



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2019/2020 ACADEMIC YEAR**

**SPECIAL AND SUPPLEMENTARY EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF SCIENCE IN CIVIL AND STRUCTURAL (FIFTH  
YEAR), MECHANICAL (FIFTH YEAR), ELECTRICAL  
ENGINEERING (FOURTH YEAR)**

**COURSE CODE: ECC 503**

**COURSE TITLE: ENTREPRENEURSHIP FOR ENGINEERS**

**DATE: MONDAY 25<sup>TH</sup> JANUARY 2021 TIME: 11.00 AM – 1.00 PM**

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**INSTRUCTIONS:**

1. This paper contains FIVE questions
2. QUESTION ONE IS COMPULSORY
3. Attempt any TWO questions from the remaining.
4. Question ONE carries 30 marks and the REST 20 marks each.
5. Examination duration is 2 (TWO) HOURS

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

### **QUESTION ONE (30Marks)**

A small group of uneducated people started a new venture of carrying lunch boxes in Mumbai to office going people. The ‘tiffinwallas’ as they are commonly called in Mumbai is a household name for good reliable service. It has become a profit making industry and has grown over the years. The Mumbai Tiffinwallas are international figures now thanks to Forbes Global. The Forbes story details the efficiency with which they deliver the lunch boxes to their customers. Around 5,000 tiffinwallas deliver 175,000 lunch Boxes every day and take empty back. They make ONE mistake in 1 month. This means there is one error on every million transactions (or 8 million deliveries of lunches). This is thus a Six Sigma performance (a term used in quality assurance — if the percentage of correctness is 99.999999). That is within defect rate 3.4 in a million operations; the performance which has made companies like Motorola world famous for their quality. Mumbai tiffinwallas have achieved a level of service to which Western Businesses can only aspire. “Efficient Organization” is not the first thought that comes to mind in India, but when the profit motive is given free reign, anything is possible. To appreciate Indian efficiency at its best, watch the tiffinwallas at work. These are the men who deliver 175,000 lunches (or tiffins) each day to offices and schools throughout Mumbai, the business capital of India. Lunch is in a container consisting of a number of bowls, each containing a separate dish, held together in a frame. The meals are prepared in the homes of the people who commute into Mumbai each morning and delivered in their own lunch (tiffin) carriers. After lunch the process is reversed. And what a process— in its complexity, the 5,000 tiffinwallas make a mistake only above once every two months, according to Raghunath Medge, President of the Mumbai Tiffinmen’s Association. That’s one error in every 8 million deliveries or 16 million if you include the return trip. “If we make 10 mistakes a month, no one would use our services, say the craggily handsome Medge. How do they do it? The meals are picked up and delivered home before the commuters return. Each tiffin carrier is, painted on its top, a number of symbols like square, rounds, triangles of different colour which identify where the carrier was picked up, the originating and destination stations and the address to which it is to be delivered. After the tiffin carriers are picked up, they are taken to the nearest railway station, where they are sorted according to the destination station. Between 10.15 a.m. and 10.45 a.m. they are loaded in crates into the baggage cars of trains. At the destination station they are unloaded by other tiffinwallas and re-sorted, this time according to the street address and floor. The 100 kgs crates of carriers, carried on tiffinwallas heads, hand wagons and cycles are delivered on time at 12.30 p.m. picked up at 1.30 p.m. and returned where they came from. The charge for this extraordinary service is just Rupees 150 per month, enough for the tiffinwallas, who are mostly self-employed, to make a good living after paying Rupees 60 per crate and Rupees 120 per man per month to the Western railway for transport, the average tiffinwalla clears about Rupees 3,250. Of the sum Rupees 10 goes to the tiffinmen’s Association. It is a fruit of hard and demanding work of tiffinwallas. Coordination and minute to minute precious is the hallmark of the work, six days a week and all-round the year. An eye on accuracy of work brings in the quality level. After minimal

expenses, the rest of Rupees 50,000 a month that the association collects go to a charitable trust that feed the poor. Superb service and charity too. Can anyone ask for more?

### Questions

- i. Discuss volume of work involved in the job of Mumbai tiffinwalas **(10 marks)**
- ii. What are entrepreneurial qualities of 5,000 tiffinwallas? **(7 marks)**
- iii. How did tiffinwallas get fame as six sigma level service providers? **(3 marks)**

Explain the below in relation to entrepreneurship:

- iv. Innovation **(2 marks)**
- v. Anthropological Entrepreneurship Theory **(4 marks)**
- vi. Pull factors of entrepreneurship **(2 marks)**
- vii. Provide two reasons to distinguish between an entrepreneur and a manager **(2 marks)**

### QUESTION TWO (20Marks)

- a) Entrepreneurship is a multidimensional concept. Discuss Entrepreneurship as a behavior. **(5 Marks)**
- b) Enumerate and discuss the Sociological Theories of Entrepreneurship **(9 Marks)**
- c) Discuss the rewards for being an Entrepreneur **(6 Marks)**

### QUESTION THREE (20Marks)

- a) For a public or private business to be considered a family business, family members must have a controlling ownership interest and be actively involved in the business at the strategic level and thereby influence its strategic direction. Discuss the advantages and disadvantages of a family business. **(10 Marks)**
- b) Discuss the ten steps every Entrepreneur needs to know when starting a business. **(10 Marks)**

### QUESTION FOUR (20Marks)

- a) Depending upon purpose and method, accounting can be of broadly two types. Discuss these two accounting categories **(5Marks)**
- b) The journal is a form of diary for business transactions. Discuss the advantages of using the Journal in business transactions. **(7 Marks)**
- c) List and discuss the importance of Investment Decisions of a business **(8 Marks)**

**QUESTION FIVE (20Marks)**

- a) Calculate the Payback period in years and Months of a venture costing Kenya Shillings four hundred thousand only and promises returns of Kenya Shillings ninety five thousand only per annum indefinitely. **(3 Marks)**
- b) The company policy is to approve projects where investment is recovered in five years or less using Net Present Value (NPV). Advice if the project in (a) above will be accepted. Market interest rate is 12% annually. **(7 Marks)**
- c) Discuss the advantages and disadvantages of Internal Rate of Return for analyzing business viability **(6 Marks)**.
- d) Discuss the advantages of owning shares or investing in Shares in a blue chip company **(4 Marks)**.