

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Course: HR Analytics

Programme: MBA BA

Time: 03 hrs.

Semester: III

Code: HRES 8003

Max. Marks: 100

Instructions: Attempt all questions of Section A carrying 20 marks. Attempt any 4 Short Answer Questions from section B; Each question carries 5 marks. Section C and Section D are compulsory and carry 30 marks each.

SECTION A

S. No.		Marks	CO
Q 1	Explain the following: (i) HR Analytics is a continuum. How? (ii) Purpose of SEM (iii) Indicators vs. latent variables (iv) Exploratory factors analysis vs. confirmatory factor analysis (v) Assumptions of linear regression (vi) Reporting vs. analytics (vii) Analytics vs. predictive analytics (viii) KMO and Bartlett's test of Sphercity (ix) Purpose of using MDS (Multidimensional Scaling) (x) Canonical Correlation	20	CO1

SECTION B

Q 2	What is analytics? Why organizations has suddenly started focusing on HR Analytics?	5	CO1 CO2
Q 3	How organizations link Human Resource functions with their 'strategic drivers'? Name a few companies who have achieved excellence by linking HR with strategic drivers.	5	CO2 CO3
Q 4	What is the goal of factor analysis? Give two examples of HR situations that would call for factor analysis.	5	CO1 CO2
Q 5	Why employee opinion surveys are important to conduct for organizations and what are the reasons of using Likert or Likert type scales for conducting these opinions surveys?	5	CO2 CO3
Q 6	What do you understand by SEM? What are the disadvantages associated to SEM?	5	CO1

SECTION-C

Q 7	Assume that you are the HR head of a Business Consultancy Firm serving 50 clients PAN India. Create a strategy map for your company; outlining the four key areas identified using Balance Scorecard Approach.	15	CO2 CO3
Q 8	A large, global pharmaceutical company was having trouble with its China market sales force. The problem was two-fold: the company had issues retaining high-performing salespeople, and—despite having problems with retention—the company needed to double its sales force to meet customer demand and increase market share. They had no specific retention strategy, and they had little insight with which to develop one. How will you assist them in developing an analytics-based predictive retention strategy and solution? What factors/variables will you consider to collect the relevant data and what kinds of analytics will you use to provide feasible solutions?	15	CO2 CO3 CO4
SECTION-D			
Q 9	<p>Case: Performance Appraisal System</p> <p>PMS.xls is being provided to you. Analyze the data and answer the following:</p> <ul style="list-style-type: none"> (i) Describe the decisions you would have to make in carrying out a factor analysis. (ii) Draw factors from the given data and provide specific reasons to select the number of constructs you have drawn. (iii) Develop a multiple linear regression model to explain the relationship between independent and dependent factors/variables of performance appraisal system. Interpret the results with suitable explanation. 	30	CO1 CO2 CO3 CO4

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SECTION A

S. No.		Marks	CO
Q 1	<p>Explain the following:</p> <ul style="list-style-type: none">(i) HR Analytics(ii) Orthogonal vs. oblique rotation(iii) Two main components of SEM(iv) Endogenous vs. exogenous variables(v) Mediator vs. moderator(vi) One example of each measurement scale to measure employee engagement(vii) Reporting vs. dash boarding(viii) Conjoint Analysis(ix) Discriminant Analysis vs. linear regression(x) PCA vs. PAF method of dimension reduction	20	CO1

SECTION B

Q 2	What is HR Analytics? Illustrate with example the use of HR analytics and its functions.	5	CO1 CO2
Q 3	What do you understand by term 'strategic drivers'? Explain the different strategic drivers used by companies to achieve organizational goals.	5	CO2 CO3
Q 4	Why regression is famous as one of the most powerful tool in predictive modeling techniques?	5	CO1 CO2

