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ප්‍රථම වාර පරීක්ෂණය - 2020 මාර්තු
1st Term Test - March 2020

ශ්‍රේණිය } 11 Grade }	විෂයය } විද්‍යාව Subject }	පත්‍රය } I,I Paper }	කාලය } පැය 03 Time }
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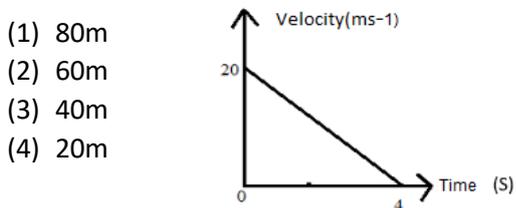
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Important:

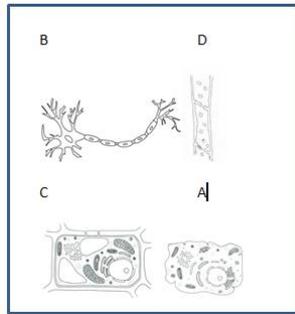
- Answer all questions.
- In each of the questions 1 to 40, pick one of the alternatives (1),(2),(3),(4) which you consider as correct or most appropriate answer.

1. The most common carbohydrate in plant-based food is
 (1) glycogen (2) lactose (3) cellulose (4) maltose
2. Which of the following element is involved in blood clotting?
 (1) Iron (2) calcium (3) Iodine (4) phosphorus
3. Select the metal plated element.
 (1) B (2) C (3) Li (4) Al
4. Mass of 100g is
 (1) 0.1N (2) 1.0N (3) 10N (4) 20N
5. The extension of the following velocity time graph is



6. In which of the following instance the friction is not used,
 (1) Walking
 (2) Playing carom
 (3) Climbing trees
 (4) Swimming
7. As shown in the figure, which of the following cell is an animal cell?

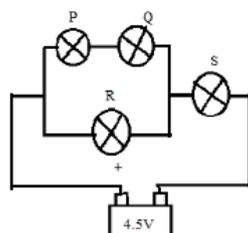
- (1) A
- (2) B
- (3) C
- (4) D



8. Stimulation and coordination are
- (1) only seen in plants
 - (2) found only in animals
 - (3) can be seen in inanimate objects only
 - (4) found in all living beings
9. Which of the following mass of molecule is equal to the molecular mass of oxygen? (H=1,C=12,O=16,S=32)
- (1) H_2O_2
 - (2) H_2O
 - (3) SO_2
 - (4) CH_3OH
10. If density of mercury is 13600kgm^{-3} and acceleration due to gravity is 10ms^{-2} , calculate the atmospheric pressure in pascals of a location which indicates 50cm rise in mercury column of mercury barometer.
- (1) 6.8×10^2
 - (2) 6.8×10^4
 - (3) 6.8×10^6
 - (4) 6.8×10^8
11. When a car stops suddenly, one person cannot push it forward but several people can push it forward and move the car. This is called,
- (1) use of equilibrium of force
 - (2) application of resultant force
 - (3) usage of moment of force
 - (4) use of rotational effect of force
12. Select the option which gives correctly the cell organelle and its function in the following table.

Cell organelle	Function
(1) Chloroplasts	Respiration
(2) Mitochondria	Photosynthesis
(3) Golgi apparatus	Secretion
(4) Vacuole	Maintaining the balance of water

13. P, Q, R, S are equal bulbs. According to the diagram below, which of the following bulb should be burned out in order to function the remaining three bulbs in equal glow?

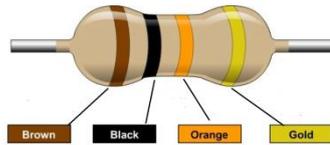


- (1) P
- (2) Q
- (3) R

(4) S

14. Determine the value of the following resistor given below.

- (1) $1000 \pm 5\%$
- (2) $1000 \pm 10\%$
- (3) $10000 \pm 5\%$
- (4) $10000 \pm 10\%$



15. Consider the following statements.

- A – Liquid medium is more suitable in the process of transmission of pressure.
- B – The pressure of a liquid increases as the depth of a liquid increases.
- C – The pressure operates in every direction at a certain point of a liquid.

Of the above statements,

- (1) Only A and B are true.
- (2) Only B and C are true.
- (3) Only A and C are true.
- (4) All A, B and C are true.

16. Number of C atoms in 22g of CO_2 gas is

- (1) $6.022 \times 10^{23} \times 12$
- (2) $6.022 \times 10^{23} \times 2$
- (3) 6.022×10^{23}
- (4) $6.022 \times 10^{23} \times 1/2$

17. Characteristics of two plant tissues are mentioned below.

A – Storing the food

B – Providing strength to the body

Which of the following are A and B respectively.

