



# UNIVERSITY OF RUHUNA

## Faculty of Engineering

End-Semester 5 Examination in Engineering: August 2018

Module Number: IS5304

Module Name: Industrial Management

[Three Hours]

[Answer all questions, each question carries ten marks]

[ Use separate booklets for **Section A** and **Section B**]

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### Section A

- Q1 a) Briefly explain the four basic functions of management process. [4 Marks]
- b) Briefly explain the three main roles that managers are expected to perform according to Henry Mintzberg. [3 Marks]
- c) What are the three main skills that an effective manager must possess? [3 Marks]
- Q2 a) Briefly explain main management activities in the operational area. [3 Marks]
- b) What do you mean by 'Product Life Cycle'? Explain this term with different phases of product life cycle. [4 Marks]
- c) What do you mean by 'Intellectual Property Rights'? Explain briefly. [3 Marks]
- Q3 a) Briefly explain the advantages and disadvantages of establishing partnership. [2 Marks]
- b) Briefly explain the key elements of market research. [1 Mark]

- c) Explain the main four activities in purchasing. [4 Marks]
- d) Explain 3 major recruitment sources of potential job candidates with advantages and disadvantages of each. [3 Marks]

Q4. Using the information in Table 1:

- a) Draw network diagram using Activity on Arrow (AoA) method. [6 Marks]
- b) Find the project completion time. [2 Marks]
- c) State the critical path/s. [2 Marks]

Task	Description	Duration (Days)	Predecessor/s
A	Requirement Analysis	5	-
B	Systems Design	15	A
C	Programming	25	B
D	Telecoms	15	B
E	Hardware Installation	30	B
F	Integration	10	C, D
G	System Testing	10	E, F
H	Training / Support	5	G
I	Handover and Go-Live	5	H

Table 1

## Section B

Q5. Assume that you are the Managing Director of a reputed Engineering Consultancy Service. One of your Trainee Engineer has some confusion about the following statements. You are required to briefly explain any five (5) of them to him. Your answer should be supported with relevant decided cases, if any.

- (a) The mechanism available under the Industrial Disputes Act No. 42 of 1950 to settle industrial disputes.
- (b) Intention to create a legal relationship.
- (c) Agency by necessity.
- (d) Intellectual Property in Industrial Engineering.
- (e) Delictual liabilities of an Engineer.
- (f) Application of Exemption clauses in the Engineering Contract.

[10 Marks]

Q6. The Sri Lankan Young Engineers' Association (SLYEA) invites you to deliver a speech on "*Ethical issues in engineering profession in Sri Lanka*". You are required to prepare a detail note dealing with possible ethical issues associated with engineering profession.

[10 Marks]