



SATISH SCIENCE ACADEMY
DHANORI PUNE - 411015

SAINIK SCHOOL PAPER 3
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

- 1) If $x + y + z = 6$ and z is an odd digit, then the three - digit number xyz is [4]

- An even multiple of 9
- An odd multiple of 6
- An even multiple of 3
- An odd multiple of 3

- 2) If $1*548$ is divisible by 3, then $*$ can be replaced by _____. [4]

- 2
- 8
- 7
- 0

- 3) Simplify: $\frac{(-18\frac{1}{3} \times 2\frac{8}{11}) - (4\frac{5}{7} \times 2\frac{1}{3})}{|\frac{2}{3} + (\frac{-9}{10})| + |-(\frac{-3}{5})|}$ [4]

- $63\frac{4}{81}$
- $-23\frac{7}{9}$
- $-67\frac{7}{9}$
- $12\frac{6}{17}$

- 4) A rational number can be expressed as a terminating decimal if the denominator has factors: [4]

- 3 or 5
- 2, 4 or 5
- 2, 3 or 5
- 2 or 5

- 5) Find $\frac{3}{7} + (-\frac{5}{14}) + (-\frac{9}{14}) + \frac{5}{7}$ [4]

- 7
- 7
- $\frac{1}{7}$
- 1

- 6) In a class $\frac{3}{5}$ of the students are girls and rest are boys. If $\frac{2}{9}$ of the girls and $\frac{1}{4}$ of the boys are absent. What part of the total number of students are present? [4]

- $\frac{23}{30}$
- $\frac{17}{25}$
- $\frac{33}{36}$
- $\frac{18}{49}$

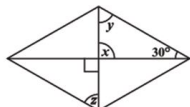
- 7) The sum of five consecutive multiples of 6 is 2040. Find the largest multiple. [4]

- 420
- 450
- 456
- 528

- 8) Solve: $a - \frac{a-1}{2} = 1 - \frac{a-2}{3}$ [4]

- 3
- 5
- 7
- $\frac{7}{5}$

- 9) Find the value of the unknown x .

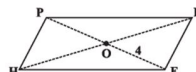


[4]

- 60°
- 30°
- 90°
- 120°

- 10) In following figure, HELP is a parallelogram. (Lengths are in cms). Given that $OE = 4$ and HL is 5 more than

PE? Find OH.



[4]

- 12.5 cm
- 10.5 cm
- 6.5 cm
- 8.5 cm

- 11) Match List - I with List - II and select the correct answer using the codes given below the lists:

List - I	List - II
P. Opposite sides equal and parallel	1. Rectangle
Q. Opposite sides equal and one angle 90°	2. square
R. All side equal and one angle 90°	3. Rhombus
S. All side equal and diagonals at right angles	4. Parallelogram

[4]

- P - 3, Q - 4, R - 2, S - 1
- P - 4, Q - 1, R - 3, S - 2
- P - 4, Q - 1, R - 2, S - 3
- P - 2, Q - 4, R - 1, S - 3

- 12) Which of the following statement(s) is /are false?

- Each diagonal of a quadrilateral divides it into two triangles
- Each side of a quadrilateral is less than the sum of the remaining three sides
- A quadrilateral can utmost have three obtuse angles
- A quadrilateral has four diagonals

[4]

- Option (iv)
- Option (i)
- Option (ii)
- Option (iii)

- 13) The least integer value of a which satisfies $a^4 > 2400$ is _____. [4]

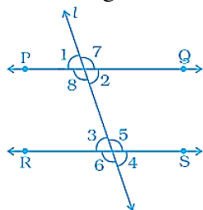
- 8
- 7
- 6
- 5

- 14) $(\frac{2}{3})^3 \times (\frac{5}{7})^3$ is equal to [4]

- $(\frac{2}{3} \times \frac{5}{7})^0$
- $(\frac{2}{3} \times \frac{5}{7})^3$
- $(\frac{2}{3} \times \frac{5}{7})^6$
- $(\frac{2}{3} \times \frac{5}{7})^9$

- 15) $(-3)^5 \div (-3)^8 = ?$ [4]

38) In the figure, which of the following is true?



- [4]
 a) $\angle 1 = \angle 5$ b) $\angle 3 = \angle 7$
 c) $\angle 4 = \angle 8$ d) $\angle 5 = \angle 8$

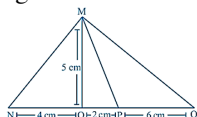
39) Statements a and b are as given below:

- i. If two lines intersect, then the vertically opposite angles are equal.
- ii. If a transversal intersects, two other lines, then the sum of two interior angles on the same side of the transversal is 180° .

