# THE WINNING EDGE SAINIK SCHOOL – 6<sup>th</sup> MOCK PAPER 1 <u>SOLUTIONS</u> SECTION 'A' – MATHEMATICS ANSWERS

#### 1. B

- 2. C
- 3. A
- 4. A

## Solution:

The sum of first two numbers =  $35 \times 2 = 70$ The sum of last two numbers =  $40 \times 2 = 80$ The sum of 5 numbers =  $5 \times 40 = 200$ The third number = 200 - 80 - 70 = 50

- 5. A
- 6. A

## Solution:

 $D-500,\,LX-60$  and VII-7 567 500 + 60 + 7 = DLXVII

# 7. C

Solution:  $9 + 9 \div 9 - 9 + 9 \div 9 \times 9 + 9 - 9 - 9 \times 9$   $= 9 + 1 - 9 + 1 \times 9 + 9 - 9 - 9 \times 9$ = 9 + 1 - 9 + 9 + 9 - 9 - 81 = -71

8. B

# 9. D

# 10. A

#### Solution:

Let the cost price of each table be Rs. x. For one table,

he had a profit. So, SP - CP = Profit 2,680 - x = Profit For the other table, he had a loss. CP - SP = Loss x - 1,812 = Loss Now, given that profit = Loss, so 2,680 - x = x - 1,812 2x = 4492

X = 2246

# 11. B

# Solution:

The train leaves Delhi at 06:45 PM on Friday and reaches Pune at 09:30 AM on Saturday.

Time taken to reach Pune

= 12 hours (6:45 PM to 6:45 AM)+ 2 hours and 45 min (6:45 AM to 9:30 AM) = 14 hours and 45 min

## 12. A

# Solution:

Cost of 1 jar of peanut butter = Rs. 15 So, cost of 5 jars of peanut butter

=  $15 \times 5$  = Rs. 75 Cost of 1 broccoli

- = Rs. 60 So, cost of 8 broccoli
- =  $60 \times 8$  = Rs. 480 Total money paid = Rs. (75 +

480) = Rs. 555

# 13. D

#### Solution:

Sum of all the digits of 3414 = 3 + 4 + 1 + 4 = 12Also, it is an even number, so it is divisible by 2 as well as 3. As it is divisible by both 2 and 3,

so it is divisible by 6.

# 14. B

**Solution:** LCM of 6, 8 and 24 is 24. So, 24

=  $2 \times 2 \times 2 \times 3 = 2^3 \times 3$  So, it means that if we multiply the number by 6, it will make it a square number. Thus, required number =  $24 \times 6 = 144$ 

15. B

# 16. D

# Solution:

Here, in pair D, the two quadrilaterals have both the pairs of opposite sides parallel and each angle equal to  $90^{\circ}$ .

17. C

#### Solution:

Area of land = 576 m 2 Size of tile =  $20 \times 20 = 400$  cm or 4 m Total tiles needed =  $576 \div 4 = 144$  tiles

# 18. D

**Solution:** Area of the shaded region = Area of rectangle ABCD - Area of rectangle EFGH Area of the shaded region

 $=((10 * 8)-(1 5) cm = (80-5) cm = 75 cm^{2})$ 

#### 19. C Solution:

Total number of pages = 408 Number of pages read on Thursday =  $2/3 \times 408$ 

= 272 Remaining pages = 408 - 272

= 136 Number of pages read on Friday

 $= \frac{1}{4} \times 136 = 34$  remaining pages he will read on Saturday

$$= 136 - 34 = 102$$

#### 20. A

#### Solution:

To round off to the nearest 1000, we will look at hundreds place and since there is 1 at hundreds

place, so we are going to round off to nearest thousand. i.e. 95,104 would round off to 95,000.

#### 21. B

# 22. D

# Solution:

Distance = 400 km Time = 5 hours Speed = 400/5 = 80 km/hr

23. A

#### Solution:

In order to convert the speed in km/h to m/sec, we need to multiply the given speed by 18/5. So, required speed =  $12.5 \times 18/5 = 45$  km/hr

#### 24. A

#### 25. A

26. B

#### Solution:

The number we get after changing places of 3 and 8 is 82,736. Now, 32,786 + 82,736 = 1,15,522

27. C

0681 < 51860 51860 < 56018 56018< 58601 58601 < 58610 50681, 51860, 56018, 58601, 58610 is the ascending order for the given numbers.

