

Deadline: Monday 23<sup>rd</sup> January 2:00 pm. Your work must be placed in the chemistry drop-box.

## **Homework for Submission 01-2012**

### **#1 Ionic Equations**

Print out this sheet and submit your answers on it. Work out your answers carefully before submitting them. Answers must be individual efforts: if there is evidence of copying all pieces of work involved will earn zero marks. Neatness and legibility are important.

Write balanced net ionic equations, including states, in each of the following cases. Do not write equations unless there is a definite chemical reaction. If an equation is unbalanced it will attract zero marks: check carefully. Do not include spectator ions. Each answer line should be completed with an equation or the words "no reaction".

1. Addition of dilute ammonia solution to a solution of magnesium chloride.

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2. The addition of dilute sodium hydroxide solution to a solution of aluminium sulfate, until in excess.

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3. The addition of dilute ammonia solution to a solution of zinc chloride, until in excess.

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4. The addition of dilute sodium hydroxide to a solution of silver nitrate until in excess.

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5. The addition of barium nitrate solution, followed by dilute hydrochloric acid, to a solution of sodium dichromate.

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6. The addition of barium nitrate solution, followed by dilute hydrochloric acid, to a solution of sodium sulfite.

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7. The addition of barium nitrate solution, followed by dilute hydrochloric acid, to a solution of potassium sulfate.

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8. The addition of silver nitrate solution, followed by excess dilute ammonia solution, to a solution of calcium bromide.

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9. The addition of silver nitrate solution, followed by concentrated ammonia solution, to a solution of potassium iodide.

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10. The addition of Devarda's alloy and concentrated sodium hydroxide solution to a solution of sodium nitrate solution. (Two simultaneous reactions)

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