THE RADIANT ACADEMY
Igniting Young Minds

STAR (STUDENT TALENT ACADEMIC REWARD)

CLASS –VIII

SAMPLE PAPER

Time: 90 Min.   **Max. Marks: 90**

GENERAL INSTRUCTIONS

TEST PATTERN

Time	Total No. of Questions	Subject/Question Segregation	Type	Total Marks : 90	
				Correct	Negative
90 Minutes	1-90	Physics (1-10) Chemistry (11-20) Biology (21-30) Mathematics (31-55) Social Science (56-65) Mental Ability (66-80) English (81-90)	Objective Question	1 Mark	0.25 Mark

1. A student has to write his/her answers in the OMR sheet by darkening the appropriate bubble with the help Of Ball pen only as the correct answer(s) of the question attempted.

2. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.

3. Write your **Name** & **Roll No.** in the space provided in the bottom of this booklet.

4. Before answering the paper, fill up the required details in the blank space provided in the OMR sheet.

5. **In case of any dispute, the answer sheet available with the institute shall be final.**

6. **In case of tie the younger in age will get top rank**

NAME OF THE CANDIDATE : …………………………………………………………ROLL NO. : …………………………..…
I have read all the instructions   I have verified the identity, name and roll number
  and shall abide by them   of the candidate.

……………………………………….   …………………………………………
Signature of the Candidate   **Signature of the Invigilator**

DO NOT BREAK THE SEALS WITHOUT BEING INSTRUCTED TO DO SO BY THE INVIGILATOR

1. PHYSICS

This section contains 10 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

1. A ray of light is incident normally on a plane mirror. The glance angle of reflection will be
   (A) $0°$
   (B) $90°$
   (C) Will not be reflected
   (D) None of the above

2. Which of the following can produce a real image
   (A) Plane mirror
   (B) Convex mirror
   (C) Concave mirror
   (D) All the above

3. Rolling friction is smaller than?
   (A) Sliding friction
   (B) Static friction
   (C) Fluid friction
   (D) All of the above

4. If the sliding friction between two surfaces is found to be 8n, then the static friction between these two surfaces is most likely to be:
   (A) 5 N
   (B) 10 N
   (C) 4 N
   (D) 2 N

5. 500N/kg is equivalent to
   (A) 0.5 N/g
   (B) 5000 dyne/g
   (C) 50000 dyne/g
   (D) Both A & C

6. A force of 225 N, while acting on an area A, produces a pressure of 150 Pa. What is the magnitude of A in cm^2
   (A) 1.5
   (B) 1500
   (C) .15
   (D) 15000

7. Two forces of 50N & 100N are applied on an object of mass 500g in opposite direction. What is the acceleration of the object after 2 sec ?
   (A) 10 m/s^2
   (B) 100 m/s^2
   (C) 3 m/s^2
   (D) 300m/s^2

8. Which of the following represent correct values for the normal atmospheric pressure?
   (A) 101.3 kilopascals and 76 mm of mercury
   (B) 76 mm of mercury and 101.3 pascals
   (C) 101.3 kilopascals and 76 cm of mercury
   (D) 76 mm of mercury and 76 cm of mercury

9. Which star is nearest to Earth?
   (A) Pole star
   (B) Orion
   (C) Cassiopeia
   (D) Sun

10. Which small objects revolve between the orbits of Mars and Jupiter?
    (A) Satellites
    (B) Comets
    (C) Asteroids
    (D) Meteorites

