A) adsorption;
B) neutralization;
C) distillation;
D) recrystallization;
E) absorption.

49. The following substances are used to soften water in power and industrial installations and to prevent precipitation:
A) baking soda;
B) caustic soda;
C) soda ash;
D) sodium pyrophosphate;
E) sodium tripolyphosphate.

50. In the manufacture of paper for pulp bleaching are used:
A) baking soda;
B) caustic soda;
C) soda ash;
D) sodium pyrophosphate;
E) sodium tripolyphosphate.

51. In the textile and leather industries for the bleaching of fabrics and wool washing are used:
A) sodium tripolyphosphate;
B) diammonium phosphate;
C) caustic soda;
D) monocalcium phosphate;
E) disodium phosphate.

52. In the production of sodium tripolyphosphate, neutralization of phosphoric acid with soda ash is carried out in the apparatus:
A) thermostat;
B) collection tank;
C) a reactor;
D) an economizer;
E) scrubber.

53. Sodium tripolyphosphate is obtained by neutralizing phosphoric acid with soda ash according to the total reaction:
A) $2Na_2CO_3 + 2H_3PO_4 = Na_4P_2O_7 + 2CO_2 + 3H_2O$;
B) $3Na_2CO_3 + 2H_3PO_4 = 2Na_3PO_4 + 3H_2O + 3CO_2$;
C) $2.5Na_2CO_3 + 3H_3PO_4 = Na_5P_3O_{10} + 2.5CO_2 + 2.5\ H_2O$;
D) $Na_2CO_3 + H_3PO_4 = Na_2HPO_4 + CO_2 + H_2O$;
E) $Na_2CO_3 + 2H_3PO_4 = 2\ NaPO_3 + CO_2 + 3H_2O$.

54. The following mineral impurities are part of phosphorite ores:
A) sylvinite, green earth, kaolin;
B) coal, lime, marble;
C) anthracite, kaolin, zeolite;
D) glauconite, calcite, dolomite, quartz;
E) shale, zeolites, aluminosilicates.