

M.Sc.(Chem.) Semester - 4 (CBCS) Examination
August/September -2020 [NEW COURSE]
Analysis of Selected Materials (Core)

Time: 2:00 Hours**Marks: 56****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any four of the following questions.
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- Q.1(A) Answer the following questions (04)
1. Define the term Preservative and explain its types with example.
 2. What are Non-nutritive sweeteners? Give any two examples.
- Q.1(B) Answer any two questions out of three (10)
1. Discuss qualitative & quantitative analysis of Sorbic acid by HPLC.
 2. Discuss spectroscopic estimation of Benzoic acid as preservative.
 3. Explain detection of Saccharin in various food products.
- Q.2(A) Answer the following questions. (04)
1. Elucidate TLC test for detection of mineral oil.
- Q.2(B) Answer any two questions out of three (10)
1. Discuss qualitative and quantitative analysis of urea in milk.
 2. Explain method for detection of Sesame oil as adulterant.
 3. Explain the estimation of sugar by lane-Eynon method.
- Q.3(A) Answer the following questions (04)
1. Explain determination of total acidity and alkalinity in water sample.
 2. Briefly explain the following terms: (i) DO (ii) BOD
- Q.3(B) Answer any two questions out of three (10)
1. Discuss experimental procedure for determination of Sodium in soil sample.
 2. Explain identification of heavy metals in water sample.
 3. Write the method for determination of COD of water sample.
- Q.4(A) Answer the following questions (04)
1. Draw the structure and discuss occurrence and use of α - Carotene.
- Q.4(B) Answer any two questions out of three (10)
1. Discuss occurrence, isolation and pharmacological use of Resveratrol.
 2. Write a note on primary photochemical screening of extract.
 3. Discuss occurrence, isolation and pharmacological use of Tocopherols
- Q.5(A) Answer the following questions. (04)
1. What is online point and mix aniline point?]
 2. Briefly explain about fire point and flash point for petroleum products.
- Q.5(B) Answer any two questions out of three (10)
1. Write definition, instrumentation and use of pour point
 2. Discuss importance and measurement of density and viscosity of petroleum products.
 3. Explain the role of Gas chromatography in petrochemical testing.
