



ACHARYAKULAM

SAMPLE PAPER

ENTRANCE EXAM

FOR CLASS - IX

EXAM FORMAT AT A GLANCE

TIME : 3 HRS.

MM : 100

SCIENCE	MATHS	REASONING	ENGLISH	SOCIAL SCIENCE
25	30	10	20	15

SCIENCE

- The pressure which is exerted by air around us is known as
 - force
 - atmospheric pressure
 - musclar force
 - friction
- Complete the following reaction:
Iron + oxygen + water -----→ ?
- Which one of the following forces is a contact force?
 - Force of gravity
 - Magnetic force
 - Force of friction
 - Electrostatic force
- Which of the following synthetic fiber is used for making sweaters and shawls?
 - Nylon
 - Rayon
 - Acrylic
 - Polyeter
- Friction is a
 - non-contact force
 - contact force
 - magnetic force
 - electrostatic force
- Name the plastic used for making non-stick cookware.
 - Bakelite
 - Teflon
 - Melamine
 - Polyethene.
- Four children were asked to arrange forces due to rolling, static and sliding frictions in an increasing order. Their arrangements are given below. Choose the correct arrangement.
 - Rolling, Static, Sliding
 - Static, Rolling, Sliding
 - Rolling, sliding, static
 - Sliding, Static, Rolling
- The voice box is also called as
 - stomach
 - heart
 - larynx
 - mouth
- Copper sulphate solution appears in colour.
- An ultrasound equipment works at frequency
 - Higher than 20,000 Hz
 - Higher than 10,000 Hz
 - Lower than 20,000 Hz
 - Lower than 10,000 Hz

11. Identify the gas among the following responsible for fire extinguishing.
 - (a) Carbon monoxide
 - (b) Carbon dioxide
 - (c) Nitrogen dioxide
 - (d) Sulphur dioxide

12. The process of transfer of charges from a charged object to the earth is called
 - (a) earthing
 - (b) lightning
 - (c) oscillation motion
 - (d) electron movement

13. Who discovered fermentation?
 - (a) Edward Jenner
 - (b) Alexander Fleming
 - (c) Louis Pasteur
 - (d) Robert Koch

14. It is a convention to call the charge acquired by a glass rod when it is rubbed with silk as _____
 - (a) Negative
 - (b) Positive
 - (c) Neutral
 - (d) Can be any one

15. Which of the following tools would a farmer use to remove weeds from the field?
 - (a) Hoe
 - (b) Plough
 - (c) Axe
 - (d) Cultivator

16. Name the colorless poisonous gas which is produced from incomplete burning of fossil fuels
 - (a) CO (Carbon monoxide)
 - (b) CO₂ (Carbon dioxide)
 - (c) CH₄ (Methane)
 - (d) None of these

17. Spirogyra and Chlamydomonas are examples of _____
 - (a) Algae
 - (b) Protozoa
 - (c) Bacteria
 - (d) Fungi

18. In humans, the development of fertilized egg takes place in the
 - (a) Ovary
 - (b) Oviduct
 - (c) Testis
 - (d) Uterus

19. Structures present in a cell which is responsible for determination of the sex of a baby is
 - (a) Cytoplasm
 - (b) cell membrane
 - (c) nucleus
 - (d) chromosome

20. The stage when all the body parts are identified is known as _____
 - (a) Zygote
 - (b) Foetus
 - (c) Embryo
 - (d) Infant

21. A smooth shining surface, which rebounds the light back in same or in different direction, is called
(a) a mirror
(b) a lens
(c) reflection of light
(d) point of incidence
22. In our eye _____ cells can sense colour
(a) Rod
(b) Cone
(c) Both rod and cone
(d) Neither rod nor cone
23. Distilled water does not conduct electricity. Give reason.
24. The species of plants and animals which are found only in a particular region are known as _____
(a) Extinct species
(b) Endangered species
(c) Endemic species
(d) Vulnerable species
25. For the metamorphosis of tadpoles which of the following elements must be available in water?
(a) Chlorine
(b) Sulphur

