively are
 (1) Solids, gases and liquids (2) Solids, liquids and gases
 (3) Gases, liquids and solids (4) Gases, solids and liquids

8. Which of the following is an example of a mixture?
 (1) Brass (2) Carbon dioxide
 (3) Sugar (4) Argon
9. Which of the following statements is true about gases?
 (1) They have definite shape and volume (2) Their particles are tightly packed
 (3) They occupy all the available space (4) They cannot be compressed
10. When a solid turns into a liquid, interparticle spaces
 (1) Becomes zero (2) Decreases
 (3) Increases slightly (4) Remains constant
11. The level of water increases initially on adding sugar but may decrease to some extent after dissolution because
 (1) Water evaporates
 (2) Sugar reacts with water and sublimates
 (3) Sugar particles occupy spaces between water particles
 (4) Sugar gets converted into water
12. 'Z' is a chemical compound that enhances the taste of a food. 'Z' is formed by combining a soft metal 'X' and a hazardous gas 'Y'. 'X', 'Y' and 'Z' respectively can be
 (1) Hydrogen, oxygen and water (2) Iron, sulfur and iron sulfide
 (3) Sodium, chlorine and sodium chloride (4) Magnesium, oxygen and magnesium oxide
13. Non-communicable diseases
 (a) Are usually linked to lifestyle, diet and environment.
 (b) Can spread from one person to another.
 Select the correct option.
 (1) Only (a) is true (2) Only (b) is true
 (3) Both (a) and (b) are false (4) Both (a) and (b) are true
14. The correct order for level of organization in the body of a living organism is
 (1) Tissue → Cell → Organ → Organism → Organ system
 (2) Cell → Tissue → Organ → Organ system → Organism
 (3) Organ → Tissue → Cell → Organism → Organ system
 (4) Cell → Organ → Tissue → Organ system → Organism
15. Typhoid is a
 (1) Viral disease (2) Bacterial disease
 (3) Fungal disease (4) Protozoan disease
16. Select the **incorrect** match.

Diseases	Their sites of infection
(i) Chickenpox	Skin
(ii) Tuberculosis	Lungs
(iii) Hepatitis A	Liver
(iv) Cholera	Respiratory tract

- (1) (iii) (2) (ii)
 (3) (i) (4) (iv)
17. The onion peel cells, have an extra outer layer called the
 (1) Cell membrane (2) Nucleus
 (3) Cytoplasm (4) Cell wall
18. Yeast belongs to the group
 (1) Fungi (2) Virus
 (3) Bacteria (4) Protozoa

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 3 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

19. Which of the following precautions would have taken by you, if you are stuck in a cyclone hit area?

- (1) Do not touch wet switches and fallen power lines
- (2) Store drinking water for emergencies
- (3) Pressurise the rescue force by making undue demands
- (4) Don't cooperate and help your neighbours and friends

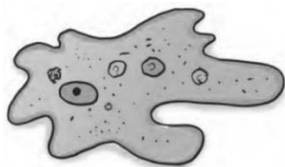
20. Consider the following box

Gold, silver, sulfur, carbon, boron, silicon, caesium

If the number of metals, non-metals and metalloids are x, y and z respectively then choose the correct option(s).

- (1) $x + y - z = 3$
- (2) $x + z - y = 3$
- (3) $x + z - y = 2$
- (4) $x^2 + y^2 = z^2$

21.



Which of the following statements is(are) **incorrect** regarding the above given organism?

- (1) It belongs to group Protozoa
- (2) It is a nitrogen fixing organism
- (3) It belongs to group Fungi
- (4) It is a causative organism of cholera

MATHEMATICS
SECTION-I : SINGLE CORRECT ANSWER TYPE

This section contains 10 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

22. If $5 : 3 :: a : 63$, then the value of $3a$ is

- (1) 315
- (2) 105
- (3) 445
- (4) 225

23. Sum of Roman numbers MCCCVIII and MMCCXXX in Egyptian system is

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

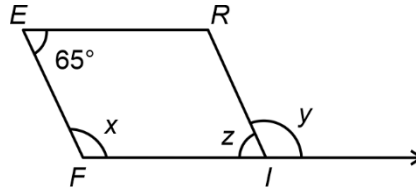
24. Rajeev organised a party at home for 25 friends in which 5 kg of rice were consumed. If Sahil wants to organise a party for 40 friends, how much rice will be consumed?

