

#### PAST PAPERS

Faculty Department / Section/Division

Not Applicable Learning Resource Centre

Past Papers

Faculty of Management & social Sciences Department of Management and Business Studies

BMgt.(Hons) in Human Resource Management/Business Administration

**End Semester Examination** 

(Year 2 - Semester I)

Document Control & Approving Authority

Senior Director - Quality Management & Administration



## Year 2 Semester I End Semester Examination Management Accounting – MGHR/ MGBM 2413

- This paper consists of EIGHT (08) questions on NINE(09) pages.
- Answer <u>FIVE(05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
  - If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Date: 2022.09.23

Pass mark: 40%

Time: 03 Hours

## Question 01: (Compulsory)

(a) Management Accounting is the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information that assists in fulfilling organizational objectives.

## You are required to:

Identify two(02) ways in which Management Accounting becomes important for an organization.

(04 Marks)

(b) J Ltd. manufactures and sells Product Q and the following information is extracted from its standard cost card of Product Q:

Table 1.1

	Per unit (Rs)	
Selling Price		85
Direct Materials		40



Direct Labour	18
Variable Overheads	12

The annual budgeted fixed overhead is Rs.1,440,000/- and the annual budgeted sales for the year 2022 is 100,000 units.

You are required to: Calculate the following:

(i) Break Even Point (BEP) in units.

(02 Marks)

(ii) Margin of Safety in units.

(02 Marks)

(c) Shay PLC has three production departments: A, B and C and two service departments X and Y. The following data relates to Shay PLC for the month of June 2022:

Table 1.2

	Production  Departments		Service Departments		
	A	В	C	X	Y
Indirect material (Rs.'000)	500	400	300	100	50
Indirect wages (Rs.'000)	800	300	400	200	300
Cost of Property, Plant and Equipment (Rs. '000)	2,000	2,400	1,800	1,600	1,400
Floor Area (square feet)	800	600	600	200	200
Electricity usage (kilowatt)	1,000	800	600	500	300
Number of employees	80	60	40	30	20
Apportioning costs of service x departments	50%	30%	20%		
у	30%	40%	30%		



Other overhead costs for the month were as follows:

Table 1.3

Rs.
360,000
180,000
184,000
230,000

#### You are required to:

Prepare a statement showing how the production overheads are allocated and apportioned to each of the production department. (12 Marks)

### Question 02:

Jay Ltd. is considering investing in a new project which involves developing and selling of an innovative gadget targeting youth below 18 years. For this, the company expects to invest Rs.125 million for a special machinery and Rs.3 million for working capital requirement. For the next 5 lears, sales and advertising costs will be expected to be as follows:

Table 2.1

Year	Production / Sales	Selling Price Per	Advertising Cost
	(units)	Unit (Rs.)	Per Annum (Rs.)
1	7,500	11,000	8,000,000
2	11,000	10,500	23,000,000
3	18,000	9,500	15,000,000
4	20,000	9,000	15,000,000
5	15,000	8,500	4,000,000



The machinery has a lifetime of 5 years and the company depreciates its' machineries under the straight-line basis at cost. The variable production cost other than advertising cost is expected to be Rs.4,000/- per unit and the fixed overhead cost including depreciation on machinery is expected to be Rs.37 million per annum. Working capital can be recovered at the end of the 5th year. The company pays income tax at the rate of 24% per annum and it should be paid in the same year. Jay Ltd.'s cost of capital is 10% per annum.

#### You are required to:

(a) Calculate the Net Present Value (NPV) of the new project.

(14 Marks)

(b) Assess the viability of the above project based on NPV.

(02 Marks)

(c) Explain two advantages of NPV analysis.

(04 Marks)

#### Question 03:

with calculations.)

(1) Beta Ltd. manufactures and sells motors which are used in various electrical equipment. These motors consist of various parts of which some are internally manufactured and some are bought from suppliers.

Beta Ltd. is assessing the viability of outsourcing the production of Part N and the following information is provided with regards to Part N:

(a) The cost per unit of outsourcing would be Rs.2,500/-.

(b) The company currently incurs the following costs to manufacture it internally.

(c) The above mentioned fixed production overheads are absorbed based on the annual budgeted units of 100,000.

(d) If production is outsourced, 65% of the fixed production overheads can be avoided and some labour can also be laid off. A compensation payment of Rs. 36 million for labour laid off is required to be paid.

You are required to: Assess whether the company should outsource Part N. (Support your answer (12 Marks)

(2) What is meant by factoring and what are the benefits of factoring?

(08 Marks)



#### Question 04:

Willy Ltd., manufactures and sells 3 different products range (Blue, Red and Black).

The following per unit information is provided for the next quarter:

Table 4.1

	Blue	Red	Black
Selling price per unit (Rs.)	1,000	1,200	1,400
Direct Material cost per unit (Rs.)	300	250	550
Skilled Labour (at Rs.80/-per hour)	240	400	480
Unskilled Labour (at Rs.55/- per hour)	110	220	165
Monthly budgeted sales per quarter (in units)	2,000	3,000	1,500

For the next quarter, the labour availability has been estimated as below.

#### Table 4.2

Skilled Labour	80,000 Hours
Unskilled Labour	60,000 Hours

## ou are required to:

(a) Identify limiting factor/s with supporting calculations.

(04 Marks)

(b) Calculate the optimal production mix based on the limiting factor/s identified.

(10 Marks)

(c) State three qualitative factors that will affect make or buy decisions of an organization and explain each briefly. (06 Marks)

## Question 05:

(1) Compare the difference between Absorption Costing & Marginal Costing methods.

(08 Marks)

Page 5 of 9



(2) The following information has been extracted from the records of Senerath (Pvt) Ltd which manufactures and sells a single product named as X for the quarter ended 30th June 2022.

Table 5.1

	Per unit (Rs)
Direct Material	12
Direct Labour	8
Variable Production Overheads	6
Selling Price	120

Table 5.2

	Budgeted	Actual
Fixed Production Overhead	450,000	280,000
Fixed Distribution Cost (Rs.)	100,000	60,000
Fixed Administration Cost (Rs.)	20,000	40,000
Production (in units)	60,000	55,000
Sales (in units)	40,000	45,000

There was no opening stock as at 01st April 2022.

#### You are required to:

Prepare Profit Statement for the quarter ended 30th June 2022 using Marginal Costing Method.

(12 Marks)



#### Question 06:

(a) Benchmarking is a scientific way of setting objectives that will act as targets, before and during the operating period and as comparisons, during and after the operating period.

Motivation to benchmarking arises due to many reasons such as to show that performance targets can be achieved, to accelerate and manage change, to enable process improvement, etc.

#### You are required to:

(i) Explain three (03) advantages of benchmarking. (06 Marks)

(ii) Explain two **(02) limitations** of benchmarking. (04 Marks)

(b) What is meant by "working capital cycle"? (04 Marks)

(c) Explain two methods of scientific control of inventories. (06 Marks)

#### Question 07:

- (1) Explain the benefit of preparing a Break-Even Analysis for an organization? (04 Marks)
- (2) Venus (Pvt) Ltd (VPL) is a manufacturing and trading company. It produces a range of products,

and the following information.

#### Table 7.1

	Product A	Product B	Product C
Selling price per unit	400	620	500
Variable cost per unit			
Materials	170	145	150
• Labour	60	40	20
Overheads	20	20	60



Fixed overheads per unit			
Product Specific	15	10	10
General	10	6	15
Promotion cost per unit	50	30	45
Cost per unit	325	251	300

General fixed overheads are absorbed based on labour cost.

The monthly budgeted production/sales volume for each product is as follows.

#### Table 7.2

	Product A	Product B	Product C
Production/sales (units)	80,000	70,000	65,000

Promotion cost is a common fixed cost for all three products, and it is absorbed to each product based on sales.

The management assumes that the current sales mix would continue in the future based on the prevailing advertising agenda.

You are the management accountant of VPL and are given the above information.

#### Required:

- (a) Assess the following relating to the supplies to the institutional cluster, based on the prevailing sales mix.
- (i) Break-even sales (in units and in value for each product).

(04 Marks)

(ii) Expected profit of this cluster for a month.

(04 Marks)



(b)

#### Table 7.3 -Revised sales mix

	Product A	Product B	Product C	
Production/sales (units)	110,000	120,000	115,000	

The finance manager of APL has already given his concurrence to proceed with this proposal.

Required:

(i) Assess the revised break-even sales (in units and in value for each product).

(04 Marks)

(ii) Validate, with necessary computations, the finance manager's action for this proposal.

(04 Marks)

#### Question 08:

Write short notes for any four of the below.

- 1. Learning curve
- 2. Marginal Costing
- 3. Kaizen
- . Black Flush Accounting
  - 5. Investment Appraisal Techniques

(051)	Marks*4	= 20	Marks)
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-----END OF THE QUESTION PAPER-----



## Year 2 Semester I End Semester Examination Business Information System - MGHR/ MGBM 2314

This paper consists of EIGHT (08) questions on ELEVEN (11) pages.

- Answer FIVE (05) questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Date: 2022.09.20

Pass mark: 40%

Time: 03 Hours

## Question 01 (Compulsory)

- 1. Management information systems (MIS)
  - (a) create and share documents that support day-today office activities
  - (b) process business transactions (e.g., time cards, payments, orders, etc.)
  - (c) capture and reproduce the knowledge of an expert problem solver
  - (d) use the transaction data to produce information needed by managers to run the business
- 2. Information systems that monitor the elementary activities and transactions are,
  - (a) Management level system
  - (b) Operational level system
  - (c) Knowledge level system
  - (d) Strategic level system



- 3. Medical diagnosis software is an example for,
  - (a) Specialized processing System
  - (b) Transaction Processing System
  - (c) Process Control System
  - (d) Enterprise Collaboration System
- 4. Contemporary Information Systems that are interfacing with customers and suppliers:
  - (a) Supply Chain Management system.
  - (b) Customer Relationship Management System.
  - (c) Both A and B
  - (d) None of the above
- 5. Which of the following is not an example for real time system?
  - (a) Bank ATMs
  - (b) Radar systems
  - (c) Point of Sale (POS) Systems
  - (d) Payroll and billing systems
- 6. Which of the following is not a collaborative system/software?
  - (a) Electronic mail
  - (b) A web site
  - (c) Google calendar
  - (d) A shared spread sheet