Then: [4]

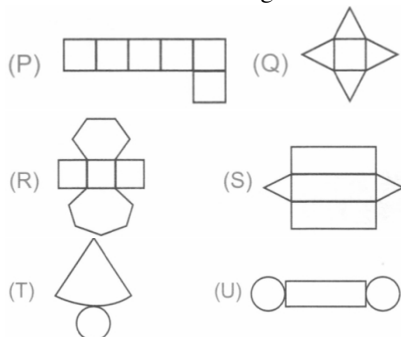
- a) Both a and b are true
- b) A is true and b is false
- c) A is false and b is true
- d) Both a and b are false

40) Ratio of areas of $\triangle MNO$, $\triangle MOP$ and $\triangle MPQ$ in a figure is



- [4]
 a) 1 : 2 : 3 b) 1 : 3 : 2
 c) 2 : 1 : 3 d) 2 : 3 : 1

41) Which of the following is the net of a solid?

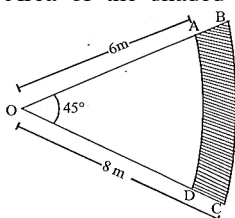


- [4]
 a) (Q), (S), (T) and (U) only
 b) (P), (R) and (S) only
 c) (Q) and (S) only
 d) (P), (Q) and (T) only

42) Area of a circle with diameter m radius n and circumference p is [4]

- a) πm^2 b) πp^2
- c) $2\pi n$ d) πn^2

43) Area of the shaded region of the below given figure is



- [4]
 a) 10 m^2 b) 11 m^2
 c) 15 m^2 d) 19 m^2

44) A tent is in the shape of a cylinder with a conical top. The radius of the base of the tent is 9 m. The height of the cylindrical part is 16 m. and that of the conical part is 25 m. Find the volume of air that occupies the tent. [4]

- a) 5200 m^3 b) 6194.57 m^3
- c) 6193.9 m^3 d) 6203.9 m^3

45) Which is the most liked subject?

Subject	Number of students
Art	7
Maths	8
Science	6
English	5

- [4]
 a) English b) Art
 c) Science d) Maths

46) Which is the least liked subject?

Subject	Number of Students
Art	7
Maths	8
Science	6
English	5

- [4]
 a) Science b) English
 c) Art d) Maths

47) Mean of 9 observations was found to be 35. Later on, it was detected that an observation 81 was misread as 18, then the correct mean of the observations is _____. [4]

- a) 43 b) 40
- c) 41 d) 42

48) A coin is tossed 200 times and head appeared 120 times. The probability of getting a head in this experiment is:

- [4]
 a) $\frac{4}{5}$ b) $\frac{1}{5}$
 c) $\frac{3}{5}$ d) $\frac{2}{5}$

49) A die is thrown. The probability of getting an odd prime number is _____. [4]

- a) $\frac{1}{3}$ b) $\frac{1}{2}$
- c) $\frac{1}{6}$ d) $\frac{2}{3}$

50) A bag contains 3 white and 2 red balls. One ball is drawn at random. What is the probability that the ball drawn is red? [4]

- a) $\frac{1}{5}$ b) $\frac{2}{5}$
- c) $\frac{3}{5}$ d) $\frac{1}{2}$

Section - B : English

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

- CORROBORATE [2]
 a) Disprove b) Refute
 c) Verify d) Disapprove

52) Give a word most similar in meaning to the word **exhorting**? [2]

[2]

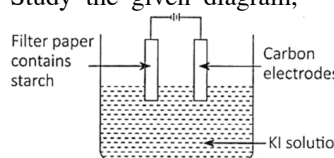
- a) Option (d) b) Option (c)
c) Option (b) d) Option (a)

- 71) He said that he was very pleased _____ my work. [2]
a) By b) With
c) At d) On
- 72) Find the part of the sentence which has an error:
The woodcutter was cutting the branches from his axe.
[2]
a) From his axe b) Was cutting
c) The branches d) The woodcutter
- 73) No other land animal is as _____ as the elephant. [2]
a) Bigger b) Smallest
c) Big d) Biggest
- 74) _____ did Mr. Sharri speak to? [2]
a) Which b) Whom
c) What d) Whose
- 75) We have a cat _____ we do not have a fish. (conjunction)
[2]
a) So b) And
c) Or d) But

