



SATISH SCIENCE ACADEMY
DHANORI PUNE - 411015

) SAINIK SCHOOL PAPER 2
ENTRANCE EXAM - SAINIK SCHOOL (CLASS 9)

Time Allowed: 3 hours

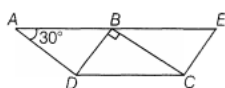
Maximum Marks : 400

General Instructions:

- This question paper booklet contains FIVE sections. Section "A" Mathematics contains 50 questions of 4 marks each. Section "B" English, Section "C" General Science, Section "D" Social Studies and Section "E" Intelligence contain 25 questions each, of 2 marks per question. In all, the paper consists of 150 questions for a total of 400 marks. Answer all questions.
- The duration of the test is 3 hours. There is no negative marking for a wrong answer.

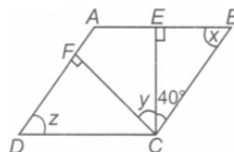
Section - A : Mathematics

- The sum of the digits of a 3 digit number is subtracted from the number. The resulting number is always. [4]
 - Not divisible by 9
 - Divisible by 9
 - Not divisible by 6
 - Divisible by 6
- Find the least number which is exactly divisible by 4, 6 and 8 each. [4]
 - 34
 - 24
 - 12
 - 112
- Simplify: $58 + 50 - 34 + (98 - 23)$ [4]
 - 158
 - 151
 - 149
 - 167
- Simplify: $14 - [3 + 15\{15 \times 3 - 2(13 - 25)\}]$ [4]
 - 1024
 - 1024
 - 1038
 - 1038
- Write the additive inverse of $\frac{9}{8}$. [4]
 - 0
 - 1
 - $-\frac{9}{8}$
 - $\frac{9}{8}$
- Solve for x if $kx + a = mx + b$ [4]
 - $\frac{b-a}{k-m}$
 - $\frac{k-m}{a-b}$
 - $\frac{m-k}{a-b}$
 - $\frac{a-b}{k-m}$
- If a sum of ₹275 is to be divided between Shivam and Rahul so that Shivam gets more than $\frac{3}{4}$ th of what Rahul gets, then the share of Shivam will be [4]
 - ₹160
 - ₹100
 - ₹200
 - ₹175
- 2 numbers had the difference of 5 and the difference between their squares is 135. The product of those numbers is - [4]
 - 180
 - 178
 - 182
 - 176
- In the given figure, ABCD and BDCE are parallelograms with common base DC. If $BC \perp BD$, then $\angle BEC$ is equal to



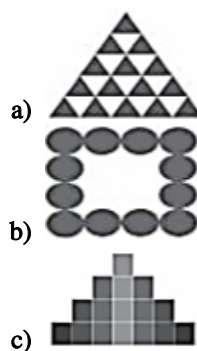
- [4]
- 60°
 - 150°
 - 120°
 - 30°

- ABCD is a parallelogram. Find the angles x, y and z respectively in the given figure.



- [4]
- 60°, 70°, 70°
 - 50°, 50°, 50°
 - 60°, 60°, 60°
 - 40°, 50°, 60°

- If three angles of a quadrilateral are each equal to 75°, then, the fourth angle is [4]
 - 75°
 - 150°
 - 135°
 - 45°
- If the interior angle of a regular polygon is 108°. The polygon has _____ sides. [4]
 - 5
 - 4
 - 6
 - 10
- $[(-3)^2]^3$ is equal to [4]
 - $(-3)^5$
 - $(-3)^8$
 - $(-3)^{23}$
 - $(-3)^6$
- Evaluate: $[1 + 8 + 27 + 64 + 125 + 216 + 343]^{\frac{3}{4}}$ [4]
 - $28\sqrt{7}$
 - $34\sqrt{7}$
 - $56\sqrt{7}$
 - $34\sqrt{3}$
- $(2d^2e^{-1})^3 \times \left(\frac{d^3}{e}\right)^{-2} =$ [4]
 - $8e^{-1}$
 - $8e^{-3}$
 - $8e^{-4}$
 - $8e^{-2}$
- The cube root of 0.000001 is [4]
 - 0.1
 - 0.031
 - 0.01
 - 0.316
- The cube of 31.2 is [4]
 - 3037.1328
 - 30371328
 - 30371.328
 - 3037.1381
- Which of the following symmetric arrangement cannot be used to represent a squared number? [4]

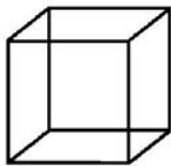




[4]

- a) Cylinder b) Square
c) Cone d) Sphere

41) Name of the solid given below.



