UNIVERSITY OF JOHANNESBURG

FACULTY OF ENGINEERING AND BUILT ENVIRONMENT

EXAMINATION

DEPARTMENT	**DEPARTMENT OF QUALITY AND OPERATIONS MANAGEMENT**
PROGRAMME	ND MANAGEMENT SERVICES ND OPERATIONS MANAGEMENT
MODULE	ORGANISATIONAL EFFECTIVENESS 1B00
CODE	ORE1B00/OEF1B00
DATE	: SUMMER EXAMINATION 2015 14 NOVEMBER 2015
DURATION	: (SESSION 2) 12:30 - 15:30
TOTAL MARKS	100

EXAMINER	MR V. LUKONGA
MODERATOR	MISS. T. NEMARUMANE
NUMBER OF PAGES	6 PAGES

INSTRUCTIONS TO CANDIDATES:

- Please answer all 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 Define the following:

1.2 Task or Job (2)

1.3 Element (2)

1.4 Work Cycle (2)

1.5 Define the eight Types of Job Elements (16)

[22]

QUESTION 2

C1: 1.55minutes, 0.25 minutes, 58 seconds, 565 centi-minutes, 86 seconds, 175 centi-minutes, 1.3 minutes, 365 centi-minutes

C2: 160 centi-minutes, 16 seconds, 0.85 minutes, 341 seconds, 145 centi-minutes, 110 seconds, 79 seconds, 220 seconds

C3: 97 seconds, 20 cent-minutes, 95 centi-minutes, 5.7 minutes, 1.4 minutes, 104 seconds, 77 seconds, 375 centi-minutes

C4: 1.6 minutes, 25 centi-minutes, 52 seconds, 570 centi-minutes, 82 seconds, 185 centi-minutes, 79 seconds, 224 seconds

2.1 Use the form provided above to Calculate the sample size for elements 4 & 5 (show calculations) (10)

FILL in the form provided below to answer question 2.2

2.2 Calculate rating for ALL the elements (32)

[42]

	FIRST NAME	S-NAME	STUDENT #	COURSE	SIGNATURE

Elem no	Rating	Obs Time		Elem no	Rating	Obs Time	

QUESTION 3

Complete the time study sheets provided below. (36)

Note:

The observed times provided are in seconds

Allowances have been provided in the sheets.

ALL answers must be in 2 decimal places

[36]

	FIRST NAME	S-NAME	STUDENT #	COURSE	SIGNATURE

OBSERVATION SHEET

DEPARTMENT;	Time Finished	TEBS	DATE (yy/mm/dd)
DIVISION;		+ TEAS	OPERATION NO;
MACHINE DESCRIPTION;	- Time Started	+Obs Time OF all elements	TAKEN BY;
WORKER; m / f			Elapsed time
	= Elapsed Time	= RT	Recorded Time
			Watch Error (ET-RT/ET *100)

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	99	678			1	100	675							
2	99	89			2	100	88							
3	115	13			3	107	14							
4					4	107	28							
5					5									
6					6									
7					7									
1	122	669			1	100	672							
2	98	90			2	102	86							
3	107	14			3	94	16							
4	103	29			4	100	30							
5	102	48			5	100	49							
6					6									
7					7									
1	100	671			1	100	670							
2	100	88			2	101	87							
3	100	15			3	88	17							
4	97	31			4	103	29							
5	96	51			5	98	50							
6					6	100	110							
7					7	100	63							

ANALYSIS SHEET

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

		Elements											
		1	2	3	4	5	6	7	8	9	10	11	12
Cycle Number	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
	13												
	14												
	15												
	16												
	17												
	18												
	19												
	20												
	21												
	22												
	23												
	24												
	25												
	26												
	27												
	28												
	29												
Totals													
No of Obs													
Elem Basic Time													

SUMMARY SHEET

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

Elm no	Type of elm	Element Description	Element basic time	Volume	Frequency	Element Repres Basic Time

TOTAL REPRESENTATIVE BASIC TIME		
Personal needs Allowance (1.5%)		
Fatigue Allowance (160 cm)		
Rest Allowance		
BASIC WORK CONTENT		
Work Contingency Allowance (0.05 hrs)		
Tool Maintenance Allowance 950cm		
Working Allowance		
TOTAL BASIC WORK CONTENT		
Delay Allowance (210 cm)		
OCCUPIED TIME		
MCT = (OT of IW + UT)		
UTA = (MCT – BT of IW)		
Unoccupied Time Allowance		
STANDARD TIME		
Policy Allowance (1 min 20seconds)		
ALLOWED TIME (SECONDS)		
ALLOWED TIME (STD. MIN)		
ALLOWED TIME (STD. HR)		