

1. Precipitation reactions produce insoluble

- a. exothermic reactions
- b. salts
- c. SO₃
- d. both

2. The reaction $\text{Cu} + x\text{HNO}_3 (\text{conc.}) \rightarrow \text{Cu}(\text{NO}_3)_2 + y\text{NO}_2 + z\text{H}_2\text{O}$ The values of x, y and z are _____, _____ and _____.

- a. 4
- b. 2
- c. 4, 2 and 2
- d. 0

3. Gustatory receptors will detect _____

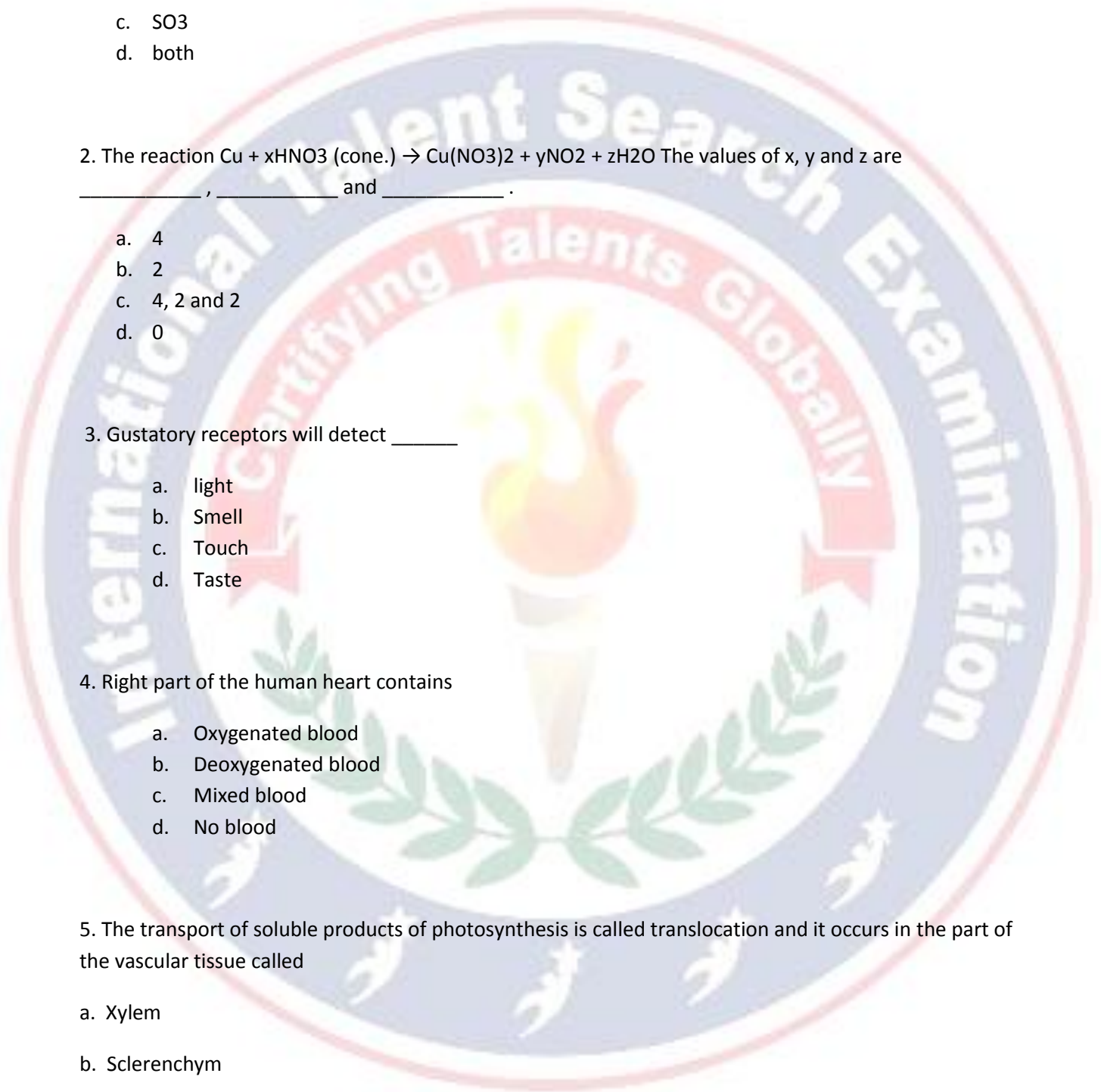
- a. light
- b. Smell
- c. Touch
- d. Taste