[4]

- a) Cube b) Square
c) Cone d) Cuboid

42) If the area of two circles are in the ratio 25 : 36, then the ratio of their circumference is _____. [4]

- a) 5 : 6 b) 4 : 3
c) 3 : 4 d) 6 : 5

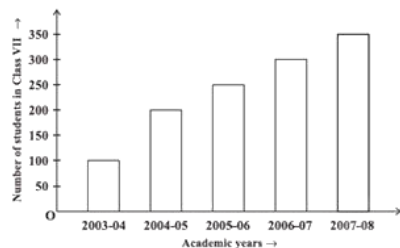
43) George wants to make a pentagonal pyramid. How many triangles does he need to make the object? [4]

- a) 2 b) 4
c) 5 d) 3

44) A pyramid is a polyhedron whose lateral faces are [4]

- a) Rhombuses or Rhombi b) Triangles
c) Rectangles d) Parallelograms

45) What is the number of students in class VII in year 2003 - 2004?



[4]

- a) 100 b) 200
c) 250 d) 150

46) The table shows the heights of the students in Mr. Charles's class. Find the median of the data.

Height (In inches)	Number of students
57	3
58	5
59	4
60	2
61	7
62	6
63	3
64	5

[4]

- a) 61 b) 63
c) 10 d) 5

47) The mode of a set of observations is the value which [4]

- a) Occurs most frequently
b) Is central
c) Is between maximum and minimum
d) None of the foregoing

48) The probability that a student passes in Mathematics is $\frac{4}{9}$ and he passes in physics in $\frac{2}{5}$. Assuming that passing in Mathematics and Physics are independent of each other, what is the probability that he passes in Mathematics and fails in Physics? [4]

- a) $\frac{8}{45}$ b) $\frac{19}{45}$
c) $\frac{26}{45}$ d) $\frac{4}{15}$

49) A bag has 4 red balls and 2 yellow balls (The balls are identical in all respect other than colour). A ball is drawn from the bag without looking into the bag. The probability of getting a red ball is _____. [4]

- a) $\frac{1}{2}$ b) $\frac{1}{2}$
c) $\frac{2}{3}$ d) $\frac{1}{4}$

50) Which of the following is not a random experiment? [4]

- a) Rolling a die
b) Tossing a coin
c) Throwing a stone from the roof of a building
d) Choosing a card from a deck of 52 cards

Section - B : English

51) Select the word that conveys the similar meaning as the word given in capital letters:

KNOTTY [2]

- a) Terrible b) Difficult
c) Confusing d) Mysterious

52) Choose the appropriate synonym: Eligible [2]

- a) Actual b) Unsuitable
c) False d) Qualified

53) Choose the correct verb:

The phone _____ can you answer it, please? [2]

- a) Ring b) Rings
c) Rang d) Is ringing

54) Choose the appropriate verb:

Who _____ you leave to prowl about? [2]

- a) Is gives b) Given
c) Gave d) Giving

55) Identify the correct tense for the given sentence:

It has been hailing outside for half an hour. [2]

- a) Present Perfect
b) Present Indefinite
c) Present Perfect Continuous
d) Present Continuous

Question No. 56 to 60 are based on the given text. Read the text carefully and answer the questions:

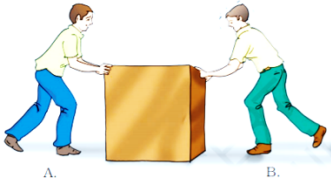
Familiar to most people for its medicinal properties, the Neem is recognized by few despite its distinctive, curved leaves and annual profusion of star-shaped, sweet-scented flowers. It is a medium-sized or large tree with a straight trunk and evergreen, a native of India, Burma and Sri Lanka.

Young leaves are a pale, tender green tinged with rust. These are eaten on New Year days to ward off sickness during the coming years. Some people to whom the tree is sacred, also festoon fresh leaves across their houses when there is a birth or death. Dried leaves are put in drawers or cupboards to keep out moths and cockroaches.

