|  |
| --- |
| ***KENDRIYA VIDYALAYA VEHICLE FACTORY JABALPUR*** |
| ***Ist Pre Board (2019 -20)*** |
| ***Class – 12 (Mathematics)*** |
| ***Time : 3 Hrs M.M : 80*** |
| **General Instructions :****1. All the questions are compulsory.****2. Section A comprises of 20 questions of 1 mark each.****3. Section B comprises of 6 questions of 2 marks each.****4. Section C comprises of 6 questions of 4 marks each.****5. Section D comprises of 4 questions of 6 marks each.** |
| **SECTION – A** |
|  ***( Q1 - Q10 are multiple choice type questions. Select the correct option )*** |
| ***1*** | ***Value of k is (a) 8 (b) 9 (c) 10 (d) 12*** | ***1*** |
| ***2*** |  | ***1*** |
| ***3*** | $$If \vec{a} . \vec{b }=0, then$$$angle between vectors \vec{a} and \vec{b}$ **is (a)** $\frac{π}{4}$ **(b)** $\frac{π}{2}$ **(c)** $\frac{π}{3}$ **(d)** $\frac{π}{6}$ | ***1*** |
| ***4*** |  | ***1*** |
| ***5*** |  | ***1*** |
| ***6*** | $$cos^{-1}\left(cos\frac{7π}{6}\right)is equal to \left(A\right)\frac{7π}{6} \left(B\right)\frac{5π}{6}\left(C\right)\frac{π}{3} \left(D\right)\frac{π}{6}$$ | ***1*** |
| ***7*** |  | ***1*** |
| ***8*** |  | ***1*** |
| ***9*** | $$The plane 2x-3y+4z-6=0 passses through point$$$$\left(A\right)\left(0,0,0\right) \left(B\right)\left(1,0,1\right) \left(C\right)\left(1,1,1\right) \left(D\right)\left(0,1,1\right) $$ | ***1*** |
| ***10*** | $$The direction ratio of the normal of the plane 5x-y+2z-8=0$$$ are \left(A\right) 5,-1,2 \left(B\right) 5,1,2 $***(C) 5 , 1 , 0 (D) 5, 1, -2*** | ***1*** |
|  ***( Q11 - Q15 : Fill in the blanks )*** |
| ***11*** | **Let A = {1, 2, 3}, B = {4, 5, 6, 7} and let f = {(1, 4), (2, 5), (3, 6)} be a function from A to B then f in one –one, this statement is \_\_\_\_\_\_\_\_\_\_\_\_\_(True/ False)** | ***1*** |
| ***12*** |  | ***1*** |
| ***13*** |  | ***1*** |
| ***14*** | ***The function given by f (x) = 3x + 17 is strictly \_\_\_\_\_\_\_\_\_\_\_\_\_\_on R.(Increasing/Decreasing)*** | ***1*** |
| ***15*** | **The area of parallelogram, whose adjacent sides are determined by the vectors** $\vec{a}=\hat{i}-2\hat{j}+3\hat{k} , \vec{b}=2\hat{i}+\hat{j}-4\hat{k}$ **is\_\_\_\_\_\_\_\_ .** | ***1*** |
| ***(Q16 - Q20 : Answer the following questions )*** |
| ***16*** | **Find the value of the determinant** | ***1*** |
| ***17*** |  | ***1*** |
| ***18*** | **Integrate w.r.t. x** | ***1*** |
| ***19*** | **Integrate w.r.t. x** | ***1*** |
| ***20*** |  | ***1*** |
| **SECTION – B** |
| ***21*** | **OR** | ***2*** |
| ***22*** |  | ***2*** |
| ***23*** |  | ***2*** |
| ***24*** |  | ***2*** |
| ***25*** |  | ***2*** |
| ***26*** |  | ***2*** |
| **SECTION – C** |
| ***27*** |  | ***4*** |
| ***28*** | **OR** | ***4*** |
| ***29*** |  | ***4*** |
| ***30*** | **Evaluate** | ***4*** |
| ***31*** | **OR** | ***4*** |
| ***32*** |  | ***4*** |
| **SECTION – D** |
| ***33*** | **Prove****OR** | ***6*** |
| ***34*** |  | ***6*** |
| ***35*** | **OR** | ***6*** |
| ***36*** |  | ***6*** |

***++++++++++++ BEST OF LUCK ++++++++++++++++***