MATHEMATICS

- 1. The value of $(-10/3) \times (-15/2) \times (17/19) \times 0$ is:**
 - (A) 0
 - (B) 22.66
 - (C) 20
 - (D) 35
- 2. An integer can be:**
 - (A) Only Positive
 - (B) Only Negative
 - (C) Both positive and negative
 - (D) None of the above
- 3. The solution for $3m = 5m - (8/5)$ is:**
 - (A) $8/5$
 - (B) $4/5$
 - (C) $5/4$
 - (D) $4/3$
- 4. The age of the father is three times the age of the son. If the age of the son is 15 years old, then the age of the father is:**
 - (A) 50 years
 - (B) 55 years
 - (C) 40 years
 - (D) 45 years
- 5. Which one of the following is a regular quadrilateral?**
 - (A) Square
 - (B) Trapezium
 - (C) Kite
 - (D) Rectangle
- 6. Which of the following is not a quadrilateral?**
 - (A) Square
 - (B) Rectangle
 - (C) Triangle
 - (D) Parallelogram
- 7. To construct a square, we need to know:**
 - (A) All the interior angles
 - (B) All the side lengths
 - (C) Only one interior angle
 - (D) Only one side length
- 8. How many measurements are required to construct a quadrilateral, uniquely?**
 - (A) Four
 - (B) Five
 - (C) Six
 - (D) Three
- 9. Pictorial representation of data using symbols is known as:**
 - (A) Bar graph
 - (B) Pictograph
 - (C) Pie chart
 - (D) None of these

10. **The width or size of the class interval 30-40 is:**
(A) 10
(B) 30
(C) 40
(D) 70
11. **What will be the number of zeros in square of 400?**
(A) 2
(B) 3
(C) 4
(D) 6
12. **The sum of $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19$ is:**
(A) 121
(B) 120
(C) 100
(D) 110
13. **The Pythagorean triples whose smallest number is 8:**
(A) 8, 16 17
(B) 8, 17, 18
(C) 8, 15, 17
(D) 8, 15, 16
14. **The prime factorisation of 64 is:**
(A) $2 \times 2 \times 2$
(B) $4 \times 4 \times 4$
(C) $8 \times 8 \times 8$
(D) None of the above
15. **What should be divided by 53240 to make it a perfect cube?**
(A) 5
(B) 10
(C) 15
(D) 20
16. **Waheeda bought an air cooler for Rs. 3300 including a tax of 10%. The price of the air cooler before VAT was added is:**
(A) Rs. 2000
(B) Rs. 3000
(C) Rs. 2500
(D) Rs. 2800
17. **If 50% of students are good at science out of 20 students. Then the number of students good at science is:**
(A) 10
(B) 15
(C) 5
(D) 11
18. **The product of $4x$ and 0 is:**
(A) $4x$
(B) 4
(C) 0
(D) None of the above

19. **If we multiply $5x$ and $(-4xyz)$, then we get:**
(A) $20x^2yz$
(B) $-20x^2yz$
(C) x^2yz
(D) $-2xyz$
20. **The side-view of a cone appears as:**
(A) Circle
(B) Square
(C) Rectangle
(D) Triangle
21. **If a polyhedron has 6 vertices and 12 edges. What is the number of faces it has?**
(A) 6
(B) 8
(C) 12
(D) 18
22. **If $(-3)^{m+1} \times (-3)^5 = (-3)^7$, then the value of m is:**
(A) 5
(B) 7
(C) 1
(D) 3
23. **All six faces of a cube are:**
(A) Identical
(B) Different
(C) Circular
(D) Rectangular
24. **If $x = 20$ and $y = 40$, then x and y are:**
(A) Directly proportional
(B) Inversely proportional
(C) Neither directly nor inversely proportional
(D) Cannot be determined
25. **Which of the following are divisible by 2?**
(A) 98
(B) 99
(C) 101
(D) 121
26. **6 pipes are required to fill a tank in 1 hour 20 minutes. If we use 5 such types of pipes, how much time it will take to fill the tank?**
(A) 120 minutes
(B) 96 minutes
(C) 80 minutes
(D) 85 minutes
27. **If we join $(-3,2)$, $(-3,-3)$ and $(-3,4)$, then we obtain:**
(A) A triangle
(B) Straight-line without passing through origin
(C) Straight-line passing through origin
(D) None of the above

28. A _____ is a bar graph that shows data in intervals.

- (A) Bar-graph
- (B) Pie-chart
- (C) Histogram
- (D) Line Graph

29. The factorisation of $12x+36$ is

- (A) $12(x+3)$
- (B) $12(3x)$
- (C) $12(3x+1)$
- (D) $x(12+36x)$

30. The factors of $3m^2 + 9m + 6$ are:

- (A) $(m + 1)(m + 2)$
- (B) $3(m + 1)(m + 2)$
- (C) $6(m + 1)(m + 2)$
- (D) $9(m + 1)(m + 2)$