- (1) Sclerenchyma and collenchyma
- (2) Sclerenchyma and parenchyma
- (3) parenchyma and sclerenchyma
- (4) collenchyma and sclerenchyma

18. Which of the following is used in deoxidation of haematite(Fe_2O_3) in the extraction of iron.?

- (5) Oxygen
- (6) Carbon dioxide
- (7) Carbon monoxide
- (8) Nitrogen

19. The respiratory product produced only in animals is

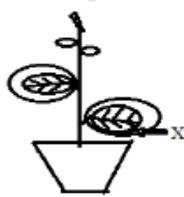
- (1) Energy
- (2) CO_2
- (3) Ethanol
- (4) Lactic acid

20. $\text{KMnO}_4 \xrightarrow{\Delta} \text{K}_2\text{MnO}_4 + \text{MnO}_2 + \text{O}_2$ is a reaction of

- (1) Chemical combination
- (2) Double displacement reaction
- (3) Single displacement reaction
- (4) Decomposition reaction

21. As shown in the figure, the following arrangement is set to investigate the factors affect the photosynthesis. Which of the following component is used as X to absorb the CO_2 ?

- (1) HCl
- (2) KOH
- (3) NaCl
- (4) KI



22. As moving from left to right in the periodic table:

- A – First ionization energy decreases.
- B – Increases the electronegativity.
- C – Increases the acidity of oxides.

Of the above statements, which of the following is true?

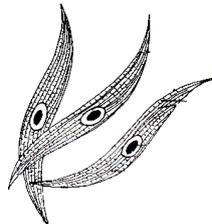
- (1) Only A
- (2) Only B
- (3) Only B and C
- (4) Only A and C

23. Select the option which consists only the phases related to the ovarian changes during the menstrual cycle.

- (1) Menstrual phase and proliferative phase
- (2) Follicular phase and luteal phase
- (3) Follicular phase and secretory phase
- (4) proliferative phase and secretory phase

24. The animal tissue shown in the figure is

- (1) a nervous tissue
- (2) a epithelial tissue
- (3) a muscular tissue
- (4) a connective tissue



25. Number of electrons and protons in Cl ion respectively is

- (1) 12,17
- (2) 18,17
- (3) 17,18
- (4) 34,17

26. Which of the molecule forms more than one covalent bonds between two atoms?

- (1) NH_3
- (2) Cl_2
- (3) O_2
- (4) H_2

27. Which of the following is the false statement about longitudinal waves?

- (1) Medium is required to travel
- (2) Velocity of air is $3 \times 10^8 \text{ms}^{-1}$
- (3) Travels creating compression and rarefaction
- (4) Type of a mechanical wave

28. In a liquid liquid mixture, it was mentioned as 12% v/v. What is the volume of solvent in 50cm^3 ?

- (1) 6cm^3
- (2) 12cm^3
- (3) 44cm^3
- (4) 88cm^3

29. Which of the following is the physical quantity without unit?

- (1) Amount of substance
- (2) Molar mass
- (3) Relative atomic mass
- (4) Concentration

30. An object has a mass of 500g and velocity of 60cm s^{-1} . What could be its momentum?

- (1) 30000kgms^{-1}
- (2) 300kgms^{-1}
- (3) 30000kgms^{-1}
- (4) 30000kgms^{-1}

31. Which of the following waves are longitudinal waves?

- (1) ripples on the surface on water
- (2) Waves from the violin strings
- (3) Vibrations in a guitar strings
- (4) Heat spreads out from a campfire

32. Out of the elements **Na, Mg, Al, S, P**, which of the following element makes metalloid oxides?

- (1) Na
- (2) Mg
- (3) S
- (4) Al

33. Consider the following statements on heredity.

- A – Monohybrid cross is the experiment of genetical transmission of two different traits.
- B – Inherited traits are the features pass down from one generation to the next generation.
- C – Inherited traits are not emerged in one generation and reemerge in later generation.

Of above statements, which of the following is true?

- (1) A and B
- (2) A and C
- (3) B and C
- (4) A,B and C

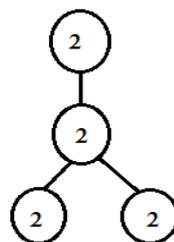
34. X is a metal which reacts with dilute acid and releases H₂. Where could this metal be placed in the activity series?

- (1) Between Ag and Au
- (2) Between Pb and Cu
- (3) Between Cu and Hg
- (4) Between Al and Fe

35. Which of the following methods of separating components of mixture belongs to the mechanical separation?

- (1) sieving
- (2) winnowing
- (3) floatation
- (4) above all

36. The following diagram demonstrates how the chromosomes are divided in a process of cell division. Which of the following fact is not an important in above cell division?



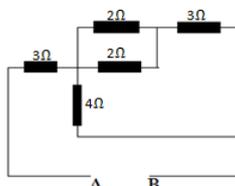
- (1) The effect in the growth of multicellular living beings.
- (2) A type of asexual reproduction method.
- (3) Formation of new cells for the dead cells.
- (4) Maintaining the exact number of chromosomes from one generation to another.

37. Which of the following is not a factor affecting in photosynthesis?

- (1) oxygen
- (2) carbon dioxide
- (3) chloroplast
- (4) Sun light

38. What is the equivalent resistance of A and B in the following resistance circuit.

- (1) 5Ω
- (2) 7Ω



- (3) 9Ω
- (4) 11Ω

39. In Sri Lanka 60% of reported deaths are caused by non-communicable diseases. Main reason to get a non-communicable disease is

- (1) Contaminated drinking water
- (2) Unhealthy food consumption
- (3) Rising rate of greenhouse gases
- (4) Consuming non organic food

40. Which of the following is the air which affects the marine organisms by moving with the sea water and reducing its P.H value?

- (1) O_2
- (2) SO_2
- (3) CO_2
- (4) NO