2. CHEMISTRY

This section contains 10 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

11. Which of the following is known as artificial silk?
    (A) Nylon
    (B) Rayon
    (C) Polyester
    (D) Spandex

12. The fibre which is used as a substitute of wool is
    (A) Rayon
    (B) Nylon
    (C) Acrylic
    (D) Polyester

13. Non stick cokwares have the coating of
    (A) PET
    (B) Teflon
    (C) Acrylic
    (D) None

14. Uniform of fireman is coated with
    (A) Teflon
    (B) Rayon
    (C) PVC
    (D) Melamine

15. Metal, which is liquid at room temperature
(A) Bromine   (B) Mercury   (C) Both (A) and (B)   (D) None of these

16. Metal which is best conductor of heat is
(A) Silver   (B) Gold   (C) Copper   (D) Lead

17. The metal which is least reactive is
(A) Ag   (B) Au   (C) Cu   (D) Pt

18. Which of the following acid is used in lead storage batteries
(A) HNO_3 (B) HCl   (C) H_2SO_4 (D) H_3PO_4

19. Biogas is a mixture of
(A) Methane + CO_2 (B) Methane + CO   (C) Ethane + CO_2 (D) Ethane + CO

20. Purest form of carbon is
(A) Coal   (B) Charcoal   (C) Coke   (D) All of these

3. BIOLOGY

Straight Objective Type

This section contains 10 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

21. The micro-organism which always harm the living creature is
(A) Bacteria   (B) Virus   (C) Protozoa   (D) Algae

22. The connecting link between plant and animal cell is
(A) Mycoplasma   (B) Viruses   (C) Euglena   (D) Amoeba

23. The curdling of milk is induced by
(A) Algae   (B) Plasmodium   (C) Bacteria   (D) Fungi

24. Malaria is caused by -
(A) Bacteria   (B) Algae   (C) Protozoa   (D) Fungi

25. Fermentation is the major function of -
(A) Yeast   (B) Lichen   (C) Mushroom   (D) Plasmodium

26. Which of the following is cause of Polio ?
(A) Virus   (B) Algae   (C) Bacteria   (D) Protozoa

27. Van mahostava is celebrated in
(A) June   (B) July   (C) August   (D) September

28. Illegal hunting of animal is called
(A) Prevention   (B) Conservation   (C) Poaching   (D) none

29. In which state of India breeding of crocodile was done to increase their species
(A) Maharashtra   (B) Chennai   (C) Rajasthan   (D) Gujarat

30. The species likely to move into the endangerd category are called
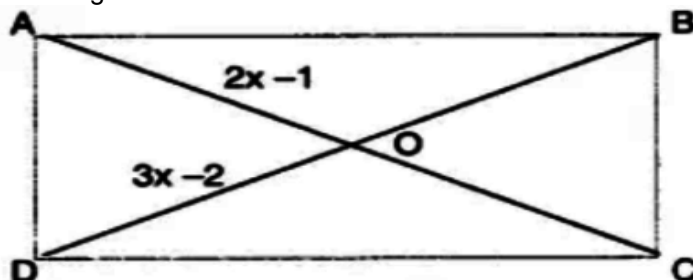(A) Extinct   (B) Rare   (C) Endangered   (D) Vulnerable

4. MATHEMATICS

Straight Objective Type

This section contains 25 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

31. What is the length of the rectangle whose breadth is 10 cm & perimeter 60 cm.
(A) 15 cm   (B) 16 cm   (C) 20 cm   (D) 25 cm

32. What should be added to $-3/5$ to get $-7/5$
(A) $4/5$ (B) 1   (C) $-4/5$ (D) 2

33. Two numbers are in the ratio 3:5. If their sum is 64, then the numbers are
(A) 24 & 40   (B) 15 & 24   (C) 10 & 24   (D) 20 & 24

34. The sum of the ages of three persons is 100 years. What will be the sum of their ages after 5 years.
(A) 100 yrs. (B) 115 yrs. (C) 300 yrs. (D) 30 yrs.

35. The sum of three consecutive multiples of 5 is 45. Which is the smallest of the three multiples.
(A) 10 (B) 15 (C) 20 (D) 25

36. If $z/(z + 15) = 4/9$, then the value of 'z' is
(A) 11 (B) 12 (C) 13 (D) 14

37. Sum of two numbers is 95. If one exceeds the other by 15, then the numbers are
(A) 25 & 40 (B) 50 & 65 (C) 30 & 45 (D) 40 & 55

38. Find the number which is not a perfect cube among the following
(A) 1331 (B) 216 (C) 243 (D) 512

39. What is the smallest number by which 2560 must be multiplied so that the product is a perfect cube?
(A) 5 (B) 25 (C) 10 (D) 15

40. Find the smallest number by which 8788 must be divided so that the quotient is a perfect cube.
(A) 4 (B) 12 (C) 16 (D) 32

41. What is the cube root of 1.331?
(A) 0.11 (B) 0.011 (C) 11 (D) 1.1

42. Find the value of $\sqrt[3]{343} \times \sqrt[3]{-64}$.
(A) 28 (B) –28 (C) 18 (D) –18

43. The length of each side of a cubical box is 2.4 m. What is its volume
(A) 13.824 cu m (B) 13.824 cu cm (C) 13.824 m^2 (D) 13.824 cm^2

44. The cube of a number is 8 times the cube of another number. If the sum of the cubes of numbers is 243, what is difference of the numbers?
(A) 3 (B) 4 (C) 6 (D) –6

