

FACULTY OF ENGINEERING AND BUILT ENVIRONMENT

SUPPLEMENTARY-EXAMINATION

DEPARTMENT

DEPARTMENT OF QUALITY AND OPERATIONS
MANAGEMENT

PROGRAMME

ND MANAGEMENT SERVICES

ND OPERATIONS MANAGEMENT

MODULE

ORGANISATIONAL EFFECTIVENESS 1B

CODE

ORE11B1/OEF11B2

DATE

09 JANUARY 2016

DURATION

3 HOURS

TIME

8:00 - 11:00

TOTAL MARKS

100

EXAMINER

MR V. LUKONGA

MODERATOR

MS TM. NEMARUMANE

NUMBER OF PAGES

5 PAGES

INSTRUCTIONS TO CANDIDATES:

- Please answer <u>all</u> questions.
- Calculators are allowed
- Question papers must not be handed in.
- This is a closed book assessment.
- Read the questions carefully and answer only what is asked.
- Number your answers clearly.
- Write neatly and legibly.
- Structure your answers by using appropriate headings and sub-headings.
- The general University of Johannesburg policies, procedures and rules pertaining to written exam apply.

...Cont/

QUESTION 1

1.1.	List and Explain the four Basic elements of a Form.	(8)
reaso shoul	When caring out Method Study we start at the beginning, the first step od study approach, is to select the area of work. There are two very important for this first step in the method study approach and three considerations do be kept in mind when selecting a job. Name the two important reasons area considerations that should be kept in mind when selecting a job.	ortant s that
1.3.	Define the eight Types of Job Elements.	16)
1.4.D	ifferentiate between a representative worker and a qualified worker.	(4)

 FIRST NAME	S-NAME	STUDENT#	COURSE	SIGNATURE			

QUESTION 2

2.1. Calculate sample size for element for element
2.2. Complete the time study sheets provided below.
Observation Sheet
Analysis Sheet
Summary Sheet
(23)

Note:

- o The observed times provided are in seconds
- ALL answers must be in <u>2 decimal</u> places(except in Averages and Ratings, which must be whole number)

[67]

[33]

FIRST NAME	S-NAME	STUDENT #	COURSE	SIGNATURE

OBSERVATION SHEET

		DATE (yy/mm/dd)
	+ TEAS	OPERATION NO:
- Time Started	+Obs Time OF	TAKEN BY;
n / f		Elapsed time
= Elapsed Time	= RT	Recorded Time
		Watch Error (ET-RT/ET *100)
	n / f	all elements

Element Break Points;	TEBS;	
	TEAS;	

Elem no	Rating	Obs Time	Basic Time	Total Basic Time	Elem no	Rating	Obs Time	Basic Time	Total Basic Time	Elem no	Rating	Obs Time	Basic Time	Total Basic Time
1		334			1		339							111110
2		500			2		512							
3		640			3		630							
4		82			4		86							
5		330			5		329							
6		12			6		95							
7					7		90							
8		20.200,2000 1, 2			8									
				,										
_ 1		330			1		331							
2		519			2		523							
3		611			3		617							
4		80			4		81							
5		335			5		326							
6		85			6		12							
7		90			7									
8					8		600							
											-			

No of Obs

Elem Basic Time

ANALYSIS SHEET

	DEPARTMENT;										DATE (yy/mm/dd)					
MAC	MACHINE DESCRIPTION										OPERATION NO;					
MAC	HINE DES	CRIPT	ION;						T	AKEN B	Y;					
IASK	DESCRI	PITON;														
							Ele	ements								
	Loss	1	2	3	4	5	6	7	8	9	10	11	12			
	1												+			
	2												-			
	3															
	4	-														
	5			_												
	6	-														
	7		-													
	9	-	-													
	10	-														
	11			-	-	-										
	12		+	-												
er	13	-		-			-		-	-						
qu	14	-	+	-												
E	15			+	+		-									
le l	16				-	-	-	-	-	-						
Cycle Number	17		-			-	-		-							
	18		 	1	-	+	-	-		ļ	-		-			
	19		1	+		-					 	-	-			
	20		T	1		-		-			-	-				
	21				1			-		 						
	22					 										
	23					 										
	24										-	-				
	25															
	26															
	27															
	28															
	29															
otals																

SUMMARY SHEET

DEPARTMENT;	DATE (yy/mm/dd)
MACHINE DISCR;	OPERATION NO;
TASK DESCRIPTION;	TAKEN BY;
PART DESCRIPTION;	

Elm	Тур	Element Description	Element basic	Volume	Freq	Element				
no	e of elm		time		uenc	Repres				
	emi				У	Basic Time				
						Time				
					*					
						· · · · · · · · · · · · · · · · · · ·				
	× 7277									
		PRESENTATIVE BASIC TIME								
		al needs Allowance (1.2%)								
	Allowa	Allowance (209 cm)								
		RK CONTENT								
	-	ontingency Allowance (0.05 hrs)								
		aintenance Allowance 250 seconds								
Woi	rking A	llowance								
		IC WORK CONTENT								
Del	ay Allo	owance (320 cm)								
OCCU	PIED '	TIME		100						
_	MCT =	$(OT \ of \ IW + UT)$								
		(MCT – BT of IW)								
		Time Allowance								
STANDARD TIME										
		wance (1 min 10seconds)								
		TIME (SECONDS)								
		TIME (STD. MIN)								
ALLO	ALLOWED TIME (STD. HR)									