ALL INDIA SAINIK SCHOOLS ENTRANCE EXAMINATION: 2015

MATHS, ENGLISH, GENERAL SCIENCE, SOCIAL STUDIES AND INTELLIGENCE (CLASS IX)

Time: 3 Hrs.   **Max. Marks: 400**

Name of Full……………………………………………………………

Roll No. ……………………

_____

INSTRUCTIONS

1. This question paper contains FIVE sections and you have to answer all questions in the OMR answer sheet. 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 with 2 marks per question.

2. There is only one correct answer for each question. Darken only one bubble for each question. If you darken more than one bubble, your answer will be treated as wrong.

3. Evaluation of OMR answer sheet will be done on a computer. Ensure no unnecessary markings are made on the OMR answer sheet. Do not fold or attempt to deface the OMR answer sheet. OMR sheets with multiple folds or defaced OMR sheet will not be evaluated.

4. Rough work must be done on the additional two sheets only and NOT on the OMR answer sheet.

5. Write your answer in Blue/Black ink only. Do not use pencil.

6. There are total 28 pages in the question paper including two pages for the rough work.

PART-A:MATHEMATICS

DIRECTIONS(Q1 TO 20):2 MARKS EACH

1. FIND TWO RATIONAL NUMBERS BETWEEN ¼ AND 3/8 AND REPRESENT THEM IN NUMBER LINE

2. SIMLIFY :

3. FIFTEEN YEARS FROM NOW MOHAN,S AGE WILL BE FOUR TIMES HIS PRESENT AGE.WHAT IS MOHAN,S AGE AFTER FIVE YEARS FROM NOW.

4. FIND the Least number of three digits which is greater than 100 and a perfect square .

5. FIND THE VALUE OF

6. RESOLVE INTO FACTORS :17-32y-4y^2

7. Find the cube root of 91125.

8. There are certain number of rows of tress in a garden.the number of trees in each row is twice the number of rows. If the number of trees in the garden is 1250,then the number of rows in the garden is…………..

9. The marked price of the is 1200. Find the discount percentage allowed on the item if it is sold for 1050

10. A man borrowed rupees 16000 at 10%per annum interest compounded half yearly.find the amount repayable after one year

11. The four angles of quadrilateral are in the ratio 1:2:3:4 . find the measures of the angles

12. What must be added to $4x^2-12x+7$ to make it a whole square.

13. $(129^{8)9}$ is equal to   (a) 129^{17} (b)129^2
    (c) 129^{72} (d)129^0

14. The mean of the first ten natural number is:
    (a) 5.10   (b)5.5 (c) 5 (d) 6.2

15. Divide sum of rupees 10 between two person A and B such that A gets re 1 more than B.

16. The sum of two numbers is 45 and their ratio is 7:8 .find the numbers.

17. If 56 men can do a piece of work in 42 days, how many men will do it in 14 days ?

18. In the above figure ,ABCD is a parallelogram,find all the parallelogram .if measures of angle DCX =130^0.

19. A man loses 20% of his money .After spending 25%of the remainder,he has RS 480.00 LEFT . how much money did he orignally have ?

20. By selling a towel for RS 126.90 a shopkeeper loses 6% .for how much should he sell the towel to gain 4%.

DIRECTIONS: (Qs 21 to 40 carries 3 marks each)

21. THE digits of a two digit number are such that one is twice the other .when the digits are interchanged , the new number obtained is greater than the original number by 27 . find the number .

22. Solve :

23. Evaluate :

24. If a^2+<u>1</u> =27, then find the value of a -<u>1</u>.

25. A well is dug 20 m deep and has a diameter 7 m . The earth which is so dug out is spread even on rectangular plot 22m long and 14m

broad . What is the height of the platform formed?

26.   Find the area in Sq of a rhombus whose side is 17 cm and one of its diagional is 30 cm .

27.   The marks obtained by 40 students in mathematics are given below :
69,59,49,39,84,68,77,48,47,57,46,41,44,67,57,45,34,36,87,89,65,41,84,78,52,49,75,37,38,42,73,31, 34,37,56,59,64,85,81,and 62   .
based on the above data ,the frequency of the class 60-70 is …………

28.   An aricle with the marked price of RS 600 is available at a discount of 18% find the discount given and also the price at which the article is available for sale .

29.   If $5^{3x+4}=25 \times 5^{4x}-1$. find the value of x.

30.   Walking at 4 km an hour ,a person reaches his office 5min late . if he walks at 5 km an hour , he will be 4 min too early . then the distance of the office from his residence is …………

31.   The internal measures of a cuboidal room 12m X 8m X 4 m .find the total cost of white

washing all four walls of the room,if the cost of white washing of is RS 5 per square meter .what will be cost of white washing ceiling of the room is also white washed ?

