**UDAAN WEEKLY WORKSHEET 1 (13-11-16)  
CLASS XI  
PHYSICS**

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| Question 1 | A projectile is projected at angle α from horizontal from the bottom of an inclined plane of inclinationβ. Prove that the direction for the maximum range on the inclined plane bisects the angle b/w the vertical and the inclined plane. Also find the value of maximum range and the maximum height. |
| Solution | C:\Users\Priyanka\Desktop\physicsquestions\s1.png |
| Correct Option |  |
| Question 2 | A ball rolls off the top of a stair way with horizontal velocity ‘u’ m/sec. If the steps are ‘h’ m high and ‘w’ m wide. Find the minimum ‘u’ so that the ball just reaches the nth stair. |
| Solution | C:\Users\Priyanka\Desktop\physicsquestions\s2.jpg |
| Correct Option |  |
| Question 3 | The height ‘y’ and the distance x along the horizontal plane of a projectile are given as y = 8t – 5t2 and *x* = 6t. Calculate the angle of projection for the projectile. |
| Solution | C:\Users\Priyanka\Desktop\physicsquestions\s3.jpg |
| Correct Option |  |
| Question 4 | A ball is shot from the ground into the air. At the height of 9.1 m, its velocity is observed to be v = 7.6i + 6.1j in meters per sec. Find  *(i)* The maximum height of the ball. *(ii)* The range  *(iii)* The velocity of projection. *(iv)* The angle of projection of the ball. |
| Solution | C:\Users\Priyanka\Desktop\physicsquestions\s4.jpg  C:\Users\Priyanka\Desktop\physicsquestions\s42.jpg |
| Correct Option |  |

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| Question 5 | A canon is fired from the top of a tower of height 100 m with a velocity of 150 m/sec. Calculate the angle of projection for which the range of the canon will be maximum. Also find the displacement of the canon for the maximum range. |
| Solution | C:\Users\Priyanka\Desktop\physicsquestions\s5.jpg |
| Correct Option |  |

**MATHEMATICS**

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| Question 1 |  |
| Solution | C:\Users\HP\Desktop\WhatsApp Image 2016-11-13 at 2.41.41 PM.jpeg |
| Correct Option |  |
| Question 2 |  |
| Solution |  |
| Correct Option |  |
| Question 3 |  |
| Solution |  |
| Correct Option |  |
| Question 4 |  |
| Solution |  |
| Correct Option |  |

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| Question 5 |  |
| Solution |  |
| Correct Option |  |

**CHEMISTRY**

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| Question 1 |  |
| Solution |  |
| Correct Option | D |

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| Question 2 |  |
| Solution |  |
| Correct Option | D |
| Question 3 |  |
| Solution |  |
| Correct Option | A,B |

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| Question 4 |  |
| Solution |  |
| Correct Option | B |

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| Question 5 |  |
| Solution |  |
| Correct Option | B |