- [2]
- Both are wrong
 - Both are correct
 - Statement ii) is correct but i) is wrong
 - Statement i) is correct but ii) is wrong
- 79) Coal is formed from the remains of: [2]
- Both vegetation and animals
 - Vegetation only
 - Animals only
 - Neither vegetation nor animals
- 80) Anil was doing an experiment in his chemistry lab. He opened the air hole of Bunsen burner and adjusted it to get: [2]
- Black flame
 - Blue flame
 - Green flame
 - Yellow flame
- 81) Complete combustion of most of the fuels produces (i) _____ which is responsible for (ii) _____. (i) and (ii) are respectively [2]
- Oxygen and respiration
 - Carbon and photosynthesis
 - Carbon dioxide and global warming
 - Carbon monoxide and pollution
- 82) Read the following statements:
- Restocking of destroyed forest is done by planting new trees.
 - Reforestation is done by planting new trees.
- [2]
- Statement ii) is correct but i) is wrong
 - Both are wrong
 - Statement i) is correct but ii) is wrong
 - Both are correct
- 83) Banana is multiplied by means of _____. [2]
- Seeds
 - Leaf cuttings
 - Offsets
 - Rhizome
- 84) New plants developed by asexual reproduction are identical to each other because they are: [2]
- Produced from same fruit
 - Produced from same seed
 - Produced from single parents
 - Produced without cell division
- 85) Which of the following is a exocrine gland? [2]
- Adrenal
 - Salivary gland
 - Pancreas
 - Pituitary
- 86) Moving ball slowly decrease its speed in a grassy field due to [2]
- Friction between ball and grass
 - Static force of ball
 - Rolling friction due to grass only
 - Gravitational force of earth
- 87) A block has dimensions 5 cm × 20 cm × 10 cm. It has a mass of 2 kg. The ratio of minimum to maximum pressure it exerts on the change in orientation is [2]
- 1:1
 - 4:1
 - 1:2
 - 1:4
- 88) By which property of sound the change in air temperature is affected? [2]
- Intensity
 - Wavelength
 - Amplitude
 - Frequency
- 89) The whole apparatus of the electrodes, electrolyte and the vessel containing them is called _____. [2]
- Voltmeter
 - Ammeter
 - Electrometer
 - Thermometer
- 90) Building can be protected from lightening by using [2]
- Lightening rod on the levels of building
 - All of these
 - Lightening rod at the top of building
 - Wooden logs at the top of building
- 91) The image of a tree situated at a far distance is obtained using a concave lens. The image will be formed at: [2]
- Centre of curvature
 - Between focus and pole
 - At the pole of the mirror
 - Focus of mirror
- 92) From which one of the following you will always get a virtual, erect and of the same size as object image? [2]
- Concave lens
 - Concave mirror
 - Plane mirror
 - Convex mirror
- 93) Venus is the brightest planet because [2]
- The index of reflection of its surface is very high.
 - It is very close to the sun
 - The index of reflection of its surface is very low.
 - Its atmosphere reflects most of the light falling on it.
- 94) Which of the following oxides in aqueous solution does not turn red litmus blue? [2]
- MgO
 - Na₂O
 - CO₂
 - Fe₂O₃
- 95) The substance like sewage, toxic chemicals, and silt forms [2]
- Soil pollutant
 - Water purifier
 - Air pollutant
 - Water pollutants
- 96) Which of the following represents the correct match for items in Column A with those in Column B.
- | Column A | Column B |
|---------------|----------------------------|
| I. Nylon | (i) Thermoplastic |
| II. PVC | (ii) Thermosetting plastic |
| III. Bakelite | (iii) Fibre |
- [2]
- I - (iii), II - (i), III - (ii)
 - I - (ii), II - (i), III - (iii)
 - I - (ii), II - (iii), III - (i)
 - I - (iii), II - (ii), III - (i)
- 97) Read the following statements:
- Nylon is manufactured from coal, water, and air.
 - Nylon is a natural fibre.
- [2]
- Statement ii) is correct but i) is wrong.
 - Both are wrong
 - Both are correct
 - Statement i) is correct but ii) is wrong.
- 98) Read the following statements:
- Size of cells is related to size of the animal body.
 - Size of cell is related to the function of that cell.
- [2]

- a) Statement i) is correct but ii) is wrong
 b) Statement ii) is correct but i) is wrong
 c) Both are wrong
 d) Both are correct

- 99) In Fig. two boys A and B are shown applying force on a block. If the block moves towards the right, which one of the following statements is correct?



[2]

- a) Magnitude of force applied by A is smaller than that of B.
 b) Magnitude of force applied by A is greater than that of B.
 c) Magnitude of force applied by A is equal to that of B.
 d) Net force on the block is towards A.

- 100) Given below are statements about the harmful effects of weeds on crop plants.

- i. They interfere in harvesting.
 ii. They help crop plants to grow healthily.
 iii. They compete with crop plants for water, nutrients, space and light.
 iv. They affect plant growth.

