

### III SIMULAZIONE IN INGLESE

#### General Knowledge and Logical Reasoning

1. Statement: Majority of the students have failed in one paper in the first semester examination. Courses of Action:

All those students who failed should be asked to drop out of the course.

The faculty teaching the paper should be asked to resign.

- A. Only I follows
- B. Only II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

2. Statement: Footpaths of a busy road are crowded with vendors selling cheap items.

Courses of Action: The help of police should be sought to drive them away.

Some space should be provided to them where they can earn their bread without blocking footpaths.

- A. Only I follows
- B. Only II follows
- C. Either I or II follows
- D. Neither I nor II follows
- E. Both I and II follow

3. Erratic Behavior occurs when an individual acts in a manner that lacks consistency, regularity, and uniformity. Which situation below is the best example of Erratic Behavior?

A. Julia cannot contain her anger whenever the subject of local politics is discussed.

B. Martin has just been told that he is being laid off. Before leaving his supervisor's office, he punches a hole in the door.

C. Rhonda has visited the dealership several times, but she still cannot decide which car to buy.

D. In the past month, Jeffrey, who has been a model employee for three years, has repeatedly called in sick, forgotten important meetings, and been verbally abusive to colleagues.

E. None of the above

4. Statement: "Use our product to improve memory of our child. It is based on natural herbs and has no harmful side effects." - An advertisement of a pharmaceutical company.

Assumptions:

People generally opt for a medical product which is useful and has no harmful side effects.

Improving memory of child is considered as important by many parents.

A. Only assumption I is implicit

B. Only assumption II is implicit

C. Either I or II is implicit

D. Neither I nor II is implicit

E. Both I and II are implicit

5. Look carefully for the pattern, and then choose which pair of numbers comes next.

14 14 26 26 38 38 50

A. 60 72

B. 50 62

C. 50 72

D. 62 62

E. 62 80

6. Choose the statement that is best supported by the information given in the question passage.

Close-up images of Mars by the Mariner 9 probe indicated networks of valleys that looked like the stream beds on Earth. These images also implied that Mars once had an atmosphere that was thick enough to trap the sun's heat. If this were true, something happened to Mars billions of years ago that stripped away the planet's atmosphere.

This paragraph best supports the statement that

- A. Mars now has little or no atmosphere.
- B. Mars once had a thicker atmosphere than Earth does.
- C. the Mariner 9 probe took the first pictures of Mars.
- D. Mars is closer to the sun than Earth is.
- E. Mars is more mountainous than Earth is.

7. Statement: Should 'computer knowledge' be made a compulsory subject for all the students at secondary school level?

Arguments:

No, our need is 'bread' for everyone, we cannot follow western models.

Yes. We cannot compete in the international market without equipping our children with computers.

- A. Only argument I is strong
- B. Only argument II is strong
- C. Either I or II is strong
- D. Neither I nor II is strong
- E. Both I and II are strong

8. Statement: Should there be reservation in Government jobs for candidates from single child family?

Arguments:

No. This is not advisable as the jobs should be offered to only deserving candidates without any reservation for a particular group.

Yes. This will help reduce the growing population in India as the parents will be encouraged to adopt single child norm.

- A. Only argument I is strong
- B. Only argument II is strong
- C. Either I or II is strong
- D. Neither I nor II is strong
- E. Both I and II are strong

9. The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.

Honeybee angel bat

kangaroo rabbit..... ?

- A. mermaid
- B. possum
- C. grasshopper
- D. sprinter
- E. None of the above

10. Find the word that names a necessary part of the underlined word.

“vertebrate”

- A. backbone
- B. reptile
- C. mammal
- D. animal

E. None of the above

11. What is the capital of New Zealand?

- A. Queenstown
- B. Auckland
- C. Wellington
- D. Christchurch
- E. Hamilton

### **Biology**

12. Psuedostratified tissue has a distinctive appearance because:

- A. the nuclei of individual cells do not line up perfectly
- B. cilia is attached to the surface of the cells
- C. cells are square and formed in perfect blocks
- D. cells are square in the bottom layer and flat at the top
- E. None of these answers is correct

13. Elastic fibers are found where in the body?

- A. joints
- B. vocal cords
- C. ear and nose
- D. heart
- E. E. None of the above

14. Which of the following is NOT a job of the kidneys?

- A. keep the volume of water in your body constant
- B. secrete hormones
- C. regulate blood pressure
- D. remove waste
- E. None of the above