4. Right part of the human heart contains

- a. Oxygenated blood
- b. Deoxygenated blood
- c. Mixed blood
- d. No blood

5. The transport of soluble products of photosynthesis is called translocation and it occurs in the part of the vascular tissue called

- a. Xylem
- b. Sclerenchym
- c. Phloem
- d. Collenchyma



6. In human each kidney has large numbers of filtration units called ____

- a. Neutrons
- b. Neurons
- c. Neptune
- d. Nephrons

7. The element used as the index of the wealth of a country is –

- a. Platinum
- b. Aluminum
- c. Gold
- d. Mercury

8. The soldering wire is an alloy of

- a. Copper and tin
- b. Lead and tin
- c. Aluminium and lead
- d. Copper and aluminium

9. The stainless steel is an alloy of –

- a. Iron, nickel and chromium
- b. Iron and nickel
- c. Iron and chromium
- d. Nickel and chromium



10. Subsequent members of homologous series differ by how many atomic mass units?

- a. 16
- b. 14
- c. 24
- d. 28

11. The organic compounds having functional group are known as:

- a. Aldehyde
- b. Ketone
- c. Carboxylic acids
- d. Alcohol

12. Cooking oils contain _____

- a. Saturated healthy acids
- b. Saturated acids
- c. Unsaturated healthy acids
- d. Unsaturated fatty acids

13. An atom of an element has the electronic configuration 2, 8, 2. To which group does it belong?

- a. 2nd group
- b. 4th group
- c. 6th group
- d. 3rd group



14. In modern periodic table, elements are arranged according to their

- a. atomic number
- b. density
- c. atomic weight
- d. melting point

15. In which group are inert elements placed? ‘

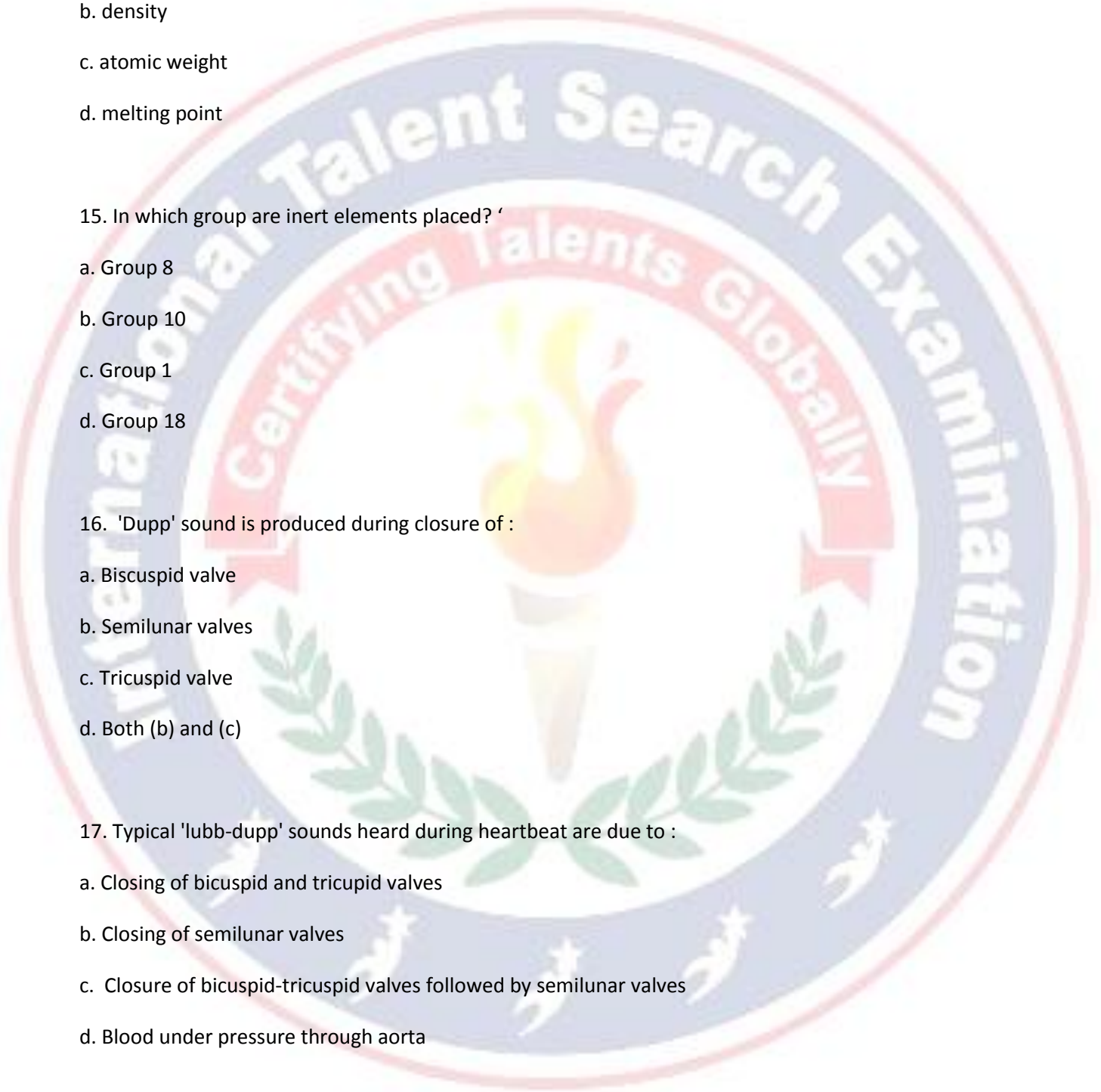
- a. Group 8
- b. Group 10
- c. Group 1
- d. Group 18

