



Q1: Set as shown in brackets

10 Marks

1. [ 153, -6,400 , 34E-2, 4,985.6 ] ( Write as FORTRAN integer Constants)
2. [ 4,985 , -74.0, 34E2, 4,985.6 ] ( Write as FORTRAN real Constants)
3. Correct expressions to become an acceptable integer variable :
 

(a) Continue	(b) ALPHA	(c) J+329	(d) Z2156
(e) FIRS12T	(f) L174	(g) MAC	(h) N(2)M

Q2: Consider a set of data numbers  $x_1, x_2, \dots, x_n$ . Write a FORTRAN program and draw a flow chart to compute the standard deviation  $\sigma$  according to the following: (10 Marks)

$$\sigma = \sqrt{\text{Variance}} \quad , \quad \text{Where... Variance} = \frac{\sum_1^N (x(n) - \text{mean})^2}{N} \quad , \quad \text{mean} = \frac{\sum_1^N x(n)}{N}$$

Q3: Write a FORTRAN program to compute the power dissipated in an electric circuit as function of  $R_L$  and the value of  $R_L$  at which maximum power occurs. The power can be computed as: (10 Marks)

$$P_L = \frac{V^2 R_L}{(R + R_L)^2} \quad , \quad V=100 \text{ volt}, R = 10 \Omega, R_L \text{ varies from zero to } 100 \Omega \dots \text{ in } (1 \Omega \text{ step})$$

Q4: Given X (M, N) Matrix, Write a FORTRAN program and draw a flow chart to enter data into the matrix X , compute and print Z where: (10 Marks)

$$Z = \sum_1^M \sum_1^N X(M, N)$$

Q5: Given X (N) Matrix which contains positive and negative numbers, Write a FORTRAN program and draw a flow chart to rearrange: (10 Marks)

- i. Positive numbers in a Vector XN(L) and Negative Numbers in a vector XP(N-L)
- ii. Sort XN(L) and XP(N-L)

Q6: Write a FORTRAN program and draw a flow chart to obtain J , where:

$$J = (A^T * B + Z * C + X * Y)$$

Where A(3,6), B (6,2), Z(3,4), C(4,2), X(3,5), Y(5,2) are matrices with the indicated dimensions 10 Marks)

This exam measures the following ILOs						
Skills	Knowledge & Understanding		Intellectual Skills		Professional Skills	
	A21		B17, B21		C3, C8, C9, C19, C20	
Question Number	Q1	Q2	Q3	Q4	Q5	Q6

**With Best Wishes**

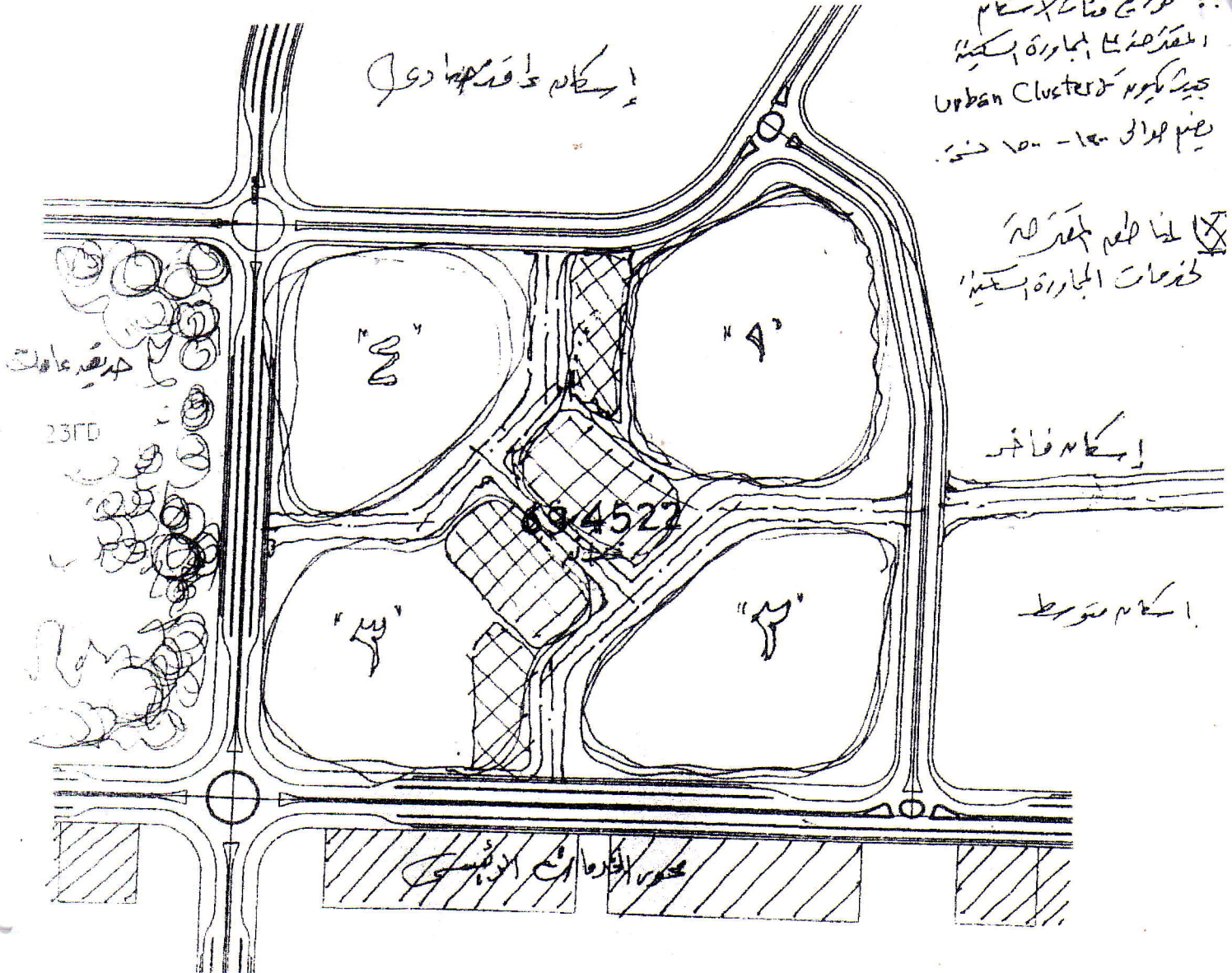
المطلوب:  
 قوائم فئات الإسكان  
 المقترحة على الجواردة السكنية  
 حسب كود Urban Cluster  
 ضمن حدود ١٥٠ - ١٥٠٠ وحدة

لنا طعم المهندسة  
 كثرات الجواردة السكنية

إسكان فاخر

إسكان متوسط

إسكان متوسط



مع أطيب التمنيات بالنجاح  
 أ.د. فيصل عبد المقصود

هذا الامتحان يقسم المخرجات التطويرية المستهدفة التالية

رقم	١-١	١-٢	٢-٢	٣-٢	٤	٢-١	١-٢	١-٥	٢-٥	٢-٢	٢-٣	٣-٥
المهارات	a4-1	a1-1 & a2-1	a4-1	a9-1	a1-1 & a2-1	b3-1 & b4-1	b5-1	B8-1	b10-1 & b13-1	c19-1	c4-1	c13-1 & c18-1 & c19-1
	مهارات المعرفة والفهم					المهارات الفكرية			المهارات الاحترافية			