Choose the correct combination of statements. [2]

- a) I, iii, iv b) Iii, iv
 c) I, ii, iii, iv d) Iii only

Section - D : Social Studies

- 101) Where did Akbar set up an Ibadatkhana? [2]
 a) Fatehpur Sikri b) Delhi
 c) Agra d) Rajasthan
- 102) When was Queen Elizabeth I born and died? [2]
 a) 1557 to 1625 b) 1533 to 1603
 c) 1558 to 1603 d) 1515 to 1598
- 103) Recognise the personality in dark glasses, sitting along with the members of the Congress Working Committee, Sevagram, 1942. Based on the clues given :
 He was born in Mecca to a Bengali mother and an Arab father.
 Well - versed in many languages and a scholar of Islam, he was an active participant in Gandhian movements and a staunch advocated of Hindu - Muslim unity.
 He opposed Jinnah's two - nation theory



[2]

- a) Abul Kalam Azad
 b) Maulana Azad
 c) Khan Abdul Gaffar Khan
 d) Mohammed Ali Jinnah

- 104) The Khilafat Movement was led by the Ali brothers to protest against the abolition of the office of the Caliph. One of the brothers was Mohammed Ali, name the other. [2]
 a) Imran Ali b) Shaukat Ali
 c) Ajmal Ali d) Abdul Ali
- 105) Pick out the date on which Clement Atlee made an important announcement that the British would completely transfer power to the Indians by June 1948. [2]
 a) On 20 February 1947 b) On 20 February 1950
 c) On 20 April 1949 d) On 20 March 1948
- 106) Among the different goals of the Non - Cooperation Movement, which one of these can be considered as the main and important goal? [2]

- a) Boycott government functions
 b) Attainment of Swaraj through peaceful and legitimate means
 c) Protest against the Jalianwala Bagh massacre
 d) Use of Khadi among people

- 107) Match the following

Column A	Column B
(i) Buddha	(a) Believe even small particle is having a soul
(ii) Mahavira	(b) The composed grammar of Sanskrit
(iii) Panini	(c) Believe a balance life help in attaining moksha

Options are as follows: [2]

- a) (i) - (c), (ii) - (b), (iii) - (a)
 b) (i) - (a), (ii) - (b), (iii) - (c)
 c) (i) - (b), (ii) - (c), (iii) - (a)
 d) (i) - (c), (ii) - (a), (iii) - (b)

- 108) Whose bhajan are preserved in the Guru Granth Sahib, Panch Vani, and Bijak? [2]
 a) Kabir b) Surdas
 c) Tulsidas d) Mira Bai
- 109) What would you call resources of limited stock? [2]
 a) Non - renewable Resources
 b) Human - made Resources
 c) Localised Resources
 d) Renewable Resources

- 110) The deepest mine in the world is in _____. [2]
 a) North Africa b) South Africa
 c) South America d) North America

- 111) Which of these is an example of community land? [2]
 a) Sunderban forests b) Parliament House
 c) A bungalow d) Flat

- 112) Name the important mineral, which is used as a raw material for the smelting of iron ore. [2]
 a) Mica b) Manganese
 c) Bauxite d) Copper

- 113) Alps mountain is in which continent? [2]

- a) Australia b) Asia
c) Europe d) Africa

114) Match the following:

Waterfall	Location
(a) Angel fall	(i) North America
(b) Victoria fall	(ii) Africa
(c) Niagara fall	(iii) South America

[2]

- a) (a) - (ii), (b) - (iii), (c) - (i)
b) (a) - (ii), (b) - (i), (c) - (iii)
c) (a) - (iii), (b) - (ii), (c) - (i)
d) (a) - (i), (b) - (iii), (c) - (ii)

115) Which one among the following is termed as emerging industry? [2]

- a) Information technology
b) Textile industry
c) Iron and Steel industry
d) Paper industry

116) Name the important Western industrial region in India. [2]

- a) Delhi - Gurgaon - Meerut region
b) Ahmedabad - Vadodara region
c) Damodar Valley belt
d) Chottanagpur belt

117) Look at the various hand signs/mudras below. Choose the correct option as per what you think they may represent. Put them in the correct sequence.



[2]

- a) Welcome, Unity, All the Best, Victory
b) All the Best, Victory, Welcome, Unity
c) Welcome, Victory, Unity, All the Best
d) Unity, Welcome, All the Best, Victory

118) Which of the following is the national radio station of India? [2]

- a) Red FM b) Radio India
c) All India Radio d) Radio one

119) A few statements regarding the significance of fundamental rights are given below. Pick out the one that is inappropriate.

