

20PEB301					Production Logging					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
2	0	0	2	2	25	50	25	--	--	100

COURSE OBJECTIVES

- Demonstrate the basics and advanced cased hole logging
- Illustrate the production logging available in oil industry
- Provide firm platform for discussing advance courses.
- Develop analytical skills of the graduate for oil & gas well log analysis

Unit I**Hours: 06**

Basic Cased Hole and Production Environment: Log Presentation of all the Basic Cased Hole Log. Downhole environment, Oil-water flow regime, gas-liquid flow regimes, Gas-liquid models, Brief of PVT for Production logging,

Unit II**Hours: 06**

Advanced Cased Hole Logging: Cased Hole Seismic, Guidance Continuous Tool, Cased Hole Wireline Formation Tester, Formation Interval Tester, Repeat Formation Tester, Correlated Electromagnetic Retrieval (CERT) Tool and Formation Subsidence Monitor Tool.

Unit III**Hours: 06**

Production Logging: Introduction to production logging and its application, Casing Evaluation logs, Flow Velocity, Spinner Flowmeter Tools, Interpretation in Single-Phase Flow, 2-Pass Technique, Radioactive Tracer Tools, Fluid Density Tools, Temperature Tools, Noise Tools, Gravel Pack Logging

Unit IV**Hours: 08**

Log Interpretation and Case studies: Cased hole log interpretation and Application, Production logging interpretation equations and techniques. Leak detection, steam injection and Job planning

COURSE OUTCOMES

On completion of the course, student will be able to

CO1- Understand the principles cased and production logs available in the industry

CO2- Frame and present cased hole and production logs in proper format

CO3- Analyse and interpret generalised cased hole and production logs trends

CO4- In depth investigation of actual cased hole and production logs oil & gas well

CO5- Compile reports on the basis of their thorough analysis

CO6- Recommend practical decisions required to mitigate problems in cased hole or production wells

TEXT / REFERENCE BOOKS

1. Cased Hole Log Interpretation Principles/Applications Schlumberger, Texas USA
2. Fundamentals of production logging, By Colin Whittaker, Schlumberger, Texas USA

END SEMESTER EXAMINATION QUESTION PAPER PATTERN**Max. Marks: 100**

Part A/Question: <Short Notes, Problems, Numerical>

Part B/Question: <Justification, Long answers, Interpretation >

Exam Duration: 3 Hrs

<5-7 > Marks (each)

<8-10> Marks (each)