#### 7. Select the correct answer.

- I. DSSs can exist at different levels of decision-making with the organization, from the CEO to the first-level managers.
- II. DSSs are designed to take inputs regarding a known (or partially-known) decision-making process and provide the information necessary to make a decision.
- III. A nicely designed spreadsheet that allows for input of specific variables and then calculates required outputs could be considered a combination of collaborative system and decision support system.
- (a) Only I is true
- (b) Only III is true
- (c) Only I and II are true
- (d) All I, II, III are true
- 8. Select the wrong combination
  - (a) Transaction processing system Grocery store checkout cash register with connection to network
  - (b) Management Information System Inventory management and planning system
  - (c) Decision Support System-Product demand forecasting system
  - (d) Knowledge Management System shared calendar
- 9. Wikis and discussion forums are tools in Learning Management Systems (LMS) where students can,
  - (a) post information
  - (b) comment on information



- (c) access information
- (d) all of the above
- 10. Which of the following combination is incorrect regarding operational systems?
  - (a) Primary purpose -Run the business on a current basis
  - (b) Type of data Historical or point-in-time (snapshot)
  - (c) Primary users Online customers, clerks, salespersons, administrators
  - (d) Scope of usage Narrow and simple updates
- 11. What is true about knowledge management?
  - (a) A knowledge management system is not a single technology but a collection of technology based tools.
  - (b) Finding the right technology to manage knowledge assets is much easier than identifying what knowledge is needed, why it is needed, and who has this knowledge.
  - (c) All of the above are true.
  - (d) Both (a) and (b) are false.
- 12. Which of the following is an example of attribute data commonly used in Geographical Information System (GIS) applications?
  - (a) Business type
  - (b) Market share
  - (c) Longitude
  - (d) Annual sales



- 13. Human resource information systems support the strategic, tactical, and operational use of the human resources of an organization. Select the wrong combination.
  - (a) Human resource planning Strategic level systems
  - (b) Labor cost analysis and budgeting Tactical level systems
  - (c) Workforce planning/scheduling Tactical level systems
  - (d) Performance appraisal planning Strategic level systems
- 14. Which is true about Worms?
  - (a) Self-replicating viruses that exploit security vulnerabilities to automatically spread themselves across computers and networks.
  - (b) Worms on existing programs and can only be activated when a user opens the program.
  - (c) Worms vary and hide themselves in the operating system.
  - (d) All of the above
- 15. The majority of publicly available Internet information sources are:
  - (a) Structured information.
  - (b) Normal information.
  - (c) Unstructured information.
  - (d) None of the other options.
- 16. Which of the following is NOT a goal of transaction processing systems?
  - (a) Capture, process, and store transactions
  - (b) Produce a variety of documents related to routine business activities
  - (c) Reduce manual effort associated with processing business transactions
  - (d) Produce standard reports used for management decision making



- 20. Many multinational companies roll out standard IS applications for all to use. However, standard applications often don't account for all the differences among business partners and employees operating in other parts of the world. Which of the following is a frequent modification that is needed for standard software?
  - (a) Software might need to be designed with local language interfaces to ensure the successful implementation of a new IS.
  - (b) Customization might be needed to handle date fields correctly.
  - (c) Users might also have to implement manual processes and overrides to enable systems to function correctly.
  - (d) All of the above

(01 Mark\*20=20 Marks)

## Question 02

- (a) You have decided to open an Internet site to buy and sell used music CDs to other students.

  Describe upstream and downstream supply chain activities and entities involved in your new business.

  (04 Marks)
- (b) Describe CRM systems and how they help to improve the activities involved in promoting and selling products to the customers as well as providing customer service and nourishing long-term relationship.

  (08 Marks)
- (c) Describe SCM systems and how they help to improve interorganizational business processes.

  (08 Marks)

## Question 03

Buzz is a social networking and messaging add-on to Gmail that many see as Google's response to Facebook. It allows users to share updates, photos, videos, and comments, organizing them all in

Page of 10



the Gmail in-box. When Buzz went "live" on the Internet, every Gmail user was automatically enrolled.

Within hours of the launch of Buzz, cries of protest went up around the globe decrying Google's assault on user privacy. News outlets, blogs, message boards, and Twitter were inundated with negative stories about Buzz. At the heart of the privacy concern was Buzz's core functionality and integration with Gmail's address book. When Google activated Buzz, the program made links between the members of every Gmail user's address book. This linking instantly gave anyone in a user's address book visibility of all other names in the address book. Although Google allowed Gmail users to opt out of Buzz, users were unable to do so until after Buzz's initial activation.

The ramifications of such a peek into someone's address book can easily be imagined. For instance, you might not want your significant other to suddenly see all the names of your former partners in your address book. If a doctor's office used Gmail to communicate with patients, everyone in the address book would instantly know who other patients were of that doctor. A far more dangerous scenario can be imagined in authoritarian countries such as China, where dissenting citizens' address books could have been revealed to government Internet minders, allowing them to see who the dissidents had been communicating with.

(a) Briefly explain what an ethical dilemma is.

(02 Marks)

- (b) Based on the above description identify and explain in detail what type of ethical and privacy issues that can be arise because of Buzz add-on. (04 Marks)
- (c) Briefly explain two (2) technology trends that raise ethical issues using examples for each.

(04 Marks)

(d) Discuss the five (5) steps ethical analysis process relevant to above mentioned case.

(10 Marks)



#### Question 04

Until just a few years ago, Gary Warner did not have the kind of day job you'd expect from an antiphishing crusader. He didn't work for a security vendor or a bank, or any kind of company you'd expect to care about phishing. Warner's career as a cybersleuth began on Halloween 2000. That's when his company's Web site was defaced by an entity named Pimpshiz as part of a pro-Napste Internet graffiti campaign. "My boss came to me and said, 'Find out who did this and put them in jail," said Warner, who was at the time an IT staffer with Energen, a Birmingham, Alabama, oil and gas company. It was an eye-opening experience.

Since then, Warner has quietly become one of the most-respected authorities on phishing in the United States — the kind of guy that federal agents and banking IT staff call when they want to know how to catch the bad guys and shut down their credit-card-stealing Web sites. With Warner's help, authorities eventually arrested Pimpshiz, whose real name is Robert Lyttle, in connection with the defacements. Warner said that the Pimpshiz case was formative, underlining how hard it is for law enforcement to catch the bad guys on the Internet. "The experience showed me that it's not that they don't care," Warner said. "Their hands are tied by the legal process." In July of 2007, with recommendations from FBI and Secret Service agents, Warner took a job as Director of Research in Computer Forensics with the University of Alabama at Birmingham (UAB). He also began working with law enforcement, not only educating FBI and Secret Service agents on how crimes were committed, but also helping to track down the criminals and helping with takedowns.

- (a) Explain two (2) ways of committing computer crimes as explained in this case. (04 Marks)
- (b) What is phishing? Explain with examples from case. (03 Marks)
- (c) Explain which groups who can commit computer crimes are mentioned in this case. Give examples from case. (04 Marks)
- (d) Discuss three (3) strategies for establishing a framework for security and control for a business. (09 Marks)

8 Page **9** of **10** 



#### Question 05

- (a) You have been asked to participate in the preparation of your company's strategic plan. Specifically, your task is to analyze the competitive marketplace using Porter's five forces model. Prepare your analysis, using your knowledge of a business you have an interest in working for.

  (10 Marks)
- (b) Based on the analysis you performed in the preceding discussion question, what possible strategies could your organization adopt to address these challenges? Critically analyze the role of information systems play in these strategies.

  (10 Marks)

#### Question 06

- (a) Briefly explain an advantage and a disadvantage of using an ERP system? (04 Marks)
- (b) If you were the chief information officer of a large company, would you recommend implementing an ERP system? Why or why not? (08 Marks)
- (c) How can a small business avoid experiencing "just another ERP failure"? (08 Marks)

## Question 07

- (a) What is a "Knowledge Management System"? (02 Marks)
- (b) Who is a knowledge worker? Give an example. (03 Marks)
- (c) Briefly explain three (3) common features in a "Knowledge Management System"?

(06 Marks)

(d) Explain three (3) main tasks in a "Knowledge Management System"? (09 Marks)



## Question 08

Write short notes on the following topics.

(4\*5 Marks = 20 Marks)

- (a) A digital firm
- (b) Information systems vulnerabilities
- (c) Transaction Processing Systems
- (d) Business Intelligent Systems

-----END OF THE QUESTION PAPER-----





## Year 2 Semester I End Semester Examination Business Statistics - MGHR/ MGBM 2412

- This paper consists of EIGHT (08) questions on THIRTEEN(13) pages.
- Answer <u>FIVE (05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.
- Areas under Standard Normal Curve are attached.

Date: 2022.09.13

Pass mark: 40%

Time: 03 Hours

## Question 01 (Compulsory)

Select the most suitable answer for the following MCQ questions

- 1. Which of the following statements are true?
  - a. Categorization of social classes as upper class, middle class and lower class is an example for nominal scale
  - b. The main difference between ordinal scale and interval scales is that the interval scale uses unit of measurements
  - c. The class interval in a frequency distribution is an example for interval scale.
    - A. a. only
    - B. b. only
    - C. c. only
    - D. a. and b. only

E. a., b. and c.

- fresh milk packet is old at the prices of LKR 60, LKR 100, LKR 120 and LKR 150per liter in four consecutive different months respectively. If a family spent LKR 600 on milk per month in the four months, find the average price (LKR) per liter of fresh milk for the family per month.
  - A. LKR 96
  - B. LKR 107.50
  - C. LKR 102
  - D. LKR 120
  - E. LKR 150
- 3. Geometric mean of 10 observations on a certain variable is calculated as 15.7. later it was found that the observed value 21 had been taken as 12 in calculation. What is the corrected geometric mean value?
  - A. 15.7(1.75)
  - B. 15.7(0.57)
  - C.  $15.7(0.57)^{1/10}$
  - D. 15.7(1.75)<sup>1/10</sup>
  - E. (15.7)\*(1.75)<sup>10</sup>
- 4. V(X) of variable is X is 7. What is the variance of 3X
  - A. 7
  - B. 21
  - C. 63
  - D. 3
  - E. 147
- 5. In a group there are 3 boys and 2 girls. If 3 are selected at random from this group, find the probability that there are 2 boys and 1 girl and 1 boy and 2 girls.

- A. 1/5
- B. 3/10
- C. 1/2
- D. 3/5
- E. 9/10
- 6. Suppose A and B are two independent events. The probability that both A and B occur is 1/8 and the probability that neither of them occur 3/8. If P(A) > P(B), what is the value P(A)?
  - A. 3/8
  - B. 1/2
  - C. 1/8
  - D. 1/4
  - E. 3/4
- 7. Suppose that A and B are any two events.  $P(A \cap B) = P(A \cap B') = P(A' \cap B) = k$ . what is the probability that at least one event occurs from the events A and B?
  - A. 3k
  - B. 2k
  - C. k
  - D. 3k<sup>2</sup>
  - E. k2

Question no 8,9 and 10 are based on the following description.

