



PRIFYSGOL CYMRU

## Y Drindod Dewi Sant

UNIVERSITY OF WALES

**Trinity Saint David**

## Examination Answer Book

24 Pages

### Instructions to candidates

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right and seal to hide your name.
3. The answers must be **legibly** written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

|   |                              |                                    |
|---|------------------------------|------------------------------------|
| 1 | Student Number               | P148322                            |
| 2 | Title of Examination Paper   | ENGINEERING<br>MANAGEMENT<br>& LAW |
| 3 | Module Code                  | M6X00943                           |
| 4 | Date and Time of Examination | 16/02/18<br>14:00                  |
| 5 | Examination Venue            | MH509                              |
| 6 | Seat Number                  |                                    |

|   |                                  |  |
|---|----------------------------------|--|
| 7 | Number of Answer Books handed in |  |
|---|----------------------------------|--|

[illegible]

Please complete this section and SEAL before the examination starts.

Surname

(Block Capitals) Forename(s)

RACPH

Complete  
section,  
remove  
strip, fold as  
indicated  
and SEAL

**PATENT PENDING**  
**INEOS AEE®**

**PATENT PENDING**

1. Sales  
Cash £600,000 + Debtors £600,000  
= £1,200,000

less Cash spent

Purchases £400,000  
Creditors £250,000  
Stock 31.12.16 £80,000

less £730,000  
- Stock 31.12.17 £130,000

£600,000

gross profit £1200,000  
- £600,000  
£600,000

Expenses:

Rent £20,000  
Heat & Light £15,000  
Wages £170,000  
Accrued Commission £60,000  
Stationery £10,000  
Advertising £25,000  
Postage & Phone £5,000  
= £305,000  
+ Dividends paid £50,000

Total £355,000

Net profit

= gross profit - Expenses

= £600,000 - £355,000

= £245,000

Cash in

£120,000 (cash) 31.12.16  
+ £600,000 (debtors)

£720,000

Cash out

Purchases Paid £400,000  
creditors + £250,000  
Expenses less ~~dividends~~ + £305,000  
Acc. Commission - £60,000

= £895,000

Balance Sheet

fixed assets  
+ Current assets  
- Liabilities

£720,000 - £895,000 = -175,000

Cash flow (in - out) = £(175,000)

# Balance Sheet

Fixed Assets  
+ Current Assets  
- Liabilities

Fixed  
retail outlet £150,000 ✓  
Delivery vans £60,000 ✓  
Computer systems £40,000 ✓  
250,000 ✓

Stock 31.12.17 130,000 ✓  
Cash 245,000 X ? X  
Debtors 600,000 ✓  
975,000

Less Liabilities

creditors 250,000 ✓  
~~Dividends 50,000~~ ✓  
Acc. Commission 60,000 ✓  
£310,000 ✓

$$250,000 + 975,000 - 310,000 = 915$$

Company Ownership

Shareholder's Equity 450,000 ✓  
Net ~~gross~~ Profit + 245,000 ✓  
695,000 ✓

22

22  
30

62  
80

The cash flow is not sufficient. Not enough income is flowing into the company to cater for the expenses of the company. The company value is therefore decreasing over time as they will have less and less (negative) cash in the bank. The assets of the company may have to be sold off to bring the company out of negative equity. There is not enough cash or sales coming into the company.

Oh. Based on the commitment error in the cash flow calculation, the answer is broadly feasible.

$$\frac{10}{20}$$

$$\frac{72}{100}$$

3. Motivation is the desire to do things.

a) Maslow's hierarchy of needs is based on the theory that money is not always the motivation for people to work hard. ~~and do well to it~~ Maslow suggests people have an inner desire to progress in life with inbuilt motivational systems within themselves. He suggests that once we have accomplished one level of status of need we aim for the next, until we reach the top of the pyramid of so-called hierarchy of needs. It states also that everyone is capable and ~~dislikes~~ desirous of reaching self-Actualisation.



People are said to want to move up through the hierarchy ~~one~~ once the current one has been realised and achieved but it is not always a smooth progression due to the barriers we sometimes face in life. ~~Bea~~ Bereavement, illness, loss of job are things or aspects that

can disrupt or cause people to remain at that level of achievement or even move downwards through the hierarchy.

Initially everyone starts life at the bottom of the hierarchy with trying to fulfil simple things such as ~~eat~~, clothing, shelter, water and the general basic needs for sustaining life. People are motivated to move up the hierarchy to safety/security where they want to feel safe, ~~perp~~ perhaps in their job and secure in such a sense of guaranteed income. Next people want to feel loved with friendship, membership, companionship and affection. Once achieved they strive to fulfil self-esteem, perhaps ~~being affiliated~~ feeling affiliated with work colleagues as a clever or successful person or a go-to person. They want to feel respected. Finally people are said to feel self-actualised when they feel they have reached their potential and have achieved all they possibly can, and that there's nowhere or nothing else they can do to better themselves or make them feel any more successful.

