

ENGLISH

Choose the most similar in meaning to the capitalized one.

1. DISRUPTION:

- A. Comfort
- B. Luxury
- C. Trouble
- D. Freedom
- E. Calm

2. INEVITABLE:

- A. Doubtful
- B. Deny
- C. Unexpected
- D. Certain
- E. Unusual

Choose the lettered word or phrase that is most nearly opposite in meaning to the word in capitals.

3. ERADICATION:

- A. Suppression
- B. Termination
- C. Control
- D. Establish
- E. Extinction

4. INTERRUPTION:

- A. A Break
- B. Continuity
- C. Injury
- D. Difference
- E. Crack

Identify the word or phrase that needs to be changed for the sentence to be correct .

5. The stories that she makes out for her children ought to be

A

B

C

written down and published, No error .

D

E

6. We are expecting to go abroad this summer. No error:

A B C D E

Read the passage to answer questions 7-8

It is of course a trifle absurd to speak of Asia as a unity and only opposition to western imperialism has caused people to think in these terms Asia contains half the population of the world and at least three very distinct civilization that of Islam that of India and that of china these differ from each other just as they differ from the civilization of christened and these is not the faintest reason to expect them all to act in unison what is to be hoped is an endeavor after cultural or political unity but a determination to uphold independence at home and to respect it elsewhere and when I speak of independence I am not thinking only of politics but also of culture there is a great danger of too much cultural uniformity No great civilization has ever been cosmopolitan .

7. In the view of author, what is the harm of cultural uniformity:

- A. It will not lead to the formation of a great civilization
- B. It will lead to the formation of a great civilization
- C. It will lead to the formation of rich culture
- D. It will lead to the change of environment
- E. It will lead to the destruction of values

8. The author is in favor of:

- A Cultural uniformity
- B. Cosmopolitan
- C. Political and cultural Independence
- D. Unity of Asia
- E. None of the above

Complete the sentences by choosing the most appropriate word, from the given lettered choices (A to E) below each.

9. Nearly everyone dreams of building _____ ideal house.

- A. Its
- B. Their
- C. His
- D. Him
- E. Them

10. Life _____ water, light, a moderate temperature and a variety of chemical elements:

- A. Finds
- B. reveals
- C. designs
- D. calculates
- E. requires

PHYSICS

11. A particle moves from position $r_1 = 3i + 2j - 6k$ to position $r_2 = 14i + 13j + 9k$ under the action of a :

Force $F = 8i + 2j + 6k$ Find the work done by the force.

- A. 50 units
- B. 75 units
- C. 125 units
- D. 155 units
- E. 200 units

12. A body starts sliding on a rough horizontal surface with a speed of 10 m/s . If the coefficient of friction is 0.2 , find the distance traveled by the body before coming to rest, ($g = 10\text{ m/s}^2$)

- A. 15 m
- B. 25 m
- C. 35 m
- D. 40 m
- E. 55 m

13. A battery whose e.m.f is 40 V has an internal resistance of 5Ω if this battery's connected to a 15Ω a resistor 'R' What will be the voltage drop across R :

- A. 10 V
- B. 30 V
- C. 40 V
- D. 50 V
- E. 70 V

14. A particle of charge -0.04 C is projected with speed $2 \times 10^4\text{ m/s}$ into a uniform magnetic field 'B', of strength 0.5 T . If the particle's velocity as it enters the field is perpendicular to B What is the magnitude of the magnetic force on this particle:

- A. 4 N
- B. 8 N
- C. 40 N
- D. 80 N
- E. 800 N

15. Due to the magnetic force, a positively Charged particle execute uniform circular motion within a uniform magnetic field 'B'. If the charge is q and the radius of its path is 'r', which of the following expressions gives the magnitude of the particle's linear momentum:

- A. qBr
- B. qB/r
- C. q/Br
- D. B

16. A transverse wave on a long horizontal rope with a wavelength of 8 m travels at 2m/s at $t=0$ a particular point on the rope has a vertical displacement of $+A$, where A is the amplitude of the wave. At what time will be vertical displacement of this same point on the rope be $-A$:

- A. $t = 1/8 \text{ s}$
- B. $t = 1/4 \text{ s}$
- C. $t = 1/2 \text{ s}$
- D. $t = 2 \text{ s}$
- E. $t = 4 \text{ s}$

17. The dimensions of volume and acceleration (respectively) are:

- A. LT^{-1}
- B. LT^{-2} and LT^{-1}
- C. L^3 and LT^{-2}
- D. $L^4 T^1$ and LT
- E. LT^3 and T^2

18. A vector such as the velocity of a body undergoing uniform translational motion can be displaced parallel to itself and applied to any point is known as:

- A. Unit vector
- B. Free vector
- C. Null vector
- D. Position vector
- E. Resultant vector

19. What is the flux density at a point 3 cm from the long straight wire, when there is a current of 25 A in a wire: ($\mu_0 = 4 \pi \times 10^{-7}$):

- A. $0.23 \times 10^{-1} \text{ T}$
- B. $1.67 \times 10^{-4} \text{ T}$
- C. $2.99 \times 10^{-6} \text{ T}$
- D. $3.63 \times 10^{-8} \text{ T}$
- E. $9.99 \times 10^{-7} \text{ T}$

20. If an object is placed 30 cm from a convex lens whose focal length is 15 cm, the size of the image compared to the size of the object will be approximately :

- A. Twice as large
- B. More than twice as large
- C. 1.5 times as large
- D. Smaller
- E. The same size

21. When a conductor of cross-sectional area $5 \times 10^{-6} \text{ m}^2$ carries a current of 6 A, the drift velocity of the conduction electrons is $1.2 \times 10^{-4} \text{ ms}$. What is the number density (number per unit volume) of the conduction electrons :

- A. $4 \times 10^{28} \text{ m}^{-3}$
- B. $1.6 \times 10^{27} \text{ m}^{-3}$
- C. $2.5 \times 10^{27} \text{ m}^{-3}$
- D. $6.3 \times 10^{28} \text{ m}^{-3}$
- E. $1.3 \times 10^{34} \text{ m}^{-3}$

22. A thermocouple is immersed in water at 373 K and the other in ice at 273 K. The e.m.f of the thermocouple is 90 μV for each 1 K difference in temperature between junctions, and the thermocouple resistance is 6Ω . What current will flow in the galvanometer :

- A. 1.8 μA
- B. 250 μA
- C. 300 μA
- D. 1.5 mA
- E. 1.8 mA

23. The first law of thermodynamics may be written as $\Delta U = Q + W$, where ΔU is the increase in internal energy of the system, Q is the heat transferred to the system and W is the external work done on the system. Which of the following is correct for the case of an isothermal expansion of an ideal gas:

- A. $W > 0$
- B. $W = 0$
- C. $\Delta U = 0$
- D. $\Delta U > 0$
- E. $Q = 0$

24. A body of mass 5 kg, initially at rest, is moved by a horizontal force of 2N on a smooth horizontal surface. Find the work done by the force in 10 sec:

- A. 40 J
- B. 30 J
- C. 50 J
- D. 20 J
- E. 10 J

25. An object is placed 60 cm in front of a concave spherical mirror whose focal length is 40 cm. Which of the following best describes the image:

	Nature of image	Distance from Mirror
A	Virtual	24cm
B	Real	24cm
C	Virtual	120 cm
D	Real	120cm
E	Real	240 cm

26. An object is placed 60 cm from a spherical convex mirror. If the mirror forms a virtual image of 20 cm from the mirror, what is the magnitude of the mirror's radius of curvature:

- A. 7.5 cm
- B. 15 cm
- C. 30 cm
- D. 60 cm
- E. 120 cm

27. Find the unit vector parallel to the vector: $\mathbf{B} = 6\mathbf{i} + 12\mathbf{j} - 4\mathbf{k}$

- A. $\mathbf{b} = 4/14 \mathbf{i} + 12/14 \mathbf{j} - 4/14 \mathbf{k}$
- B. $\mathbf{b} = 6/14 \mathbf{i} + 12/14 \mathbf{j} - 4/14 \mathbf{k}$
- C. $\mathbf{b} = 6/14 \mathbf{i} + 17/14 \mathbf{j} - 4/14 \mathbf{k}$
- D. $\mathbf{b} = 6/14 \mathbf{i} + 17/14 \mathbf{j} - 4/14 \mathbf{k}$
- E. $\mathbf{b} = 9/14 \mathbf{i} + 12/14 \mathbf{j} - 1/14 \mathbf{k}$

28. Two capacitors $C_1 = 2 \mu\text{F}$ and $C_2 = 4\mu\text{F}$ are connected in series across a 100 V Supply Find the effective capacitance:

- A. $1/2 \mu\text{F}$
- B. $3/2 \mu\text{F}$
- C. $5/2 \mu\text{F}$
- D. $4/3 \mu\text{F}$

29. A rescue helicopter drops a package of emergency ration to a standard party on ground. If the helicopter is traveling horizontally at 40 m/s at a height of 100 m above the ground where does the package strike the ground relative to the point at which it was released ($g = 9.8 \text{ m/s}^2$):

- A. 120 m
- B. 130 m
- C. 140 m
- D. 180.7 m
- E. 200.3 m

30. The radius of the moon is 27% of the earth's radius and its mass is 1.2% of the earth's mass. Find the acceleration due to gravity on the surface of the moon:

- A. 0.431 m/s^2
- B. 1.615 m/s^2
- C. 2.431 m/s^2
- D. 3.615 m/s^2
- E. 4.431 m/s^2

Questions 31-32:

A battery has an e.m.f of 6.0 volts and an internal resistance of 0.4 ohm. It is connected to a 2.6 ohm resistor through a SPST (single pole, single throw) switch)

31. When the switch is open, the potential difference between the terminal of the battery is, in volts:

- A. 0
- B. 0.8
- C. 2.6
- D. 5.2
- E. 6.0

32. When the switch is closed, the potential difference between the terminal is, in volts:

- A. 0
- B. 0.8
- C. 2.6
- D. 5.2
- E. 6.0

33. Assume that you have two balls of identical volume, one weighting 2 Newton's and other 10 Newton's. Both are falling freely after being released from the same point simultaneously. Which of the following will then be true:

- I. The 10-N ball falling freely from rest will be accelerated at a greater rate than the 2N ball
- II. at the end of 4s of free fall the 10N ball will have 5 times the momentum of the 2N ball
- III. At the end of 4s of free fall, the 10 N ball will have the same kinetic energy as the 2 N ball
- IV. The 10 N ball possesses greater inertia than the 2 N ball

- A. I, II and III only
- B. I and III only
- C. II and IV only
- D. IV only
- E. None of these

34. A car waiting at a traffic signal and when the signal turns green, the car starts ahead with a constant acceleration of 2 m/s^2 . At the same time a bus traveling with a constant speed of 10 m/s overtakes and passes the car. How far beyond its starting point will the car overtake the bus:

- A. 40 m
- B. 30 m
- C. 90 m
- D. 120 m
- E. 100 m

35. A sample of an ideal gas occupies a volume ' V ' at pressure ' P ' and absolute temperature ' T ', the mass of each molecule is ' m '.if ' k ' is the Boltzmann constant then the density of the gas is:

- A. mkT
- B. P/KT
- C. P/KTV
- D. Mp/KT
- E. $2mPT / K$

36. A ball moving horizontally with speed ' v ' strikes the bob of a simple pendulum at rest The mass of the bob is equal to that of the ball If the collision is elastic the bob will to a height:

- A. V^2/g
- B. $V^2/2g$
- C. $V^2/4g$
- D. $V^2/8g$
- E. $V^2/7g$

37. A point source of light is placed at the principal focus of a concave lens. Which of the following will be true of the refracted light:

- 1. It will diverge
- 2. It will be parallel to the principal axis
- 3. It will seem to come from a point $1/2$ of the radius of curvature from the lens
- 4. It will converge
- A. 1, 2, and 3 only
- B. 1 and 3 only
- C. 2 and 4 only
- D. 4 only
- E. none of the above

38. The quantity of heat required to raise the temperature of one mole of a substance through 1 K, and its units are $\text{J}\cdot\text{mole}^{-1}\text{K}^{-1}$, is called:

- A. Carnot engine
- B. Molar specific heat
- C. Kinetic specific heat
- D. General gas law
- E. Boyle's law

39. A shot leaves a gun at the rate of 160m/s . Calculate the greatest distance to which it could be projected and the height to which it would rise: ($g=10\text{m/s}^2$): .

- A. 1560m , 540m
- B. 2560m , 640m
- C. 3560m , 740m
- D. 4560m , 840m
- E. 9595m , 348m

40. A car covers the first contain distance with a speed V_1 . and the second half with a speed V_2 . Find tho avorage speed during the whole Journey:

- A. $V_1 + V_2 / 2(V_1 + V_2)$
- B. $2V_1 + V_2 / V_1 + V_2$
- C. $2V_1 3V_2 / V_1 + 5V_2$
- D. $V_1 + V_2 / 5 V_1 + V_2$
- E. $V_1 + V_2 / 4V_1 + 9V_2$

45. The range of pH below _____ and above _____ of soil represent its sterility "

- A. 5....10
- B. 10....15
- C. 3....10
- D. 10....3
- E. 5....3

46. If NaCl produced in the equation:



Was dissolved in water to make a liter of solution the molarity would be

- A. 0.1M.
- B. 3M
- C. 8 M
- D. 4 M

47. When 18×10^{-3} moles/dm³ of acetic acid react with 22×10^{-3} of ethyl alcohol to form 40×10^{-3} moles/dm³ of ethyl acetate and 40×10^{-3} moles/dm³ Find the value of equilibrium constant of K_c :

- A. 4.04
- B. 3.14
- C. 3.04
- D. 2.02
- E. 1.04

48. Warmful and undesirable reaction of metal when exposed to atmosphere or any chemical agent is known as:

- A. allotropy
- B. electroplating
- C. collision
- D. cracking
- E. corrosion

49. Catenation is a process in which carbon shows the properties of:

- A. making single bond
- B. hybridization
- C. making long chains or rings of carbon atoms
- D. isomerism
- E. breaking of bonds

50. Which gas is likely to deviate most from Ideal gas behavior:

- A. HCl
- B. He
- C. CH₄
- D. N₂
- E. O₂

51. The maximum number of electrons that an orbital can accommodate is/are:

- A. 0
- B. 1
- C. 2
- D. 3
- E. 4

52. Which of the following is not a nucleophile:

- A. HO
- B. NH₃
- C. BF₃
- D. CN
- E. NH₂

53. Purification of bauxite whose major Impurity is silica(SiO₂) is carried out through:

- A. Baeyer's method
- B. Hall's method
- C. Serpek's method
- D. Contact method
- E. Electrolytic method

**54. Chlorine is manufactured commercially by the electrolysis of aqueous sodium chloride brine
Which other products are made in this process:**

- A hydrochloric acid and hydrogen
- B hydrogen and sodium
- C. hydrogen and sodium hydroxide
- D. sodium and sodium hydroxide
- E. hydrochloric acid and sodium

55. Sodium reacts with water more vigorously than Lithium because It:

- A. has higher atomic weight
- B. is more electronegative
- C. Is more electropositive
- D. is a metal
- E. has high melting point

56. The crystals formed as a result of vander waal's Interactions are:

- A. molecular crystals
- B. covalent crystals
- C. metallic crystals
- D. ionic crystals
- E. none of the above

57. According to law of mass action , "The rate of chemical reaction is proportional to:

- A. products
- B. product of molar concentration of reactants
- C. Initial concentration of reactants
- D. catalyst
- E. pressure

58. The sum of exponents of the molar concentration of the reactants, Is equal to:

- A molecularity
- B. polarity
- C. activation energy
- D. rate of reaction
- E. order of reaction