A student sit for a test consists of 10 multiple choice questions with 5 answers to each question. Only one correct answer is there. The student answers each question by selecting one answer randomly as the correct answer. To pass the exam the student needs to get 60% correct answers.

8. What is the suitable probability distribution to model the number of correct answers provided by the student?

A. Poisson Distribution	
B. Hypergeometric Distribution	
C. Binomial Distribution	
D. Negative Binomial Distribution	
E. Geometric distribution	
9. What is the probability that student pass	the exam
A. 0.0544	
B. 0.0328	
C. 0.0064	
D. 0.9991	
E. 0.9936	
10. What is the probability that student get l	ess than 40 marks?
A. 0.9936	
В. 0.8863	
C. 0.8598	

- 11. The scale applied in statistics which imparts a difference of magnitude and proportions is considered as;
  - A. Ordinal Scale

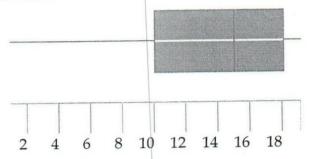
D. 0.8791

E. 0.9672

- B. Nominal Scale
- C. Interval Scale
- D. Ratio Scale
- E. Exponential Scale

- 12. The mean of an examination is 69, the median is 68, the mode is 67, and the standard deviation is 3. The measures of variation for this examination is:
  - A. 3
  - B. 68
  - C. 67
  - D. 69
  - E. 9
- 13. Which of the following is not an example of a discrete probability distribution?
  - A. The sale price of a house
  - B. The number of bedrooms in a house
  - C. Number of children in a family
  - D. Numbers of members in a household
  - E. Number of bathrooms in a house
- 14. Which of the following is not a correct statement about a probability.
  - A. It must have a value between 0 and 1
  - B. It can be reported as a decimal or a fraction
  - C. A value near 0 means that the event is not likely to occur/happens
  - D. It is the collection of several experiments
  - E. Probability of a particular event can be 1.
- 15. In a Poisson probability distribution
  - A. The mean and standard deviation of the distribution are the same (equal)
  - B. The mean and variance of the distribution are the same (equal)
  - C. The probability of success is always greater than 5
  - D. The number of trials is always less than 5
  - E. It always contains a contingency table

16. Consider the boxplot below.



Which of the following statements are true?

- I. The distribution is skewed left.
- II. The interquartile range is about 8.
- III. The median is about 10.
  - A. I only
  - B. II only
  - C. III only
  - D. I and II
  - E. II and III
- 17. A simple random sample consists of four observations: {1, 3, 5, 7}. Based on these sample observations, what is the best estimate of the standard deviation of the population?
  - A. 2
  - B. 2.58
  - C. 6
  - D. 6.67
  - E. 3
  - 18. A population consists of four observations: {1, 3, 5, 7}. What is the variance?
    - A. 2

- B. 4
- C. 5
- D. 6
- E. 3
- 19. If E(X) = 2, what is the value of E(3X + 2)
  - A. 2
  - B. 8
  - C. 6
  - D. 4
  - E. 5
- 20. If V(X) = 3, what is the value of V(3X + 2)?
  - A. 11
  - B. 9
  - C. 29
  - D. 27
  - E. 20

(01 Mark\* 20 = 20 Marks)

## Question 02

(a) State whether the following statements are true or false and explain your answer.

(12 Marks)

- (i) Classification of students by their graduating class, First class, Second upper, second lower and General pass is an example for interval scale.
- (ii) Qualitative variables can be categorized under interval scale
- (iii) Arithmatic operations like division and multiplication are not valid for Interval scale variables.
- (b) State the most appropriate data collection method/s for each of the following studies.

  Describe how each method is applied giving one advantage and one disadvantage.

(04 Marks)

- (i) Study the efficiency of cashiers of a supermarket chain in carrying out of their functions
- (ii) Explore various aspects of the issue of domestic violence by conducting discussions with experts in the field and victims.
- (c) Identify the variable type and the measurement scale of the following variables. (04 Marks)
  - (i) No of members in a family
  - (ii) Payment methods used by a student (Cash, Card and Cheque)
  - (iii) Gross monthly income of a family.
  - (iv) Graduating class of a student

## Question 03

The number of laptops sold by a store was recorded each month for a period of 26 months. Results are shown in the stem and leaf diagram given below.

Stem	Lead	f								
1	8									
2	3	6	7	9	9					
3	2	6	6	6	7	8	8	7		
4	4	5	5	5	7	7	7	7	9	
5	2	7	7	9						

Find,

- (a) the mean
- (b) median
- (c) mode
- (d) first quartile
- (e) third quartile
- (f) range

- (g) Interquartile rage
- (h) Coefficient of range
- (i) standard deviation
- (j) Coefficient of variation

(20 Marks)

#### Question 04

- (a) State which of the following can be modelled with a Binomial Distribution and which cannot.

  Give reasons for your answers.

  (09 Marks)
  - (i) Given that 15% of people have blood that is Rhesus negative (Rh-), model the number of undergraduates in a class of 14 who are Rh-
  - (ii) Keep tossing a fair coin until obtain 4 head in succession. Model the number of tosses needed.
  - (iii) A certain car manufacturer produces 12% of new cars in the colour red, 8% in blue, 15% in white and the rest in other colours. You make a note of the colours of the first 15 new cars of this brand. Model the number of red cars you observe.
- (b) A factory produces a component and manufacturer claims that the 5% of the components are defective. A quality control officer regularly inspects a random sample of 50 components. Find the probability that the next sample of size 50 contains,
  - (i) Fewer than 2 defectives

(03 Marks)

(ii) More than 5 defectives

(04 Marks)

The officer will stop production if the number of defectives in the sample is greater than 2 defectives.

(iii) Find the probability of stop production.

(04 Marks)

## Question 05

- (a) State which of the following could e modelled by a Poisson distribution, and which can not.

  Justify your answer. (06 Marks)
  - (i) Number of accidents per week at a certain road.

- (ii) The number of marathon runners passing the finishing post between 20 and 21 minutes after the winner of the race.
- (iii) The amount of salt (in mg) contained 1cm³ of water taken from a bucket immediately after a teaspoon of salt was added to the bucket.
- (b) A biologist is studying the behaviour of sheep in a large field. The field is divided into number of equally sized squares and average number of sheep per square is 2.5. The sheep is randomly scattered throughout the field.
  - (i) Suggest a suitable to model the number of sheep in a square.

(01 Marks)

(ii) Write the parameter/s of the identified distribution

(01 Marks)

(iii) Calculate the probability that, randomly selected square contains more than 3 sheep.

(04 Marks)

(iv) Calculate the probability that, randomly selected square contains fewer than 5 sheep.

(04 Marks)

(v) If a sheep dog has been sent into the field to round up the sheep. Explain why the distribution suggest part (a) is no longer be applicable. (04 Marks)

## Question 06

Boxes of chocolates are produced with a mean weight 510g. quality control officer claims that 1% of boxes are rejected because their weight is less than 485g.

(a) Find the standard deviation of the weight of a box of chocolates.

(10 Marks)

(b) Using the above standard deviation value calculated above find the probability that,

(10 Marks)

- (i) Boxes that weight more than 525g
- (ii) Boxes that weight in between 485g and 525g.

## Question 07

- (a) A and B are two events. P(A) = 0.6, P(B) = 0.7, and P(AUB) = 0.9
  - (i) Find P(A∩B)

- (ii) P(A')
- (iii) P(A'UB)
- (iv)  $P(A' \cap B)$

(08 Marks)

- (b) Pet We Care is a animal hospital survey 100 of their clients. Results are given below.
  - 25 own dogs
  - 15 own dogs and cats
  - 11 own dogs and tropical fish
  - 53 own cats
  - 10 own cats and tropical fish
  - 7 own dogs, cats and tropical fish
  - 40 own tropical fish

a client is chosen at random,

- (i) Draw a Venn diagram to represent the above information. find the probability that the client,
  - (ii) Own dogs only
  - (iii) Does not own tropical fish
  - (iv) Does not own dogs, cats or tropical fish.

(08 Marks)

- (c) A and B are two events such that P(A) = 0.6, P(B) = 0.5,  $P(A \cap B) = 0.4$ , find,
  - (i) P(AUB)
  - (ii) P(B | A)
  - (iii) P(A | B)
  - (iv) P(A | B')

(04 Marks)

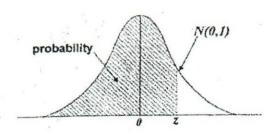
Question 08

- (a) For each of the following situations, suggest the most suitable Data source for the study. If suggested method is the Secondary Data Source, Identify the author of the suggested secondary data source.

  (10 Marks)
  - (i) A Researcher is interested in forecasting the Import, Export and Transshipment container throughput of the Colombo Port.
  - (ii) A researcher is interested in factors influenced in undergraduate students to select their subject stream
  - (iii) A researcher is interested in studying Labour Force of Sri Lanka
  - (iv) A researcher is interested in studying road accidents of Sri Lanka
  - (v) A medical practitioner is interested in studying Chronic Kidney Disease in North Central Province in Sri Lanka.
- (b) In each of the following situations, explain what graphical display you would use to present the information most appropriately. Do a sketch of the display highlighting the important aspects that should be considered in those graphs.
  - (i) Student Coordinator of the Faculty of Management at CINEC Campus should present the number of students recruited for the Logistics Degree programme for the period of 2012 to 2022. (02 Marks)
  - (ii) Student Coordinator of the Faculty of Management at CINEC Campus needs to present, the number of male and female students eligible for the undergraduate programme from each of the streams: Mathematics, Bio-Sciences, Commerce and Arts.
  - (iii) Course Coordinator of the Faculty of Management at CINEC Campus needs to compare marks obtained by first year undergraduate students for Mathematics and Business English modules. (04 Marks)

-----END OF THE QUESTION PAPER-----

### The Standardised Normal Distribution Table



The distribution tabulated is that of the normal distribution with mean zero and standard deviation 1. For each value of Z, the standardized normal deviate, (the proportion P, of the distribution less than Z) is given. For a normal distribution with mean  $\mu$  and variance  $\sigma^2$  the proportion of the distribution less than some particular value X is obtained by calculating  $Z = (X - \mu)/\sigma$  and reading the proportion corresponding to this value of Z.