Section - C : General Science

- 76) Identify the Kharif crop from the following [2]
a) Mustard b) Pea
c) Groundnut d) Wheat
- 77) Leptothrix is an example of iron bacteria. Which of the following statements best fit the iron bacteria? [2]
a) They oxidise ferrous compounds to ferric oxide.
b) They cause rusting of iron.
c) They cause iron to be deposited in the livers of animals.
d) They are responsible for preservation of iron - rich artefacts in archaeological material.
- 78) Read the following statements:
i. Anthracite and Paraffin both are purest forms of coal.
ii. Peat is most inferior quality coal.
[2]
a) Both are wrong
b) Statement ii) is correct but i) is wrong
c) Statement i) is correct but ii) is wrong
d) Both are correct
- 79) Which one is the major component of CNG? [2]
a) Ethane b) Propane
c) Methane d) Butane
- 80) Rubbing of matchstick on sides of matchbox raises temperature to ignition temperature by producing: [2]
a) Displacement b) Friction
c) Induction d) Conduction
- 81) Aditi, accidentally puts an inverted glass over a lighted candle.
She observed that the candle blows off in few seconds.
Why did this happen? [2]
a) The candle keeps burning as long as the complete wax melts away and then goes off.
b) The candle keeps burning as long as air is present in the glass and then it goes off.

- c) The ignition temperature of the candle becomes low due to glass cover hence it goes off.
d) O₂ is produced when candle burns which helps the candle to burn initially.

- 82) Read the following statements:
i. Biodiversity consists of all non - living components.
ii. Decrease in snake population will decrease the population of frogs too.
[2]
a) Both are wrong
b) Both are correct
c) Statement ii) is correct but i) is wrong
d) Statement i) is correct but ii) is wrong
- 83) Amoeba is called immortal because it _____ [2]
a) Can develop pseudopodia
b) Reproduce by asexual reproduction
c) Has irregular shape
d) Completely divides into two daughter cells
- 84) During metamorphosis [2]
a) Tadpole change into adult
b) Both tadpole change into adult & pupa of silk worm change into adult
c) Human child change into adult
d) Pupa of silk worm change into adult
- 85) Which of the following minerals is an essential constituent of hemoglobin of blood? [2]
a) Calcium b) Iodine
c) Iron d) Magnesium
- 86) If the force applied on a moving body in direction of motion than [2]
a) Mass of the body increases
b) Speed of the body increases
c) Speed of body decreases
d) Mass of the body decreases
- 87) Which force is responsible for the stability of our universe? [2]
a) Magnetic force of earth
b) Frictional force between planets and atmosphere
c) The force of gravitation
d) Magnetic force of Sun
- 88) The part of the ear that transmits sound vibrations to the brain is the [2]
a) Stirrup b) Eardrum
c) Auditory nerve d) Cochlea
- 89) Study the given diagram,

When we write on wet filter paper, the colour of the paper changes to blue - black. Why does this happen? [2]
a) Iodine is formed at cathode that causes change in colour
b) Iodine is formed at anode
c) Both Iodine is formed at anode and Iodine turns blue black in presence of starch
d) Iodine turns blue black in presence of starch

- 90) Which of the following is responsible for earthquake? [2]
- Underground nuclear explosion
 - Shift in the position of plates that form the crust of our planet
 - Volcanic eruption
 - All of these

- 91) A red rose and a white rose are placed in front of a source of light. The colour of the shadow will be [2]

- Same for both rose
- Red for red rose and white for white rose
- Different for both rose
- Black for red rose and white for white rose

- 92) To see solar eclipse, we should use [2]

- Sun glasses
- Eclipse glasses
- X - ray sheet
- Concave lens

- 93) Moon is the [2]

- Largest star of solar system
- Artificial satellite of Earth
- Nearest star of solar system
- Natural satellite of Earth

- 94) Which of the following metals does not react with water at all? [2]

- Aluminium
- Gold
- Silver
- Both Silver and Gold

- 95) Which of the following gases does not cause acid rain? [2]

- Hydrogen gas
- Methane
- Sulphur dioxide
- Nitrous oxide

- 96) Match the following:

I) Bakelite	A) parachutes
ii) Nylon	B) PET containers
iii) PVC	C) sizing agent in paper industry
Iv) Melamine	D) telephone instruments
V) Polyester	E) pipes

[2]

- I,d,ii,a,iii,b, iv,e, v,c
- I,b,ii,d,iii,e, iv,c, v,a
- I,c,ii,e,iii,d, iv,a, v,b
- I,d,ii,a,iii,e, iv,c, v,b

- 97) Read the following statements:

- Plastic bags can choke the drains.
- Mosquitoes cannot grow in such choked drains.