45. The difference of the cube and the square of a natural number is 48. Find the number
(A) 6 (B) 4 (C) 9 (D) –6

46. The value of x for which the expression $3x – 4$ and $2x + 1$ become equal is
(A) –3 (B) 0 (C) 5 (D) 1

47. The solution of which of the following equations is neither a fraction nor an integer.
(A) $3x + 3 = 5x + 2$ (B) $4x – 18 = 2$ (C) $4x + 7 = x + 2$ (D) $5x – 8 = x + 4$

48. The solution of the equation $ax + b = 0$ is
(A) $x = \dfrac{a}{b}$ (B) $x = -b$ (C) $x = \dfrac{-b}{a}$ (D) $x = \dfrac{b}{a}$

49. If $8x – 3 = 25 + 17x$, then x is
(A) A fraction (B) An integer (C) A rational number (D) Cannot be solved

50. If $\dfrac{5x}{3} - 4 = \dfrac{2x}{5}$, then the numerical value of $2x – 7$ is
(A) $\dfrac{19}{13}$ (B) $-\dfrac{13}{19}$ (C) 0 (D) $\dfrac{13}{19}$

51. The perimeter of a parallelogram is 180 cm. If one side exceeds the other by 10 cm, what are the sides of the parallelogram?
(A) 40 cm, 50 cm (B) 45 cm each (C) 50 cm each (D) 45 cm, 50 cm

52. In a square ABCD, the diagonals bisect at O. What type of a triangle is AOB?
(A) An equilateral triangle
(B) An isosceles but not a right angled triangle
(C) A right angled but not an isosceles triangle
(D) An isosceles right angled triangle

53. In a parallelogram $\angle A : \angle B = 1 : 2$. The $\angle A =$
(A) 30º
(B) 60º
(C) 45º
(D) 90º

54. ABCD is rectangle. ITs diagonals meet at O.

OA = 2x –1, OD = 3x – 2. Find x
(A) 1
(B) 2
(C) 3
(D) –1

55. If M is a number such that M ÷ 5 gives a remainder of 1, then which of the following is the one's digit of M?
(A) 1
(B) 6
(C) 1 or 6
(D) none of these.

4. SOCIAL SCIENCE

Straight Objective Type

This section contains 10 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

56. Resources being used for production have :
(A) legal value
(B) economic value
(C) aesthetic value
(D) ethical value

57. Those resources which are found in a region, but have not been put to a proper use are called:
(A) actual resources
(B) biotic resources
(C) potential resources
(D) abiotic resources

58. Human made resources have gained importance because of :
(A) Growth in physical capital
(B) Technology
(C) Political institutions
(D) All the above

59. Which of the renewable resource takes a comparatively longer time to renew itself ?
(A) Wind
(B) Solar energy
(C) Both A & B
(D) Forests

60. Which is not a human made resource ?
(A) buildings
(B) tools
(C) machines
(D) mineral

61. On_____, Lord Mountbatten, the last British Governor - General of India announced the partition of British Indian Empire.
(A) 3rd June 1947
(B) 4th June 1948
(C) 5rd June 1949
(D) 6rd June 1947

62. What was important in the history written by British historians in India ?
(A) The role of Kings in making India a great country.
(B) How the British defeated the French and captured India.
(C) The rule of each Governor-General
(D) The rule of Indians who supported the British in establishing their rule over India.

63. Gandhi Irwin pact was signed in
(A) 1931
(B) 1905
(C) 1877
(D) 1600

64. The last British Governor General of India
(A) Lord curzon
(B) Lord Mountbatten
(C) Lord Dalhousie
(D) Lord Macualy

65. James Mill was a –
(A) An Indian economist
(B) An Italian economist
(C) A Scottish economist
(D) A Dutch economist

5. MENTAL ABILITY

Straight Objective Type

This section contains 15 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

66. Which letter is exactly in the middle of the 20th letter from the right and 11th letter from left in alphabet series?

(A) I   (B) J   (C) H   (D) O

67. If the second half of the following alphabets is arranged in the reverse order, which letter will be 10th letter to the right of the 10th letter counting from the left end?

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

(A) I   (B) F   (C) Vs   (D) T

68. Which one word can be formed from the letters of the word 'REVERENCE'?

(A) NEAR   (B) SEER   (C) PEER   (D) NEVER

69. How many sets of two letters have as many letters between them as in the alphabetical order in the word 'ARISTOCRAT"?

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

70. Which of the following words will come at second position if all the words are arranged alphabetically?

(A) Arrangement   (B) Arrest   (C) Arrears   (D) Arrival

71. If first half of the alphabets is written in the reverse order, which letter would be 3rd to the right of 10th letter from the left?