Z	P		Z	P	**	$\boldsymbol{z}$	P
-4.00	0.00003	4.	-1.00	0.1587		05	0.8531
-3.50	0.00023		-0.95	0.1711		.10	0.8643
-3.00	0.0014		-0.90	0.1841		15	0.8749
-2.95	0.0016		-0.85	0.1977	1.	20	0.8849
-2.90	0.0019		-0.80	0.2119	1.	25	0.8944
-2.85	0.0022		-0.75	0.2266	1.	.30	0.9032
-2.80	0.0026		-0.70	0.2420	1.	35	0.9115
-2.75	0.0030		-0.65	0.2578	1.	40	0.9192
-2.70	0.0035		-0.60	0.2743		45	0.9265
-2.65	0.0040		-0.55	0.2912	1.	50	0.9332
-2.60	0.0047		-0.50	0.3085	1.	55	0.9394
-2.55	0.0054		-0.45	0.3264	100	60	0.9452
-2.50	0.0062		-0.40	0.3446		65	0.9505
-2.45	0.0071		-0.35	0.3632		70	0.9554
-2.40	0.0082		-0.30	0.3821		75	0.9599
-2.35	0.0094		-0.25	0.4013		80	0.9641
-2.30	0.0107		-0.20	.0.4207		85	0.9678
-2.25	0.0122		-0.15	0.4404		90	0.9713
-2.20	0.0139		-0.10	0.4602		95	0.9744
-2.15	0.0158		-0.05	0.4801		00	0.9772
-2.10	0.0179		0.00	0.5000		05	0.9798
-2.05	0.0202		0.05	0.5199		10	0.9821
-2.00	0.0228		0.10	0.5398		15	0.9842
-1.95	0.0256		0.15	0,5596		20	0.9861
-1.90	0.0287		0.20	0.5793		25	0.9878
-1.85	0.0322		0.25	0.5987		30	0.9893
-1.80	0.0359		0.30	0.6179		35	0.9906
-1.75	0.0401		0.35	0.6368		40	0.9918
-1.70	0.0446		0.40	0.6554		45	0,9929
-1.65	0.0495		0.45	0.6736		50	0.9938
-1.60	0.0548		0.50	0.6915		55	0.9946
-1.55	0.0606		0.55	0.7088	10000	60	0.9953
-1.50	0.0668		0.60	0.7257		65	0.9960
~1.45	0.0735		0.65	0.7422		70	0.9965
-1.40	0.0808		0.70	0.7580		75	0.9970
-1.35	0.0885		0.75	0.7734		80	0.9974
-1.30	0.0968		0.80	0.7881		85	0.9978
-1.25	0.1056		0.85	0.8023	The state of the s	90	0.9981
-1.20	0.1151	,	0.90	0.8159		95	0.9984
-1.15	0.1251		0.95	0.8289	2000	00	0.9986
-1.10	0.1357		1.00	0.8413		50	0.99977
-1.05	0.1469				4.	00	0.99997

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Faculty of Management and Social Sciences
Department of Management & Business Studies
B.Mgt(Hons) in Human Resource Management/ Business Administration
Course CODE: BMgt 559/BMgt 558

## Year 2 Semester I End Semester Examination Business Statistics - MGHR/ MGBM 2412

- This paper consists of EIGHT (08) questions on THIRTEEN (13) pages.
- Answer FIVE (05) questions including question 01.
- · Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Date: 2022.03.27 Pass mark: 40% Time: 03 Hours

## Question 01: (Compulsory)

- 1) Sampling is simply a process of learning about the ...... on the basis of a sample drawn from it.
  - A. Census
  - B. Population
  - C. Group
  - D. Area
  - E. Research

- 2) The variance of 10 observation is 2. If each observation is increased by 6, variance of the resulting observation is,
  - A. 2
  - B. 36
  - C. 4
  - D. 5
  - E. 6

Question no 3, 4, and 5 are based on the 3 data sets A, B and C given below.

Data set A:

3

5

7

1 12

5

3

Data set C:

Data set B:

11

7

2

4

- 3) Which one of the following statement/s true?
  - A. Mean of data set A = Mode of Data set C
  - B. Mean of data set C = Median of data set B
  - C. Mean of data set B = Median of data set B
  - D. Median of data set B = Mode of data set A
  - E. Mean, median and mode of data set A is equal to 4
- 4) Which one of the following statement/s true?
  - A. Mean of Data set A = Mean of Data set B
  - B. Mean of Data set B = Mean of Data set C
  - C. Mean of data set C = Mean of Data set A
  - D. Mean of Data set A = Median of Data set A
  - E. Mean of Data set C = Median of data set C
- 5) Which one of the following statement/s true?
  - A. Mean, Median and mode of data set A is equal to 3
  - B. Mean, Median and mode of data set A is equal to 4

- C. Mean, Median and mode of data set B is equal to 7
- D. Mean, Median and mode of data set C is equal to 4
- E. Mean, Median and mode of data set A is not equal
- 6) In a moderately symmetric distribution, what is the relationship between mean, median and mode?
  - A. Mode = 2 median 3 mean
  - B. Mode = 3 median mean
  - C. Mode = 3 median 2 mean
  - D. Mode = 3 median + 2 mean
  - E. Mode = 2 median + 3 mean
- 7) If E(X) = 2, what is the value of E(3X + 2)
  - A. 2
  - B. 8
  - C. 6
  - D. 4
  - E. 5
- 8) If V(X) = 3, what is the value of V(3X + 2)?
  - A. 11
  - B. 9
  - C. 29
  - D. 27
  - E. 20
- 9) The mean of a distribution is 33, the median is 34, and the mode is 35.5. it is most likely that this distribution is
  - A. Positively skewed

- B. Symmetric
- C. Negatively skewed
- D. Asymptotic
- E. Right skewed
- 10) The sample space for a certain random experiment is S= {a1, a2, a3, a4}

A. 
$$P(a1) = \frac{1}{2}$$
,  $P(a2) = \frac{1}{2}$ ,  $P(a3) = \frac{1}{4}$ ,  $p(a4) = \frac{1}{5}$ 

B. 
$$P(a1) = \frac{1}{2}$$
,  $P(a2) = 0$ ,  $P(a3) = \frac{1}{4}$ ,  $p(a4) = \frac{1}{4}$ 

C. 
$$P(a1) = 3/2$$
,  $P(a2) = \frac{1}{2}$ ,  $P(a3) = (-1/4)$ ,  $p(a4) = 1/5$ 

D. 
$$P(a1) = \frac{1}{2}$$
,  $P(a2) = \frac{5}{2}$ ,  $P(a3) = \frac{1}{4}$ ,  $p(a4) = \frac{1}{5}$ 

E. 
$$P(a1) = \frac{1}{2}$$
,  $P(a2) = \frac{1}{2}$ ,  $P(a3) = \frac{1}{4}$ ,  $p(a4) = (-\frac{1}{5})$ 

Answer Question 11 to 14 using below.

If A and B are two events with  $P(X) = \frac{1}{2}$ ,  $P(Y') = \frac{5}{8}$  and  $P(XUY) = \frac{3}{4}$ 

- 11) What is the value of  $P(X \cap Y)$ 
  - A. 3/8
  - B. 5/8
  - C. 1/8
  - D. 7/8
  - E. 1/4
- 12) What is the value of  $P(X' \cap Y')$ 
  - A. 1/4
  - B. 1/2
  - C. 2/3
  - D. 1/3
  - E. 3/4

13) What is	the value	of P	(X'UY')
-------------	-----------	------	---------

- A. 3/8
- B. 5/8
- C. 1/8
- D. 7/8
- E. 1/4

## 14) What is the value of Find $P(X' \cap Y)$

- A. 1/2
- B. 1/4
- C. 3/4
- D. 1/8
- E. 3/8

## 15) 'Parameter' refers to the characteristics of the

- A. Population
- B. Sample
- C. Mean
- D. All of the above
- E. None of the above

# 16) The measures used to calculate the variation present among the observations in the unit of the variable is called

- A. Relative measures of dispersion
- B. Absolute measures of dispersion
- C. Coefficient of Skewness
- D. Coefficient of variance
- E. Kurtosis

Page 6 of 13

17) Given below the four sets of observations. Which set has the minimum variation? A. 36, 38, 40, 42, 44 B. 20, 30, 40, 50, 60 C. 30, 40, 50, 60, 70 D. 38, 39, 40, 41, 42 E. 38, 39, 42, 44, 45 18) If the observations of a variable X are, -4, -20, -30, -44 and -36, then the value of the range will be: A. 44 B. 48 C. -40 D. 40 E. -48 19) Half of the difference between upper and lower quartiles is called A. Interquartile range B. Variance C. Quartile deviation D. Mean deviation E. Standard deviation 20) S.D(X) = 6 and S.D(Y) = 8. If X and Yare independent random variables, then S.D(X-Y) is A. 2 B. 4 C. 10 D. 14 E. 100 (20 Marks)

## Question 02

- (a) Explain whether or not a Binomial Distribution can be used to model the following situations. In case Binomial Distribution can be used, give a definition of the random variable and suggest suitable values for 'n' and 'p'.
  - (i) Number of Boys in a family of 5 children
  - (ii) The number of throws in a die until 5 is observed
  - (iii) The number of white balls selected when 3 balls are drawn from a bag which consists of 13 white balls and 7 red balls.

(4\*3 Marks)

(b) Paul believes that 40% of people in his town will vote for him in the next provincial council election. He decided to conduct a survey to verify this.

Find the minimum number of people the survey should ask to have a mean number of 100 voting for Paul.

(08 Marks)

## Question 03

The lifetime of an electric component is normally distributed with mean 800 hours and standard deviation of 60 hours.

Find,

- (a) The percentage that the electric component fails before 680 hours
- (b) The percentage of electric component with a lifetime of at most 980 hours
- (c) The percentage of electric component with a lifetime between 680 hours and 920 hours
- (d) If the standard deviation remains 60 hours what would have been the mean to ensure that not more than 10% of the components before 800 hours

(5\*4 Marks)

# Question 04

- (a) If P(X) = 2/3, P(XUY) = 3/4 and P(Y') = 3/8
  - (i) Find  $P(X' \cap Y')$
  - (ii) Find P(X'UY')

- (iii) Find  $P(X' \cap Y)$
- (iv) State whether event X and Y are independent

(2\*4 Marks)

(b) Statistics class for first years consists of 5 Marketing graduands and 3 HR graduands. Statistics class for second years consists of 4 Marketing graduands and 5 HR graduands. One graduand needs to be selected from both years to form a committee of 2 graduands for special purpose.

Find the probability that one of them would be a Marketing graduand and the other person would be a HR graduand.

(04 Marks)

(c) The following table classifies 1000 persons by their sex and by whether or not they favour a certain developmental proposal.

	Male	Female	TOTAL
Favour a proposal	250	450	700
Oppose to proposal	170	130	300
TOTAL	420	580	1000

If a person is selected at random, find the probabilities that,

(i) The selected person favours the development proposal.

