

YT Answer Key Session



ANM & GNM QUESTION PAPER AND SOLUTION Q1. Filariasis or Elephantiasis is caused by which **Q8.** Which one of the following is not a steroid one of the following organisms? hormone? (a) Testosterone (a) Taenia solium (b) Progesterone (b) Fasciola hepatica (c) Insulin (c) Wuchereria bancrofti (d) Estrogen (d) Hirudinaria granulosa **Q9.** Which of the following is mainly associated Which one of the following is the with the maintenance of posture? complementary base of guanine in DNA? (a) Cerebellum (b) Cerebrum (c) Thalamus

(b) Thymined

(a) Adenine

- (c) Cytosine
- (d) Uracil

Q2.

Q3. At which phase of meiosis are homologous chromosomes are separated?

- (a) Prophase I
- (b) Prophase II
- (c) Anaphase I
- (d) Anaphase II

Q4. Which one of the following is an example of tropic hormone?

- (a) ACTH
- (b) Gastrin
- (c) Secretin
- (d) CCK-PZ

Q5. The book 'Systema Naturae' was written by

- (a) Charles Darwin
- (b) Carolus Linnaeus
- (c) Robert Harding Whittaker
- (d) Jean Baptiste Lamarck
- **Q6.** Which plant does exhibit hydrophily?
- (a) Hydrilla sp.
- (b) Pinus sp.
- (c) Oryza sp.
- (d) Nelumbo sp.
- **Q7.** The wings of a bird and wings of an insect are
- (a) Analogous structure
- (b) Homologous structure
- (c) Vestigial structure
- (d) Phylogenetic structure

(b) Glycolipid (c) Phospholipid (d) Steriod

Q11. The most abundant lipid in a cell membrane

Q10. The complex molecule consisting of a DNA

strand and a core of histone octamer is

Q12. Which of the following molecules move regularly from the nucleus to the cytoplasm?