Q 5	Factor analysis and cluster analysis both are multivariate tools to simplify complicated data. Differentiate the two methods and elaborate their practical applications for companies?	5	CO2 CO3
Q 6	Why is it important for organizations to conduct employee engagement and satisfaction surveys? How does the engagement and satisfaction index affect employee turnover?	5	CO1
SECTION-C			
Q 7	You are providing consultancy to an internationally reputed educational institute, which is losing its market position. The institute is unable to gain its strategic objective of 'Sustainable development' after multiple efforts. You are asked to develop a map linking institute's strategic objectives with lead and lag indicators using 5C Model.	10	CO2 CO3 CO4
Q 8	<p>Case Study: Scofield Financial – Improving Retention and Hiring</p> <p>Background: Scofield Financial is a 20-year-old, mid-sized, regional financial services company with retail banking, residential lending, and commercial business lending divisions. The company employs approximately 8500 U.S.-based workers at 110 locations.</p> <p>Historically, it has outperformed peers and larger competitors during recessionary or challenging economic periods due to its conservative lending practices and top quality loan servicing and risk management groups.</p> <p>Scofield was going through a period of growth and expansion, but it was unclear how they could recruit and retain the best talent. High turnover rates were reducing much of the company's recruitment efforts to replacement efforts, and there was little information on how to acquire those employees who would remain with the organization and perform at high levels.</p> <p>This is the first of three case studies that outline the Human Capital Management institute's analysis of Scofield's turnover drivers, recruiting sources, and employee success indicators that ultimately helped the company recruit top talent and reduce turnover. This case study focuses on the Retention and Turnover analysis.</p> <p>Data Model and Analysis:</p> <ul style="list-style-type: none"> Statistical analysis of Scofield's employee data to determine the major drivers of turnover and retention (see Figures 1 and 2). 	20	CO2 CO3 CO4

- Effects were broken down by workforce category to see where each factors had the largest impact.
- HCMI further broke these factors down by job category, demonstrating that stock ownership had a particularly high impact on operations, sales, and skilled staff (See Figure 3).