(02 Marks)

(ii) The selected person is a male given that the person favours the proposal

(03 Marks)

(iii) The selected person oppose the proposal given that the person is a male

(03 Marks)

# Question 05

- (a) State whether the following could be modelled by a Poisson distribution or not. Justify your answer.
- (i) The number of misprints on a page in the first draft of a book.

Page 8 of 13

(ii) Number of bacteria in 1m3 of water.

(04 Marks)

(b) The number of accidents per week at a certain road has a Poisson Distribution with parameter 2.5.

Find the probability that,

- (i) Exactly 5 accidents will occur in a particular week (04 Marks)
- (ii) More than 14 accidents will occur in a 4 week period (05 Marks)
- (c) Chamal is an Inter-university basketball player. He is a 70% free throw shooter. That means his probability of making a free throw is 0.70. Mark is the coach of Chamal, need to calculate the probability that Chamal makes his first free throw on his fifth shot.
- (i) Write the suitable probability distribution to model the above case (02 Marks)
- (ii) Write the Probability density function of the above suggested model (02 Marks)
- (iii) Calculate the probability that Chamal makes his first free throw on his fifth shot. (03 Marks)

## Question 06

In a comparison of the workloads of two warehouses, the number of sales orders received per week recorded over a 15 weeks period and the results are shown in the table given below.

Table 1: Weekly orders received by the Warehouse A and B

Week	Warehouse A	Warehouse B
1	583	455
2	518	508
3	574	498
4	572	519
5	591	568
6	556	571
7	602	591

8	578	603
9	598	621
10	506	605
11	548	592
12	523	634
13	539	629
14	541	635
15	575	589

- a) Calculate the descriptive statistics given below for Warehouse A and Warehouse B.
  - i. Range
  - ii. Median
  - iii. Mean
  - iv. First quartile
  - v. Third quartile
  - vi. Standard Deviation

(12 Marks)

- b) Write a short description comparing the workloads of Warehouse A and B, by using the descriptive statistics calculated in 'part a)' above. (03 Marks)
- c) Suggest the best possible graph to illustrate these data, indicating the important aspects that should be considered when creating the graph. (Constructing exact measurements given in the table 1 is not required, but a sketch can be drawn.)

  (05 Marks)

# Question 07

a) State clearly the mistakes and issues that should be considered in each of the following situations.

- (i) In a market research survey, 85% of the people state that they prefer Product A than Product B. (03 Marks)
- (ii) Learning methods of undergraduates those who are following BSc ITML were examined by visiting only the University Library. (03 Marks)
- (iii) ICT (Information Communication Technology) based learning methods used by the DAIs (Degree Awarding Institutes) in Sri Lanka are assessed by considering CINEC Maritime Campus only. (03 Marks)
  - b) In each of the following situations, explain what graphical display you would use to present the information most appropriately. Do a sketch of the display highlighting the important aspects that should be considered in those graphs.
  - (i) Student Coordinator of the Faculty of Management at CINEC Campus should present the number of students recruited for the Logistics Degree programme for the period of 2012 to 2022. (02 Marks)
- (ii) Student Coordinator of the Faculty of Management at CINEC Campus needs to present, the number of male and female students eligible for the undergraduate programme from each of the streams: Mathematics, Bio-Sciences, Commerce and Arts. (03 Marks)
- (Dii) Course Coordinator of the Faculty of Management at CINEC Campus needs to compare marks obtained by first year undergraduate students for Mathematics and Business English modules. (03 Marks)
  - (iv) CINEC Marketing team wants to compare the number of students registered for THREE departments (Department of Logistics, Department of Management and Department of Law) of the Management Faculty by their gender (03 Marks)

## Question 08

(a) Registrar office of CINEC campus is interested in measuring the Students' satisfaction survey of undergraduates of CINEC. All undergraduates of CINEC will be taken into consideration in conducting this survey.

Research Team wants to check the impact of below factors on the students' satisfaction.

- Academic related activities
- · Recreational Activities and Leisure
- Lecture Halls
- Availability of Teaching aids
- Students' welfare activities
- (i) Identify TWO demographic variables needed to be collected from the respondents of the above study. (02 Marks)
- (ii) Write the measurement scale of the above identified variables.

(02 Marks)

(iii) Identify the population of the above study.

(02 Marks)

- (iv) Assume that this research proposal is approved by the Board of Directors on 27<sup>th</sup> March 2022, and research team needs to complete the survey and submit Student Satisfaction survey report on or before 31<sup>st</sup> May 2022.
  - Suggest a suitable data collection method for the above study, justify your answer.

(03 Marks)

(v) Explain TWO challenges that the research team face in data collection process

(04 Marks)

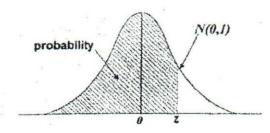
(b) Identify the variable type (Categorical, Numerical Discrete or Numerical Continuous) and the suitable measurement scale for the following variables (07 Marks)

Table 8:1 - Variables

#	Name of the variable	Type of the Variable	Measurement Scale
(i)	Age		
(ii)	Gender		
(iii)	Number of members in the family		
(iv)	Gross monthly income in LKR		
(v)	Ethnicity		
(vi)	Area of the Dean's Office		
(vii)	Living district		

-----END OF THE QUESTION PAPER-----

#### The Standardised Normal Distribution Table



The distribution tabulated is that of the normal distribution with mean zero and standard deviation 1. For each value of Z, the standardized normal deviate, (the proportion P, of the distribution less than Z) is given. For a normal distribution with mean  $\mu$  and variance  $\sigma^2$  the proportion of the distribution less than some particular value X is obtained by calculating  $Z = (X - \mu)/\sigma$  and reading the proportion corresponding to this value of Z.

$\boldsymbol{z}$	P	Z	P	<i>z</i>	P
-4.00	0.00003	-1.00	0.1587	1.05	0.8531
-3.50	0.00023	-0.95	0.1711	1.10	0.8643
-3.00	0.0014	-0.90	0.1841	1.15	0.8749
-2.95	0.0016	-0.85	0.1977	1.20	0.8849
-2.90	0.0019	-0.80	0.2119	1.25	0.8944
-2.85	0.0022	-0.75	0.2266	1,30	0.9032
-2.80	0.0026	-0.70	0.2420	1.35	0.9115
-2.75	0.0030	-0.65	0.2578	1.40	0.9192
-2.70	0.0035	-0.60	0.2743	1.45	0.9265
-2.65	0.0040	-0.55	0.2912	1.50	0.9332
-2.60	0.0047	-0.50	0.3085	1.55	0.9394
-2.55	0.0054	-0.45	0.3264	1.60	0.9452
-2.50	0.0062	-0.40	0.3446	1.65	0.9505
-2,45	0.0071	-0.35	0.3632	1.70	0.9554
-2.40	0.0082	-0.30	0.3821	1.75	0.9599
-2.35	0.0094	-0.25	0.4013	1.80	0.9641
-2.30	0.0107	-0.20	0.4207	1.85	0.9678
-2.25	0.0122	-0.15	0.4404	1.90	0.9713
-2.20	0.0139	-0.10	0.4602	1.95	0.9744
-2.15	0.0158	-0.05	0.4801	2.00	0.9772
-2.10	0.0179	0.00	0.5000	2.05	0.9798
-2.05	0.0202	0.05	0.5199	2.10	0.9821
-2.00	0.0228	0.10	0.5398	2.15	0.9842
-1.95	0.0256	0.15	0.5596	2.20	0.9861
-1.90	0.0287	0.20	0.5793	2.25	0.9878
-1.85	0.0322	0.25	0.5987	2.30	0.9893
-1.80	0.0359	0.30	0.6179	2.35	0.9906
-1.75	0.0401	0.35	0.6368	2.40	0.9918
-1.70	0.0446	0.40	0.6554	2.45	0.9929
-1.65	0.0495	0.45	0.6736	2.50	0.9938
-1.60	0.0548	0.50	0.6915	2.55	0.9946
-1.55	0.0606	0.55	0.7088	2.60	0.9953
-1.50	0.0668	0.60	0.7257	2.65	0.9960
-1.45	0.0735	0.65	0.7422	2.70	0.9965
-1.40	0.0808	0.70	0.7580	2.75	0.9970
-1.35	0.0885	0.75	0.7734	2.80	0.9974
-1.30	0.0968	0.80	0.7881	2.85	0.9978
-1.25	0.1056	0.85	0.8023	2.90	0.9981
-1.20	0.1151	0.90	0.8159	2.95	0.9984
-1.15	0.1251	0.95	0.8289	3.00	0.9986
-1.10	0.1357	1.00	0.8413	3.50	0.99977
-1.05	0.1469			4.00	0.99997

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Faculty of Management and Social Sciences
Department of Management & Business Studies

B.Mgt(Hons) in Human Resource management/Business Administration
Course CODE: BMgt 558/BMgt 559

Year 2 Semester I
End Semester Examination

Business Law - MGHR/ MGBM 2411

- This paper consists of EIGHT (08) questions on FOUR(04) pages.
- Answer <u>FIVE(05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Date: 2022.03.14 Pass mark: 40% Time: 03 Hours

# Question 01: (Compulsory)

Both in a personal capacity and for business-related transactions, people do enter into contracts regularly with the intention of creating legal obligations. There are certain conditions that need to be fulfilled in a contract that could be legally enforced. Generally, contracts can be either verbal or in writing.

(a) What are the essential characteristics of a contract that facilitates it to be enforced by Law?

(05 Marks)

Recourse

(b) Explain what a 'Verbal Contract' is with examples

(05 Marks)

(c) Can a person below the age of 18 years enter into a contract?

(05 Marks)

(d) What is an 'Exemption Clause'?

(05 Marks)

Page 1 of 4



# Question 02

(a)	In your opinion what is the reasoning and necessity in the creation	of an Agency?
		(05 Marks)
(b)	Elaborate on the Duties of the Agent towards safeguarding the inte	erests of the Principal
		(05 Marks)
(c )	Explain the situation of 'Un-disclosed Principal'	(05 Marks)
` /		
(d)	What are the similarities and differences between Law of Contract	and Law of Agency?
		(05 Marks)
Que	estion 03	
~		
(a) V	Why was it necessary to introduce of EPF Act and ETF Act, whereby a	a large number of people
e	mployed in the private sector are benefited?	(10 Marks)
(b) I	Under what specific circumstances can a person who has contributed to	o the FPF could withdraw
	is EPF money before he reaches retirement?	(10 Marks)
11	as Li I money before he reaches remembers:	(10 Marks)
Que	estion 04	ž.

