IE-341
Section 1, CRN: 30512; Section 2, CRN: 30515; Section 3, CRN: 38299
First Semester 1433-34 H (Fall-2012) – 3(2,1,2)
**HUMAN FACTORS ENGINEERING**

Saturday, Sep 29, 2012 (13/11/1433H)

Quiz 2 ANSWERS

Name:	Student Number:	Section:
	4	9:00 / 10:00 / 11:00

PART – A. Examine the figures below carefully then answer the questions to follow. The data shown represents standing and sitting dimensions in meters for US adults. [2 points each]

Name	Dimension	Male 5th%	Male 50th%	Male 95th%	Female 5th%	Female 50th%	Female 95th%
Stature	A	1.649	1.759	1.869	1.518	1.618	1.724
Eye height (standing)	B	1.545	1.644	1.748	1.427	1.520	1.630
Mid shoulder height	C	1.346	1.444	1.564	1.210	1.314	1.441
Waist height	D	0.993	1.102	1.168	0.907	0.985	1.107
Buttocks height	E	0.761	0.839	0.919	0.691	0.742	0.832
Sitting height	F	0.859	0.927	0.975	0.797	0.853	0.911
Eye height (sitting)	G	0.743	0.800	0.855	0.692	0.743	0.791
Upper arm length	H	0.333	0.361	0.389	0.306	0.332	0.358
Lower arm + hand length	I	0.451	0.483	0.517	0.396	0.428	0.458
Upper leg length	J	0.558	0.605	0.660	0.531	0.578	0.628
Lower leg length	K	0.506	0.553	0.599	0.461	0.502	0.546
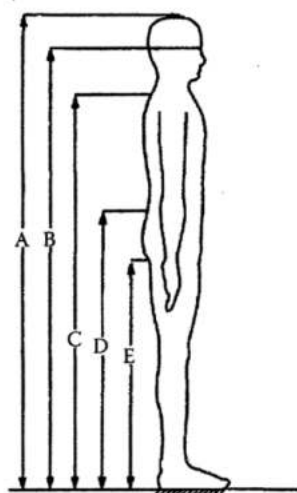
A. Stature
B. Eye height (standing)
C. Mid shoulder height
D. Waist height
E. Buttocks height
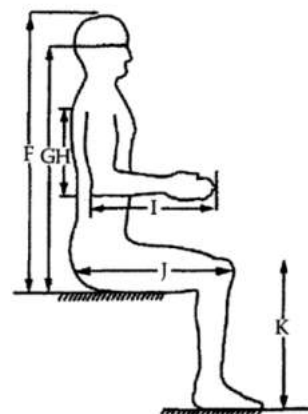
F. Sitting height
G. Eye height (sitting)
H. Upper arm length
I. Lower arm/hand length
J. Upper leg length
K. Lower leg length

1. What percentage of US adult males have a height less than or equal to 1.869 *m*?

    95 %

2. What percentage of US adult females have a waist height greater than 1.107 *m*?

    5 %

3. What is the median upper leg length for US adult males?

    0.605 m

PART – B. Answer the following true (T) or false (F) questions [1 point each]

4. A diagram showing the interaction of various body members in different views is called an articulated model. (see slide 13)

    F

5. Static anthropometric data is easier to collect and exists in much larger quantities than dynamic data. (see slide 14)

    T

6. The distance of a control button from the operator is an example of designing for an average individual. (see slide 17)

    F

7. The area suggested by Squires that takes into account the dynamic interaction of both the forearm and elbow movement is called the "optimal work area". (see slide 4)

    F