59. Nascent hydrogen used in the formation of methane , Is obtained from the reaction of:

- A. NaHCO_3 with Zn
- B. HCl with Zn
- C. KOH with Zn
- D. H_2O with Zn
- E. CH_3I with Zn

60. Zymase a group of 14 enzymes, used in the fermentation of starch, is present in:

- A. bacteria
- B. yeast
- C. fungi
- D. algae
- E. virus

61. The general formula for aldehyde is :

- A. R-OR
- B. R-COOH
- C. R-CO-R
- D. R-x
- E. R-CHO

62. When an element exists in more than one crystalline form, the phenomenon is termed as :

- A. isomorphism
- B. allotropy
- C. Isomerism
- D. anisotropy
- E. enthalpy

63. When an element exists in more than one crystalline form, the phenomenon is

- A. $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
- B. $2\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
- C. $(\text{CaSO}_4) \cdot 2\text{H}_2\text{O}$
- D. $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$
- E. $\text{NaSO}_4 \cdot \text{H}_2\text{O}$

64. Linear combination of atomic (LCAO) results in the formation of:

- A. Sigma bond
- B. PI Bond
- C. bonding molecular orbital's only
- D. bonding and anti-bonding molecular orbital's
- E. all of the above

65. Which of the following statements about H_2S is false :

- A. It is a covalent compound
- B. It is a gas with bad smell
- C. It is a strong reducing agent than H_2O
- D. Its molecule is non-linear
- E. it is a weak base in water

66. The rain drop acquires spherical shape and Ink spreads over blotting paper due to:

- A. surface tension
- B. adhesive forces
- C. viscosity
- D. polarity
- E. latent heat of vaporization

67. 950 torr corresponds to:

- A. 3.5 atm
- B. 1 atm
- C. 3 atm
- D. 1.25 atm
- E. 2.25 atm

68. The enthalpy change accompanying the gain of an electron by a neutral gaseous atom to form negative ion is called:

- A. Ionization potential
- B. electro-negativity
- C. electron affinity
- D. lattice energy
- E. potential energy

69. Sigma bond is formed by:

- A. transferring the electrons
- B. head on overlapping of atomic orbitals
- C. mutual but unequal sharing of electrons
- D. parallel overlapping of atomic orbitals
- E. all of the above

70. The heat of a reaction can be calculated by using:

- A. Joule's law
 - B. Ohm's law
 - C. Hess's law
 - D. Faraday's law
 - E. Boyle's law
-

BIOLOGY

QUESTION 71-73

Homophilia is a disorder in which blood fails to clot a male hemophiliac marries Sara is a normal woman and together they have four children two boys Ahmed and Ali and two girls (Alia and Ayesha). None of the children display the symptoms of homophilia. Ahmed, Ali, Ayesha and Alia all marry normal individuals and have children. None of Ahmed's or Ali's children, male or female, display symptoms of homophilia, but the sons of Alia and Ayesha display symptoms of homophilia while the daughters of Alia and Ayesha do not.

71. Which of the following best explains the reason that Ahmed, Alia and Ayesha do not display symptoms of hemophilia, even though their father, Saad, is a homophilic:

- A. Hemophilia is an X-linked disorder, and Saad can only pass on his Y chromosome
- B. Hemophilia is an X-linked disorder and even though Alia and Ayesha received from Saad, Sara gave them a normal X chromosome
- C. Hemophilia is a Y-linked disorder, and therefore cannot be displayed in females
- D. Hemophilia is a Y-linked disorder and Ahmed and Ali must have received chromosome from Saad
- E. Hemophilia is an X-linked disorder and even though Ahmed and Ali received a Hemophilic X-chromosome from Saad Sara gave them a normal X-chromosome

72. If one of Ali's daughter marries a normal man, what is the probability that one of their children will display symptoms of hemophilia:

