

(7 pages)

1164/HT1

OCTOBER 2010

INSTRUMENTATION

Time : Three hours

Maximum : 100 marks

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

1. Samples to be weighed in analytical balance should be of
 - (a) High temperature
 - (b) Low temperature
 - (c) Room temperature
 - (d) Freezed.

2. Physical balance weighs with accuracy of
 - (a) 10 mg (b) 0.1 mg
 - (c) 1 mg (d) 100 mg.

3. _____ of the object is the multiplication value of the magnifying powers of the objective and the eye piece
 - (a) Magnification (b) Resolution
 - (c) Refractive index (d) None of the above.

4. _____ microscope provides 3D views of specimens
 - (a) Scanning Electron
 - (b) Transmission Electron
 - (c) Phase Contrast
 - (d) Dark Field.

5. _____ rotors are designed to contain large volume of sample
 - (a) Swinging bucket
 - (b) Fixed angle
 - (c) Zonal
 - (d) None of the above.

6. Preparative rotors are used in biology for pelleting
 - (a) Mitochondria
 - (b) Viruses
 - (c) Ribosomes
 - (d) All of the above.

7. _____ is used for adjusting temperature in hot air oven
 - (a) Thermostat (b) Pilot lamp
 - (c) Indicator (d) None of the above.

8. In continuous flow analyzer reagents are separated during supply by
- Wooden blocks
 - Chemicals
 - Series of bubbles
 - No separation required.
9. Monochromator which produce radiations of single wavelength based on refraction are
- Prism
 - Grating
 - Photocell
 - None of the these.
10. In spectrophotometer the xenon lamp produces
- UV light
 - Visible light
 - Both a & b
 - None of the above.
11. _____ demonstrated moving boundary electrophoresis
- Nernst Einstein
 - Coulomb
 - Tiselius
 - Newton.
12. Affinity chromatography is based on _____ interaction between an analyte and specific molecules
- Non-covalent
 - Covalent
 - Ionic
 - Hrdrophobic.
13. Taq DNA polymerase is isolated from
- Thermus aquaticus*
 - Thermococcus litoralis*
 - Pyrococcus furiosus*
 - None of the above.
14. Different schemes of PCR _____
- Inverse PCR
 - Anchored PCR
 - Both a & b
 - None of the above.
15. In line densitometry the value of light absorption is expressed as
- Spots
 - Image
 - Graph
 - None of the above.

