

Science and Technology

1. In 1774, a British clergyman named Joseph Priestley conducted an experiment in which he focussed sunrays on a tube containing mercuric oxide. This produced a gas which he noticed made candles burn brighter, thus discovering a gas which is the very essence of life. What gas was it?



- (a) Carbon dioxide
(b) Nitrogen
(c) Oxygen
(d) Helium
2. A piece of an apple when exposed to the atmosphere, turns brown. This is an example of
- (a) Physical change
(b) Chemical change
(c) Both A and B
(d) None of these
3. Rust is an oxide, usually red oxide formed by the reaction of metal 'X' and oxygen in the presence of water and air. Identify 'X'.
- (a) Copper
(b) Iron
(c) Platinum
(d) Gold
4. A mixture containing water, salt and sand is stirred well and kept undisturbed for some time. Which of the following methods can be used to separate each of the component?
- (a) Filtration followed by condensation
(b) Boiling followed by magnetic separation
(c) Decantation followed by evaporation

(d) Use of a separating funnel

5. In context of computers, what can be the uses of cookies?
- i. Maintain information
ii. Run a programme
iii. Deliver a virus
- (a) I and II only
(b) I only
(c) II and III only
(d) III only
6. What is the term given to matter in the middle layer of the Earth which is liquid and hot, and escapes through cracks in the surface?
- (a) Sial
(b) Sima
(c) Magma
(d) Granite
7. By putting the Mars Orbiter Mission (MOM) in orbit around Mars, India's ISRO became the fourth space agency to reach Mars, after the Soviet space program, NASA, and the European Space Agency. What is the orbiter commonly known as?
- (a) Chandrayaan
(b) Aryabhata
(c) Bhaskara
(d) Mangalyaan
8. The sun emits tiny electrical particles in all directions during solar flares. When they fall at the Earth's north and south poles, they look like glowing ribbons of light which may be green, red or blue in colour. What are these called?



- (a) Aurora Borealis
(b) Spectrum
(c) Aurora Australia
(d) Both A and C

9. Time can be measured using many units depending on the duration of a phenomenon. Hours, minutes and seconds are common units of time. Which of the following is also a unit of time?

(a) Cusec.
(b) Light year
(c) Warp speed
(d) Fortnight

10. Dry ice is used primarily as a cooling agent. Its advantages include lower temperature than that of water ice and not leaving any residue. What is its chemical composition?

(a) Oxygen
(b) Carbon dioxide
(c) Nitrogen
(d) Iron oxide

11. In which year the first nuclear test was conducted by India under the code-name of Smiling Buddha?

(a) 1970
(b) 1974
(c) 1984
(d) 1950

12. Trachoma disease affects _____.

(a) Eyes
(b) Liver
(c) Lungs
(d) Stomach

13. The periodic table is a listing of all elements known to man on the basis of their atomic numbers. How many elements are listed in the table?

(a) 101
(b) 111
(c) 118
(d) 121

14. Shobit observes the moon which looks like as shown in the picture. How long will it be before Shobit sees the moon in the same phase again?



(a) 1 week
(b) 1 month
(c) 1 year
(d) 15 days

15. Sportsmen use shoes with spikes because these _____.

(a) Increase smoothness and sportsmen can have more fun
(b) Increase the traction between the shoes and the ground
(c) Decrease the gravitational force between sportsmen and floor
(d) None of these

16. Baking soda or sodium bicarbonate (NaHCO_3) is a versatile compound. What is an example of a chemical property of baking soda?

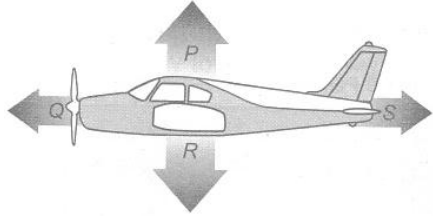
(a) Bubbles up when mixed with vinegar
(b) Allows dough to rise while baking
(c) Neutralizes odours
(d) All of these

17. Look at the given picture. Which of the following best classifies the type of rock shown in the picture?



(a) Igneous
(b) Sedimentary
(c) Metamorphic
(d) Volcanic

18. Look at the given picture showing four forces P, Q, R and S of a flight. What does P, Q, R and S stand for?



- | | P | Q | R | S |
|-----|----------|----------|----------|----------|
| (a) | Drag | Weight | Thrust | Lift |
| (b) | Weight | Drag | Lift | Thrust |
| (c) | Thrust | Lift | Drag | Weight |
| (d) | Lift | Thrust | Weight | Drag |

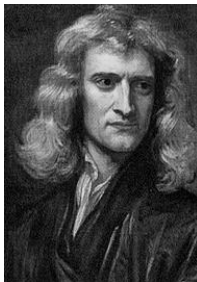
19. Which kind of waves are used to make and receive cell phone calls?

- (a) Sound waves (b) Radio waves
(c) Light waves (d) None of these

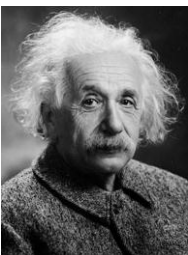
20. Who discovered the link between electricity and magnetism?



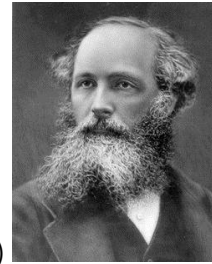
(a) Michael Faraday



(b) Isaac Newton



(c) Einstein



(d) Maxwell

21. Who is believed to be the 'Father of Virology', a study of viruses and the disease caused by them?



(a) Martinus Beijerinck



(b) Andre Lwoff



(c) Louis Pasteur



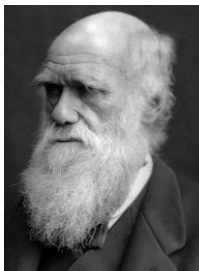
(d) William Harvey

- 22.** He was a naturalist and geologist, best known for his contributions to the science of evolution. He wrote the book 'The Origin of Species'. Who is he?



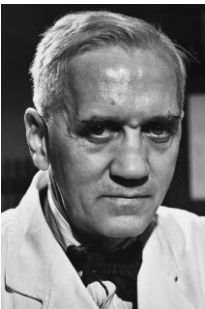
(a)

Louis Pasteur



(b)

Charles Darwin



(c)

Sir Alexander Fleming



(d)

Stephen Hawking

- 23.** He was an English physicist whose most notable achievements were in the precise measurement of time and the determination of the speed of light. He was the first to

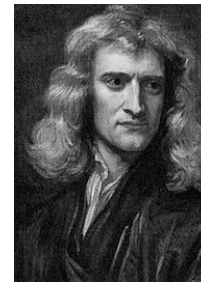
determine the speed of light using a laboratory apparatus? Who is he?

- (a) Isaac Newton
- (b) Louis Essen
- (c) B. Hilt
- (d) None of these

- 24.** A weather map shows information about atmospheric pressure and weather fronts. Which type of Earth scientist works on developing and interpreting weather maps?

- (a) Geologist
- (b) Astronomer
- (c) Meteorologist
- (d) Oceanographer

- 25.** Sir Isaac Newton was a physicist and mathematician who is widely recognised as one of the most influential scientists of all time and a key figure in the scientific revolution. Newton is a unit of measurement for ____.



- (a) Time
- (b) Distance
- (c) Mass
- (d) Force

Answer - Key				
1. C	2. B	3. B	4. C	5. B
6. C	7. D	8. D	9. D	10. B
11. B	12. C	13. C	14. B	15. B
16. D	17. B	18. D	19. B	20. A
21. A	22. B	23. B	24. C	25. D