Bit simple

Imbalances throughout life such as illness, bereavement or job loss, ~~excess~~ demotion may cause an individual to move down the hierarchy.

repetition

30

30  
30

b) Qinetiq uses reward schemes such as 'Star Award' to signify when people have gone one-step beyond their call of duty or done something remarkable. Also the team leaders can be regarded as non-financial motivators at Qinetiq as they use their skills to influence and motivate followers to achieve set goals. Recognition during monthly meetings for people that have achieved certain goals often gets mentioned which boosts individuals self-esteem. The projected values, reputation and destination of the company to be the best defence company, a market leader at the forefront of defence technology makes people feel proud to wear the Qinetiq logo ~~and~~ on their uniform.

24  
40

24

9) FW Taylors scientific theory suggest people are only ever motivated by pay. It suggest that people do not usually like working and cannot be bothered or interested in the actual work side of employment. The only way to encourage production is to make pay reflect the workload, hence piece-pay. Methods of paying staff per item produced. (unit-pay). That way people tend to work hard and production flows easily with highly motivated staff. Management could suggest the exact things that workers need to achieve, i.e. objectives (personal and work related) in order to move up the pay scale. Qiphtix currently uses the Global grading pay scale system that in which peoples pay is reflected by how far they achieve their targets. This is a form of money motivation, targets are set annually in performance development review meetings between the team leaders and followers (team members).

Elton Mayo however states that from his Hawthorn study at a factory where resistors were made, people can be motivated by attention and the feeling of empowerment. By giving the workers

control of production and allowing them to lead themselves without a manager, production went up. Then when removing control from the workers by reintroducing a manager onto the factory floor, production stayed up. This is a good method for improving attention and communication within a workforce. Management could give power to workers to encourage their feeling of worth and existence.

Sinebr uses this method for safety reasons. If someone suspects something is not being carried out correctly, everyone is empowered to call a STOP moment by shouting 'Stop, stop, stop'. All activities are instantly stopped and until further investigation.

Good punter, but not modern motivation theory.

Hence

$\frac{15}{20} // \frac{69}{100}$

A manager leads from the outside, a leader, leads from the inside. A manager oversees a team, allocates resources, organises and Plans. A Leadership role involves monitoring, inspiring and coaching followers. A manager organises training, and has to have informational, interpersonal and ~~deser~~ decisive skills. A manager usually will liase, lead, be a spokesperson, negotiate, allocate ~~rescor~~ resources, disseminate information and anything allocated to them. A leader should motivate the followers,

with

$\frac{69}{100}$

They should be innovative and come up with fresh, new ideas ie about how to communicate better and introduce technology or methods that improve current processes.

Slides w/ a lot of points  
from the lecture.

$$\frac{30}{30}$$

2) Organise, Workers that are engaged often organise their own daily duties so that they can ~~see~~ meet their targets

3) Resource Allocation; Workers nowadays plan in advance and usually book or order facilities or tools so that they have them ready and fit for use in time as and when they need them. Access to equipment allocation lists provides aid with this.

4) Team member allocation: Workers know their capabilities and usually are aware of other people's competencies and so put themselves forward for jobs they feel they are capable of fulfilling correctly.

28  
40

9) It is very important that managers understand the state of mind of team members in dangerous test range environments. Managers need to know that workers are focussed on their job and are emotionally fit for work. especially when dealing with live explosives. It is important that managers are approachable and that workers can talk or communicate with them effectively.

By showing an interest socially, managers can better judge the character of workers. Good oral and written communication skills enable managers to deal with stressful or awkward situations between workers. This ability to talk comfortably with workers, openly about topics gives or provides them with better control of workers responsiveness and actions, attitudes and ability to encourage a positive culture through inspirational and motivational methods.

Good on CI and interpersonal,  
doesn't address span of control

20  
30

78

78  
100

2.

a) Ethics is a strategy used to control risk and how a business operates. Ethics involves the business projecting a way it wants all workers, at all levels and anyone associated with working with the company, to work. It encompasses its values, beliefs, behaviours and paradigms. Gineტი likes to 'do the right things, the right way.' Business encourage employees to do the moral thing at all times and adhere to the rules of the business. An example would be a company suggesting it is anti-discriminatory.

b) Being 'anti-discriminatory' would mean the business would encourage people from all backgrounds, ages, sexual orientation to for instance apply for jobs at the company. This statement would make people feel that the company has a equal opportunity for achievement available, a company that focusses on Equality. The business may advertise the fact that it is anti-discriminatory and encourage therefore employ people from all backgrounds.

c) Upon receiving

Upon such a discovery, the company may well receive a very bad reputation. Orders for work may fall, clientel world gradually fall as nobody would want to do business with the company. This would put the company income at risk and may even force closure, liquidation and bankruptcy. Employees may even opt to leave the business to go work elsewhere. To prevent such actions companies have a code of conduct that they enforce every employee to follow. Code of conduct includes rules and regulations and elements of the law of which must be followed and complied with at all times.

Companies enforce disciplinary actions on ~~peep~~ employees and ask that they read the code of conduct and make themselves aware of their liabilities or penalties they could face if they don't follow the rules or laws.

N/A