

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech Mid Semester Exam

Semester: 4th

Subject Code: (303120257)

Subject Name: (Production Operations-I)

Date: (02/02/2024)

Time: (1hr: 30min)

Total Marks: 40

Sr. No.		Marks
Q.1	(A) Five One line Questions	05
	1) What is the Full Form of IPR?	
	2) What is the standard value of Poisson's Ratio for Tubing Design?	
	3) What is the conditional Criteria for Tension Set Packer?	
	4) What is the condition for Overbalanced in a well?	
	5) Name one Circulation Device used in Oil Industry?	
	(B) Five Fill in the blanks	05
	1. The liner geometry of big shape charge is _____.	
	2. Blast joint is used _____.	
	3. For repairing leaks down hole _____ cementing technique is use.	
	4. _____ is the Artificial Lift Installations used in Depleted Reservoirs.	
	5. Bleeder Valve is used for _____ in Christmas Tree.	
Q.2	Attempt any four(Short Questions)	12
	(1) State all the Techniques of Well Activation Methods? Describe only one method in details	
	(2) What are the different valves used in Christmas Tress and State its functions?	
	(3) What is meant by the Terminology: a) Under saturated Reservoir, b) Saturated Reservoir c) Productivity Index, d) Bubble Point Pressure e) Single phase flow	
	(4) Mention any five specifications of Tubing Design for selection of Tubing in Well Production well?	
	(5) What is Ballooning and Reverse Ballooning? Explain with Diagram	
Q.3	Attempt any two questions	08
	(1) Describe any three well Equipment used in Oil Industry for wellbore stability?	
	(2) What is Packer? Write few function of Packer and what are its types?	
	(3) Describe the TAML Wells and explain all the Levels of the wells in detail?	
Q.4	(A) What do you mean by Bullet Perforation? Mention two difference between Bullet and Jet Perforation? State the various bullet perforator and its uses?	05
	(B) Calculate the fail close setting depth (ft) of a subsurface safety valve with hydraulic control line fluid (0.875 SG.) and 1.2 SG. Packer fluid, a recorded valve closure pressure of 1200 psia and a recommended safety margin of 280 psia.	05
	OR	
	(B) What is Well Completion? Write a short note on Open Hole Completion and its types.	05