1. The first reaction in the determination of nitrite in water is called as
   (a) Nitration
   (b) Nitrification
   (c) Coupling
   (d) Diazotization

2. 1000 ppm of tartarate, phosphate, borate, TritonX-100 and fluoride did not interfere in the determination of 100 ppm iron. Which of these can be used for masking 100 ppm of Zinc
   (a) Phosphate
   (b) Borate
   (c) Triton X-100
   (d) Tartrate

3. The colour of phosphor molybdic acid turns on reduction to
   (a) Yellow
   (b) Blue
   (c) Green
   (d) Red

4. The colour of Cadmium – Cadion complex in alkaline alcoholic solution is orange red. The Lambda max for this solution will be in the range of:
   (a) 800-850 nm
   (b) 700-750 nm
   (c) 600-650 nm
   (d) 400-460 nm

5. A student forgets to add 0.5 ml masking agent to one cadmium solution and makes up the mark to 10 ml. Subsequently he adds 0.5 ml masking agent and mixes. The error for that solution will be
   (a) -5%
   (b) + 5%
   (c) 10.5 %
   (d) +0.5%

6. Nitrate above 45 ppm in drinking water causes
   (a) Methemoglobinemia
   (b) Methylhaemoglobinemia
   (c) Alzheimer’s disease
   (d) Fever

7. The disease caused by cadmium is called
   (a) Itai-itai
   (b) Alzheimer’s disease
   (c) Thalassmia
   (d) Vertigo

8. Cyclohexanone is used in the determination of Zinc by Zincon
   (a) Form a complex
   (b) Mask interfering ions
   (c) To selectively liberate zinc from cyanide complex
9. Manganese is associated with
   (a) Gastroenteritis
   (b) Hypertension
   (c) Alzheimer’s disease
   (d) Cancer

10. The buffer used for manganese determination with pyridylazonaphthol (PAN) at pH 9.2 is made from
    (a) Borate/boric acid
    (b) Citrate/citric acid
    (c) Tartarate/Tartaric acid
    (d) Ammonia/Ammonium chloride