REASONING

1	<p>Which number replaces the question mark?</p> <table border="1" style="margin-left: auto; margin-right: auto;"><tbody><tr><td style="text-align: center;">5</td><td style="text-align: center;">2</td><td style="text-align: center;">7</td></tr><tr><td style="text-align: center;">4</td><td style="text-align: center;">2</td><td style="text-align: center;">6</td></tr><tr><td style="text-align: center;">3</td><td style="text-align: center;">2</td><td style="text-align: center;">?</td></tr></tbody></table> <p>A. 6 B. 9 C. 10 D. 5</p>	5	2	7	4	2	6	3	2	?			
5	2	7											
4	2	6											
3	2	?											
2	<p>Which one will replace the question mark ?</p> <table border="1" style="margin-left: auto; margin-right: auto;"><tbody><tr><td style="text-align: center;">7</td><td style="text-align: center;">9</td><td style="text-align: center;">21</td><td style="text-align: center;">27</td></tr><tr><td style="text-align: center;">4</td><td style="text-align: center;">2</td><td style="text-align: center;">36</td><td style="text-align: center;">18</td></tr><tr><td style="text-align: center;">9</td><td style="text-align: center;">4</td><td style="text-align: center;">54</td><td style="text-align: center;">?</td></tr></tbody></table> <p>A. 18 B. 24 C. 36 D. 58</p>	7	9	21	27	4	2	36	18	9	4	54	?
7	9	21	27										
4	2	36	18										
9	4	54	?										
3	<p>If A + B means A is the mother of B; A - B means A is the brother B; A % B means A is the father of B and A x B means A is the sister of B, which of the following shows that P is the maternal uncle of Q?</p> <p>A. Q - N + M x P B. P + S x N - Q C. P - M + N x Q D. Q - S % P</p>												

4	<p>Five girls are sitting on a bench to be photographed. Seema is to the left of Rani and to the right of Bindu. Mary is to the right of Rani. Reeta is between Rani and Mary. Who is sitting immediate right to Reeta ?</p> <ul style="list-style-type: none">A. BinduB. RaniC. MaryD. Seema
5	<p>Dev, Kumar, Nilesh, Ankur and Pintu are standing facing to the North in a playground such as given below:</p> <ol style="list-style-type: none">1) Kumar is at 40 m to the right of Ankur.2) Dev is 60 m in the south of Kumar.3) Nilesh is at a distance of 25 m in the west of Ankur.4) Pintu is at a distance of 90 m in the North of Dev. <p>Which one is in the North-East of the person who is to the left of Kumar?</p> <ul style="list-style-type: none">A. DevB. NileshC. AnkurD. Pintu
6.	<p>Based on information given in Previous question –</p> <p>If a boy starting from Nilesh, met to Ankur and then to Kumar and after this he to Dev and then to Pintu and whole the time he walked in a straight line, then how much total distance did he cover?</p> <ul style="list-style-type: none">A. 215 mB. 155 mC. 245 mD. 185 m

7.	<p>ZA₅, Y₄B, XC₆, W₃D, _____</p> <p>A. E₇V</p> <p>B. V₂E</p> <p>C. VE₅</p> <p>D. VE₇</p>
8.	<p>QAR, RAS, SAT, TAU, _____</p> <p>A. UAV</p> <p>B. UAT</p> <p>C. TAS</p> <p>D. TAT</p>
9.	<p>Look at this series: 2, 1, (1/2), (1/4), ... What number should come next?</p> <p>A. (1/3)</p> <p>B. (1/8)</p> <p>C. (2/8)</p> <p>D. (1/16)</p>
10.	<p>Which word does NOT belong with the others?</p> <p>A. scythe</p> <p>B. knife</p> <p>C. pliers</p> <p>D. saw</p>

ENGLISH

1. Select the word closest in meaning to the word Ferocious.
(A) Frail
(B) Feeble
(C) Delicate
(D) Brutal
2. Select the opposite word of Salvage.
(A) Outfit
(B) Lose
(C) Burn
(D) Recover
3. Choose the word which means differently from the following group of words.
Engage, Hire, Occupy, Banish, Retain, Reserve
(A) Occupy
(B) Hire
(C) Reserve
(D) Banish
4. Choose the word with the correct spelling.
(A) Lieutenant
(B) Lueitenant
(C) Liautenent
(D) Liutanent
5. Choose the most appropriate word for the given description.
In old says, the king was considered all powerful.
(A) Veteran
(B) Omnipotent
(C) Omnivorous
(D) Omniscient
6. Complete the following proverb by choosing the right option.
Don't put all your eggs in one _____.
(A) casket
(B) bucket
(C) basket
(D) blanket
7. Choose the one which best expresses the meaning of the underlined idiom.
Headmaster stood his ground in spite of many political pressure.
(A) was obstinate
(B) was prejudiced
(C) remained firm
(D) felt shaky