[2]

- Both are correct
- Both are wrong
- Statement i) is wrong and ii) is correct
- Statement ii) is wrong and i) is correct

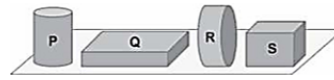
- 98) Read the following statements:

- Plasma membrane separates one cell from the other.
- Plasma membrane allows movement of materials both outwards and inwards.

[2]

- Statement i) is correct but ii) is wrong
- Both are correct
- Both are wrong
- Statement ii) is correct but i) is wrong

- 99) P, Q, R and S are four solid objects having the same mass. Which object is exerting the least pressure on the table?



[2]

- Q
- S
- R
- P

- 100) Read the statements given below.

- Seeds require moisture for germination.
- Plants can absorb nutrients mostly in dissolved form.
- Irrigation protects crops from both frost and hot air currents.
- Irrigation improves soil texture.

Choose the combination of statements which indicate the need to irrigate crops.

[2]

- I and iii
- I, ii, iii
- I and ii
- I, ii, iii, iv

Section - D : Social Studies

- 101) The second expansion occurred along the external frontier of the Sultanate. Military expeditions into southern India started during the reign of: [2]

- Firuz Khalji
- Alauddin Khalji
- Khizr Khalji
- Akbar Khalji

- 102) Who lost the second battle of Panipat? [2]

- Babur
- Hemu Vikramaditya
- Rana Sanga
- Ibrahim Lodi

- 103) Recognise and name this great Pashtun leader from the North West Frontier Province, standing along with Mahatma Gandhiji .



[2]

- Abul Kalam Azad
- Mohammed Ali Jinnah
- Khan Abdul Ghaffar Khan
- Maulana Azad

- 104) From the list given below, pick out the important lawyer who gave up his practice as a support to the Non - Cooperation Movement. [2]

- Sarojini Naidu
- Motilal Nehru
- Lala Lajpat Rai
- Rabindranath Tagore

- 105) On which date given below did the British Parliament pass the Indian Independence Act so as to end the British rule and transfer power to the two new dominions of India and Pakistan. [2]

- In March 1947
- In July 1947
- In May 1947
- In September 1947

- 106) The East India Company began to plan how to bring the Mughal dynasty to an end. In 1849, Governor - General Dalhousie announced the death of _____. [2]

- a) Rani Laxmi Bai b) Bahadur Shah Zafar
c) Nana Saheb d) Tantiya Tope

107) Match the following:

Column A	Column B
(i) Brahmachari	(a) they had to give up everything
(ii) Grihastha	(b) was expected to lead simple lives and study the Vedas
(iii) Vanaprastha	(c) they had to marry and live as householders
(iv) Samnyasins	(d) they had to live in the forest and meditate

Options are as follows: [2]

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

108) Which language was used in the Chera kingdom of Mahodayapuram? [2]

- a) Malayalam b) Oriya
c) Punjabi d) Telugu

109) Choose the ultimate resource on the earth from the following: [2]

- a) Petroleum b) Human beings
c) Solar Energy d) Copper

110) Common salt that we mostly eat: [2]

- a) Nitrogen Chloride b) Sodium Chloride
c) Sodium Oxide d) Hydrogen Chloride

111) Some mountains are even higher than the [2]

- a) Clouds b) Plateau
c) Hills d) Plain

112) What is the name given to the electricity produced from coal? [2]

- a) Fossil fuel b) Nuclear power
c) Thermal power d) Geo thermal

113) The world's highest rainfall occur in [2]

- a) Mawsynram b) Asansol
c) Nagaland d) Mumbai

114) Match the following:

A. Continent	I. Plateau
B. Landform	Ii. Biosphere
C. Life	Iii. Antarctica

[2]

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

115) From the following, which one best describes the Secondary Economic activities? [2]

- a) Extraction and production of natural resources
b) Activities involving the processing of natural re-

sources

- c) Activities that help the primary and secondary activities
d) Activities involving a large human population yielding good turnover

116) Name the place where the power looms were first used? [2]

- a) USA b) Australia
c) Germany d) England

117) The digital mode of communication shown in figure is a



[2]

- a) Pager b) Mobile
c) Telegraph d) Fax

118) Ponies and mules are used in _____ an area to carry people and loads. [2]

- a) Deserts b) Hilly
c) Plain d) Snow

119) Which one is a correct statement with regard to Saudi Arabia? [2]

- a) They cannot build a temple, church, etc
b) They can live in their own way
c) They can work in their own way
d) Non - Muslims can gather in a public place for prayer

120) What is Apartheid? [2]

- a) Separation on the basis of religion
b) Separation on the basis of prejudice
c) Separation on the basis of caste
d) Separation on the basis of race