Figure 1. Scofield Factors Associated with Turnover

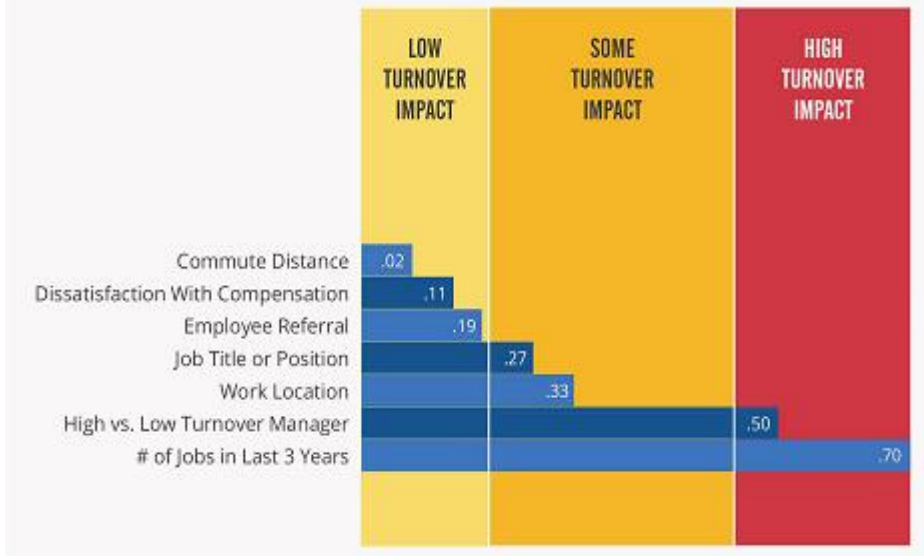
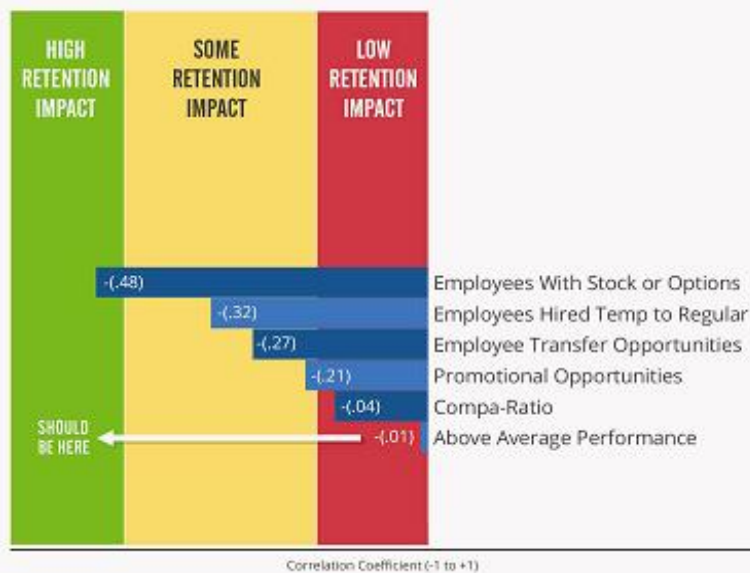
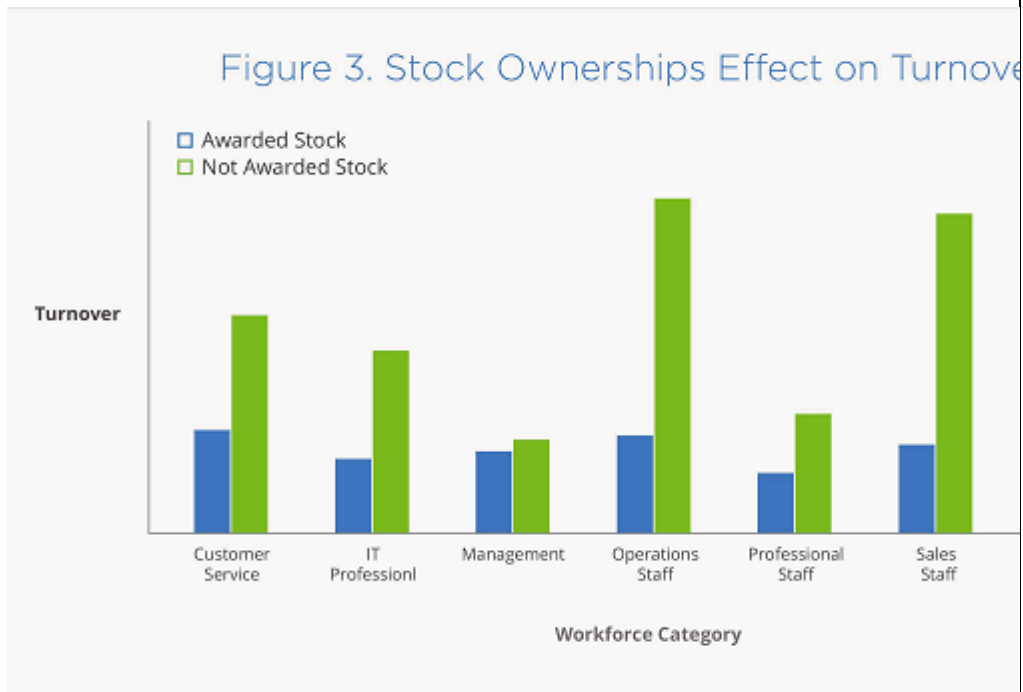


Figure 2. Scofield Factors Associated with Retention





Key Questions:

- (i) What are the main/key drivers of employee turnover and why?
- (ii) How can Scofield improve employee retention? Find out the most related factors of employee retention with the present data.
- (iii) What types of employees should Scofield hire and why?
- (iv) With the present data, suggest where Scofield should be strategic about focusing its investments.

SECTION-D

Q 9

Case: Performance Appraisal System

PMS.xls is being provided to you. Analyze the data and answer the following:

- (i) Describe the decisions you would have to make in carrying out a factor analysis.
- (ii) Draw factors from the given data and provide specific reasons to select the number of constructs you have drawn.
- (iii) Develop a multiple linear regression model to explain the relationship between independent and dependent factors/variables of performance appraisal system. Interpret the results with suitable explanation.

30

CO1
CO2
CO3
CO4