32.   What least number must be subtracted from 2200 so as to get a perfect square ?

33.   A garrison of 2000 men has a provision for 15 weeks .how many men must leave so that the same provision may last for 20 weeks ?

34.   Multiply $(a^2+b^2+c^2-ab-bc-ca)$ by $(a+b+c)$.

35.   Construct a   histrogram for frequency   distribution below:

Class interval	Frequency
20-30	5
30-40	8
40-50	3
50-60	6
60-70	7

36.   Solve

37.   Pipe A can fill a

Tank in 14 minutes ,pipe B can fill it in 7 minutes and pipe C can empty the full tank in 28 minutes . if all of them are opened simultaneously , find the time taken to fill the empty tank.

38. Four pipes 5 cm each in diameter are to be replaced by a single pipe discharging the same quanity of water.if the speed of water remains same in both the case,find the diameter of the single pipe .

39. Reduce the following expressions into the lowest term

40. Simlify :

41. A village ,having a population of 4000 requires 150 liters of water per head per day .it has a tank which is 20 meter long .15 meter broad and 6 meter high .for how many days will the water of this tank last ? given $1m^3$ =1000liters.

42. The sum of ages of a father and his son is 50 years . 5 years ago fathers age

was 7 times the son's age . find their present ages .

43. (a)Solve the liner equation:

x-0.3+0.05x=2-1-4x

(b) the sum of the digits of a certain two digits number is 7.reversing its digits increases the number by 9.what is the number?

44. Construct a trapezium ABCD in which AB and DC are parllel ,AB=6 cm , DC =3.5cm angle A =55^0 ,AD 3.5cm.

45. Parikshit made a cubiod of plasticine having dimension 2cm ,5 cm ,5cm .what is the minimum number of such cuboid is reqiured to make a cube ?

46. A horse is tethered in a corner of a rectangular plot 40m by 36m with A

rope 14m long .find the area over which it can graze ?

47.   The pie chart below shows how MR .davis DISTRIBUTES HIS MONTHLY income into different household expenses .see the pie chart to answer the following question

48.   A man bought A tv and washing machine for RS 8000 each. He then sold the tv a loss of 4% and washing machine at a profit of RS 8% .find the overall gain or loss percent in whole transaction

49.   Factorise the following :
(a)m^2+n-mn-m   (b)x^4+12x^2+64

50.   (a) solve   :
($4x^2$+$7x^3$ y^2)-($6x^2$-$7x^3$ y^2-4x)-(10x+9x^2)
(b) using the indentity :
(x+a)(x+b)=x^2+(a+b)x+ab

Solve: 107X108

PART B : SCIENCE

NOTE :PART B CONTAINS 37 QUESTIONS ,BEARING 75 MARKS .QUESTION NO 1 TO 15 ARE MULTIPLE CHOICE QUESTIONS CARYING 1 MARK EACH ,QUESTION NO 16 TO 25 CARRY 2 MARKS EACH ,QUESTION NO 26 TO 35 CARRY 3 MARKS EACH ,QUESTION NO .36 AND 37 CARRY 5 MARKS EACH .

FILL IN THE BLANKS

1. BLUE GREEN ALGAE FIX ………….DIRECTLY FROM AIR TO ENHANCE FERTILITY OF SOIL
2. SPECIES FOUND ONLY IN PARTICULAR AREA IS KNOWN AS …….
3. Synthetic fibres are synthesized from raw material called ……….
4. Phosphorus is very ……….non metal
5. Process of seperation of different constitute from petroleum is called……
   select   the   correct   answer

6. The most common carrier of communicable diseases is
   (a) ant   (b) HOUSEFLY (C) DRAGONFLY (C) SPIDER

7. WHICH OF THE FOLLOWING CAN BE BEATEN INTO THIN SHEETS :
   (A)zinc (b)Phosphorous (c) sulphur (d) oxygen

8. Unwanted sound is called as :
   (a)music   (b)PITCH   (c)NOISE   (d) SHRILL

9. THE PROCESS OF DEPOSITING A LAYER OF ANY DESIRED METAL ON ANOTHER MATERIAL BY MEANS OF ELECRICITY IS CALLED
   (a)MIXING   (b)ELECTROLYTING   (c)ELECTRODING
   (d)electroplating

10. Which of the following is NOT a planet of the sun
    (a)SIRIUS   (b)MERCURY   (c)SATURN   (d)earth
    mark (T) IF THE STATEMENT IS true and (f) if it is false .