- (a) Glycogen
- (b) RNA

is

(d) Pons

(a) Centromere (b) Neucleosome

(c) Nucleotide

(d) Chromosome

(a) Cholesterol

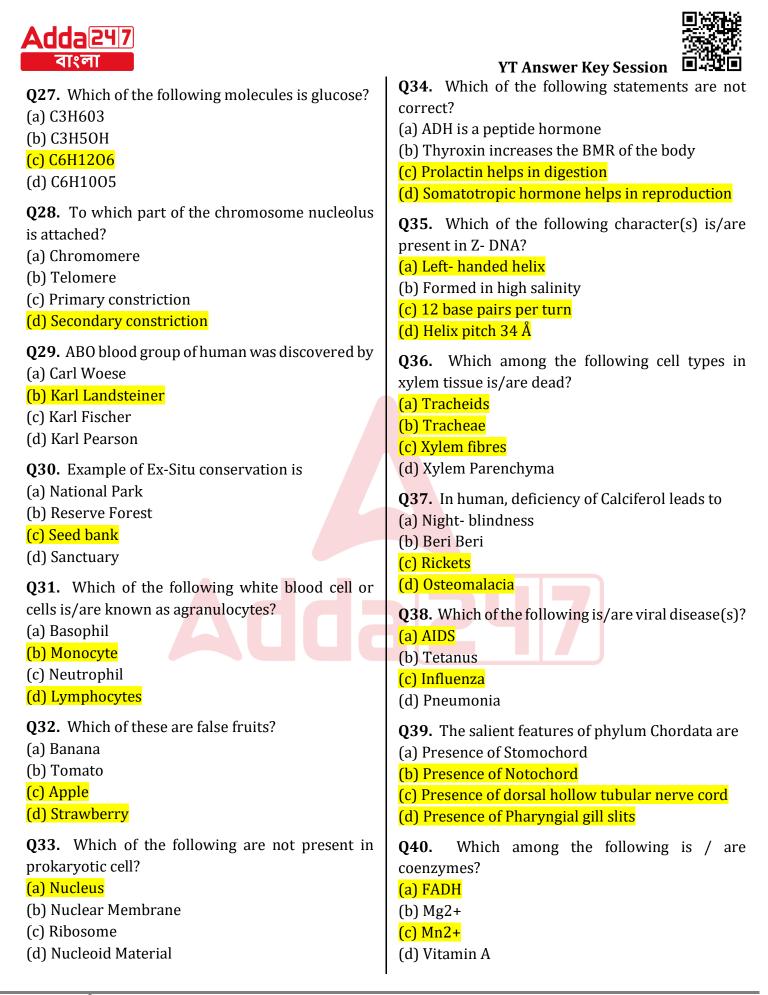
- (c) DNA
- (d) Cholesterol







YT Answer Key Session Which one of the following parts is **Q13.** The main function of platelets is to 020. responsible for absorption of digested food in (a) destroy tumour cells human being? (b) produce antibodies (a) Oesophagus (c) stop bleeding from cut wounds (b) Liver (d) kill bacteria by phagocytosis (c) Pancreas **Q14.** Which one of the following is an example of (d) Small Intestine vitamin? **021.** In BCG vaccine the full form of BCG is (a) Aspartic acid (a) Bacillus Calmodulin Guanine (b) Stearic acid (b) Bacillus Calmette Guerin (c) Glutamic acid (c) Bacillus Clostridium Gonococci (d) Ascorbic acid (d) Bordetella Clostridium Guerin **Q22.** Which of the following plant hormones is **Q15.** The acrosome of sperm contains responsible for bolting phenotype? (a) DNA (a) Cytokinin (b) Mitochondria (b) Auxin (c) Fructose (c) Gibberellin (d) Hydrolytic enzymes (d) IAA **Q16.** Which Eukaryotic organisms, among the **Q23.** Which of the following pigments is found in following do not contain mitochondria? the skin of human body? (a) Chara vulgaris (a) Anthocyanin (b)Monocercomonoides exilis (b) Cyanidin (c) Monoblepharis laevis (c) Melanin (d) Opsin (d) Marchantia polymorpha **Q24.** What is the type of nucleic acid found in HIV? **Q17.** In the stomach HCL is secreted by (a) ss DNA (a) Zymogen cells (b) ds DNA (b) Kupffer's cells (c) ss RNA (c) Oxyntic cells (d) ds RNA (d) Mucous cells Q25. Leaves of which of the following **Q18.** Which Chamber of the heart has the thickest dicotyledonous plants show parallel venation? muscular wall? (a) Magnifera indica (a) Right atrium (b) Calotropis procera (b) Left atrium (c) Calophyllum inophyllum (d) Ixora sp. (c) Right ventricle (d) Left ventricle **Q26.** If heterozygous offspring is crossed with homozygous recessive parent, then this **Q19.** Energy is stored in the liver and muscles as phenomenon is called (a) Glycogen (a) Back cross (b) Cholesterol (b) Test cross (c) Starch (c) Reciprocal cross (d) Fat (d) Epistasis





Q41. Which of the following statements is true for H₂S?

(a) It is a strong base.

(b) It is a neutral.

(c) It is a mild acid.

(d) It is a strong acid.

Q42. The solubility of common salt in water at 100°

C is 40. Approximately how much common salt is required to make 100 g of saturated solution at 100 $^{\rm o}$ C?

(a) 28.57 g

<mark>(b) 40 g</mark>

(c) 35 g

(d) 20 g

Q43. Milk is a

(a) saturated solution

(b) supersaturated solution

<mark>(c) colloid</mark>

(d) suspension

Q44. Sulphuric acid is:

(a) mono-basic

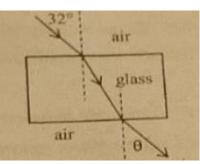
(b) di-basic

- (c) tri-basic
- (d) tetra-basic



Q45.





As shown in the figure, a ray of light coming from air is incident on a parallel glass slab at an angle of 32 ° and emerges from the other side at an angle of θ . What is the value of θ if refracting index with respect of air is 1.5?

- <mark>(a) 32°</mark>
- (b) 48°
- (c) 72°
- (d) 49.5°

Q46. How much heat is required to melt 100g of ice kept at 0° C into water and fully convert it into steam? (Latent heat of melting of ice, specific heat of water and latent heat of vaporization of water are respectively 80 cal/g° C and 540 cal/g)

- <mark>(a) 72 kcal</mark>
- (b) 10 kcal

(c) 18 kcal

(d) 64 kcal

Q47. A vessel is filled to the brim by a liquid. It is observed that the vessel always remains filled to the brim even if it is heated or cooled. What is the coefficient of real expansion of the liquid if the coefficient of linear expansion of the material of the vessel is ' α '?

- (a) α
- (b) α/2
- (c) 2α

<mark>(d) 3α</mark>

Q48. GPS Stands for

- (a) Global Poles System
- (b) Global Poly-Silicon Store
- (c) Global Positioning System
- (d) Global Position Structure





Q49. The principal constituent of the atmosphere

of the Earth is

- (a) Oxygen
- (b) Carbon
- (c) Hydrogen
- <mark>(d) Nitrogen</mark>

Q50. Product of force and velocity is called

- (a) Work
- <mark>(b) Power</mark>
- (c) Energy
- (d) Momentum

Q51. 1 nanometer =?

(a) 10⁻³

(b) 10⁻⁶

- (c) 10⁻⁹
- (d) 10⁻¹²

Q52. Which one helps to define force?

