

B.Tech,
2021
5th Sem.

B.Tech Food Technology
Semester V Examination, 2021
Paper Title: Techniques in Food Analysis
Paper Code: BFTG – 508

Time: 30 Minutes

Max Marks 15

Attempt all questions carry 1 mark each.

1. Specify the correct answer

- (a) Which of the following is a material measure or physical property that defines or reproduces the unit of measurement of a base or derived quantity
- | | |
|------------------|--------------------|
| (i) traceability | (ii) sampling |
| (iii) standard | (iv) All the above |
- (b) Which of the following botanist used to chromatography to separate plant pigments:
- | | |
|-------------------------|------------------------|
| (i) Gregor John Mendel | (ii) Mikhail Tswett |
| (iii) Both (i) and (ii) | (iv) None of the above |
- (c) Which of the following is/are supplementary standards
- | | |
|-----------------|--------------------|
| (i) Plane angle | (ii) Solid angle |
| (iii) Pressure | (iv) All the above |
- (d) Which of the following is a technique for separating the components, or solutes, of a mixture on the basis of the relative amounts of each solute distributed between a moving fluid stream, called the mobile phase, and a contiguous stationary phase.
- | | |
|--------------------|---------------------|
| (i) Filtration | (ii) Centrifugation |
| (iii) Flocculation | (iv) Chromatography |
- (e) Which of the following are visualizing agents used in TLC
- | | |
|---------------|---------------------|
| (i) Ninhydrin | (ii) Sulphuric acid |
| (iii) Iodine | (iv) All the above |

Fill in the blanks

- (f) _____ is the best locally available standard from which measurements made at a location are derived.
- (g) _____ and _____ are elution techniques.
- (h) _____ is the full form of HPLC.
- (i) _____ is an example of stationary phase used in paper chromatography.
- (j) _____ is characteristic for any given compound on the same stationary phase using the same mobile phase for development of the plates.

State true or false

(k) According to the International Organization for Standardization publication entitled International Vocabulary of Basic and General Terms in Metrology (published in 1993 and known as VIM), calibration is the set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument, a measuring system or values represented by a material measure, and the corresponding known values of a measurand (the parameter that is being measured).

(l) Calibration fulfils two objectives: It determines accuracy of the measured data; and it provides traceability to the measurement.

(m) Calibration is not a necessary requirement for analytical laboratories.

(n) FTIR is a rapid, easy, means of verifying the identity, authenticity and purity of the raw materials and ingredients that are used in the food industry

(o) Mobile phase chromatography includes gas and liquid chromatography.