11. Generally,non metals react with acids.   ( )

12. Coke is the most pure form of carbon   ( )

13. Kerosene is not a fossil fuel .   ( )

14. Unicellular organisms have one celled body.   ( )

15. An embryo is made up **a single cell .**   **( )**
    write answers within the space provided under the questions .

16. Does pure water conduct elecricity?if not what can we do to make it conductive.

17. Explain why sliding friction is less than static friction ,

18. A pendulum oscillates 40 times in 4 seconds ,find its time period and frequency.

19. Define (a) force of gravity   (B) pressure

20. Define adolescence .

21. Give two difference between zygote and foetus.

22. Nylon is used for making parachutes ,car seat belts and ropes for rock cimbing.why?

23. List condition under which combusting can take place

24. List two advantages of of using CNG and LPG as fuels.

25. What is malleability ?GIVE TWO examples of malleable metals.
    Write ANSWERS WITHIN THE SPACE PROVIDED UNDER EACH QUESTIONS:

26. WHAT IS MARBLE CANCER?WRITE THE AIR POLLUTANTS THAT ARE AFFECTING THE BEAUTY OF TAJMAHAL.

27. Why is the distance between stars in expressed in light years ?what do you understand by the statement that a star is eight light years away from earth

28. Explain why plastic containers are favoured for storing food?

29. What are the major groups of micro organisms?

30. What is a consellation ?name any two consellation .

31. Exlain the reason why water is not used to control fires involving electrical equipment ?

32. Why sodium and potassium are stored in kerosene ?

33. Why are children/INFANTS given vaccination ?

34. Briefly explain types of cobustion

35. Draw labeled diagram of plant cell and animal cell.

36. **Write short notes on (a)**cytoplasm   (b)necLEUS OF A CELL

37. BRIEFLY ANSWER THE following questions .

A   why porters place a round piece of cloth on their head when they have to carry a heavy load ?
B   an inflated ballon was pressed against a wall after it had been rubbed with a piece of synthetic cloth. It was found that,the ballon sticks to the walls.what force might be responsible for attraction between the vallon and the wall?

PAPER -II

PART-A: ENGLISH LANGUAGE

1. READ THHE FOLLOWING PASSAGE AND ANSWER THE QUESTIONS THAT FOLLOWS   (3X5=15)

THE BEAUTIES OF NATURE ARE THE GREATEST GIFTS OF GOD TO MAN .HOW UNLUKY ARE THEY WHO CANNOT ENJOY AND APPRECIATE NATURE .Nature is all around us in varied aspects and shapes .we have the green charming hills, snow capped mountains, and the rising and setting sun in its varied and unforgettable glory .the dew drops on the blades of grass look like iridescent pearls. The silvery moon and the twinkling stars bedeck the sky. The roaring waves in the vast ocean and the lakes which look like sheets of water add to the glorious tresure . Even the violent aspects of nature like thundering clouds with dazzling flashes fighting, the torrential rain, and the all-powerful storm are some of the aspects of nature which Tennyson termed as nature" red in tooth and claw ". But they have their own charms which captivate man and even inspire in his heart .

One can enjoy the beauties of nature in an abundant measure at a hill station. The floating clouds, the dancing springs, the winding rivulets , the all pervading multicolour flowers , emitting sweet , soothing smell, the trees standing like sentinels with birds singing sweet harmonious songs in their branches . the cool breeze, the humming bees , the delicious fruits-all cater to human senses, beauty lies in the

eyes of beholder on the earth, in the air , in the sky and in the ocean. His heart leaps up when he beholds a rainbow in the sky.

Nature teaches man the lesson of peace, innocence, purity, love, harmony, simplicity, hope and faith in the glory of God. Wordsworth believes that nature is the greatest store-house of wisdom, apart from being a source of eternal happiness:

(a) What is termed by Tennyson as "red in tooth and claw"?

(b)   What are the captivating beauties of hills?

(c) What lessons do nature teach humans?

(d)   Write synonyms for the following words which means in the above passage:

   i.   Dazzling ………….
   ii. Capped …………..
   iii. Soothing ………..

(e) Pick out words opposite to following words from the passage :

   i.   Calm ………
   ii. Faded ……….
   iii. Limited ………….

2. WRITE A PARA IN ABOUT 100 WORDS ON ONE OF THE FOLLOWING GIVEN TOPICS :

(a) hazards of polythene   (b) role of media

3. write a letter to collector inviting him for the children's day function at your school. (limit your answer to 150 words)

4.fill in the blanks. With suitable articles/prepositions in the brackets (2x5=10)

   a) Who has kept ……. Eggs in fruit basket. (a/an/the)
   b) We have turned …….better ways of living. (towards/about/back)
   c) It was I who fixed …….. your train journey. (at/up/in/under)
   d) In the busy road many were passing …….. (out /by /off/on)
   e) India food appeals ……… anybody's taste. (out/by/off/on)

5. change into passive voice: (2x5=10)

   a) Which team won the final match last year?
   b) We have sold all the tickets of the show.
   c) One should do one's duty.
   d) We do not accept ATM cards.
   e) We will sell all kinds of clothes here.
   f)

6. following sentences are INCORRECT. Find out the error and rewrite the following sentences correctly. (2X5=10)

   a) He gave me some advices.
   b) Will you tell me the reason of an earthquake?
   c) One should work hard if he wants to pass the exam.
   d) All but I were present in class.
   e) The flower pot in place in the centre.

