

**Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot**  
 Affiliated to Saurashtra University, Rajkot

**SEMESTER END EXAMINATION APRIL - 2018**

**B.Voc. Chemical Technology**

**BVCT 404 – PETROLEUM ANALYSIS**

<i>Duration of Exam – 2.30 hrs</i>	<i>Semester – IV</i>	<i>Max. Marks – 70</i>
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**Que. 1 (A) Answer the following Questions [10]**

1. Give the ASTM method No. of i) Cloud Point ii) Reid Vapour Pressure
2. What is the range of ASTM 12C thermometer?
3. In ASTM D 4007 method only water saturated toluene is useful, Why?
4. Which substance & how much is used for dilute the sample color.
5. Give the full form of i) Bs&W ii) ED-XRF
6. What is the Viscosity? Write the unit of Kinematic viscosity.
7. ASTM D 3230 is an analysis method for \_\_\_\_\_ measurement.
8. Enlist the classification of TAN by ASTM no and mode of titration.
9. Define : i) Asphaltenes ii) Smoke Point
10. Write only equation for calculate CCR in %wt unit.

**Que. 1 (B) Answer the following Questions [20]**

1. Explain the Scope of ASTM D 4052.
2. Explain the process to prepare titration solvent & write equation to calculate TAN.
3. Write the test summary of ASTM D 3230.
4. What is Repeatability & Reproducibility?
5. Write the Signification of ASTM D 3227 (R-SH analysis).
6. Give the difference between RCR and CCR.
7. How to measure and report the color by ASTM D 1500?
8. How to prepare “Acidic Solvent” for R-SH analysis and “Mix alcohol” for Salt analysis?
9. Give the difference between ASTM D 93 and IP-170.
10. Write all test summary of the Uop-46 in short.

**Que. 2 Answer the following Questions (Any Four) [20]**

1. Explain in detail ASTM D 4294
2. Explain ASTM D 524 in detail
3. Describe the method for density measurement by oscillation Principle.
4. Explain in detail ASTM D 5191
5. Explain in detail IP-170
6. Explain ASTM D 974 in detail

**Que. 3 Answer the following Questions (Any Four)**

**[20]**

1. Explain in detail ASTM D 2500
2. Explain Smoke point analysis method in detail.
3. Explain in detail ASTM D 6560
4. Explain ASTM D 1298 in detail
5. Explain in detail ASTM D 445
6. Explain UOP-46 in detail

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