- (1) 5 kg
- (2) 7 kg
- (3) 8 kg
- (4) 9 kg

25. If $\left(x + \frac{1}{x}\right) = 11$ then the value of $\left(x^2 + \frac{1}{x^2}\right)$ is

- (1) 117
- (2) 118
- (3) 119
- (4) 121

26. In the given figure, *FIRE* is a parallelogram. If $\angle FER = 65^\circ$, then the value of $(x + y - z)$ is



- (1) 230° (2) 185°
 (3) 165° (4) 205°
27. The smallest perfect square divisible by 3, 4, 5 and 6 is
 (1) 600 (2) 900
 (3) 450 (4) 1200
28. The value of 'x' so that $5^{3x} = 15625$, is
 (1) 1 (2) 6
 (3) 2 (4) 3
29. $\frac{(7^{-3})^2 \times (7)^{-4} \times 7^{11}}{7^2}$ equals
 (1) 7 (2) 7^{-2}
 (3) $\frac{1}{7}$ (4) 1
30. If $\frac{A}{B} \times 6 = \frac{B}{B}$, then the value of B is equal to
 (1) 6 (2) 4
 (3) 2 (4) 8
31. For which of the following figures, all angles are always equal?
 (1) Square
 (2) Rhombus
 (3) Parallelogram
 (4) Kite

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 1 multiple choice question, which has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

32. If $A = \frac{\sqrt[3]{2744} \times \sqrt[3]{216}}{\sqrt[3]{\frac{64}{729}}}$, $B = \sqrt[3]{13824} \div \sqrt[3]{216}$ and $C = \sqrt[3]{\frac{31+33+35+37+39+41}{3+5}}$, then the correct option(s) is(are)
- (1) $(B + C)^3$ ends with 3
 (2) Unit's digit of $(A + B)^3$ is 7
 (3) $\left(\frac{A}{B+C}\right)$ is a perfect cube number
 (4) $B^3 - C^3$ can be written as $1 + 4 \times 3 \times 3$

MENTAL ABILITY

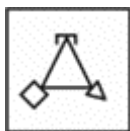
SECTION-I : SINGLE CORRECT ANSWER TYPE

This section contains 7 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

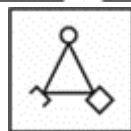
33. The two figures on either side of ':' follows a certain relationship. Bearing the same relationship, choose the correct option which can replace the (?).



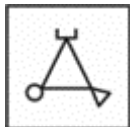
(1)



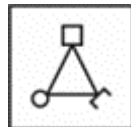
(2)



(3)



(4)



34. Which of the following letter is present more than 5 times in the following sequence?

d a a b c b e a a d b e e c c a d d b b b c c

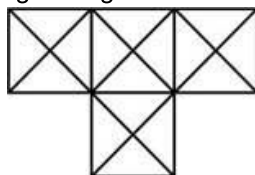
(1) a

(2) b

(3) c

(4) d

35. Count the total number of squares in the given figure.



(1) 6

(2) 10

(3) 8

(4) 7

36. Find the mirror image of following image.



(1)



(2)



(3)



(4)



37. In a certain code language 'MOST' is coded as 'UURQ' and 'FIVE' is coded as 'FXLJ'. How 'FOUR' will be coded in same code language?

(1) SWRJ (2) JRVS
(3) SWSJ (4) JRJS

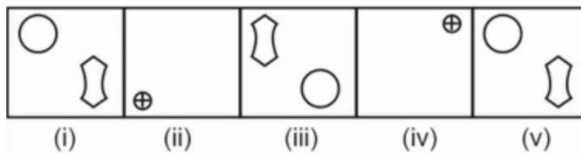
38. Choose a correct option to complete the given series.

360, ?, 180, 60, 15, 3

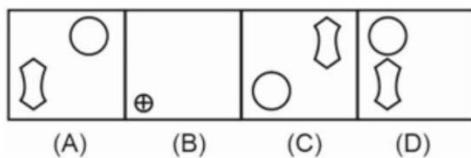
(1) 240 (2) 300
(3) 360 (4) 270

39. Five consecutive problem figures from a definite sequence are given and it is required to select one of the figures from the set of answer figures, which will continue the same sequence.

Problem Figures



Answer Figures



(1) (A) (2) (B)
(3) (C) (4) (D)

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 1 multiple choice question, which has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

40. Choose the correct pair(s) which follow(s) the same relation.

7842 : 108 :: 9647 : 160 :: 8427 : 90

(1) 4289 : 128 (2) 9267 : 128
(3) 4279 : 117 (4) 9842 : 147



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Top 1000 AIR**Includes students of classroom, digital & distance across all categories.**Punjab
Topper****Aryan
Gupta
AIR****1****715/720**
DLP
Program**Rajasthan
Topper****Uplakshya
Goyal
AIR****3****711/720**
Classroom
Program**UP
Topper****Aryan
Dubey
AIR****7****710/720**
Classroom
Program**Geetansh
Sarin
AIR****8****705/720**
Classroom
Program**Krish
Gupta
AIR****15****705/720**
Classroom
Program
**Mohit
Shekher
Shukla
AIR**
4
Classroom
Program

AIR
17
Aarav
Gupta
Classroom
Program

**Utkarsh
Khokhar
AIR**
35
Classroom
Program

**Snehal Roy
Choudhury
AIR**
41
Classroom
Program

**Ekagrah
Agarwal
AIR**
42
Classroom
Program

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11Ranks in
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INOs 2026****INOs 2026****29****Aakashians
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