15. This membrane holds the coils of the small intestine together:

- A. mesentery
- B. greater omentum
- C. serosa
- D. intestinal villi
- E. None of the above

16. The appendix is attached directly to the:
- A. cecum
  - B. pancreas
  - C. jejunum
  - D. sigmoid colon
  - E. None of the above
17. Which part of the brain is responsible for hearing and memory?
- A. occipital lobe
  - B. cerebellum
  - C. temporal lobe
  - D. frontal lobe
  - E. None of the above
18. A person with an injury to her frontal lobe may have difficulty:
- A. remembering past events
  - B. reasoning and making decisions
  - C. seeing
  - D. sleeping
  - E. None of the above
19. Oxygen from the air enters the blood stream at what location?
- A. cardiac notch
  - B. pulmonary vein
  - C. alveoli
  - D. paranasal sinuses
  - E. None of the above
20. Hyaline cartilage has primary function?
- A. protect the thyroid
  - B. increase the surface area
  - C. connect the conchae
  - D. support the trachea
  - E. None of the above

### **Chemistry**

21. What is the pH of a 0.001 M NaOH solution?
- A. 11
  - B. 3
  - C. 3

- D. 10
- E. 12

22. The addition of hydrofluoric acid and \_\_\_\_\_ to water produces a buffer solution.

- A. HCl
- B. NaNO<sub>3</sub>
- C. NaCl
- D. NaBr
- E. NaF

23. Which of the following could be added to a solution of sodium acetate to produce a buffer?

- A. hydrochloric acid only
- B. sodium chloride or potassium acetate
- C. acetic acid only
- D. acetic acid or hydrochloric acid
- E. potassium acetate only

24. What is the oxidation state of chromium in the oxide CrO<sub>3</sub>?

- A. +3
- B. -3
- C. +6
- D. -6
- E. +2

25. Acidified potassium dichromate (VI) can be used to detect the presence of ethanol vapour in the breath of a person who consumed alcohol. A colour change from orange to green is observed if ethanol is present. This shows that ethanol is

- A. An alkali
- B. An indicator
- C. An oxidising agent
- D. A reducing agent
- E. None of the above

26. In which reaction is the first substance acting as a reducing agent?

- A. Chlorine + iron(II) chloride  $\rightarrow$  iron(III) chloride
- B. Copper(II) oxide + hydrogen  $\rightarrow$  copper + water
- C. Hydrochloric acid + magnesium oxide  $\rightarrow$  magnesium chloride + water
- D. Carbon monoxide + zinc oxide  $\rightarrow$  zinc + carbon dioxide
- E. None of the above

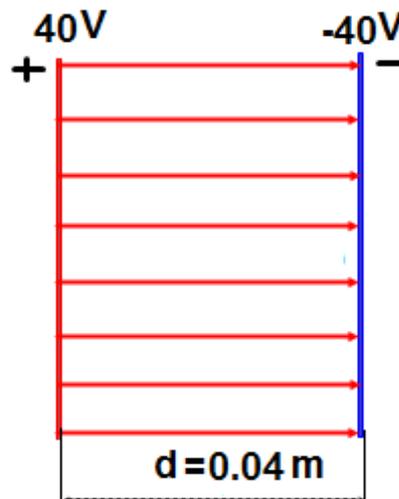
## Physics and Mathematics

27. Direction of free test charge will be

- A. direction of electric intensity
- B. direction of coulomb's force
- C. direction of magnetic intensity
- D. direction of protons
- E. None of the above

28. A uniform electric field is created by two parallel plates separated by a distance of 0.04 m. What is the magnitude of the electric field established between the plates?

- A. 20 V/m
- B. 200 V/m
- C. 2,000 V/m
- D. 20,000 V/m
- E. 0 V/m



29. In one state, 52% of the voters are Republicans, and 48% are Democrats. In a second state, 47% of the voters are Republicans, and 53% are Democrats. Suppose a simple random sample of 100 voters are surveyed from each state.

What is the probability that the survey will show a greater percentage of Republican voters in the second state than in the first state?

- A. 0.04
- B. 0.05
- C. 0.24
- D. 0.71
- E. 0.76

30. Probability questions pop up all the time. In trading related jobs probability is almost all that matters. Knowing and understanding what the probability of something happening is, can

be very important and give you an edge others don't have. Make sure you understand your probability questions is all we can say, Luckily this is a good place to practice!

Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?

- A.  $1/2$
- B.  $2/5$
- C.  $8/15$
- D.  $9/20$
- E. None of the above