#### 28. A

Solve: The fraction as 2 + 0.25 + 0.25 + 0.875 = 3.375

#### 29. B

#### Solution:

We know the sum of first four numbers. Let the fifth number be x. Sum of 4 numbers

= 125 Average of five numbers = 45 Sum of five numbers

 $= 45 \times 5 = 225$  Fifth number + Sum of four numbers = Sum of five numbers 125 + x = 225

x = 100

#### 30. C

# 31. C

Solution:

Cost price for Nitin = 800 + 70 + 40 = Rs. 910 Selling price for Nitin = Rs. 700 Loss = 910 - 700 = Rs. 210

Loss % =  $(210/910) \times 100 = 23.07\% \approx 23\%$ 

## 32. B

#### Solution:

Cost of 18 chocolates = Rs. 900 Cost of 1 chocolate = 900/180 = Rs. 50 Cost of 17 coloured pens = Rs.391 Cost of 1 coloured pen = 391/17 = Rs. 23 Costof 2 chocolates =  $50 \times 2 = Rs. 100 Cost of 5$  coloured pens =  $23 \times 5$  = Rs. 115 Total amount = 100 + 115 = Rs. 215

Two numbers: 1128 and 1692 LCM of the two

# 33. A Solution:

numbers = 6768 Let the HCF of the numbers be x. Product of the numbers = HCF × LCM 1128 × 1692 = HCF × 6768 = HCF =  $(1128 \times 1692) / 6768 = 282$ 34. D 35. B Solution: Supplementary angles have the sum 180°. So, let one of the supplementary angles be 'x'. Then, x + 55° = 180° x = 125°

## 36. D

#### Solution:

Side of the park = 75 m Perimeter of the park =  $4 \times 75 = 300$  m Number of rounds = 7 Total distance =  $7 \times 300 = 2100$  m

#### 37. B 38. B

зо. д 39. А

### Solution:

Length of fence required = Perimeter of the square park =  $4 \times \text{side}$ ,  $\therefore 4 \times 480 = 1920 \text{ m}$ Cost for fencing 1 m of square park = Rs. 20 Cost for fencing 1920 m of square park =  $1920 \times 20$ = Rs. 38,400/.

#### 40. D Solution:

Area of square marble =  $24 \times 24 = 576$  cm Area of floor (in cm) =  $280 \times 360 = 100800$  cm Number of marbles = 100800/576 = 175

#### 41. B

**Solution:** Total cans = 15 Cost of 15 cans = Rs. 480 Cost of 1 can = Rs. 480/15 Cost of 5 cans = Rs. (480/15) × 5 = Rs. 160/.

#### 42. A 43. D

# Solution:

Length of rectangular ground = 80 m Breadth of rectangular ground = 60 m Perimeter = 2(1 + b),  $\therefore$ Perimeter = 2(80 + 60) = 280 m Thrice = 3 times =  $280 \times 3 = 840$  m  $\therefore 840$  m = 0.840 km

#### 44. C

**Solution:** 3 + 0.2 + 0.16 - 0.2 = 3.16

45. A

#### Solution:

Average of 7 numbers = 60Total sum of 7 numbers =  $60 \times 7 = 420$ Sum of first 6 numbers is given as 330. Then, seventh number = Total sum of 7 numbers – Sum of first 6 numbers = 420 - 330 = 90

## 46. A

Solution: 85% of 120 = 102 Capacity of the tank = 102 litres Quantity of water consumed = 120 litres Therefore, the deficit is of 120 - 102 = 18 litres.

- 47. D
- 48. D

# 49. A Solution:

Volume of the cube =  $6 \times 6 \times 6 = 216$  m =  $216 \times 10,00,000$  cm Volume of the cuboidal box =  $150 \times 20 \times 10 = 30,000$ Number of cuboidal boxes required = 216000000/30000 = 7200

#### 50. B

#### Solution:

The largest 5 digit number using the given digits will be 98762.