Mr Swarnapala, is the owner of Wishmitha Jewelers. One day, a customer entered his shop who

looked like Ms Malini Fonseka. The customer, Mrs Walisundera pretended to be Ms Malini Fonseka

Page 2 of 4



and bought a diamond ring and gave a cheque for payment. Mr Swarnapala informed her that he does not accept cheques. However, Mrs Walisundera showed him a pass to the Wijaya Cinemas and a membership card of the Association of Film stars as proof of her identity. Afterward, Mr Swarnapala accepted the cheque and gave the ring. The following day, the cheque bounced. Advice Mr Swarnapala

# Question 05

"In its essence, the right of self-determination means that individuals should be in control of their destinies and should be able to live out their identities, whether within the boundaries of existing states or through independence."

Explain the evolution of the concept of Self Determination

(20 Marks)

36

# Question 06

(a) Montevideo Convention on Rights and Duties of States 1933 illustrates the characteristics of a state

(i) What are the four main characteristics of a state

(04 Marks)

(ii) Write short notes on all four characteristics

(16 Marks)

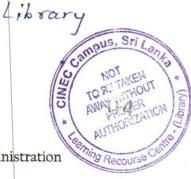
Page 3 of 4



<b>Ouestion</b>	07
Ouestion	U/

Question 07	
Sri Lanka is a democratic, socialist republic and a t	unitary state.
Identify the three branches of government and wri	te a short note on one. (20 Marks)
Question 08	
Write short notes on any <u>four</u> of the following topi	cs
(a) Unascertained Goods	
(b) Partnerships	
(c) The role of a Principal in Law of Agency	
(d) Common Law	
(e) Public Law	
(f) Private Law	
Include at least one legal case wherever applicable	(05 Marks * 4 = 20 Marks)
END OF THE	QUESTION PAPER





# Year 2 Semester I End Semester Examination Business Law - MGHR/ MGBM 2411

- This paper consists of EIGHT (08) questions on FOUR(04) pages.
- Answer <u>FIVE(05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
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Date: 2022.03.14 Pass mark: 40% Time: 03 Hours

# Question 01: (Compulsory)

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(a) What are the essential characteristics of a contract that facilitates it to be enforced by Law?

(05 Marks)

(b) Explain what a 'Verbal Contract' is with examples

(05 Marks)

(c) Can a person below the age of 18 years enter into a contract?

(05 Marks)

(d) What is an 'Exemption Clause'?

(05 Marks)

Page 1 of 4



# Question 02

(a)	a) In your opinion what is the reasoning and necessity in the creation of an Agency?		
		(05 Marks)	
(b)	Elaborate on the Duties of the Agent towards safeguarding the interes	ts of the Principal	
		(05 Marks)	
(c)	Explain the situation of 'Un-disclosed Principal'	(05 Marks)	
(d)	What are the similarities and differences between Law of Contract and	Law of Agency?	
		(05 Marks)	
Que	stion 03		
(a) W	by was it necessary to introduce of EPE Act and ETE Act, whereby a lar	ge number of people	

- employed in the private sector are benefited? (10 Marks)
- (b) Under what specific circumstances can a person who has contributed to the EPF, could withdraw his EPF money before he reaches retirement? (10 Marks)

# Question 04

Mr Swarnapala, is the owner of Wishmitha Jewelers. One day, a customer entered his shop who looked like Ms Malini Fonseka. The customer, Mrs Walisundera pretended to be Ms Malini Fonseka



114

Faculty of Management and Social Sciences
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Course CODE: BMgt 558/BMgt 559

and bought a diamond ring and gave a cheque for payment. Mr Swarnapala informed her that he does not accept cheques. However, Mrs Walisundera showed him a pass to the Wijaya Cinemas and a membership card of the Association of Film stars as proof of her identity. Afterward, Mr Swarnapala accepted the cheque and gave the ring. The following day, the cheque bounced. Advice Mr Swarnapala

## Question 05

"In its essence, the right of self-determination means that individuals should be in control of their destinies and should be able to live out their identities, whether within the boundaries of existing states or through independence."

Explain the evolution of the concept of Self Determination

(20 Marks)

# Question 06

(a) Montevideo Convention on Rights and Duties of States 1933 illustrates the characteristics of a state

(i) What are the four main characteristics of a state

(04 Marks)

(ii) Write short notes on all four characteristics

(16 Marks)



## Question 07

Question 07		
Sri Lanka is a democratic, socialist republic and a un	uitary state.	
Identify the three branches of government and write	e a short note on one.	(20 Marks)
Question 08		
Write short notes on any <u>four</u> of the following topics	5	
(a) Unascertained Goods		
(b) Partnerships		
(c) The role of a Principal in Law of Agency		· · ·
(d) Common Law		
(e) Public Law		
(f) Private Law		
Include at least one legal case wherever applicable	(05	Marks * 4 = 20 Marks)
END OF THE QU	IESTION PAPER	



Course CODE: BMgt 558/BMgt 559

# Year 2 Semester I **End Semester Examination** Business Information System – MGHR/ MGBM 2314

- This paper consists of EIGHT (08) questions on SIX(06) pages.
- Answer FIVE(05) questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Time: 03 Hours Date: 2022.03.16 Pass mark: 40%

# Question 01 (Compulsory)

a) Write down four generic strategies for dealing with competitive forces, enabled by using IT.

(02 Marks)

b) Give an example business process for each of the following.

(02 Marks)

- I. Functional business process
- II. Cross-functional business process
- c) Compare and contract TPS and MIS.

(02 Marks)

d) Briefly explain two candidate ethical principles.

(02 Marks)

e) List down one advantage and one limitation of RFID technology.

(02 Marks)

Page 1 of 6



, f)	Why information systems are vulnerable? Give two reasons.	(02 Marks)
g)	Write down the four steps of risk assessment.	(02 Marks)
h)	List down two access control tools/technologies.	(02 Marks)
i)	Write down two characteristics of a digital firm.	(02 Marks)
j)	Write down two responsibilities of ICTA.	(02 Marks)
Ques	stion 02	
a)	Explain What a customer relationship Management system is?	(04 Marks)
b)	Explain Push-Based model and Pull-Based model in Supply Chain	
c)	Explain how Supply chain Management systems can add value to bu	
		(08 Marks)
Ques	stion 03	
a)	Explain what is meant by "Knowledge Workers".	(04 Marks)
b)	Your company wants to do more with knowledge management. Destake to develop a knowledge management program and select kapplications.	•
		Page <b>2</b> of <b>6</b>



c) Describe various ways that knowledge management systems could help firms with sales and marketing or with manufacturing and production. (10 Marks)

#### Question 04

- a) "Firms invest heavily in information systems to achieve strategic business objectives".

  Identify and briefly explain four (04) different business objectives of Information Systems.

  (08 Marks)
- b) Explain a generic strategy for dealing with competitive forces, enabled by using IT using an example. (05 Marks)
- c) "Information systems can have a positive economic impact on organizations". Do you agree?

  Explain your answer. (07 Marks)

## Question 05

Read the following case study and answer the question given below.

The introduction of new technology can have a profound effect on human behaviour. New technologies give us capabilities that we did not have before, which in turn create environments and situations that have not been specifically addressed in ethical terms. Those who master new technologies gain new power; those who cannot or do not master them may lose power. For example, the ability to anonymously make perfect copies of digital music has tempted many music fans to download copyrighted music for their own use without making payment to the music's owner. Many of those who would never have walked into a music store and stolen a CD find themselves with dozens of illegally downloaded albums.



One method for navigating new ethical waters is a code of ethics. A code of ethics is a document that outlines a set of acceptable behaviours for a professional or social group; generally, it is agreed to by all members of the group. The document details different actions that are considered appropriate and inappropriate. A good example of a code of ethics is the Code of Ethics and Professional Conduct of the Association for Computing Machinery, an organization of computing professionals that includes academics, researchers, and practitioners. In the ACM's code, you will find many straightforward ethical instructions, such as the admonition to be honest and trustworthy. But because this is also an organization of professionals that focuses on computing, there are more specific admonitions that relate directly to information technology.

No one should enter or use another's computer system, software, or data files without permission. One must always have appropriate approval before using system resources, including communication ports, file space, other system peripherals, and computer time. Designing or implementing systems that deliberately or inadvertently demean individuals or groups is ethically unacceptable. Organizational leaders are responsible for ensuring that computer systems enhance, not degrade, the quality of working life. When implementing a computer system, organizations must consider the personal and professional development, physical safety, and human dignity of all workers. Appropriate human-computer ergonomic standards should be considered in system design and in the workplace.

a) What do you mean by a computer crime?

(02 Marks)

b) Who commits computer crimes?

(02 Marks)

c) Explain two ways of committing computer crimes that can be eliminated by strictly following Code of Ethics by ACM. (06 Marks)



d) "Threat from hackers and crackers can be eliminated by strictly following Code of Ethics by ACM." Do you agree? Justify your answer with examples from case. (10 Marks)

#### Question 06

Read the following case study and answer the question given below.

- Energy consumption is a major concern for businesses and the global population as a whole, and an important part of a bigger IT concern called total cost of ownership (TCO). One way to reduce TCO is to use server-based computing, a computing model in which applications run on a central backend server and are displayed on desktop devices. A single server can support dozens of devices. Server based computing reduces TCO in several ways. It allows network administrators to maintain applications on a single server or small group of servers instead of on every desktop device. It allows access to application suites from any device connected to the server without having to install the applications on each individual device. Both PCs and thin clients can be used in a server-based computing environment; however thin clients are the preferred desktops for server-based computing. Thin-client devices are simple computers designed to run applications from a central server. For example, both PCs and thin clients display the same commonly used Windows desktop interface to the end-user, and have the same features such as keyboard, mouse, serial and parallel ports and network connectivity. At the same time, thin clients are very different. They have lower microprocessor requirements and lower memory requirements than PCs while providing an identical end-user experience. Thin clients are literally smaller, some the size of a CD case, and most lack removable drives (or any drives), making it impossible for those using them to steal electronic data on floppy disk or introduce viruses to the network. There are many more benefits, but in short, thin-client devices are designed to cost less than PCs to run and maintain. Using thin client devices with server-based computing reduces TCO even more than server-based computing with PCs.
  - a) According to the case how to reduce the total cost of ownership?

