

SSUUGCET
BSC (HONS) AGRICULTURE/HORTICULTURE/AGRIBUSINESS MANAGEMENT
SAMPLE QUESTIONS

PHYSICS

1. Ohm's law is valid when the temperature of the conduct or is
 - a. Constant
 - b. Very high
 - c. Very low
 - d. Varying
2. The law of equipartition of energy is applicable to the system whose constituents are
 - a. In random motion
 - b. In orderly motion at rest
 - c. At rest
 - d. Moving with constant speed
3. The unit of power is
 - a. Kilowatt
 - b. Kilowatt hour
 - c. Dyne
 - d. Joule
4. A galvanometer may be converted into ammeter or a voltmeter. In which of the following cases the resistance of the device so obtained will be the largest?
 - a. Voltmeter of range 10V
 - b. Voltmeter of range 1V
 - c. Ammeter of range 10A
 - d. Ammeter of range 1A
5. In insulators
 - a. Conduction band is filled with electrons and valence band is empty
 - b. Valence band is partially filled with electrons
 - c. Conduction band is partially filled with electrons
 - d. Conduction band is empty and valence band

CHEMISTRY

1. The group which does not enter directly in the benzene ring is
 - a. $(\text{CH}_3)_2 \text{CH}-$
 - b. $-\text{NO}_2$
 - c. $-\text{C}_2\text{H}_5$
 - d. $-\text{NH}_2$
2. ZnO is white when cold while it is yellow when hot, due to
 - a. Frenkel defect
 - b. Nonstoichiometric crystal defect
 - c. Schotky defect
 - d. Impurity
3. While aqueous solution of AlCl_3 is acidic towards litmus that of NaCl is not. This is because of
 - a. Oxidation and Reduction
 - b. Hydrolysis
 - c. Solubility
 - d. Only oxidation
4. When ammonia is passed over heated cupric oxide the gas produced is
 - a. N_3
 - b. N
 - c. N_2
 - d. N_2
5. Brownian movement is characteristic of
 - a. Colloid
 - b. Crystalloids
 - c. True solution
 - d. none of these

MATHEMATICS

1. The area bounded by the curve $y=2x - x^2$ and the straight line $y=-x$ is
 - a. $\frac{9}{2}$
 - b. $\frac{35}{6}$
 - c. $\frac{43}{6}$
 - d. $\frac{13}{4}$
2. The area bounded by the curve $y = x \sin x$ and the x-axis between $x=0$ and $x=2\pi$ is
 - a. 4π
 - b. 3π
 - c. 2π
 - d. π
3. The solution of $\frac{dy}{dx} + y \cot x = 2 \cos x$, is
 - a. $2y = \sin x \cos 2x + c$
 - b. $2y \sin x + \cos 2x = c$
 - c. $2y \sin x - \cos 2x = c$
 - d. $2y \sin x = c \cos 2x$
4. If $(x^2 - ay) dx - (ax - y^2) dy = 0$ and $y(0) = 0$, then
 - a. $x^3 + y^3 + 3axy(x+y) = 0$
 - b. $x^3 + y^3 - 3axy = 0$
 - c. $x^3 + y^3 + 3axy = 0$
 - d. $x^3 - y^3 - 3axy = 0$
5. The distance between the lines $4x+3y=9$ and $8x+6y=15$, is
 - a. 0.3
 - b. 3
 - c. 0.5
 - d. 6

BIOLOGY

1. Symbiotic association between fungus and root of higher plant is
 - a. Mycorrhiza
 - b. Orchid
 - c. Lichen
 - d. Puffball
2. Plasmids found in the cells of bacteria are molecules of
 - a. DNA
 - b. RNA
 - c. Protein
 - d. DNA bound by histones
3. Who develop vaccine first time?
 - a. Edward Jenner
 - b. Louis Pasteur
 - c. John Salk
 - d. J. Lister
4. Which is the first stable product of CO₂ fixation in C₃ plants?
 - a. PGA
 - b. Ribulose phosphate
 - c. Glucose
 - d. Starch
5. The light reaction of photosynthesis supply the calvin cycle with
 - a. ATP and NADPH
 - b. CO₂ and ATP
 - c. H₂O and NADPH
 - d. Light energy

APTITUDE

1. What least number must be subtracted from 1672 to obtain a number which is completely divisible by 17?
 - a. 6
 - b. 7
 - c. 8
 - d. None of these
2. The HCF of two numbers is 11 and their L.C.M is 7700. If one of the numbers is 275, then the other is
 - a. 308
 - b. 318
 - c. 283
 - d. 279
3. If $1.5x = 0.04y$, then the value of $\frac{y-x}{y+x}$ is
 - a. $\frac{73}{77}$
 - b. $\frac{7.3}{77}$
 - c. $\frac{730}{77}$
 - d. None of these
4. A number is doubled and 9 is added. If the resultant is trebled, it becomes 75. What is that number?
 - a. 8
 - b. 6
 - c. 3.5
 - d. None of these
5. Rohan's age after 15 years will be 5 times his age 5 years back. What is the present age of Rohan?
 - a. 10
 - b. 12
 - c. 15
 - d. None of these

REASONING

1. A woman introduces a man as the son of the brother of her mother. How is the man related to the woman?
 - a. Cousin
 - b. Son
 - c. Nephew
 - d. Uncle
2. If DIAMOND is coded as VQYMKLV, how is FEMALE coded?
 - a. TUMYNU
 - b. UVNZOV
 - c. UVNYNV
 - d. TVNYNV
3. Find the next two terms in the series: A, C, F, J, ?,
 - a. O, U
 - b. M, O
 - c. L, P
 - d. R, V
4. Soap is related to Wash in the same way Broom is related to....?.....
 - a. Sweep
 - b. Dust
 - c. Clean
 - d. Floor

5.

3C	2B	4A
27A	?	64B
9C	4A	16B

- a. 8C
- b. 12B
- c. 16C
- d. 18C