- (a) Newton's 3rd law of motion
- (b) The theory of relativity
- (c) Newton's 1st law of motion
- (d) Archimedes' principle

Q53. 1 GB memory is approximately _ times larger than 1 MB memory.

(a) 10

- <mark>(b) 1000</mark>
- (c) 100
- (d) 2

Q54. LPG used as domestic cooking gas is composed mainly of

(a) Propane and butane

- (b) Methane
- (c) Natural Gas
- (d) Acetylene

Q55. Which of the following is the main component of baking powder?

<mark>(a) NaHCO</mark>₃

- (b) NaCO₃
- (c) Nacl
- (d) Hcl

Q56. If a ball is released to ground from any height, (a) When it hits the ground, its potential energy is

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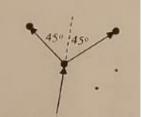
minimum and kinetic energy is maximum.

(b) At any point during its fall the total energy remains constant.

(c) At point of during its fall, it has both potential energy and kinetic energy.

(d) When it reaches the ground, its potential energy is maximum.

Q57.



If a cracker thrown vertically upwards bursts into two pieces; one piece flies to right with an angle 45° to the vertical; the other piece flies to left with the same angle to the vertical as shown in the figure. This is primarily due to.

(a) Newton's 1st law of motion.

(b) Conservation of momentum.

- (c) Acceleration due to the gravity.
- (d) Sound produced by the cracker.

Q58. Steam causes more severe burn injury than boiling water because,

(a) Steam attacks human body with more force.

(b) Steam contains more heat than boiling water of same mass.

(c) Steam is a vapour.

(d) Steam is hotter than boiling water.

Q59. Which of the following statements are true? (a) Liquids and gases have fixed volume but no fixed shape.

(b) Solids have fixed volume and shape.

(c) Solids never diffuse in each other.

(d) Gases do not have any fixed shape.

Q60. When a balloon is blown with air and its mouth is tied,

(a) All air molecules inside become fixed in their positions.

(b) There will be empty spaces between those air molecules.



(c) Those air molecules keep moving randomly and often hit the balloon surface from inside.

(d) The air inside becomes solid.

Q61. Choose the word, which can most appropriately replace the italicized words in the sentence –

A person can be sentenced to death for *killing another human being*.

(a) patricide

(b) homicide

(c) genocide

(d) fratricide

Q62. Choose the most effective word to fill in the blank to make the sentence meaningfully complete. Some people ______ themselves into believing that they are indispensable to the organization they work for.

(a) force

<mark>(b) delude</mark>

- (c) keep
- (d) ask

Q63. Choose the most effective word to fill in the blank to make the sentence meaningfully complete. His ______ of the subject was so good that students had very few questions to raise.

- (a) exposition
- (b) clarity
- (c) disposing
- (d) exposure

Q64. Choose the most effective word to fill in the blank to make the sentence meaningfully complete. Those who have well ______ their transition from village life to city life have prospered.

(a) managed

- (b) taken
- (c) tried
- (d) finalised

Q65. Choose the most effective word to fill in the blank to make the sentence meaningfully complete. This is the ______ chosen for the school to come

up.

<mark>(a) site</mark> (b) sight

(c) plot

(d) area

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Q66. Choose the most appropriate pair of words from the options given below to fill in the blanks in the given sentence in the same order to make the sentence meaningfully complete.

The _____ imposed for non-payment was too _____ for it to bring in any improvement.

(a) penalty, low
(b) toll, simple
(c) punishment, harsh
(d) fine, severe

Q67. Choose the most appropriate pair of words from the options given below to fill in the blanks in the given sentence in the same order to make the sentence meaningfully complete.

We are ______ to have him _____ here to make this function a great success.

- (a) pleased, over
- (b) happy, lie
- (c) proud, leave
- (d) sorry, over

Q68. Fill in the blank with the most appropriate word/group of words to make the sentence meaningfully complete.

We should not be indifferent ______ the sufferings of our fellow men.

(a) of (b) to

(c) from

(d) at

Q69. Choose the word, which has nearly the same meaning as OBLIGATORY.

(a) Agreeable

- (b) Required
- (c) Stubborn
- (d) Useful

Q70. Choose the word, which has nearly the same meaning as EXUDE.

- (a) Drop
- <mark>(b) Ooze</mark>
- (c) Overflow
- (d) Evaporate





Q71. Choose the word, which is opposite in meaning to IMPOUND.

- (a) Compound
- (b) Generate
- (c) Dollar
- (d) Release

Q72. Choose the word, which is opposite in meaning to CHIDE.

- (a) Request
- (b) Criticise
- (c) Advocate
- <mark>(d)</mark> Praise

Q73. Pick out the word that has either nearly the same meaning or opposite meaning to EXONERATE.

