Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

Full Name: **Year:**

IC No: **Date:** **Time:**

School Name: **School Code:**

Rules and Regulations

(Please read these rules and regulation carefully)

1. Please fill in your **FULL name** correctly, IC no, school name, school code (if available) and the date and time of contest clearly in the spaces above. Those who do not fill in the required particulars will be disqualified automatically.
2. Do not open the question booklet until you are told to do so.
3. No calculators and any unauthorised electronic devices (including mobile phones) are allowed during the contest.
4. Strict silence must be observed at all times in the examination hall and please be reminded that you **MAY NOT** leave your seat without permission.
5. If you have any request or enquiry, please raise your hand and wait for an invigilator.
6. Only one candidate is allowed to leave the hall at a time. You are required to return to the hall within 10 minutes or else you will automatically be disqualified from the contest.
7. Each question in the contest have been verified by experienced trainers, thus no further explanation will be given.
8. The time allowed for the paper is **60 minutes**. You must stop writing when you are told to do so.
9. You **MUST** fill in your answer in the answer sheet provided in second page of the question booklet. You will not be awarded marks for any answer written in the question booklet.
10. Please be reminded that this is a contest and not an examination, try your level best to answer all questions within the prescribed time.
11. **Please tear off the answer sheet carefully and returned to invigilator along with contest paper. Participant only can bring back the contest papers on next week.**

Scoring System

1. For **Question 1- 10, 3 marks** will be awarded for each correct answer.
   For **Question 11- 20, 4 marks** will be awarded for each correct answer.
   For **Question 21- 25, 6 marks** will be awarded for each correct answer.
   However, you will **NOT** be penalised for each incorrect answer.
2. The organizer reserves the right to disqualified the event of malpractice to differentiate between those outstanding students.
3. Contestants or a team who are disqualified from the contest will be forfeited any right to re-sit this year.

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS

Division M LEVEL 2 (Year 5 & 6)	2015 ANSWER SHEET	

1	6	11	16	21
2	7	12	17	22
3	8	13	18	23
4	9	14	19	24
5	10	15	20	25

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS

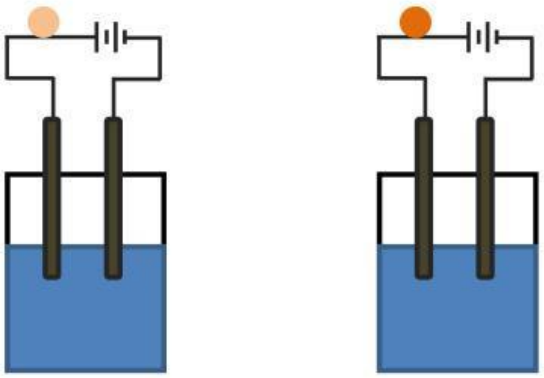
Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

Question 1-20 are Multiple Choices Questions.

1. Rusting process will cause the weight of iron to
   A. Decrease
   B. Remain the same
   C. Increase
   D. Uncertain (3 marks)

---

2. Chlorine is added into water for public water supplies. What is the purpose of the addition of chlorine?
   A. To kill germs.
   B. To add in nicer taste into water.
   C. To colourise water.
   D. To prevent tooth decay. (3 marks)



Seawater Water

3. The diagram above shows that the light bulbs lighted up when the circuits were connected by immersing the iron rods into sea water and distilled water respectively. What is there difference in the brightness of light bulbs by using both solutions to complete the circuit?
   A. Sea water is an electrolyte.
   B. Sea water contains ions that conduct electricity better.
   C. Distilled water has a higher electrical resistance.
   D. Water molecules conduct electricity easier in sea water. (3 Marks)

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS

Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

4. Which of the following substance is soluble in water?
   A. Chalk powder
   B. Milk powder
   C. Potassium
   D. Cement (3 Marks)

---

5. Which of the following substance is used to produce artificial rain?
   A. Carbon dioxide
   B. Iodine
   C. Silver iodide
   D. Sodium chloride (Table salts)



(3 Marks)

---

6. In the making of canned food, why tin is chosen instead of zinc to be electroplated onto the surface of iron can?
   A. Zinc can cause danger to human health.
   B. Tin is cheaper.
   C. Tin has a lower melting point.
   D. Zinc is more reactive. (3 Marks)

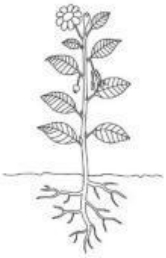


---

7. In stratosphere layer, there is a type of gas that functions to filter off the ultraviolet light present in sunlight to protect the living things from the harmful radiation. What is this gas?
   A. Methane
   B. Ozone
   C. Carbon monoxide
   D. Nitrogen (3 Marks)

- Mature ovary of a plant
- Developed from a flower

8. Which of the following has the above characteristics?
   A. Seed C. Root
   B. Bud D. Fruit (3 Marks)



Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS

Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

9. Light years is the unit to measure _____?

A. Time C. Number of year

B. Distance D. Intensity (3 Marks)

---

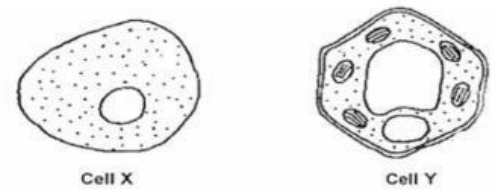
10. If a person's diet is deficient in sour fruits, he or she might be at risk for

A. Rickets C. Scurvy

B. Beri-beri D. Night blindness (3 Marks)

---

11. Diagram below shows two types of cells.



Which of the following is **TRUE**? (4 Marks)

	Cell X	Cell Y
A	Earthworm cell	Chicken cell
B	Rabbit cell	Maize cell
C	Hibiscus cell	Bougainvillea cell
D	Whale cell	Horse cell

