



DEPARTMENT OF MECHANICAL ENGINEERING

EXAMINATION FOR THE SUBJECT

6393: Professional Engineering Practice

Semester 2

November 2001

TIME: 3 HOURS 10 minutes

- It is recommended that you spend ten minutes reading the paper and planning your approach before the examination begins.
- No written material may be taken into the exam room.
- Please note marks value of each question and allocate your time accordingly. Note that although a question may only be worth 5, you should note that they are still significant i.e. all questions are either out of 5 or 10.
- Closed book exam
- **Total marks for exam paper out of 50**

PART A – ANSWER ALL 6 QUESTIONS

Question 1

What types of activities fall within the realm of human resource management?

5 marks

Question 2

If a manager is interested in building a business with a strong and sustained ability to be innovative, why must they pay attention to and commit to effective human resource management practices?

5 marks

Question 3

What IS innovation and why is it important?

5 marks

Question 4

All types of innovation begin with an idea. Where do ideas come from, i.e. what are the sources of ideas that may lead to an innovative product/process or service?

5 marks

Question 5

What are the advantages and disadvantages to employers and employees of a regulated system of industrial relations such as the Australian Industrial Relations Commission?

In what circumstances would you, in a middle-management position, advocate making use of the system or avoiding the system?

10 marks

Question 6 –note this question contains 10 short answer questions.

- (i) What is a contract?
- (ii) What are the six requirements for the formation of a contract?

- iii) Explain the parol evidence rule.
- iv) What are the two presumptions in relation to the evidence of intention to create legal relations?
- v) When can an offer be revoked?
- vi) Is conditional assent acceptable in acceptance?
- vii) If A says to B "I will fix your car" and B says "ok". Is this agreement legally enforceable?
- viii) What act protects consumers through negligence?
- ix) What are the three elements of negligence?
- x) Define unconscionable contract

10 marks

PART B – SELECT AND RESPOND TO 1 ONLY FROM THIS SECTION.

Question 7

Managers often make the comment that, of all their responsibilities, dealing with people and managing them is the most difficult or most challenging. Why do you think they think/say this? What have you learnt -about managing, about managing human resources, about innovation, as a result of the interview you conducted during this course? Has anything from that interview really stood out as a 'key learning point' for you?

10 marks

OR

Question 8

Employee motivation is important given the links between motivation and innovation. What is the link between motivation and innovation, and what might a manager do to ensure employees were highly motivated and committed?

10 marks

OR

Question 9

In this course we have touched briefly on the large issue of business/managerial ethics. What views do you have regarding the role that ethics plays in the workplace, whether from the perspective of a manager or generally (i.e. the behaviour of employees and the ethical nature of the whole organisation) Should organisations have policies that set out for the organisation what ethics and values will be upheld?

10 marks

OR

Question 10

You overhear a conversation between a disgruntled manager and a casual employee (i.e. employed on a casual basis as distinct from permanent or contract.) The subject of their heated discussion/argument may be summed up as follows:

Manager's point: the employee is a casual member of staff, so does not really care all that much about the quality of their work or even whether they take 'sickies' when they are not really sick. The manager finds this totally unacceptable. The amount of work they can give to the employee varies in line with the contracts the business wins. (It is a small firm.)

Employee's point: the employee never knows from one week to the next how much work they will have (as a result of being casually employed) and so this person does not feel like the business or the manager has 'earnt' his commitment.

Neither side is very happy!

You are invited to join in the conversation... what would your views about the entire situation be? i.e. what might be done to result in a better outcome for both employee and business/manager? If you were the manager, what would you do?

10 marks

TOTAL FOR EXAM 50 marks

Appendix: Table Of Present Value Factors

Present value of \$1 assuming it is received on the last day of the year.

Year	Interest Rate (% per year)																			
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30					
1	.980	.962	.943	.926	.909	.893	.877	.862	.847	.833	.820	.806	.794	.781	.769					
2	.961	.925	.890	.857	.826	.797	.769	.743	.718	.694	.672	.650	.630	.610	.592					
3	.942	.889	.840	.794	.751	.712	.675	.641	.609	.579	.551	.524	.500	.477	.455					
4	.924	.855	.792	.735	.683	.636	.592	.552	.516	.482	.451	.423	.397	.373	.350					
5	.906	.822	.747	.681	.621	.567	.519	.476	.437	.402	.370	.341	.315	.291	.269					
6	.888	.790	.705	.630	.564	.507	.456	.410	.370	.335	.303	.275	.250	.227	.207					
7	.871	.760	.665	.583	.513	.452	.400	.354	.314	.279	.249	.222	.198	.178	.159					
8	.853	.731	.627	.540	.467	.404	.351	.305	.266	.233	.204	.179	.157	.139	.123					
9	.837	.703	.592	.500	.424	.361	.308	.263	.225	.194	.167	.144	.125	.108	.094					
10	.820	.676	.558	.463	.386	.322	.270	.227	.191	.162	.137	.116	.099	.085	.073					
11	.804	.650	.527	.429	.350	.287	.237	.195	.162	.135	.112	.094	.079	.066	.056					
12	.788	.625	.497	.397	.319	.257	.208	.168	.137	.112	.092	.076	.062	.052	.043					
13	.773	.601	.469	.368	.290	.229	.182	.145	.116	.093	.075	.061	.050	.040	.033					
14	.758	.577	.442	.340	.263	.205	.160	.125	.099	.078	.062	.049	.039	.032	.025					
15	.743	.555	.417	.315	.239	.183	.140	.108	.084	.065	.051	.040	.031	.025	.020					
16	.728	.534	.394	.292	.218	.163	.123	.093	.071	.054	.042	.032	.025	.019	.015					
17	.714	.513	.371	.270	.198	.146	.108	.080	.060	.045	.034	.026	.020	.015	.012					
18	.700	.494	.350	.250	.180	.130	.095	.069	.051	.038	.028	.021	.016	.012	.009					
19	.686	.475	.331	.232	.164	.116	.083	.060	.043	.031	.023	.017	.012	.009	.007					
20	.673	.456	.312	.215	.149	.104	.073	.051	.037	.026	.019	.014	.010	.007	.005					

To obtain a factor for an intermediate interest rate, average the factors for the interest rates on either side. For example, the Present Value Factor for \$1 received after 10 years for an interest rate of 15 per cent per year is:

$$\frac{.270 \text{ (for 14\%)} + .227 \text{ (for 16\%)}}{2} = .249$$