

2022 XI 21

0230

Seat No.

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Time : 1½ Hours

FIRST-TERM

SCIENCE (E)

Subject Code

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Total No. of Questions : 40 (Printed Pages : 16)

Maximum Marks : 40

INSTRUCTIONS : (i) The question paper consists of 40 multiple choice (objective type) questions.

(ii) All questions are compulsory.

(iii) Every question has four choices for its answer (A), (B), (C) and (D) and only one of them is correct answer.

(iv) Select the one that you consider to be the most appropriate answer among the four choices.

(v) Each correct answer will carry **one** mark.

(vi) There will be no negative marking for the wrong answer.

1. Reaction of water with quick lime is an example of reaction.

(A) Endothermic

(B) Double displacement

(C) Displacement

(D) Exothermic

2. Which among the following is an olfactory receptor ?
- (A) Vanilla
 - (B) Groundnut
 - (C) Tomato
 - (D) Carrot
3. Hydrogen ions cannot exist alone. Hence it is always shown as
- (A) H^+ (aq) or H_3O^+
 - (B) H^+ (aq) or H_3O_2
 - (C) H^+ (aq) or H_3O^-
 - (D) H^+ (aq) or H_2O_2
4. Sonali had tooth decay because her pH of the mouth was
- (A) Higher than 5.5
 - (B) Lower than 5.5
 - (C) Equal to 5.5
 - (D) Lower than 6.6
5. Fuel used in Thermal Power plant is
- (A) Plutonium
 - (B) Uranium
 - (C) Water
 - (D) Fossil fuel

6. Magnesium ribbon is rubbed before burning because it has a coating of

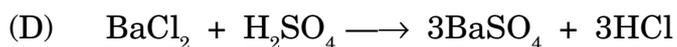
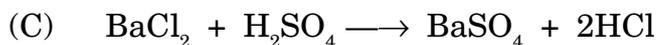
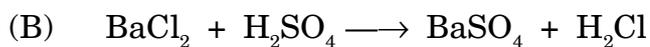
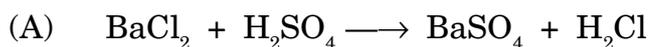
(A) Magnesium chloride

(B) Magnesium sulphide

(C) Magnesium oxide

(D) Magnesium iodide

7. Barium chloride reacts with sulphuric acid to give barium sulphate and hydrochloric acid. The balanced equation is



8. A part of the solar cooker which is responsible for greenhouse effect is

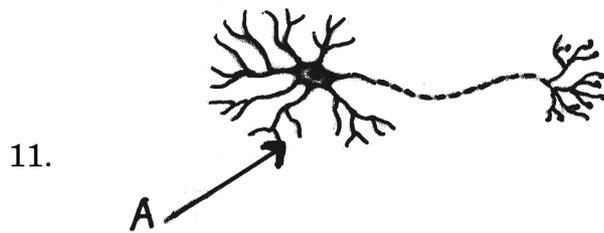
(A) Mirror

(B) Glass sheet

(C) Black coating inside the box

(D) Outer covering of the box

9. The gas liberated when a metal reacts with a base is
- (A) Nitrogen
 - (B) Hydrogen
 - (C) Oxygen
 - (D) Carbon dioxide
10. A slurry which is removed from the biogas plant is rich in
- (A) Nitrogen and calcium
 - (B) Phosphorus and carbon dioxide
 - (C) Nitrogen and phosphorus
 - (D) Nitrogen and potassium



- The function of part A seen in the figure is
- (A) Information acquired at its end
 - (B) Converts chemical signal
 - (C) Converts mechanical signal
 - (D) Information travels in the form of shock

12. An alloy of Cu and Zn is

- (A) Bronze
- (B) Nichrome
- (C) Brass
- (D) Solder

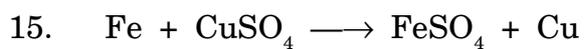
13. $\text{Na}_2\text{SO}_4 + \text{BaCl}_2 \longrightarrow 2\text{NaCl} + \text{BaSO}_4$

In this reaction the precipitate obtained is

- (A) Yellow precipitate of NaCl
- (B) White precipitate of Na_2SO_4
- (C) Orange precipitate of BaCl_2
- (D) White precipitate of BaSO_4

14. Changes in the environment due to which an organism responds is called

- (A) Hormone
- (B) Response
- (C) Coordination
- (D) Stimulus



Less reactive metal in the above reaction is

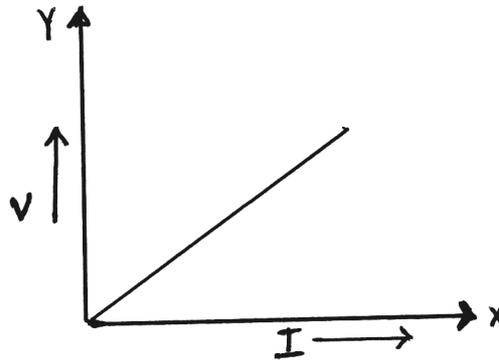
- (A) Iron
 - (B) Sulphur
 - (C) Oxygen
 - (D) Copper
16. A part of the brain which controls breathing in human body is
- (A) Hypothalamus
 - (B) Cerebrum
 - (C) Medulla
 - (D) Cerebellum
17. A process of changing carbonate ores into oxides in limited supply of oxygen is
- (A) Calcination
 - (B) Oxidation
 - (C) Roasting
 - (D) Refining