16. 'Dupp' sound is produced during closure of :

- a. Bicuspid valve
- b. Semilunar valves
- c. Tricuspid valve
- d. Both (b) and (c)

17. Typical 'lubb-dupp' sounds heard during heartbeat are due to :

- a. Closing of bicuspid and tricupid valves
- b. Closing of semilunar valves
- c. Closure of bicuspid-tricuspid valves followed by semilunar valves
- d. Blood under pressure through aorta



18. The part of the digestive system where no digestion takes place is

- a. Oesophagus
- b. Stomach
- c. Mouth
- d. Ileum

19. Which of the following is an involuntary action?

- a. Whispering
- b. Beating of heart
- c. None of the above
- d. Hitting a volleyball

20. Accidents can happen due to _____ motion of the body.

- a. Coordinated
- b. Both A and B
- c. Uncoordinated
- d. None of the above

21. Dancing is a _____ activity.

- a. Voluntary
- b. Coordinated
- c. None of the above
- d. Both A and B



22. AIDS is a sexually transmitted disease caused due to an infection by a

- a. virus
- b. protozoa
- c. Plasmodium
- d. bacteria

23. Which of the following is the correct sequence of events of sexual reproduction in a flower?

- a. pollination, fertilisation, seedling, embryo
- b. seedling, embryo, fertilisation, pollination
- c. pollination, fertilisation, embryo, seedling
- d. embryo, seedling, pollination, fertilization

24. Characters that are transmitted from parents to offspring during reproduction show

- a. only similarities with parents
- b. only variations with parents
- c. neither similarities nor variations
- d. both similarities and variations with parents

25. If the fossil of an organism is found in the deeper layers of Earth, then we can predict that

- a. the extinction of organism has occurred thousands of years ago
- b. the extinction of organism has occurred recently
- c. the fossil position in the layers of Earth is not related to its time of extinction
- d. time of extinction cannot be determined



26. A trait in an organism is influenced by

- a. paternal DNA only
- b. maternal DNA only
- c. both maternal and paternal DNA
- d. neither by paternal nor by maternal DNA

27. Select the group which shares maximum number of common characters.

- a. two genera of two families
- b. two genera of a family
- c. two species of a genus
- d. two individuals of a species

28. If the object is placed at focus of a concave mirror, the image is formed at

- a. focus
- b. infinity
- c. centre of curvature
- d. between F and O.