- (a) Escalate
- (b) Admit
- <mark>(c) Accuse</mark>
- (d) Reject

Q74. Choose the word that can replace both the words in the Italics in the two given sentences.

I. The management did not find him *suitable* for the job of a clerk.

II. Akash could not *arrange* all parts of the machine properly.

<mark>(a) fit</mark>

- (b) employ
- (c) finish
- (d) adjust

Q75. Observe the two Italicized words in the following two sentences and give your observation by choosing any one option below.

I. I am indebted to my friend's wise *councel*.

II. Some members of *counsil* walked out of the meeting.

- (a) Only sentence-I is correct.
- (b) Only sentence-II is correct.
- (c) Both sentence I and II are correct.

(d) Neither sentence I nor sentence II is correct.

YT Answer Key Session Q76. A pump can fill water in a tank at 2100 liters per hour. Then how many hours does it take to fill a reservoir at length 7 m, breadth 5 m and height 30

decimeter? (a) 5 hours <mark>(b) 50 hours</mark>

(c) 60 hours (d) 500 hours

Q77. A and B are two solid spheres. The total surface area of B is 4 times of total surface area of A. Then the ratio of the volume of A and B is (a)1:4

(a) 1:4(b) 4:1

- (b) 4.1 (c) 1:8
- (d) 8:1

Q78. The ratio of the height and transverse height of a cylindrical cone is 4:5, then the ratio of the transverse height and the radius of the base is

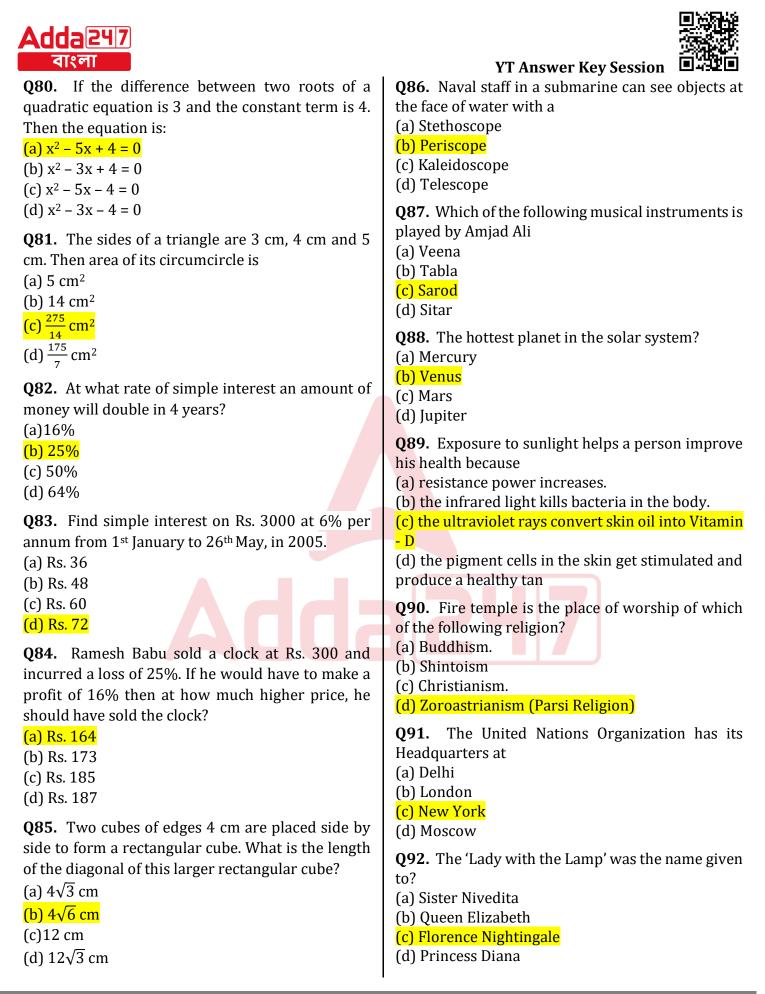
- <mark>(a) 5:3</mark>
- (b) 3:5
- (c) 7:5
- (d) 5:7

(a) 2

Q79. The square root of the product of two roots of the quadratic equation $x^2 - 6x + 4 = 0$ is

(b) 4
(c) 16
(d) 3 + √5





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Q97. How is David's father's only daughter-in-
law's son's wife related to David?
(a) Daughter
(b) Daughter-in-law
(c) Niece
(d) Granddaughter
Q98. 36, 34, 30, 28, 24, What number should
come next?
(a) 20 (b) 22
(c) 23
(d) 26
Q99. Find the missing terms. 5 19 3 7 6 6 29 5 (a) 25 (b) 37 (c) 41 (d) 47 Q100. 6, 11, 21, 36, 56, ? (a) 42 (b) 51 (c) 81 (d) 91



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