BRAC UNIVERSITY

PHY-111(Principles of Physics I)

**Section-21**

Assignment-1

Marks: 25

Date of issue: 19 October, 2022 **Set-B** (**Even** student ID)

**Date of Submission: 24 October, 2022**

**Instructions:**

* Use A4 size papers
* Use the front page as the cover page
* Write your Name, ID and **Section** clearly on the cover page

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1. A vector has a magnitude of 4 units and it has a direction along a vector . Express the vector in unit vector notation and calculate its unit vector. [**Marks 5**]
2. Find out the projection of vector on if *A=B*. Also calculate the cylindrical polar coordinate of the position indicated by the vector . [**Marks 8**]
3. Calculate the area formed by the two vectors and . Also find out the angles that the direction of area makes with the X, Y and Z axes. [**Marks 12**]

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