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**UNIVERSITY OF PETROLEUM  
AND ENERGY STUDIES**



**End Semester Examination, April, 2017**

**Program/course: B.Tech.GSE/GIE**

**Subject: Asset Management**

**Code : GSEG 411**

**No. of page/s:**

**Semester – VIII**

**Max. Marks : 100**

**Duration : 3 Hrs**

**SECTION – A  
COMPULSORY  
[20 Marks]**

- Q.1 Write short notes on : [2.5×4=10]  
(a) Decision Tree Analysis  
(b) Risk Register  
(c) Prospective risks  
(d) Time Value of Money
- Q.2 Fill in the blanks: [1×5=5]  
(a) ----- represents a weighted average of possible NPV's of all outcomes from an event in which weights reflect probabilities of outcomes.  
(b) ----- is the negotiation for Terms and Conditions between E & P Co. and the resource owner.  
(c) The main objectives of portfolio ----- are to maximize portfolio's return and to minimize portfolio risk.  
(d) ----- are anyone that will be impacted either directly or indirectly as a result of the development or operation of the asset.  
(e) The purpose of ----- is to enable the identification and realization of maximum opportunity value as early as possible in asset life cycle.
- Q.3 State whether True or False. If false, give the correct answer. [1×5=5]  
(a) Fixed assets are those that are expected to keep providing benefit for one year.

- (b) Asset management plan is the systematic process of deploying, operating, maintaining, upgrading, and disposing of tangible and intangible assets cost-effectively.
- (c) Annual net cash flow is  $NCF - (Royalty + Capex + Opex + Taxes)$
- (d) A dollar that you have today has less value than the promise or expectation that you will receive from that dollar in the future.
- (e) The regulatory road map consists of developing a Gantt chart for engaging the community for developing the asset.

**SECTION – B**  
**[40 Marks)**

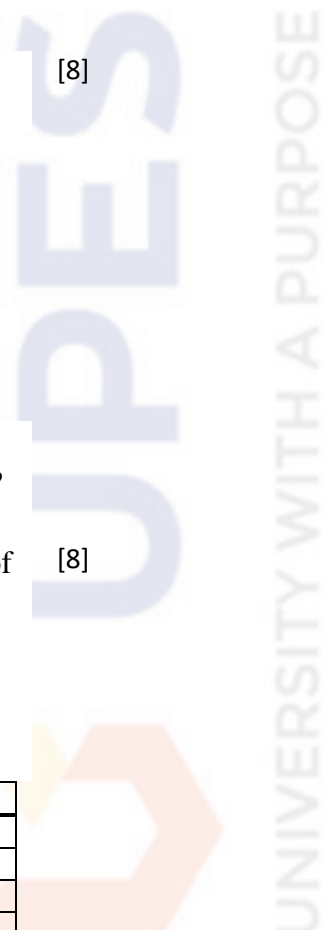
Q.4 An investment of \$200,000 is expected to generate the following cash flows in six years: [8]

| <u>Year</u> | <u>Net cash flow</u> |
|-------------|----------------------|
| 1           | \$30,000             |
| 2           | \$40,000             |
| 3           | \$60,000             |
| 4           | \$80,000             |
| 5           | \$55,000             |
| 6           | \$45,000             |

Compute payback period of the investment. Should the investment be made if management wants to recover the initial investment in 3 years.?

Q.5 Swanson Industries has three potential projects all with an initial cost of \$2,000,000. The capital budget for the year will only allow Swanson industries to accept one of the three projects. Given the discount rates and the future cash flows of each project, which project should they accept based on NPV? [8]

| <i>Cash Flows</i>    | <i>Project M</i> | <i>Project N</i> | <i>Project O</i> |
|----------------------|------------------|------------------|------------------|
| <i>Year one</i>      | \$500,000        | \$600,000        | \$1,000,000      |
| <i>Year two</i>      | \$500,000        | \$600,000        | \$800,000        |
| <i>Year three</i>    | \$500,000        | \$600,000        | \$600,000        |
| <i>Year four</i>     | \$500,000        | \$600,000        | \$400,000        |
| <i>Year five</i>     | \$500,000        | \$600,000        | \$200,000        |
| <i>Discount Rate</i> | 6%               | 9%               | 15%              |



Q.6 Explain the following economic indicators used for evaluating a prospect or an asset: [8]

(a) Pay Back Period, (b) NPV (b) Investment Efficiency, (c) IRR

Q.7 Explain the following terms: [8]

(a) Front End Loading (FEL)  
(b) Decision & Risk Analysis (D&RA)

Q.8 (a) Explain Sensitivity Analysis with examples. [8]

OR,

(b) Describe the methods of qualitative risk analysis.

**SECTION - C**  
**[40 Marks]**

Q.9 (a) Discuss Look Back Process. (b) What is the scope of Look Back Process? (c) What is the timing of Look Back process? (d) Can you relate Look Back Process with Company's growth?

Q.10 (a) Describe the ten common mistakes that the industries commit in asset management and also mention the consequences of committing these mistakes.

OR,

(b) Find the IRR of an investment having initial cash outflow of \$213,000. The cash inflows during the first, second, third and fourth years are expected to be \$65,200, \$96,000, \$73,100 and \$55,400 respectively. Assume that  $r$  is 10%.

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