Which of the followings is the 0-dimensional space.

A. Line

B. Point

C. Both

D. None

ANSWER: B

Which of the following obeys the parallelogram law of addition.

A. Displacement

B. Velocity

C. Acceleration

D. All of these

ANSWER: D

If two vector V1 and V2 are represented by two adjacent sides of the parallelogram then the diagonal of the parallelogram is.

A. V1+V2

B. V1V2

C. V1-V2

D. All of these

ANSWER: A

The direction ratios are the numbers which are related to the direction cosines as.

A. Equal

B. Opposite

C. Proportional

D. Disjoint

ANSWER: C

The position vector of a point is localized vector as it has the fixed starting point that is.

A. Origin

B. Point itself

C. End point of position vector

D. Any point of vector

ANSWER: A

We can reduce any form of equation of straight line into symmetric form.

A. True

B. False

ANSWER: A

The form “a(x-x0) +b(y-y0) +c(z-z0)” of the equation of the plane is.

A. Normal form

B. One-point form

C. Point slope form

D. Symmetric form

ANSWER: B

For the point “Q (x1, y1, z1)” and the plane lx+my+nz=p, the d=lx1+my1+nz1-p is called.

A. Perpendicular distance

B. Parallel distance

C. Initial distance

D. Distance of normality

ANSWER: A

If the rectangular coordinates are given then we can find.

A. Spherical polar coordinates

B. Cylindrical polar coordinates

C. Polar coordinates

D. All of the these

ANSWER: D

By setting x=z we can find the intercept of the surface on.

A. X-axis

B. Y-axis

C. Z-axis

D. A=both x-axis and z-axis

ANSWER: B

If the equation of the surface is not changed by replacing x by -x in the equation then the surface is symmetric with respect to.

A. Xz-plane

B. Yz-plane

C. Xy-plane

D. X-axis

ANSWER: B

Surface of revolution is generated by rotating the curve about.

A. Straight line

B. Point

C. Circle

D. Triangle

ANSWER: A

A point moves such that the square of its distance from fixed point is proportional to its distance from fixed plane its locus is.

A. Sphere

B. Triangle

C. Circle

D. line

ANSWER: A

A cylinder is a ruled surface all of whose rulings are.

A. Perpendicular

B. Parallel

C. Concurrent

D. Anti parallel

ANSWER: B

Hyperboloid of one sheet and hyperbolic paraboloid are the only two surfaces which are not ruled surfaces.

A. True

B. False

ANSWER: B

Angle between a line and a plane will be complement of the acute angle between the line and the normal to the plane.

A. True

B. False

ANSWER: A

Every normal to the sphere passes through every point of the sphere.

A. True

B. False

ANSWER: B

Euler's theorem is applicable to the function which is.

A. Continuously differentiable

B. Homogeneous

C. Both Continuously differentiable and Homogeneous

D. None

ANSWER: C

A square matrix all of whose elements above the main diagonal are zero is called.

A. Lower triangular matrix

B. Upper triangular matrix

C. Both Upper and lower triangular matrix

D. None of these

ANSWER: A

Commutative law of multiplication of matrices holds for some matrices.

A. True

B. False

ANSWER: A

Every idempotent matrix is periodic matrix.

A. True

B. False

ANSWER: A

If A and B are symmetric matrices then the product AB is also symmetric if and only if.

A. A and B are inverses of each other

B. A and B commute

C. A and B associate

D. Both commute and associate

ANSWER: B

A square matric whose inverse exists is called.

A. Singular matrix

B. Non-singular matrix

C. Invertible matrix

D. Both non-singular and invertible

ANSWER: D

If A and B are non-singular matrices then the product AB is.

A. Non-singular

B. Singular

C. May be singular or non-singular

D. None of these

ANSWER: A

Addition of any multiple of one row to another row is an.

A. Elementary binary operation

B. Elementary row operation

C. Elementary columns operation

D. None of these

ANSWER: B

A matrix is row equivalent to a matrix in echelon form.

A. True

B. False

ANSWER: A

Every elementary matrix is.

A. Symmetric

B. Hermitian

C. Non-singular

D. Singular

ANSWER: C

Row equivalent matrices have same row rank.

A. True

B. False

ANSWER: A

For a system of equation of n variables and coefficient matrix A the Gauss elimination method fails if.

A. Rank(A)> n

B. Rank(A)=n

C. Rank(A)=n+1

D. None of these

ANSWER: D

The system of m equations and n variables Ax=b and A is not singular matrix also m=n, system has.

A. No solution

B. Infinite many solutions

C. Unique solution

D. N solutions

ANSWER: C