

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, May 2019**

**Course: Asset Management**  
**Program: B.Tech.GSE /GIE**  
**Course Code: GSEG 411**

**Semester: VIII**  
**Time 03 hrs.**  
**Max. Marks: 100**

**Instructions:**

**SECTION - A**  
**(ALL QUESTIONS COMPULSORY)**

S. No.		Marks	CO
Q.1	Explain why is asset management important.	[4]	CO1
Q.2	Explain the significance of the term Cost Vs. Value Trade Off in asset management.	[4]	CO2
Q.3	Define the term Quality Assurance in asset management	[4]	CO3
Q.4	Define the term Look Back Process or Post Auditing.	[4]	CO6
Q.5	Illustrate the benefits of selecting right technology in asset management.	[4]	CO4

**SECTION B**

Q.6	Asset costs are influenced by whether FEL has been considered meticulously but, once decisions are made, facility costs end – up with very little degree of freedom to influence them in the operating phase. The options that only remain for reducing operating costs is through Commercial Opportunities, De-bottlenecking & Operational Efficiency. Explain these options.	[10]	CO4
Q.7	Illustrate how the internal factors of a company can influence the asset value.	[10]	CO2
Q.8	Describe Front End Loading and Decision Mapping tool in asset management. <b>OR</b> Illustrate 80/20 Rule with examples.	[10]	CO4
Q.9	(a) Define the scope of Post Audit. (b) Illustrate the timing of Post Audit and describe the process of Post Audit	[2+8]	CO6

**SECTION - C**

Q.10 Describe the ten most common mistakes committed in industry in managing assets. [20] CO5

Q.11 (a) Define the term PI.  
 (b) Illustrate the decision Rule for PI.  
 (c) Given the discount rate as 13% and the future cash flows for six years from a project as below, compute the PI and considering yourself as an asset manager of a company take your decision whether you will accept the project or not.

Year	Cash Flows
0	- \$3,000,000.00
1	\$100,000.00
2	\$500,000.00
3	\$1000,000.00
4	\$1500,000.00
5	\$200,000.00
6	\$500,000.00

**OR**

(a) Define the term Pay Back Period  
 (b) Illustrate the advantages and disadvantages of Pay Back Period.  
 (c) Given the cash flows of the four projects, E, F, G & H, and using the pay back period decision model, which projects do you accept and which you reject with a three year cut off period for recapturing the initial cash outflow?

Projects	E	F	G	H
<b>Cost</b>	\$40,000	\$250,000	\$75,000	\$100,000
Cash Flow Year 1	\$10,000	\$40,000	\$20,000	\$30,000
Cash Flow Year 2	\$10,000	\$120,000	\$35,000	\$30,000
Cash Flow Year 3	\$10,000	\$200,000	\$40,000	\$30,000
Cash Flow Year 4	\$10,000	\$200,000	\$40,000	\$20,000
Cash Flow Year 5	\$10,000	\$200,000	\$35,000	\$10,000
Cash Flow Year 6	\$10,000	\$200,000	\$20,000	\$0

[2+2+16] CO1