- A. 0%
- B. 25%
- C. 50%
- D. 75%
- E. 100%

73. Which of the following individuals are heterozygous for homophilia:

- A. Saad, Ahmed and Ali
- B. Ahmed, Ali, Alia, and Ayesha
- C. Saad and Sara
- D. Alia and Ayesha
- E. Ahmed and Ali

74. The propulsive movement of the gastro-intestinal tract (GI tract) is:

- A. Peristalsis
- B. Epiglottis
- C. antiperistalsis
- D. Anus .
- E. None of the above

75. The Calvin Cycle consists of _____ main reactions:

- A. 3
- B. 6
- C. 9
- D. 13
- E. 16

76. Identify the Incorrect statement about the Bathal zone:

- A. It ranges from surface to depth of about 2000 metres
- B. It consists of pelagic and benthic zones
- C. Is aphetic
- D. It contains producers that prepare food for consumers
- E. None of the above

77. Deamination in the liver Initially produces:

- A. Ammonia
- B. Arginine
- C. Ornithine
- D. Urea
- E. Uric acid

78. The causas of Cyanosis Include:

- A. Deficiency of vitamin C
- B. Varicella-zoster virus
- C. Degeneration of the cartilage of Joints
- D. Ventricular septum defect
- E. None of the above

79. The prolactin hormone responsible for the activation of mammary glands to start producing milk is a hormone of:

- A. Pituitary gland
- B. Pancreas
- C. Thyroid gland
- D. Thymus gland
- E. Adrenal gland

80. Which of the following would be most likely to occur in an ecosystem:

- A. As the number of prey decreases, the number of predators Increase
- B. As the number of predators Increases, the number of prey Increases
- C. As the number of prey decreases, the number of predators decrease
- D. As the number of prey Increases, the number of predators decreases
- E. As the number of predators decreases, the number of prey decreases

81. The law of dominance Is Illustrated in the garden pea by:

- A. Homozygous tall x heterozygous tall
- B. Heterozygous tall x heterozygous tall
- C. Homozygous tall x homozygous tall
- D. Pure short x pure short
- E. Homozygous tall x pure short

82. Identify the Incorrect statement about Charles Darwin's theory :

- A. The individual of species have variations among them
- B. There is always a tendency of over reproduction in a species
- C. Vast gradual changes result in the origin of a new species
- D. Favorable variations survive and unfavorable will be exterminated
- E. Intra specific competition occurs between different species and inter-specific competition occurs among the individuals in a species

83. identify the Incorrect statement from the following:

- A. Apical growth Increases the length of stems and roots
- B. Xylem is situated on the outer side of the cambium ring and the phloem on the inner side.
- C. Secondary growth Increases the diameter of stems and roots
- D. The cells in elongation phase don't divide
- E. The cells in formative regions are closely packed together

84. proteins float in membrane like Ice burg In sea:

- A. Lock and key model
- B. Induce fit model
- C. Fluid mosaic model
- D. Lokta voltera model
- E. All of the above

85. In the Hardy-Weinberg principle, $p^2 + 2pq + q^2 = 1$, q^2 represents the frequency of the:

- A. Homozygous dominant
- B. Heterozygous dominant
- C. Heterozygous recessive
- D. Homozygous recessive
- E. Blended genes

86. Fungi do not contain:

- A. Cell wall
- B. Hyphae
- C. Chlorophyll
- D. Mycelium
- E. Spores

87. In a typical nucleotide the nitrogenous base is attached to _____ carbon of pentose :

- A. 6th
- B. 5th
- C. 4th
- D. 3rd
- E. 1st

88. Binomial nomenclature was first time proposed by:

- A. Charles Darwin (1859)
- B. Rodolph virchow (1855)
- C. Louis Pasteur (1862)
- D. Carlous Linnaeus (1707)
- E. Robert brown (1773)

89. _____ causes amoebic dysentery in humans:

- A. *Pelomyxa palustris*
- B. *Entamoeba histolytica*
- C. *Trichonympha*
- D. *Trypanosoma*
- E. Radiolarian ooze

90. The main process that occurs in the dark reaction in photosynthesis is:

- A. That water is split
- B. Light energy is converted into chemical energy
- C. That glucose is oxidized
- D. That carbon dioxide is fixed
- E. None of the above

