

Total No. of Pages : 02

B.Sc. Agriculture (2014 & Onwards) (Sem.-1)

Subject Code : BSAG-106a

Paper ID : [A3295]

Max. Marks : 60

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

1. Answer briefly :

- a) Write a short note on right angled triangle.
- b) Write the general term of G.P.
- c) Write the equation of straight line passing through two points.
- d) If two straight lines are parallel, then what is the angle between them ?
- e) Write the equation of circle with centre at origin and radius 1 c.m.
- f) Write the general term of Binomial Theorem.
- g) Write a short note on regular Hexagon.
- h) A number exceeds its positive square root by 12. Find the number.
- i) Find the volume of a cuboid 12 m long, 9 m board and 8 m high.
- j) What is the relationship between the slopes of two perpendicular straight lines?

SECTION-B

2. A rope 66 cms long has been put in the form of a circle. Find the area of the circle so formed.
3. Find the three numbers in G.P. whose sum is 19 and whose product is 216.
4. How many seven digit numbers can be formed using the digits 1, 2, 0, 2, 4, 2 and 4?
5. Find the angle between the lines $x + 2y + 9 = 0$ and $3x + y - 7 = 0$.
6. The sides of rectangular lawn are in ratio 3:2 and its area is $\frac{1}{6}$ hectares. Find the dimensions of the lawn.

SECTION-C

7. Show that the equation $a(x^2 + y^2) + 2gx + 2fy + c = 0$ represents a circle. Also find the radius and the co-ordinates of this circle.
8. Solve $5^{2x} - 5^{x+3} + 125 = 5^x$.
9. How many terms in the series 1, 4, 7, 10, amount to 176 ?