VII PEREODIC EXAM
CLASS -XII
MATHS

TIME:1.20 HR.   **MM:$(2\times 10=20)$**

Q. 1:Show that the line through the points $(1, -1, 2)$ $(3, 4, -2)$ is perpendicular to the line through the points $(0, 3, 2)$ and $(3, 5, 6)$.

Q. 2:Find the vector and the Cartesian equations of the lines that pass through the origin and $(5, -2,3)$.

Q. 3:Find the values of p so the line $\dfrac{1-x}{3} = \dfrac{7y-14}{2p} = \dfrac{z-3}{2}$ and

$\dfrac{7-7x}{3p} = \dfrac{y-5}{1} = \dfrac{6-z}{5}$ are at right angles.

Q.4 :Find the shortest distance between the lines whose vector equations are

$\vec{r} = \left(\hat{i} + 2\hat{j} + 3\hat{k}\right) + \lambda\left(\hat{i} - 3\hat{j} + 2\hat{k}\right)$

and $\vec{r} = 4\hat{i} + 5\hat{j} + 6\hat{k} + \mu\left(2\hat{i} + 3\hat{j} + \hat{k}\right)$

Q. 5:Find the equations of the planes that passes through three points.

(a) $(1, 1, -1)$, $(6, 4, -5)$, $(-4, -2, 3)$

Q. 6:Find the equation of the plane through the intersection of the planes $3x - y + 2z - 4 = 0$ and $x + y + z - 2 = 0$ and the point $(2, 2, 1)$

Q.7:Find the angle between the planes whose vector equations are

$\vec{r}\cdot\left(2\hat{i} + 2\hat{j} - 3\hat{k}\right) = 5$ and $\vec{r}\cdot\left(3\hat{i} - 3\hat{j} + 5\hat{k}\right) = 3$.

Q.8:In the following cases, find the distance of each of the given points from the corresponding given plane.

(a) $(3, -2, 1)$ $2x - y + 2z + 3 = 0$

Q.9:Find the coordinates of the point where the line through $(5, 1, 6)$ and $(3, 4, 1)$ crosses the $ZX -$ plane.

Q.10:Find the vector equation of the line passing through $(1, 2, 3)$ and parallel to the planes

$\vec{r} = (\hat{i} - \hat{j} + 2\hat{k}) = 5$ and $\vec{r} \cdot (3\hat{i} + \hat{j} + \hat{k}) = 6$

NAME:S.K.DADHICH

ADDRESS:D-68,BEHIND PARNAMI SUPER MARKET,

BURFKHANA,ADARSH NAGAR,JAIPUR.

PHONE:0141-2603606

CBSE Sample Papers | CBSE Guess Papers | CBSE Practice Papers | Important Questions | CBSE PSA | CBSE OTBA | Proficiency Test | 10 Years Question Bank | **CBSE Guide** | CBSE Syllabus | Indian Tutors | **Teacher' Jobs** CBSE eBooks | Schools | Alumni | CBSE Results | CBSE Datesheet | **CBSE News**