## AOS

### **ASIAN OLYMPIAD SOCIETY**

## **AMO**

# ASIAN MATHEMATICS OLYMPIAD 2020-2021

**CLASS** 

8

#### INSTRUCTIONS AND INFORMATION FOR THE CANDIDATE

#### GENERAL

- 1. Do not open the booklet until told to do so by your teacher.
- 2. No calculators maths stencils, mobile phones or other calculating devices are permitted. Scribbling paper, graph paper, ruler and compasses are permitted, but are not essential.
- 3. Read the instructions on the answer sheet carefully. Ensure your name, school name and class are entered. It is your responsibility to correctly code your answer sheet.

#### THE ANSWER SHEET

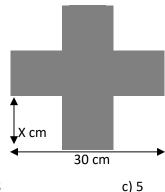
- 1. Use an HB pencil or a Blue/Black ball point pen only to record your choice of answer in the Answer sheet.
- 2. Your answer sheet will be scanned. The optical scanner will attempt to read all markings even if they are in the wrong places, so please be careful not to write anything extra on the answer sheet.
- 3. If you want to change an answer or remove any marks, use a plastic eraser and be sure to remove all marks and smudges.
- 4. Fill your enrollment number clearly, improper enrollment number may lead to unavailability of result.
- 5. Please fill your Mobile Number clearly on the Answer Sheet, we will share your marks / result and other information related to AOS exams on your mobile number.
- 6. All questions are compulsory and there is no negative marking.
- 7. Return the ANSWER SHEET to the invigilator at the end of the exam.

#### INTEGRITY OF THE COMPETITION

The AOS reserves the right to re-examine students before deciding whether to grant official status to their score.

ENROLLMENT NUMBER :	CLASS :				
STUDENT NAME :	Contact No :				

- 1. The sum of the ages of father and his son is 45 years. Five years ago, the product of their ages was 150. Find the present age of son.
  - a) 6 years
- b) 8 years
- c) 10 years
- d) 12 years
- 2. Seema is x years old. In twelve years she will be three times as old as she is now. How many years old is Seema now?
  - a) 3 years
- b) 4 years
- c) 6 years
- d) 24 years
- 3. Neha has a square piece of cardboard. She cuts out an identical square from each corner, she will then fold the remaining cardboard to make an open box. What value of X will make the box with the largest volume?



- a) 10
- b) 8

c) 5

- d) 4
- In an AP 10<sup>th</sup> term is 21. Find the sum of first 19 terms of that AP. 4.
  - a) 399
- b) can't be determined
- c) 482
- d) 441
- 5. A number is chosen from numbers 1 to 100. The chance that it is divisible by 4 or 6 is :
  - a) 0.57
- b) 0.43
- c) 0.37
- d) 0.33
- 6. The sum of the interior angles of a polygon is three times the sum of its exterior angles. Find the number of sides of the polygon?
  - a) 6

b) 7

c) 8

- d) 9
- 7. 910 blue pens and 1001 red pens are distributed to students of class X so that each student gets the same number of pens of each kind. What could be the maximum strength of the class?
  - a) 91
- b) 80

c) 94

- d) 86
- For what value of n, are the  $n^{th}$  terms of two APs "3 + 10 + 17 + ..." and "63 + 65 + 67 + ...." Are equal. 8.
  - a) 11
- b) 12

c) 13

d) 14

- 9. In a garden there are 23 rose plants in the first row, 21 in the second row, 19 in the third row and so on, there are 5 plants in the last row. How many rows are there?
  - a) 10
- b) 12

c) 14

- d) 9
- 10. A cine complex has 13 rows of seats with 10 seats in the first row, 12 in the second, 14 in the third and so on. what is the total number of seats in the cine complex?
  - a) 252
- b) 256
- c) 258
- d) 286

- 11. Which of the following numbers are irrational?
  - a)  $\sqrt{2}$
- b)  $\sqrt{10}$
- c)  $\sqrt{4}$
- d)  $\sqrt{9}$

- 12. How many three digit numbers are divisible by 6?
  - a) 102
- b) 150
- c) 151
- d) 966

13. Which of the following is true

17 x 41 x 43 x 61 + 43 ?

a) It is a prime number

b) it is a composite number

c) It is an odd number

- d) Both a) and c)
- 14. If three medians of a triangle are equal, then the triangle is
  - a) Equilateral
- b) isosceles
- c) scalene
- d) right-angled
- 15. What is the sum of all two-digit numbers that give a remainder of 3 when they are divisible by 7?
  - a) 636
- b) 676
- c) 767
- d) 858

Answer key

1 - c	2 - c	3 - c	4 - a	5 - d	6 - c	7 - a	8 - c	9 - a	10 - d	11 - a	12 - b	13 - b	14 - a	15 - b	

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