121) Which of the following is not a part of Panchayati Raj system? [2]

- a) Gram Panchayat b) Panchayat Samiti
c) Zila Parishad d) Community Government

122) Which of the following is a step to promote social justice? [2]

- a) Manual scavenging b) Reservations
c) Untouchability d) Discrimination

123) Supreme Court is presided over by the: [2]

- a) High Justice of India
b) Vice Justice of India
c) District Justice of India
d) Chief Justice of India

124) The amount that is left or gained from earnings after deducting all the costs is called ____ [2]

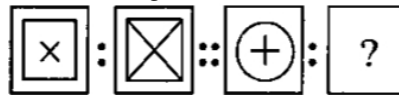
- a) Expenditure b) Profit
c) Revenue d) Income

125) Budh bazaar and Shani bazaar are the example of [2]

- a) International market
b) Weekly market
c) Shops in neighbourhood
d) Shopping complex

- 126) Identify the second pair in the same way as the first pair.
 $5 : 126 :: ?$ [2]
 a) $8 : 127$ b) $3 : 28$
 c) $2 : 10$ d) $6 : 218$
- 127) If the letters in the word **UNDERTAKING** are rearranged in the alphabetical order, which one will be exactly in the middle after the rearrangement? [2]
 a) I b) K
 c) N d) G
- 128) Which of the following is the ninth to the right of the twentieth element from the right end in the given arrangement?
 M % T A P 4 □ ED1 7NIJ5\$3FH8UB6@WL2©KQ# [2]
 a) T b) U
 c) 8 d) N
- 129) If the digits of the following numbers are reversed and then the numbers are arranged in descending order, then what will be the sum of the digits of the second number?
 354, 569, 672, 884, 948 [2]
 a) 25 b) 11
 c) 20 d) 21
- 130) What would be the next number in the sequence 52, 56, 48, 64, 32, ? [2]
 a) 96 b) 81
 c) 48 d) 54
- 131) Odd one out:
 i. May
 ii. April
 iii. Saturday
 iv. March
 [2]
 a) Option (b) b) Option (c)
 c) Option (d) d) Option (a)
- 132) Choose the word which is different from the rest.
 Tomato, Carrot, Radish, Brinjal [2]
 a) Carrot b) Tomato
 c) Brinjal d) Radish
- 133) Choose the word which is different from the rest.
 Gloves, Turban, Hat, Cap [2]
 a) Hat b) Turban
 c) Cap d) Gloves
- 134) If Mar 18th, 1994 falls on Friday then Feb 25th, 1995 falls on which day? [2]
 a) Monday b) Saturday
 c) Wednesday d) Sunday
- 135) If $A \times B$ means A is to the south of B; $A + B$ means A is to the north of B; $A \% B$ means A is to the east of B; $A - B$ means A is to the west of B; then in $P \% Q + R - S$, S is in which direction with respect to Q? [2]
 a) South - West b) North - East
 c) North - West d) South - East
- 136) A child went 90 m in the East to look for his father, then he turned right and went 20 m. After this he turned right and after going 30 m he reached to his uncle's house. His father was not there. From there he went 100 m to his north and met his father. How far did he meet his father from the starting point? [2]
 a) 80 m b) 100 m
 c) 140 m d) 260 m

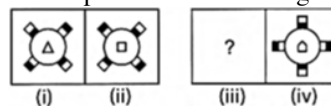
- 137) In a certain code language **yellow** is called red, **white** is called **green**, **red** is called **orange**. **Blue** is called **white** and **green** is called **blue**. What will be the colour of leaf of a tree in that language? [2]
 a) Yellow b) Blue
 c) Red d) White
- 138) In a code language, **mok dan sil** means **nice big house**, **fik kon dan** means **house is good** and **warm tir fik** means **cost is high**. Which word stands for good in that language? [2]
 a) Mok b) Sil
 c) Kon d) Fik
- 139) In a certain code language, **HOLIDAY** is written as **ACFKNQJ**, then how will **STUDENT** be written in the same code language? [2]
 a) VPGUVWF b) UVWFGPV
 c) VPGFWVU d) URWBGLV
- 140) Select the figure that shows the similar relationship.



[2]

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

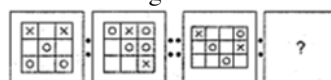
- 141) There is a certain relationship between figures (i) and (ii). Establish a similar relationship between figures (iii) and (iv) by selecting a suitable figure from the options which will replace the '?' in figure (iii).



[2]

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

- 142) Select the figure that shows a similar relationship.



[2]

- a)