29. The F₂ phenotype ratio of a monohybrid cross studied by Mendel is

- a. 1:1
- b. 2:1
- c. 3:1
- d. 4:1



30. If T is for tallness and t for dwarfness, what shall be the genotype of a tall pea plant according to Mendelism?

- a. TT
- b. Tt
- c. tt
- d. Either TT or Tt

31. One can not see through fog because:

- a. light is scattered by the droplets in fog
- b. light suffers total reflection by the droplets in the fog
- c. the refractive index of fog is in infinity
- d. fog absorbed light

32. The rising and setting of sun appear red because of :

- a. reflection
- b. defraction
- c. scattering
- d. refraction

33. A rainbow can be seen in the sky

- a. When the sun is in front of you.
- b. Only at the time of sun rise.
- c. When the sun is overhead.
- d. When the sun is behind you.



34. An electrical appliance has a resistance of 4 ohms. When it is connected to a 12 V battery, the number of coulombs passing through it per second is

- a. 3
- b. 1.2
- c. 12
- d. 0.3

35. Consider a circuit which contains a resistance free battery and a single resistance R . If a second resistance is added in parallel with R .

- a. The voltage across R will decrease
- b. The current through R will increase
- c. The total current drawn from the battery will increase
- d. The power dissipated in R will decrease current drawn from battery will increase

36. Coin placed in a bowl when seen from a place just disappears. When water is poured into the bowl without disturbing the coin, the coin

- a. Will not be seen
- b. Appears above the water surface
- c. Appears very much deep inside the water
- d. Becomes visible again

37. In our houses we receive AC electric power of with a frequency of

- a. electric
- b. 220V, 50 Hz.
- c. Magnetic field
- d. current

38. Question. The N-pole of a compass points to the pole of a permanent magnet.

- a. solenoid
- b. metallic
- c. s
- d. lines

39. Field lines are shown closer together where the magnetic field is

- a. none
- b. current
- c. electric
- d. Greater

40. The energy available due to the difference in the temperature of water at the surface of the ocean and at deeper levels is called :

- a. tidal energy
- b. none of these
- c. wind energy
- d. solar energy

41. In a neutral atom n_e and n_p represent number of electrons & protons, then :

- a. $n_e = n_p$
- b. $n_e > n_p$
- c. None of these
- d. $n_e < n_p$



42. The mass of an α particle is :

- a. Equal to sum of masses of two protons and two neutrons
- b. Equal to mass of four neutrons
- c. Equal to mass of four protons
- d. Less than sum of the masses of 2 protons & 2 neutrons

43. Which of the following chemical equations is an unbalanced one

- a. $2\text{NaHCO}_3 \rightarrow \text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{CO}_2$
- b. $2\text{Al} + 6\text{H}_2\text{O} \rightarrow 2\text{Al}(\text{OH})_3 + 3\text{H}_2$
- c. $2\text{C}_4\text{H}_{10} + 12\text{O}_2 \rightarrow 8\text{CO}_2 + 10\text{H}_2\text{O}$
- d. $4\text{NH}_3 + 5\text{O}_2 \rightarrow 4\text{NO} + 6\text{H}_2\text{O}$

44. Symbol Δ used while representing some chemical changes stands for -

- a. light
- b. pressure
- c. catalyst
- d. heat

45. The best way to dispose waste is by

- a. Making a paste of all domestic waste and putting them in a river
- b. Throw the waste on road side
- c. Dumping all domestic waste in litter bin
- d. Separating biodegradable and non biodegradable waste before disposing in bins

Answer Sheet:

1.B 2.C 3.D 4.B 5.C 6.D 7.C 8.D 9.A 10.B 11.C 12.D 13.A

14.A 15.D 16.B 17.C 18.A 19.B 20.C 21.D 22.A 23.C 24.D

25.A 26.C 27.D 28.B 29.C 30.D 31.A 32.C 33.D 34.A 35.C

36.B 37.B 38.C 39.D 40.B 41.A 42.D 43.C 44.D 45.D