(04 Marks)



b)	Compare and contrast Personal computer a	and thin client.	(04 M	larks)
c)	How thin clients helps to reduce energy con	nsumption?	(04 M	larks)
d)	Apart from Green computing discuss one (features, advantages and disadvantages)	e of the contemporary ha	-	trend Iarks)
Ques	etion 07			
a)	What is E commerce and the role of E commerce	nerce in today's society.	(06 N	larks)
b)	What is the difference between e commerce	e and e business.	(04 M	Iarks)
c)	List out the major differences between B2C	and B2B business models	(04 N	larks)
d)	Briefly explain three unique features of e co	ommerce technology using	g examples. (06 M	ſarks)
Ques	stion 08			(
Briefl	y describe the followings.		05 Marks*4 = 20 N	Iarks)
a)	Ethical dilemma.			
b)	Cloud Computing.			
c)	Transaction Processing System.			
d)	Role of ICTA.			
	END OF THE	QUESTION PAPER		

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Course CODE: BMgt 558/BMgt 559

TO ANTHONICATION OF RECOURSE CENTER

# Year 2 Semester I End Semester Examination Business Information System - MGHR/ MGBM 2314

- This paper consists of EIGHT (08) questions on SIX(06) pages.
- Answer <u>FIVE(05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
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  - If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Date: 2022.03.16 Pass mark: 40% Time: 03 Hours Question 01 (Compulsory) a) Write down four generic strategies for dealing with competitive forces, enabled by using IT. (02 Marks) b) Give an example business process for each of the following. (02 Marks) I. Functional business process II. Cross-functional business process c) Compare and contract TPS and MIS. (02 Marks) d) Briefly explain two candidate ethical principles. (02 Marks) e) List down one advantage and one limitation of RFID technology. (02 Marks) Page 1 of 6



f) Why information systems are vulnerable? Give two reasons. (02 Mag) Write down the four steps of risk assessment. (02 Mag) List down two access control tools/technologies. (02 Mag)	arks)
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(021)	
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Question 02	
a) Explain What a customer relationship Management system is? (04 M	arks)
b) Explain Push-Based model and Pull-Based model in Supply Chain Management Syst	tems.
(08 Ma	arks)
c) Explain how Supply chain Management systems can add value to business.	
(08 Ma	arks)
Question 03	
a) Explain what is meant by "Knowledge Workers". (04 M	arks)
b) Your company wants to do more with knowledge management. Describe the steps it sh	ould
take to develop a knowledge management program and select knowledge manage	ment
applications. (06 M	arks)
Page	2 of 6



c) Describe various ways that knowledge management systems could help firms with sales and marketing or with manufacturing and production. (10 Marks)

#### Question 04

- a) "Firms invest heavily in information systems to achieve strategic business objectives".

  Identify and briefly explain four (04) different business objectives of Information Systems.

  (08 Marks)
- Explain a generic strategy for dealing with competitive forces, enabled by using IT using an example.
   (05 Marks)
- c) "Information systems can have a positive economic impact on organizations". Do you agree? Explain your answer. (07 Marks)

## Question 05

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a) What do you mean by a computer crime?

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b) Who commits computer crimes?

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d) "Threat from hackers and crackers can be eliminated by strictly following Code of Ethics by ACM." Do you agree? Justify your answer with examples from case. (10 Marks)

#### Question 06

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d)	Briefly explain three unique features of e com	merce technology using	examples. (06 Marks)
Ques	stion 08		
Briefly	y describe the followings.	(0	5 Marks*4 = 20 Marks)
a)	Ethical dilemma.		
b)	Cloud Computing.		
c)	Transaction Processing System.		
d)	Role of ICTA.		17.
	END OF THE QU	UESTION PAPER	



# ration AUTHO Recourse Center

# Year 2 Semester I End Semester Examination Management Accounting – MGHR/ MGBM 2413

- This paper consists of EIGHT (08) questions on TWELVE(12) pages.
- Answer <u>FIVE(05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.

Date: 2022.03.09

Pass mark: 40%

Time: 03 Hours

# Question 01: (Compulsory)

- (1) Explain the difference between Cost Accounting, Management Accounting and Financial Accounting. (03 Marks)
- (2) Briefly explain the importance of Management Accounting for an organization. (04 Marks)
  - (3) Keerthi (Pvt) Ltd manufactures product "J". The worker needs to spend 12 hours per unit during the trial period. Based on past experience, the workers will improve their speed for 90% which means the accumulative time will decrease by 10% every time the output double.

    Calculate the average workers' time spent when the production output increased double. (Show

Calculate the average workers' time spent when the production output increased double. (Show the calculations)

(03 Marks)



- (4) Assume that as an investor, you are planning to enter the Fashion Jewelry Industry as a supplier. You forecasted that within two years, your fixed cost for producing accessories is Rs. 300,000. The variable unit cost for making one Fashion Jewelry is Rs. 60. The sale price for each Jewelry will be Rs. 100. If you charge Rs. 100 for each Jewelry, how many jewelries you need to sell in total, in order to start making money? (Show the calculations)
- (5) Company B uses a throughput accounting system. The details of product X per unit are as follows:

	Rs
Selling Price	50
Direct Materials	16
Conversion Costs	20
Time on Bottleneck Resource	8 minutes

Calculate the return per hour for product X. (Show the calculations)

(03 Marks)

(6) Techno (Pvt) Ltd produces two products- Calculators and Games. The company planned to produce 4,000 Calculators and 8,000 Games. The company uses ABC costing, and one of the activity cost pools was Assembly, which had a cost driver of total parts. The total amount of estimated overhead for the Assembly cost pool was RS 748,000. The Calculator required 16 parts, and the Games required 52 parts. What would the **overhead cost per unit** be as it relates to the Assembly cost pool for Games?

(Show the calculations)

(03 Marks)



## Question 02:

(1) What is main advantage of preparing a Break-Even Analysis?

(02 Marks)

(2) Write two assumptions of Break-Even Analysis?

(02 Marks)

(3) Ashka (Pvt) Ltd (APL) is a manufacturing and trading company. It produces a variety of products, and the following information is relevant to three related products supplied to the company's institutional cluster from its metropolitan product unit (MPU).

#### Table 2.1

	Product PP	Product QQ	Product RR
Selling price per unit	500	300	450
Variable cost per unit			
Materials	270	165	250
• Labour	50	30	40
• Overheads	60	40	50
Fixed overheads per unit			
Product Specific	12	5	10
• General	10	6	8
Advertising cost per unit	50	30	45
Cost per unit	452	276	403

General fixed overheads are absorbed based on labour cost.

The monthly budgeted production/sales volume for each product is as follows.



#### Table 2.2

	Product PP	Product QQ	Product RR
Production/sales (units)	10,000	30,000	20,000

Advertising cost is a common fixed cost for all three products, and it is absorbed to each product based on sales.

The management assumes that the current sales mix would continue in the future based on the prevailing advertising agenda.

You are the management accountant of APL and are given the above information.

#### Required:

- (a) Assess the following relating to the supplies to the institutional cluster, based on the prevailing sales mix.
- (i) Break-even sales (in units and in value for each product).

(04 Marks)

(ii) Expected profit of this cluster for a month.

(04 Marks)

(b)

#### Table 2.3 -Revised sales mix

	Product PP	Product QQ	Product RR
Production/sales (units)	30,000	10,000	25,000

The finance manager of APL has already given his concurrence to proceed with this proposal.

#### Required:

(i) Assess the revised break-even sales (in units and in value for each product).

(04 Marks)

(ii) Validate, with necessary computations, the finance manager's action for this proposal.

(04 Marks)

Page 4 of 12



## Question 03:

Home Builders (Pvt) Ltd (LL) is carrying out a business that provides a range of home construction services. It has recently bid for two construction jobs, X01 and X02. The price determination of these jobs was as follows.

#### Table 3.1

	Job X01 (Rs.	million)	Job X02 (Rs. m	illion)
Total direct cost (material, labour etc.)		250		720
Common site overheads (30% of total direct cost)		75		216
Total job cost		325		936
10% profit markup		37		93.6
Price		362		1,029.6

The clients of the company have indicated that the offered prices were higher than the other bids.

The management considers applying the activity-based costing approach and reviewing the bids.

The following additional information is provided.



Table 3.2

Common site overhead type	Expected annual overhead cost (Rs. million)	Cost driver	Expected total number of activities per annum
Project supervision	50	No. of site visits	3,000
Planning and monitoring	200	No. of meetings	500
Labour related overheads	300	No. of man hours	8,000,000

The following information is relevant to jobs X01 and X02 during their expected job completion period.

Table 3.3

	Job X01	Job X02
Expected job completion period	2 years	2.5 years
No. of site visits for the jobs	100	150
No. of planning and monitoring meetings for the jobs	45	210
No. of man hours for the jobs	200,000	1,200,000

## Required:

(1) What is a "Cost Driver"? Explain with suitable examples.

(04 Marks)



(2) Assess the cost of each job based on the activity-based costing approach (ABC). (06 Marks)

(3) What are the maximum discounts that could be offered for both products under ABC approach? (05 Marks)

(4) Differentiate the activity-based costing approach from the traditional absorption costing method. (05 Marks)

## Question 04:

Tasty Juice Ltd., manufactures and sells three different types of healthy fruit juices in large cartons namely Box A, Box B and Box C using the same machinery. The following information is available for the next month:

Table 4.1

	A	В	С
Selling price per unit (Rs.)	8,500	12,000	6,300
Direct Material cost per unit (Rs.)	3,800	6,900	3,200
Direct Labour per unit (Rs.) (Rs.400/- per hour)	400	480	320
Variable overhead cost per unit (Rs.)	400	400	400
Machine Hours required per unit (Hours)	0.4	0.6	0.3
Monthly Demand (in units)	4,000	3,800	4,500
	Control of the Contro		

The available labour hours and machine hours for the next month have been estimated as 11,000 hours and 7,000 hours respectively.



You are re	quired to:
------------	------------

(1) Identify the limiting factor(s) for Tasty Juice Ltd's Production plan for the next month.

(06 Marks)

- (2) Compute the **optimal production mix** based on resource availability and the **profit** for the given period. (08 Marks)
- (3) State **three qualitative factors** that will affect make or buy decisions of an organization and explain each briefly. (06 Marks)

## Question 05:

(1) What is the usage of an investment appraisal for a Business Organization? Briefly explain.

(02 Marks)

(2) A company has a target accounting rate of return of 18% and is now considering the following project. Capital cost of asset Rs. 800 MN, Estimated life 4 years,

Table 5.1-Estimated profit before depreciation Rs.

Year 1	Year 2	Year 3	Year 4
80 million	20 million	20 million	40 million

The capital asset would be depreciated by 25% of its cost each year, and will have no residual value.

Required; Assess whether the project should be undertaken.

(03 Marks)

Page 8 of 12



(3) BAC Ltd. is a leading manufacturing company and the management of the company is evaluating a proposal to purchase a new machinery to replace an existing old machinery with the view of improving the quality of their products.