7. write one word for the following groups of words.(1x5=5)

a) one who is all powerful

b) A study of body

c) An animal who preys on other animal

d) That through which light cannot pass

e) One who looks at the dark side of things

8 Frame a meaningful sentence by using each word.(2x5=10)

a) Ode, Owed

b) Ceiling, selling

c) Mist, missed

d) Chord, cord

e) Cite, sight

9.Change the following DIRECT SENTENCES INTO INDIRECT SENTENCES.(1x5=5)

a) Ruby said, "Raj, how is your knee today?"

b) Raman said, "let us decide on the place."

c) She said, " wow! how lovely the house is."

d) I said, "did you call at my home last night?"

e) He said, "please lend me your umbrella."

10 **look at the picture critically, think of a suitable theme and write a story .(in approx. 100 words)** **(10marks)**

PART-B : SOCIAL STUDIES

1. **STATE TRUE OR FALSE.** **(1X15=15)**

   a) JAMES Mill glorified India and its culture in his book "A HISTORY OF BRITISH INDIA"

   b) THE MARATHA power was crushed in the third Anglo-Maratha war.

   c) The mughal emperor appointed the company as the diwan of the provinces of Bengal in the year 1700 .

   d) The tribal chiefs lost their authority under the British rule.

   e) Birsa munda was convicted on the charges of rioting.

   f) After the revolt of 1857 the governor general of India was given the title of Admiral General.

   g) The Tata iron and steel company began to produce steel after the First world War.

   h) Raja ram Mohan founded the Aryasamaj in 1875

   i) The simon commission had two Indian representatives.

   j) The Jalianwalbagh Massacre occurred in Amritsar on Baishakhi day.

   k) All natural resources of energy are renewable

   l) Chile and Peru are leading products of copper.

   m) Bauxite is the ore of aluminum.

   n) Our constitute guarantees right of minorities against the majority.

   o) The total membership of the Loksabha is 500

2.FILL IN THE BLANKS. **(1X15=15)**

a) **THE** court language of mughals was …….

b) The coin of Rupia was first issued by ……

c) The first Europeans to come to INDIA were ……..

d) The title of Governor General changed to that of viceroy in the year ………

e) Delhi became the capital of India in……..

f) Type of party system that has evolved in India is …….

g) The first General election in India was held in …….

h) Panchayati raj was first introduced in the state …….

i) The last Moughal emperor was ………….

j) The third research center of India in Antarctica is ……

k) ……….. is the largest established high court in India.

l) ……….. is often refered as ' Manchester of India '.

m) THE President of the constitute assembly was …………

n) ……….. allowed the company to use the vast revenue resources of Bengal.

o) ………. Was the capital of British India before Delhi.

3. EXPAND THE ABBREVATIONS.   (1X10=10)

a) RTI

b) SAARC

c) ISRO

d) NDA

e) BARC

f) NATO

g) UNO

h) IPL

i) TISCO

4.MATCH THE FOLLOWING COLUMNS   (1X10=10)

a) Rocks and minerals	(1) Banglore
b) Tiger of Mysore	(2) productive use of land
c) Kunwar Singh	(3) a waterborne disease
d) Humus	(4) Bihar
e) William Jones	(5) a biotic resource
f) The arms act	(6) south Africa
g) Simon commission	(7) a linguist
h) Cholera	(8) 1878
i) Diamond mines	(9) 1927
j) Silicon valley	(10) Tipu Sultan

5. **Write down notes on any five of the following topic (limits 50words)**   (5X5=25)

   a) WOMEN EMPOWERMENT

   b) REVOLT OF 1857

   c) METHODS OF SOIL CONVERSION

   d) GREEN EARTH

   e) CULTURAL DIVERSITY

   f) CONVENTIONAL AND NON CONVENTIONAL SOURCES OF ENERGY

   g) PANCHAYATI RAJ

   h) BATTLE OF PLASSEY

YOUNG STAR DEFENCE ACADEMY, AMRITSAR
Contact For Admission: +918101313136 Sainik School,
Military School, RIMC

YOUNG STAR DEFENCE ACADEMY

**YOUNG STAR DEFENCE ACADEMY, AMRITSAR
Contact For Admission: +918101313136 Sainik School,
Military School, RIMC**