- i. They do not check the authority of the government.
ii. They provide the necessary conditions for the moral and material protection of human beings.
iii. They form the foundation of an equitable society based on social injustice and social equality.
iv. They strengthen the secular status of the nation.

[2]

- a) Only C b) Only B
c) Only A d) Only D

120) Which political party in South Africa fought to end white minority rule in South Africa? [2]

- a) African National Congress
b) South African National Congress
c) Black African National Congress

d) Zulu National Congress

121) Which type of government allows citizens to have the greatest amount of political influence? [2]

- a) Autocracy b) Oligarchy
c) Democracy d) Unitary

122) Which Article of the Constitution states that untouchability has been abolished? [2]

- a) Article 17 b) Article 15
c) Article 27 d) Article 21

123) When did the government amend the Child Labour Prevention Act? [2]

- a) In October 2007 b) In January 2004
c) In October 2016 d) In October 2002

124) Exporters are those [2]

- a) Who sell goods within domestic territory
b) Who purchase goods within domestic territory
c) Who sell goods abroad
d) Who purchase goods abroad

125) What does Weekly shop Traders do? [2]

- a) Set up shops for the week and then close them up after week
b) Set up permanent shops
c) Set up shops for the month and then close them up after month
d) Set up shops for the day and then close them up in the evening

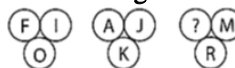
Section - E : Intelligence

126) Choose which number completes the second pair in the same way as the first pair.

$$\frac{Z}{26} : \frac{Y}{25} :: \frac{T}{20} : ? [2]$$

- a) $\frac{S}{19}$ b) $\frac{S}{20}$
c) $\frac{U}{21}$ d) $\frac{Q}{17}$

127) Find the missing alphabet, if same rule is followed in all the three figures.



[2]

- a) A b) F
c) C d) E

128) How many such odd numbers are there each of which is followed by a multiple of 2 in the given series?

6, 4, 3, 2, 4, 8, 3, 1, 5, 4, 2, 3, 2, 4, 6, 4, 8, 1, 3, 2, 4, 2, 6, 4, 5 [2]

- a) 3 b) 5
c) 4 d) 2

129) Look carefully for the pattern, and then choose which pair of numbers comes next.

4, 7, 26, 10, 13, 20, 16, ?, ? [2]

- a) 18, 14 b) 19, 14
c) 14, 17 d) 14, 4

130) Choose the correct alternative which will complete the following series.

4, 8, 12, 24, 18, ? [2]

- a) 27 b) 36
c) 72 d) 54

131) Choose the word which is different from the rest.

Larva, Pupa, Caterpillar, Nymph [2]

- a) Pupa b) Caterpillar
c) Larva d) Nymph

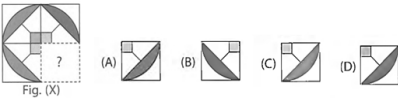
144) Choose one figure from the given alternatives that can replace the mark (?) to form a series of five figures.



[2]

- a)
- b)
- c)
- d)

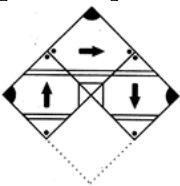
145) Which of the following option will complete the pattern in Fig. (X)?



[2]

- a) Figure (C)
- b) Figure (B)
- c) Figure (D)
- d) Figure (A)

146) Select the figure from the given options, which when placed in the blank space of the given figure would complete the pattern.

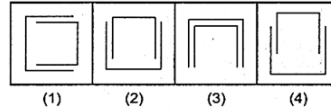


[2]

- a)

- b)
- c)
- d)

147) Select the figure which is different from others.



[2]

- a) Figure (1)
- b) Figure (2)
- c) Figure (3)
- d) Figure (4)

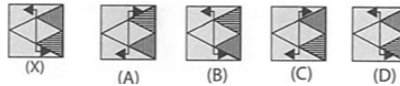
148) Choose the figure which is different from the rest.



[2]

- a) 2
- b) 4
- c) 3
- d) 1

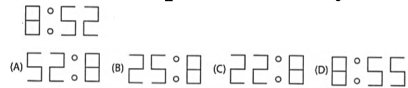
149) Choose the correct water image of the given figure (X):



[2]

- a) Figure (A)
- b) Figure (D)
- c) Figure (C)
- d) Figure (B)

150) Find the mirror image of the figure given below when the mirror is placed vertically to the left.



[2]

- a) Figure (B)
- b) Figure (D)
- c) Figure (C)
- d) Figure (A)