18. A method of contraception which protects from acquiring sexually transmitted disease
- (A) Condoms
 - (B) Copper-T
 - (C) Oral pills
 - (D) Surgery
19. An electric motor takes 15 A from 220 V line. Its energy consumed in 2 hours will be
- (A) 4.3 KWh
 - (B) 2.5 KWh
 - (C) 6.6 KWh
 - (D) 1.1 KWh
20. Banana, Jasmine and Orange have lost their capacity to produce
- (A) Buds
 - (B) Flower
 - (C) Roots
 - (D) Seeds

21. A hormone which regulates carbohydrates, proteins and fat metabolism in our body is

- (A) Insulin
- (B) Adrenaline
- (C) Testosterone
- (D) Thyroxine

22. Slope of Potential difference Vs. Current gives the value of

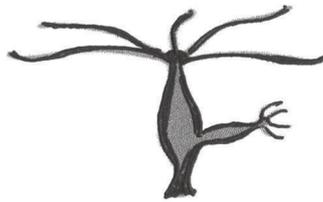


- (A) Resistance
- (B) Conductivity
- (C) Resistivity
- (D) Electric charge

23. If water is added to a concentrated Nitric acid, the mixture splashes out causing burns because it is a highly reaction.

- (A) Endothermic
- (B) Thermal
- (C) Combination
- (D) Exothermic

24. Type of reproduction seen in Hydra is



- (A) Spore formation
- (B) Fragmentation
- (C) Budding
- (D) Binary fission

25. The egg is carried from the ovary to the womb through a thin tube called

- (A) Ureter
- (B) Oviduct
- (C) Vas deferens
- (D) Oesophagus

26. When calcium reacts with water it starts floating because

- (A) Bubbles of oxygen are formed
- (B) Bubbles of carbon dioxide are formed
- (C) Bubbles of nitrogen are formed
- (D) Bubbles of hydrogen are formed

27. Deficiency of growth hormone leads to dwarfism. A gland which secretes this hormone is

- (A) Pituitary
- (B) Adrenal
- (C) Pancreas
- (D) Thyroid

28. A circuit has a charge of $3C$ moving through it in 4 sec. An electrical component will show the current as

- (A) 12 A
- (B) 0.75 A
- (C) 0.1 A
- (D) 0.45 A

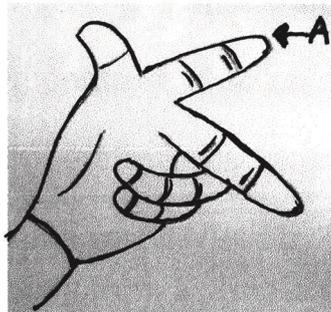
29. Magnetic field lines around a current carrying a straight conductor indicates a pattern of
- (A) Straight lines
 - (B) Concentric circles
 - (C) Square shape
 - (D) Rectangular shape
30. Overloading is due to :
- (i) When live wire and earth wire come in contact
 - (ii) When the live wire and neutral wire come in contact
 - (iii) Fault in the appliances
 - (iv) Accidental hike in supply voltage
- (A) Only (i) is correct
 - (B) Only (ii), (iii) and (iv) are correct
 - (C) Only (ii) and (iv) are correct
 - (D) Only (i) and (iv) are correct
31. When an ova does not fertilize in females, the cycle which takes place is
- (A) Implantation
 - (B) Menopause
 - (C) Fertilization
 - (D) Menstruation

32. The below given symbol of the electrical component is of



- (A) Battery
- (B) Switch
- (C) Electric bulb
- (D) Rheostat

33. Given a diagrammatic representation of Fleming's left-hand rule. Letter A indicates the direction of



- (A) Force
- (B) Field
- (C) Current
- (D) Direction

34. A solenoid behaves like a magnet because
- (A) Magnetic field lines are in the form of parallel straight lines
 - (B) Magnetic field lines cross each other
 - (C) Magnetic field lines are perpendicular
 - (D) Magnetic field lines intersect each other
35. A device which reverses the direction and flow of current in an electric motor is
- (A) commutator
 - (B) battery
 - (C) gear
 - (D) bar magnet
36. Testes located in the scrotum are present outside the abdominal cavity because
- (A) Temperature of scrotum is very high
 - (B) Temperature of scrotum is less than the body temperature
 - (C) Temperature of scrotum is moderate
 - (D) Temperature of scrotum is below 0 degrees

37. Shama was advised by his physician to take less sugar in his diet as he was suffering from a disease called
- (A) Goitre
 - (B) Cancer
 - (C) Blood pressure
 - (D) Diabetes
38. A period of adolescence when reproductive tissues begin to mature is
- (A) Reproduction
 - (B) Puberty
 - (C) Propagation
 - (D) Germination
39. An electric iron draws a current of 4 A connected to 320 V mains. Its resistance will be
- (A) 1000 Ω
 - (B) 80 Ω
 - (C) 44 Ω
 - (D) 1280 Ω

40. Gases filled in an electric bulb in order to prolong the life of the filament are

- (A) Nitrogen and argon
- (B) Nitrogen and hydrogen
- (C) Argon and hydrogen
- (D) Argon and ammonia

Space For Rough Work