# <u>SECTION 'B' – GENERAL KNOWLEDGE</u>

#### 51. A

The 3-year partnership between the Ministry of Education, Ministry of Skill Development & Entrepreneurship and META was signed in New Delhi in the presence of Dharmendra Pradhan, Union Minister for Education &Skill Development and Entrepreneurship. It aims to empower a generation of students, teachers and entrepreneurs. Under this, 3 agreements were signed between META and NIESBUD, AICTE and CBSE.

#### 52. A

The General Body of the International Esports Federation (IESF) has elected LokeshSuji, Director of the Esports Federation of India (ESFI) &Vice President of the Asian Esports Federation (AESF), to its Membership Committee for a three-year term. The International Esports Federation was established in 2008, its purpose is to promote esports.

53. C

**Masahat** was the term used for measurement of land in the Delhi Sultanate period. Rulers like Alauddin Khalji and Mohammad bin Tughlaq utilized this to create a system of assessment of land revenue by measurement in order to maximize & streamline revenues of the Empire.

#### 54. A

The Chola dynasty was one of the longest-ruling dynasties in the history of southern India. The founder of the imperial Cholas was **Vijayalaya**, who earlier was a feudatory of the Pallava dynasty. He ruled over the region to the north of the river Kaveri. Uraiyur was the oldest capital of Imperial Cholas.

Nawabs lost thecontrol over their territory from 1757 after losing in the Battle of Plassey. Britishers were indirectly controlling their territory. **Warren Hastings**, who was the governor general of the Presidency of Fort William, referred the Nawab of Bengal as 'A Phantom, a man of straw' as they were not independent. The last independent Nawab of Bengal was Sirajudaulah.

56. C

A Hyderabad-based robotics firm (Graene Robotics) has unveiled a state-of-the-art AI-powered antidrone system named Indrajaal. This system can not only protect important installations like nuclear installations, oil fields, but can also protect entire cities from any type of drone. Indrajal is designed to defend against all types of drones in an area of 4,000 square kilometers.

57. A

Rudradeva suffered defeat at the hands of Samudragupta. After the death of Hameer Dev, Rudra Dev became the king. He was a brave person. He established peace in his state. He was married to the daughter of neighbouring state and got that state in dowry. He declared Rudri as his capital of the state. He got the temple of lord Shiva constructed on the bank of Mahanadi. This temple is famous by the name of Rudreshwar.

58. **B** 

Rudradev suffered defeat at the hands of samudragupta.

59. B

Jammu and Kashmir Governor Manoj Sinha inaugurated the community radio, the first of its kind

55. A

in the Union Territory, on the 54th Foundation Day of Jammu University. It may be noted that the University of Jammu has been declared as the nodal university by the UGC for the implementation of the National Education Policy (NEP) 2020 in the UT.

60. B

He obtained cannons and ammunitions from the **Portuguese.** 

61. A

In Dec. 1906 "All India Muslim League" was set up under the leadership of Aga Khan, Nawab Salimullah Khan of Dacca and Nawab Mohsin-ul Mulk at Dacca. The League supported the Partition of Bengal and opposed the Swadeshi Movement and demanded the special safeguards for its community and separate electorate of Muslims.

#### 62. D

Gabon's military leader Brice OliguiNguema has been sworn in as the country's interim president. Recently, military officers led by General Nguema of Gabon seized power by ousting Gabon's President Ali Bongo. Gabon is a Central African country located along the Atlantic coast. Its capital is 'Libreville'.

63. B

The **first registered Trade Union of India** was **Madras Labour Union** which was founded in 1918 by B.P. Wadia along with V. Kalyanasundaram Mudaliar.

64. B

To accelerate the development of renewable energy in India, Indian Renewable Energy Development Agency Limited (IREDA) has signed MoU with Union Bank of India and Bank of Baroda. Indian Renewable Energy Development Agency Limited was established in the year 1987 as a Mini Ratna Company under the Government of India.