(A) F   (B) H   (C) B   (D) A

72. If the following words are arranged in the alphabetical order, which word will appear at the end?

(A) Olympic   (B) Olympia   (C) Oval   (D) Ovulet

73. If it is possible to form a word with 1st, 4th, 7th and 11th letters of the word 'SUPERFLUOUS', write the first letter of that word. Otherwise, X is the answer.

(A) S   (B) L   (C) O   (D) X

74. A meaningful word is made if we take 1st, 4th, 5th, 7th, 10th, 11th and 12th letters of the word 'FELICITATIONS' Which of the following will be the 5th letter of that word from the right end of the new word?

(A) T   (B) C   (C) N   (D) I

75. If the following words are arranged in the alphabetical order, which word will appear at second position.

(A) Principal   (B) Principle   (C) Principia   (D) Principled

76. In the following question, arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence.

1. Wrinkle   2. Wriggle   3. Writhe   4. Wretch   5. Wrath

(A) 4 , 5, 1, 2, 3   (B) 5, 4, 2, 1, 3   (C) 4, 2, 5, 1, 3   (D) 5, 2, 1, 3, 4

77. **HIGH** = **5645** and **DEEM** = **12210** how will you code **FEEL**?

(A) 2338   (B) 3449   (C) 3229   (D) 4337

78. How many pairs of letters are there in the word 'LANGUISH' which have as many letters between them in the word as in the alphabet ?

(A) Nil   (B) One   (C) Two   (D) None of these

79. In a certain code, **GIGANTIC** is written as **GIGTANCI**. How is **MIRACLES** written in that code ?

(A) MIRLCAES   (B) MIRLACSE   (C) RIMCALSE   (D) RIMLCAES

80. The following question is based on the following alphabet series.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Which letter is sixteenth to the right of the letter which is fourth to the left of I ?

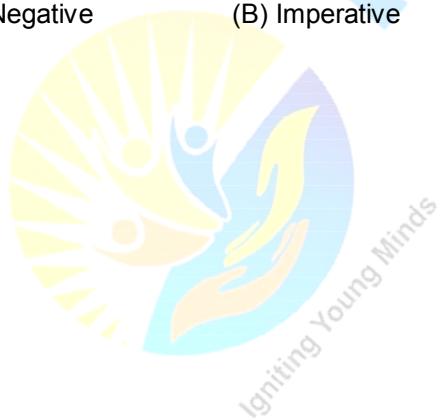(A) S   (B) T   (C) U   (D) V

7. ENGLISH

Straight Objective Type

This section contains 10 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

Fill in the blanks with the correct answer selecting from the given options.

81. The collective noun of 'thieves' is ………. .
(A) a gang of thieves   (B) a swarm of a team   (C) a swarm of a den   (D) a swarm of a spring

82. Lalita can ………. find the lost key.
(A) her   (B) his   (C) own   (D) herself

83. This dress is ………. than that.
(A) pretty   (B) prettier   (C) prettiest   (D) none

84. The burglar crept ………. .
(A) silent   (B) silence   (C) silently   (D) none

85. I ………. the letters yet.
(A) have not printed   (B) did not print   (C) shall not print   (D) do not print

86. Change into passive : Will you help me ?
(A) Can you be helped by me ?   (B) Shall I be helped by you ?
(C) Will you be helped by me ?   (D) Would I be helped be you ?

87. She ………. work long when she was young.
(A) might   (B) would   (C) should   (D) could

88. There was ………. water left for him to drink.
(A) little   (B) not many   (C) any   (D) a

89. Light comes ………. the sun.
(A) to   (B) in   (C) from   (D) off

90. Identify the Kind of given sentence. "Don't pluck flowers."
(A) Negative   (B) Imperative   (C) Interrogative   (D) Exclamatory

CLASS : VIII
SAMPLE PAPER

ANSWER KEY														
Ques.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Ans.	B	C	D	B	D	D	B	C	D	C	B	C	B	D	B
Ques.	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Ans.	A	D	C	A	D	B	C	C	C	B	A	B	C	B	D
Ques.	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**
Ans.	C	C	A	B	A	B	D	C	B	A	D	B	A	A	B
Ques.	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
Ans.	C	C	C	C	B	A	D	B	A	C	B	C	D	D	D
Ques.	**61**	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**
Ans.	B	C	A	B	C	A	D	D	C	C	D	D	B	B	C
Ques.	**76**	**77**	**78**	**79**	**80**	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
Ans.	B	C	D	B	C	A	D	B	C	A	B	D	A	C	B

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