The following information is provided:

- a) The cost of the new machinery is Rs.100 million, which is to be paid immediately. The useful life time of the new machinery is estimated to be 5 years and the scrap value at the end of the 5th year would be Rs.14 million.
- b) If the new machinery is purchased, the existing old machinery could be sold immediately for Rs.6 million. The existing old machinery has been fully depreciated.
- c) With the purchase of the new machinery, it is expected that the quality of the products will be increased and as a result the demand for the products will also be increased.
- d) Projected increase in demand for the company's products for the next 5 years is as follows:

#### Table 5.2

Year	1	2	3	4	5
Demand	30,000	20,000	25,000	35,000	40,000
(Units)					

#### Other forecasted information is as follows:

Description	Rs
Selling price per unit	3,000
Variable price per unit	1,500
Annual fixed cost (including depreciation)	40,000,000

The cost of capital of BAC Ltd. is 20% per annum. Ignore taxation.

Page 10 of 12



Faculty of Management and Social Sciences
Department of Management & Business Studies
B.Mgt(Hons) in Human Resource management/ Business Administration
Course CODE: BMgt 558/BMgt 559

Course CODE. Bivigt 338/Bivigt 339	
You are required to:	
(a) Recognize all the cash flows relating to the new machinery for the	5 years.
	(07 Marks)
(b) Calculate the following based on the above cash flows:	
(i)Net Present Value (NPV).	
(ii)Internal Rate of Return (IRR).	(06 Marks)
(c) Assess whether investing in the new machinery is financially viable	for BAC Ltd.
	(02 Marks)
Question 06:	
1) What is meant by Balance Scorecard? Explain the four (04) persp	
Scorecard System. (Your explanation must be supported with two (02	2) performance measures
under each perspective.)	(10 Marks)
2) What is <b>Benchmarking</b> ? Explain its <b>importance</b> to an organization and	
	(10 Marks)
Duraction 07	
Question 07:	
(1) Explain the concents of soft conital nationing and hand conital nation	
(1) Explain the concepts of <b>soft capital rationing</b> and <b>hard capital rationi</b>	•
	(06 Marks)
(2) What is the difference between marginal costing and absorption cost	ing2 (04 Ma-1)
(2) What is the difference between marginal costing and absorption cost	ing? (04 Marks)



(3) The following information has been extracted from Leena (Pvt) Ltd. which manufactures and sells a single product 2021 for the quarter ended 30th June.

#### Table 7.1

	Per unit (Rs)	
Selling Price		45
Direct Material		10
Direct Labour		6
Variable Production Overheads		4

## Table 7.2

	Budgeted	Actual
Fixed Production Overhead	400,000	380,000
Fixed Distribution Cost (Rs.)	80,000	80,000
Fixed Administration Cost (Rs.)	120,000	130,000
Production (in units)	80,000	70,000
Sales (in units)	70,000	60,000

There was no opening stock as at 01st April 2021.

### You are required to:

Prepare Profit Statement for the quarter ended 30th June 2021 using Marginal Costing Method.
(10 Marks)

Page 11 of 12

(05 Marks\* 4 = 20 Marks)



Faculty of Management and Social Sciences
Department of Management & Business Studies
B.Mgt(Hons) in Human Resource management/ Business Administration
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Write short notes for any four of the	e below.
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- 1. TQM
- 2. JIT
- 3. Kaizen
- 4. Black Flush Accounting
- 5. AMT

-----END OF THE QUESTION PAPER-----





# Year 2 Semester I End Semester Examination Management Accounting – MGHR/ MGBM 2413

- This paper consists of EIGHT (08) questions on TWELVE(12) pages.
- Answer <u>FIVE(05)</u> questions including question 01.
- Only non-programmable calculators are allowed.
- You may use appropriate graphs, diagrams, equation/s to prove or justify the answers.
- If you have any doubt as to the interpretation of the wording of a question, make your own decision, but clearly state it on the script.



Date: 2022.03.09

Pass mark: 40%

Time: 03 Hours

# Question 01: (Compulsory)

- (1) Explain the difference between Cost Accounting, Management Accounting and Financial Accounting. (03 Marks)
- (2) Briefly explain the **importance of Management Accounting** for an organization. (04 Marks)
- (3) Keerthi (Pvt) Ltd manufactures product "J". The worker needs to spend 12 hours per unit during the trial period. Based on past experience, the workers will improve their speed for 90% which means the accumulative time will decrease by 10% every time the output double.

  Calculate the average workers' time spent when the production output increased double. (Show the calculations)



- (4) Assume that as an investor, you are planning to enter the Fashion Jewelry Industry as a supplier. You forecasted that within two years, your fixed cost for producing accessories is Rs. 300,000. The variable unit cost for making one Fashion Jewelry is Rs. 60. The sale price for each Jewelry will be Rs. 100. If you charge Rs. 100 for each Jewelry, how many jewelries you need to sell in total, in order to start making money? (Show the calculations)
- (5) Company B uses a throughput accounting system. The details of product X per unit are as follows:

	Rs
Selling Price	50
Direct Materials	16
Conversion Costs	20
Time on Bottleneck Resource	8 minutes

Calculate the return per hour for product X. (Show the calculations)

(03 Marks)

(6) Techno (Pvt) Ltd produces two products- Calculators and Games. The company planned to produce 4,000 Calculators and 8,000 Games. The company uses ABC costing, and one of the activity cost pools was Assembly, which had a cost driver of total parts. The total amount of estimated overhead for the Assembly cost pool was RS 748,000. The Calculator required 16 parts, and the Games required 52 parts. What would the **overhead cost per unit** be as it relates to the Assembly cost pool for Games?

(Show the calculations)

(03 Marks)



## Question 02:

(1) What is main advantage of preparing a Break-Even Analysis?

(02 Marks)

(2) Write two assumptions of Break-Even Analysis?

(02 Marks)

(3) Ashka (Pvt) Ltd (APL) is a manufacturing and trading company. It produces a variety of products, and the following information is relevant to three related products supplied to the company's institutional cluster from its metropolitan product unit (MPU).

Table 2.1

	Product PP	Product QQ	Product RR
Selling price per unit	500	300	450
Variable cost per unit			
Materials	270	165	250
• Labour	50	30	40
• Overheads	60	40	50
Fixed overheads per unit			
Product Specific	12	5	10
General	10	6	8
Advertising cost per unit	50	30	45
Cost per unit	452	276	403

General fixed overheads are absorbed based on labour cost.

The monthly budgeted production/sales volume for each product is as follows.



#### Table 2.2

	Product PP	Product QQ	Product RR
Production/sales (units)	10,000	30,000	20,000

Advertising cost is a common fixed cost for all three products, and it is absorbed to each product based on sales.

The management assumes that the current sales mix would continue in the future based on the prevailing advertising agenda.

You are the management accountant of APL and are given the above information.

### Required:

- (a) Assess the following relating to the supplies to the institutional cluster, based on the prevailing sales mix.
- (i) Break-even sales (in units and in value for each product).

(04 Marks)

(ii) Expected profit of this cluster for a month.

(04 Marks)

(b)

#### Table 2.3 -Revised sales mix

	Product PP	Product QQ	Product RR
Production/sales (units)	30,000	10,000	25,000

The finance manager of APL has already given his concurrence to proceed with this proposal.

### Required:

(i) Assess the revised break-even sales (in units and in value for each product).

(04 Marks)

(ii) Validate, with necessary computations, the finance manager's action for this proposal.

(04 Marks)

Page 4 of 12



## Question 03:

Home Builders (Pvt) Ltd (LL) is carrying out a business that provides a range of home construction services. It has recently bid for two construction jobs, X01 and X02. The price determination of these jobs was as follows.

### Table 3.1

	Job X01 (Rs. m	illion)	Job X02 (Rs. million)
Total direct cost (material, labour		250	720
etc.)	*		
Common site overheads (30% of		75	210
total direct cost)			
Total job cost		325	930
10% profit markup		37	93.
Price		362	1,029.

The clients of the company have indicated that the offered prices were higher than the other bids.

The management considers applying the activity-based costing approach and reviewing the bids.

The following additional information is provided.



Table 3.2

Common site overhead type	Expected annual overhead cost (Rs. million)	Cost driver	Expected total number of activities per annum
Project supervision	50	No. of site visits	3,000
Planning and monitoring	200	No. of meetings	500
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The following information is relevant to jobs X01 and X02 during their expected job completion period.

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No. of man hours for the jobs	200,000	1,200,000

## Required:

(1) What is a "Cost Driver"? Explain with suitable examples.

(04 Marks)



- (2) Assess the cost of each job based on the activity-based costing approach (ABC). (06 Marks)
- (3) What are the **maximum discounts** that could be offered for both products under ABC approach? (05 Marks)
- (4) Differentiate the activity-based costing approach from the traditional absorption costing method.

  (05 Marks)

## Question 04:

Tasty Juice Ltd., manufactures and sells three different types of healthy fruit juices in large cartons namely Box A, Box B and Box C using the same machinery. The following information is available for the next month:

Table 4.1

A	В	C
8,500	12,000	6,300
3,800	6,900	3,200
400	480	320
400	400	400
0.4	0.6	0.3
4,000	3,800	4,500
	8,500 3,800 400 400 0.4	8,500 12,000 3,800 6,900 400 480 400 400 0.4 0.6

The available labour hours and machine hours for the next month have been estimated as 11,000 hours and 7,000 hours respectively.



### You are required to:

(1) Identify the limiting factor(s) for Tasty Juice Ltd's Production plan for the next month.

(06 Marks)

- (2) Compute the **optimal production mix** based on resource availability and the **profit** for the given period. (08 Marks)
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## Question 05:

(1) What is the usage of an investment appraisal for a Business Organization? Briefly explain.

(02 Marks)

(2) A company has a target accounting rate of return of 18% and is now considering the following project. Capital cost of asset Rs. 800 MN, Estimated life 4 years,

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The capital asset would be depreciated by 25% of its cost each year, and will have no residual value.

Required; Assess whether the project should be undertaken.

(03 Marks)

Page 8 of 12



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Course CODE: BMgt 558/BMgt 559	
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Question 07:	
(1) Explain the concepts of soft capital rationing and hard capital rationing w	ith examples.
1180	(06 Marks)
(2) What is the difference between marginal costing and absorption costing?	(04 Marks)
	Page 10 of 12



(3) The following information has been extracted from Leena (Pvt) Ltd. which manufactures and sells a single product 2021 for the quarter ended 30th June.

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	Budgeted	Actual
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Production (in units)	80,000	70,000
Sales (in units)	70,000	60,000

There was no opening stock as at 01st April 2021.

### You are required to:

Prepare Profit Statement for the quarter ended 30th June 2021 using Marginal Costing Method.
(10 Marks)



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Write short notes for any four of the below	Write sl	nort notes	for	any	four	of	the	below
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- 1. TQM
- 2. JIT
- 3. Kaizen
- 4. Black Flush Accounting
- 5. AMT

(05 Marks\* 4 = 20 Marks)

-----END OF THE QUESTION PAPER----