

International Foundation Science Olympiad(IFSO)
CLASS 9
WORKSHEET – 5

SECTION-A (Logical Reasoning)

1. There is a certain relation between two given words on one side of ': : ' and one word is given on another side of ': : ' while another word is to be found from the given alternatives having the same relations with this word as the given pair has. Select the best alternative.

Elegance: Vulgarity : : Graceful : _____?

- a) Comely
 - b) Awkward
 - c) Dirty
 - d) Asperity
2. Choose the odd pair of words.
- a) Curd : Milk
 - b) Train : Engine
 - c) Atom : Electron
 - d) House : Room
3. There is a series of numbers which follow some definite order. Find the missing term and complete the series.
- 24, 60, 120, 210, _____?
- a) 300
 - b) 336
 - c) 420
 - d) 525

4. In the following question , one term in the number series is wrong. Find out the wrong term.

93, 309, 434, 498, 521, 533

- a) 498
- b) 521
- c) 434
- d) 309

5. Choose the missing term out of given alternatives.

AYD, BVF, DRH, ?, KGL.

- a) FMI
- b) GLT
- c) GMJ
- d) HLK

6. If paper is called 'wood', wood is called straw, 'straw is called grass, 'grass is called rubber, 'rubber is called cloth then what is the furniture made up of?

- a) paper
- b) grass
- c) wood
- d) straw

7. If E = 5, I = 9, Y = 25, U = 21 then what is the code for TRAIN?

- a) 20181914
- b) 20189114
- c) 20918114
- d) 20191814

8. Nilesh's position is 11th from the top and thirty one from the bottom in a class. How many students are there in the class?

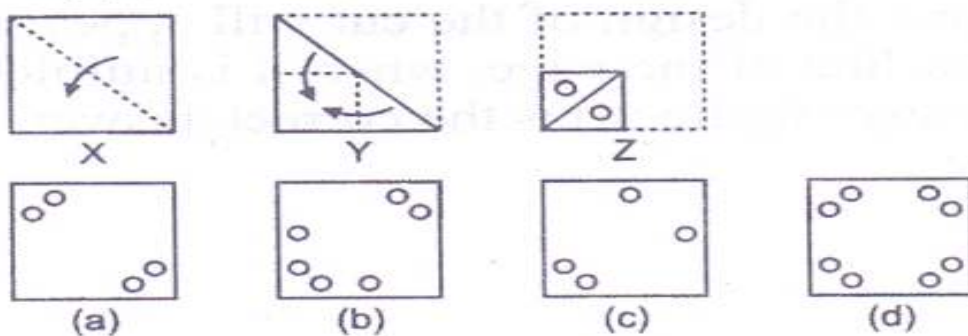
a) 40
b) 41
c) 42
d) 43

9. In the following question a set of figures carrying certain characters is given. The characters in each set follow a similar pattern. What is the missing character in each case?



a) 12
b) 14
c) 13
d) 16

10. In the following question, a set of three figures X, Y, Z have been given. Showing a sequence in which a paper is folded and finally cut from a particular section. Below these figures a set of answer figures marked (a, b, c, d) showing the design which the paper actually acquires when it is unfolded are given. You have to select the answer figure which most closely resembles the unfolded piece of paper.



SECTION-B (Day to Day Science)

11. A motor cycle is being driven at a speed of 20 m/s when brakes are applied to bring it to rest in five seconds. The deceleration produced in this case will be
- a) $+4 \text{ m/s}^2$
 - b) -4 m/s^2
 - c) $+0.25 \text{ m/s}^2$
 - d) -0.25 m/s^2
12. An object of mass 5 kg is sliding with a constant velocity of 10 m/s on a frictionless horizontal table. The force required to keep this object moving with the same velocity is
- a) 8 N
 - b) 4 N
 - c) 2 N
 - d) 0 N
13. A fielder pulls his hands backward while catching the fast running cricket ball this enables the fielder to
- a) Exert a larger force on the ball by increasing the time to catch
 - b) Reduce the force exerted by the ball by increasing the time to catch
 - c) Increase the rate of change of momentum
 - d) Keep the ball in hands firmly.
14. A feather and a coin released simultaneously from the same height do not reach the ground at the same time because of the
- a) Resistance of the air
 - b) Force of gravity
 - c) Force of gravitation
 - d) Difference in mass

15. How much would a man, whose mass is 120 kg weigh on the moon?
- a) 98 N
 - b) 196 N
 - c) 600 N
 - d) 120 N
16. The type of energy possessed by a simple pendulum, when it is at the mean positions
- a) K.E
 - b) P.E
 - c) K.E. + P.E.
 - d) Sound energy
17. Which of the following energy change involves frictional force?
- a) Chemical energy to heat energy
 - b) Kinetic energy to heat energy
 - c) Potential energy to sound energy
 - d) Chemical energy to kinetic energy
18. When sound travels through air, the air particles
- a) Vibrate along the direction of wave propagation
 - b) Vibrate perpendicular to the direction of wave propagation
 - c) Vibrate but not in any fixed position
 - d) Do not vibrate
19. Seema took a 100 mL beaker and filled half the beaker with water and marked the level of water. She dissolved some salt with the help of a glass rod and recorded water level again. Choose the correct observation related to above activity
- a) The water level decreases
 - b) There is little increase in water level
 - c) The water level remains the same
 - d) The water level increases appreciably

20. Which of the following are physical changes?

- i. Melting of iron metal
- ii. Rusting of iron metal
- iii. Bending of iron rod
- iv. Drawing a wire of iron metal

- a) (i) , (ii) and (iii)
- b) (i) (iii) and (iv)
- c) (i), (ii) and (iv)
- d) (ii) (iii) and (iv)

21. The fixed circular paths around the nucleus are called

- a) Orbitals
- b) orbits
- c) Mesons
- d) Nucleus

22. The only cells organelle seen in prokaryotic cell

- a) Mitochondria
- b) Plastids
- c) Ribosomes
- d) Lysosomes

23. Solute concentration is higher in the external solution.

- a) Hypotonic
- b) Hypertonic
- c) Isotonic
- d) None of these

24. Which of the following tissue is composed of mainly dead cells?

- a) Xylem
- b) Phloem
- c) Epidermis
- d) Endodermis

25. Jaundice is a disease of

- a) Pancreas
- b) Liver
- c) Kidney
- d) Duodenum



ANSWER IFSO CLASS 9 – WORKSHEET - 5																			
1	B	2	A	3	B	4	B	5	C	6	D	7	A	8	B	9	C	10	D
11	B	12	D	13	B	14	A	15	B	16	A	17	B	18	A	19	C	20	B
21	B	22	C	23	B	24	A	25	B										