65. A

The Soanian is an archaeological culture of the Lower Paleolithic in the Siwalik Hills of the Indian subcontinent. Contemporary to the Acheulean, it is named after the Soan Valley in Pakistan. Soanian sites are found along the Sivalik region in presentday India, Nepal and Pakistan. The Paleolithic Period is an ancient cultural stage of human technological development, characterized by the creation and use of rudimentary chipped stone tools. ... Such tools were also made of bone and wood.

66. B

India's star javelin thrower Neeraj Chopra has qualified for the Diamond League final. The final of this league will be held next month in Eugene, USA on 16 and 17 September. Neeraj Chopra finished second in the Zurich Diamond League Championship 2023 with a best throw of 85.71m. Jakub Wadlech of the Czech Republic secured the first position with 85.86m. At the same time, Germany's Julian Weber finished third with a throw of 85.04 metres. Neeraj Chopra's best throw is 89.94 metres, which is a national record.

67. B

Nicolo de Conti was a Venetian merchant who traveled in the east from 1414 until 1438. He visited the Vijaynagar Kingdom during the time of **Dev Raya II** and left an account in the Travels of Nicolo Conti. Deva Raya I was the son of Harihara. he succeeded the throne of Vijayanagar empire in 1404.

68. A69. C

Abul Hasan described jahnagir's interaction with people.

70. D

**Padmavat** (or Padmawat) is an epic poem written in 1540 by Sufi poet Malik Muhammad Jayasi. It was written in the Hindustani language of Awadhi. Malik Mohammed Jayasi was an Indian Sufi poet/ pir.The name Jayasi comes from 'Jayas' which was an important town in Sharqi sultanate of **Jaunpur**.

71. C

The French East India Company was a colonial commercial enterprise, founded on 1 September 1664 to compete with English (later British) & Dutch trading companies in the East Indies. The Indian trading ports, including **Pondichéry** & **Chandernagore**, remained under French control until 1954.

72. B

The Central Government has appointed Jaya Verma Sinha as the first woman Chairman and CEO of the Railway Board, after Anil Kumar Lahoti at this position. Railway Board is the apex decision making body in Railways. Jaya Verma Sinha has been an alumnus of Allahabad University. Jaya joined the Indian Railway Traffic Service (IRTS) in 1988. Jaya Verma Sinha has also worked as Chief Commercial Manager in South Eastern Railway.

73. A

Black hole tragedy took place during the tenure of Robert Clive

74. A

Treaty of Poona was signed between Britishers & Peshwa.

75. A

Subsidaryalliane was framed by Lord Wellesly.

# **SECTION 'C' - ENGLISH LANGUAGE**

- 76. c) it is a part of human instinct.
- 77. b) not tempered with reason
- 78. c) negative
- 79. d) on
- 80. c) an
- 81. b) The children were fascinated by the animals.
- 82. c) **'knead'** is to press a mixture of flour and water in order to make dough.
- 83. a) A powerful device exploded outside the station.
- 84. a) A flock of birds.
- 85. c) something
- 86. b) Will you?
- 87. a) Declarative as the sentence gives information & ends in a full stop
- 88. b) are standing

- 89. a) moustache is the correctly spelt word.
- 90. b) hates
- 91. b) pardonable
- 92. b) reserved
- 93. c) opaque
- 94. d) cite
- 95. a) cakes and pastries96. c) the correct proverb/idiom is: *'eat like a horse'* which means to eat a lot.
- 97. b) goes
- 98. b) gently
- 99. c) plural of root is roots
- 100. b) as

# **SECTION 'D' – INTELLIGENCE**

101. A	<b>106.</b> A	111. B	<b>116.</b> D	<b>121.</b> D
<b>102.</b> B	<b>107.</b> C	<b>112.</b> D	117. A	<b>122.</b> B
103. C	<b>108.</b> B	113. C	<b>118.</b> D	123. C
<b>104.</b> B	<b>109.</b> A	114. D	119. D	124. A
105. D	<b>110.</b> A	<b>115.</b> D	<b>120.</b> B	125. В