---

12. Given

Momentum = Mass x Velocity

Kinetic energy = ½ x Mass x Velocity^2

When an increase in velocity doubles the momentum of a moving body, its kinetic energy will_____

A. Doubles C. Halves

B. More than doubles D. Increases (4 Marks)

---

13. A Helium nucleus consisted of ___?

A. 2 protons, 2 neutrons,2 electrons C. 2 protons, 4 neutrons, 2 electrons

B. 2 protons, 2 neutrons D. 2 protons, 4 neutrons

(4 Marks)

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

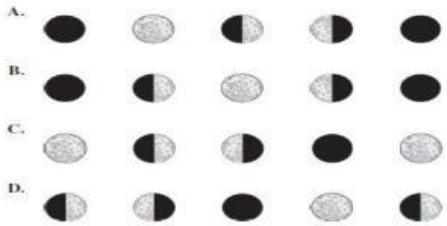
LIVEWORKSHEETS

Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

14. What will happen to the force of gravity if the mass of one of the objects is tripled?
    A. One third of the original gravitational force.
    B. Triple the original gravitational force.
    C. The gravitational force will be reduced gradually by 3 times.
    D. The gravitational force will remain the same value. (4 Marks)

---

15. Which of the following sequences best represents the phases of the moon as seen from Earth over the course of one month?



(4 Marks)

---

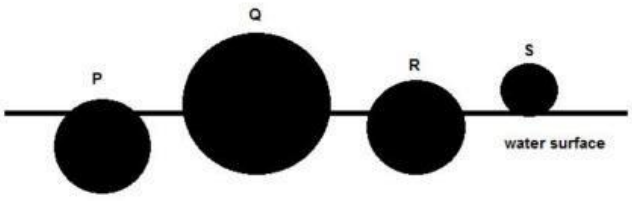
16. Cold pack is used to cover the forehead of kids when they have fever.
    What is the chemical used in cold pack?
    A. Ammonium nitrate
    B. Sodium hydroxide
    C. Calcium chloride
    D. Copper (II) sulphate



(4 Marks)

---

17. The diagram shows 4 ball floating on water.



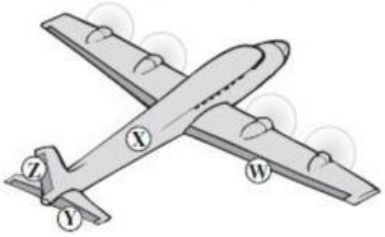
Which statement about the comparison of density of each ball is correct?
A. P>Q>R>S
B. P>R>Q>S
C. S>Q>R>P
D. Q>R>P>S (4 Marks)

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS

Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

Parts of an Airplane



18. In the diagram above, the part of the airplane that controls yaw is identified by

A. W C. Y

B. X D. Z (4 Marks)

---

19. By comparing between iron (III) oxide and chromium (III) oxide, it is observed that chromium (III) oxide is much harder than iron (III) oxide. Why is that so?

A. Chromium (III) oxide has a higher molecular weight.

B. Chromium (III) oxide has stronger ionic bonds.

C. Chromium (III) oxide layer is impermeable and non-porous.

D. Chromium (III) oxide is waterproof material. (4 Marks)

---

20. ***"A rainbow is an optical and meteorological phenomenon that is caused by reflection, refraction and dispersion of light in water droplets resulting in a spectrum of light appearing in the sky"***

Arrange the colour of rainbow from longer wavelength to shorter wavelength

A. Red, Orange,Yellow,Green,Blue,Indigo,Violet

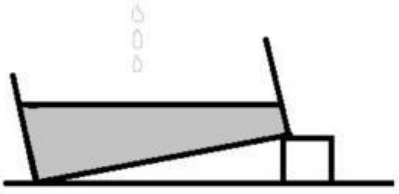
B. Violet,Indigo,Blue,Green,Yellow,Orange,Red

C. Red,yellow,Orange,Green,Indigo,Blue,Violet

D. Violet,Blue,Indigo,Green,Orange,yellow,Red (4 Marks)

Question 21-25 are Short Answer Questions.

21. Water droplet is dropped at constant rate into the bowl as shown in the diagram below



Which pattern of wavefronts will be observed?(**draw in the box in answer sheet**)

(6 Marks)

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS

Division M LEVEL 2 (Year 5 & 6)	ASIAN SCIENCES OLYMPIAD 2015 CONTEST	

22. What value should be reported for the buret reading shown?



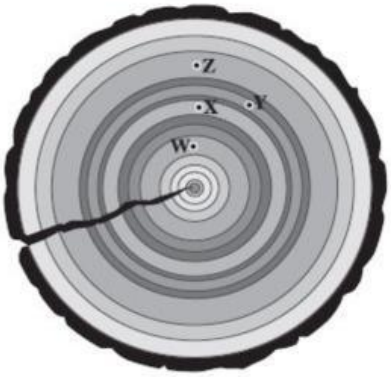
_____ml

(6 Marks)

---

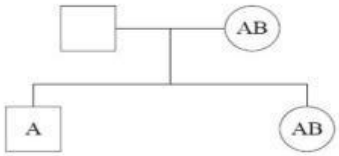
23. A car travels the first 100 m with a speed of 10 m s^{-1}. It then travels the next 100 m with a speed of 20 m s^{-1}. What is its average speed?

_____m s^{-1} (6 Marks)



24. Figure shown a cross section of a tree.Which letter represents the year with the most favourable growing conditions? _____

(6 Marks)



25. The pedigree chart above shows the blood group of two chidren and their mother. What could be the blood group of the father? _____
(write all the possibility)

(6 Marks)

THE END

Copyright © 2015 by ASIAN Science & Math Olympiads. All rights reserved.

LIVEWORKSHEETS