8. Complete the following sentence with the appropriate word selecting from the set of four words given after the sentence.
His _____ in office administration is loathsome as all the employees are aware of the foibles in his character.
(A) formalism
(B) mendicancy
(C) perspicuity
(D) informalism
9. Choose a single word describing the following as closely as possible.
A person who can use both hands equally well.
(A) Dexterous
(B) Genius
(C) Ambidexterous
(D) All rounder
10. Choose the correct meaning of the underlined phrase in the following sentence.
The sad news has put him in the doldrums.
(A) In low spirits and inactive
(B) In storms
(C) In rank
(D) In great loss
11. I always book my seats in advance. There is a book on the table. The underlined words in the sentences are _____.
(A) Verb and Adjective
(B) Verb and Noun
(C) Noun and Noun
(D) Noun and Adjective
12. “Who can deny the fact?” The Assertive form of this Interrogative sentence is _____.
(A) Who cannot deny the fact?
(B) No one can deny the fact.
(C) Everybody can deny the fact.
(D) All can deny the fact.
13. Read the components of the given sentence and mark the component with the grammatical error.
P. This book is
Q. designed to increase
R. the working knowledge of
S. spoken and written English.
(A) P
(B) R
(C) S
(D) No Error

14. Complete the following sentence using nominalisation of the underlined verb.
My mother departed yesterday. Her _____ is the cause of my affliction.
- (A) departing
 - (B) department
 - (C) deportation
 - (D) departure
15. Which is the incorrect sentence.
- (A) Sheela will have washed her clothes by now.
 - (B) I shall have solved the sum before the teacher comes in.
 - (C) The meeting will have not ended before we will arrive there.
 - (D) We shall have got up before the sun rises.
16. Choose the appropriate modal to complete the sentence.
_____ you give me your pen for a while?
- (A) May
 - (B) Can
 - (C) Should
 - (D) Would
17. Fill in the blank by choosing the correct alternative.
If I were you, I _____ (enjoy) the vacations.
- (A) enjoyed
 - (B) would enjoy
 - (C) was enjoying
 - (D) am enjoying
18. In the following question, a sentence has been given in Active Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive.
Sunita is driving a car.
- (A) A car is driven by Sunita.
 - (B) A car is being driven by Sunita.
 - (C) A car was driven by Sunita.
 - (D) A car was being driven by Sunita.
19. Choose the correct indirect speech of the sentence given below.
Sudeep asked Ragini, "Can you come with me?"
- (A) Sudeep asked Ragini if she comes with me.
 - (B) Sudeep asked Ragini if she can come with him.
 - (C) Sudeep asked Ragini can she come with him.
 - (D) Sudeep asked Ragini if she could go with him.
- Q20. Fill in the blank with appropriate preposition.
He hankers _____ wealth.
- (A) on
 - (B) after
 - (C) in
 - (D) to

SOCIAL SCIENCE

Geography (Question no 1 to 5)

1. The resources whose quantities are known, named as _____
(A) potential resources
(B) actual resources
(C) stock
(D) all of these
2. Which of the following determine the use of land?
(A) Soil and topography
(B) Climate and vegetation
(C) Availability of water
(D) All of these
3. The process of taking out minerals from rocks buried under the surface of the earth is named as
(A) mining
(B) pumping
(C) extracting
(D) none of these
4. Rubber plantation is famous in:
(A) Sri Lanka
(B) Brazil
(C) Malaysia
(D) USA
5. Basket weaving falls in the category of
(A) small-scale industry
(B) cottage industry
(C) large-scale industry
(D) none of these

History (Question no 6 to 10)

6. The leader who went on hunger strike for the Andhra Pradesh to protect the interest of Telugu speakers is
(A) Chittaranjan Das
(B) Potti Sriramulu
(C) Krishna Menon
(D) None of these
7. Marathi newspaper 'Kesari' was edited by
(A) Lala Lajpat Rai
(B) Bal Gangadhar Tilak
(C) Chittaranjan Das
(D) Sarojini Naidu

8. General Baird was
(A) an artist
(B) commander of the British army
(C) a trader
(D) a Governor
9. The idea of widow remarriage was advocated by
(A) Dayanand Saraswati
(B) Jyotirao Phule
(C) Periyar
(D) Pandita Ramabai
10. The Baster Rebellion in Central India broke out in _____
(A) 1900
(B) 1910
(C) 1920
(D) 1940

Civics (Question no- 11 to 15)

11. What is the term used for a ten-year old child working in a factory?
(A) Child labour
(B) Factory worker
(C) Baildaar
(D) All of these
12. Who has a role to play in formation of government under Universal Adult Suffrage?
(A) All adult Indians
(B) Only males
(C) All children
(D) None of these
13. Indian Constitution contains _____
(A) fundamental rights
(B) discrimination
(C) inequality
(D) all of these
14. Which type of advocate who pleads on behalf of the accused person?
(A) Public prosecutor
(B) Defence lawyer
(C) Judge
(D) All of these
15. Constitutional safeguards are provided to the minorities on the basis of:
(A) Religion
(B) Language
(C) Both (A) and (B)
(D) None of these