91. _____ is commonly known as hook worm:

- A. Ancylostoma duodenale
- B. Ascaris lumbricoides
- C. Enterobius vermicularis
- D. Hirudinaria
- E. Wuchereria

92. Ileum Is about _____ long :

- A. 3.6 centimeters
- B. 3.6 millimeters
- C. 3.6 inches
- D. 3.6 meters
- E. 3.6 kilometers

93. The Latin words of the name given to a human being, Homo Sapiens, include the:

- A. Genus and family
- B. Family and order
- C. Order and class
- D. Genus and class
- E. Genus and species

94. In paper chromatography xanthophylls will give _____ color:

- A. Orange
- B. Grey
- C. Yellow
- D. Blue-green
- E. Yellow-green

95. Which of the following bones are present in the palm of hand:

- A. Carpals
- B. Metacarpals
- C. Phalanges
- D. Tarsal
- E. Radius

96. Which biome contains maples, Oaks, and bears:

- A. Tundra
 - B. Tropical rain forest
 - C. Temperate grasslands
 - D. Taiga
 - E. Deciduous forest
-

97. The major sign and symptoms of microcephaly is:

- A. A Sexual defects
- B. Excessive number of toes
- C. Mental retardation
- D. Small skull in proportion to the normal body size
- E. Split in upper lip and gap in the roof of mouth

98. The reaction involved in chemotropic nutrition is:

- A $6\text{CO}_2 + 12\text{H}_2\text{O} + \text{light} + \text{chlorophyll} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{H}_2\text{O} + 6\text{CO}_2$
- B. $2\text{H}_2\text{S} + \text{CO}_2 + \text{light} \rightarrow (\text{CH}_2\text{O})_n + \text{H}_2\text{O} + 2\text{S}$
- C. $\text{NH}_4^+ + 3\text{O}_2 + \text{light} \rightarrow 2\text{NO}_2^- + 2\text{H}_2\text{O} + 4\text{H}^+ \text{ energy}$
- D. $\text{CH}_3\text{-COOH} + \text{enzyme} \rightarrow \text{CH}_3\text{CHO} + \text{CO}_2$
- E. $5\text{GA3P} + 3\text{ATP} \rightarrow 3\text{RuBP} + 3\text{ADP} + 2\text{Pi}$

99. The muscles attached to the bones are:

- A. Voluntary and smooth
- B. Involuntary and smooth
- C. Voluntary and striated
- D. Involuntary and striated
- E. Smooth and striated

100. An organism appears to be a segmented worm. Upon observation it is determined that the organism has a closed circulation, a mouth and an anus ,and does not have an exoskeleton. The organism most likely belongs to the phylum:

- A. Mollusca
- B. Annelida
- C. Echinodermata
- D. Arthropoda
- E. Chordate

NTS TESTING SERVICE
NTS ANSWER KEY 2010

Question	Correct Choice	Question#	Correct Choice	Question#	Correct Choice	Question#	Correct Choice
1	C	26	D	51	C	76	D
2	D	27	B	52	C	77	A
3	D	28	D	53	C	78	D
4	B	29	D	54	C	79	A
5	B	30	B	55	C	80	C
6	E	31	E	56	A	81	E
7	A	32	D	57	B	82	E
8	C	33	C	58	E	83	B
9	C	34	E	59	B	84	C
10	E	35	D	60	B	85	D
11	E	36	B	61	E	86	C
12	B	37	E	62	B	87	E
13	B	38	B	63	C	88	D
14	E	39	B	64	D	89	B
15	A	40	B	65	E	90	D
16	D	41	C	66	A	91	A
17	C	42	D	67	D	92	D
18	B	43	E	68	C	93	E
19	B	44	A	69	B	94	C
20	E	45	C	70	C	95	B
21	D	46	B	71	B	96	E
22	B	47	A	72	A	97	D
23	C	48	E	73	D	98	C
24	A	49	C	74	A	99	C
25	D	50	A	75	D	100	B