2023

ANALYTICAL INSTRUMENTATION

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions

b) Explain the gas a c) With a neat Spectrophotomet 2. a) Explain FPD, PII 3. a) Name a technique explain its workin b) Explain Proportio counters. 4. Explain the following: a) Biosensor b) pH meter c) X-ray Absorption 5. a) Explain scintillate b) With neat diagn spectrometers. 6 a) Define Chromato b) Explain IR gas an c) Name an analyti		
c) With a neat Spectrophotomet. 2. a) Explain FPD, PII 3. a) Name a technique explain its working by Explain Proportion counters. 4. Explain the following:	am, explain the working of an absorption instrument.	6
2. a) Explain FPD, PII 3. a) Name a technique explain its workin b) Explain Proportion counters. 4. Explain the following: a) Biosensor b) pH meter c) X-ray Absorption 5. a) Explain scintillate b) With neat diagray spectrometers. 6 a) Define Chromator b) Explain IR gas an c) Name an analytic	nalyzer based on gas density.	6
 a) Name a technique explain its working by Explain Proportion counters. 4. Explain the following: a) Biosensor b) pH meter c) X-ray Absorption 5. a) Explain scintillate by With neat diagray spectrometers. 6 a) Define Chromator by Explain IR gas and cy Name an analytic 	diagram, explain the working of an UV-Visible ric detect <mark>or used in</mark> HPLC.	8
explain its working b) Explain Proportion counters. 4. Explain the following: a) Biosensor b) pH meter c) X-ray Absorption 5. a) Explain scintillate b) With neat diagraspectrometers. 6 a) Define Chromator b) Explain IR gas and c) Name an analytic	D and TCD used in GC.	20
counters. 4. Explain the following: a) Biosensor b) pH meter c) X-ray Absorption 5. a) Explain scintillate b) With neat diagraspectrometers. 6 a) Define Chromator b) Explain IR gas an c) Name an analyti	e to detect CO pollutant in air. With a neat diagram,	6
 a) Biosensor b) pH meter c) X-ray Absorption 5. a) Explain scintillate b) With neat diagraspectrometers. 6 a) Define Chromatogon b) Explain IR gas an c) Name an analytic 	onal and GM counters. Specify the differences of these	14
 b) pH meter c) X-ray Absorption 5. a) Explain scintillate b) With neat diagraspectrometers. 6 a) Define Chromator b) Explain IR gas an c) Name an analytic 	ESTD : 2006	
c) X-ray Absorption 5. a) Explain scintillate b) With neat diagraspectrometers. 6 a) Define Chromator b) Explain IR gas an c) Name an analyti	ESTD.: 2006	4
 5. a) Explain scintillate b) With neat diagraspectrometers. 6 a) Define Chromatos b) Explain IR gas an c) Name an analyti 	असतो मा सत गमय तमसो मा ज्योतिर्गमय	6
b) With neat diagraph spectrometers. 6 a) Define Chromatogo b) Explain IR gas an c) Name an analyti		10
spectrometers. 6 a) Define Chromatog b) Explain IR gas an c) Name an analyti	or and its types.	6
b) Explain IR gas anc) Name an analyti	rams, explain Time-of-Flight and Quadrupole mass	14
c) Name an analyti	graphy. Specify its classification.	4
	alyzer.	6
its working	c instrument used in hospitals to find potassium and tions in the blood plasma. With a neat diagram, explain	10