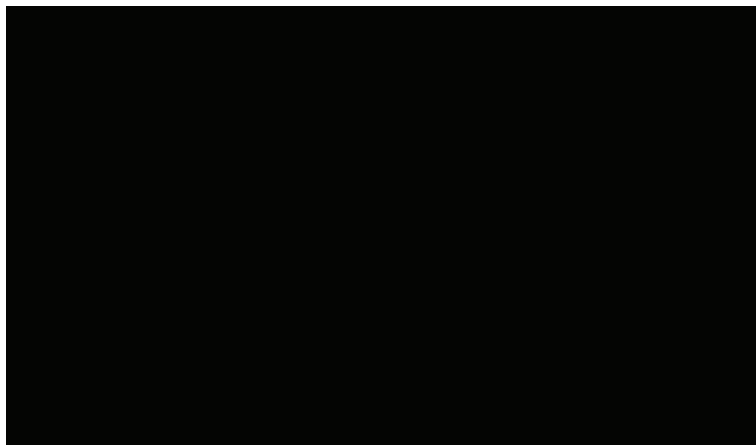# DATA INTERPRETATION – LEVEL 2
STUDY GUIDE
& SAMPLE TEST QUESTIONS
VERSION 2

COUNTY OF
LOS ANGELES

Los Angeles County
Human Resources
YOUR CAREER STARTS HERE.

WELCOME

Thank you for your interest in employment with the County of Los Angeles. This booklet is designed to familiarize and assist you with preparing for tests containing multiple-choice data interpretation items. The sample questions provided in this study guide are intended to give you an idea of the kinds of data interpretation items you may encounter in County tests. However, it is important to note that <u>actual test questions will vary in format, content, and level of difficulty</u>, depending on the job class being tested.

ABOUT THE COUNTY'S EXAMINATIONS

As an Equal Opportunity Employer, the County of Los Angeles takes steps to ensure that our exam content is job-related. We conduct studies to determine the knowledge, skills, abilities, and personal characteristics that are essential to satisfactorily perform the duties of the job. These studies assist us in developing the content of our examinations. Pre-employment testing provides us with an objective and cost-effective means to assess the qualifications of our applicants.

HOW SHOULD I PREPARE FOR THE WRITTEN TEST?

To prepare for the written test, you should study the concepts assessed in each section. It is likely that there will be several sections to the test in addition to data interpretation; thus, it is to your benefit to <u>carefully</u> read the job bulletin to determine the knowledge, skill, and ability areas the written test will cover. In addition, it is important that you read the <u>entire</u> written test notice for the location and time of the test as well as for parking instructions and other important information. Pay special attention to whether testing aids/materials such as hand-held calculators are allowed in the written test. If the test notice indicates that testing aids/materials are allowed, then you are strongly advised to bring these with you, as they <u>will not</u> be provided. On test day, it is recommended that you arrive 15 minutes prior to the test's starting time, wear comfortable clothes, bring an accurate watch, and make sure you are well-rested. Also, remember to bring your test notice and a picture I.D. such as a driver license, or you may not be admitted into the test!

NOTE: Applicants who require special testing arrangements such as readers or interpreters must provide seven (7) days advance notice of their disability and requested accommodation. Check the front side of the job bulletin for telephone numbers to call to make disability accommodation requests. The County will attempt to meet reasonable accommodation requests whenever possible.

TEST-TAKING TIPS

Most County tests have a set time limit, so it is important that you work quickly, but not so fast as to become careless. Always read all the possible choices before marking your answer. If you don't know the answer to a problem, it is usually best to skip it and move on to the others. Note that on most County tests, your score is based on the number of correct responses. If you are not sure of the answer to a problem, eliminate the answers you believe are wrong, and mark the choice that is your best response. Above all, budget your time, pace yourself, and avoid getting bogged down on any single question.

INSTRUCTIONS: To answer questions 1-5, refer to the *Timetable to Complete New Project* displayed below. The table compares five different project plans and the associated time it will take to complete each of the five phases of the plan. The numbers represent the number of weeks it will take to complete the indicated phase. NOTE: actual test questions will vary in format, content, and level of difficulty.

TIMETABLE TO COMPLETE NEW PROJECT

PLAN	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	TOTAL # of WEEKS
A	5	6	12	7	10	
B	7	7	11	5	8	
C	3	7	14	11	8	
D	5	3	13	9	12	
E	6	5	14	5	9	

1.   Of the following phases, which will take the **LONGEST** to complete?

   A.   Phase 1
   B.   Phase 2
   C.   Phase 4
   D.   Phase 5

2.   What is the order of plans based on the total number of weeks from the **LEAST** to **MOST** number of total weeks?

   A.   E, A, C, B, D
   B.   A, B, D, E, C
   C.   B, E, A, D, C
   D.   C, D, A, E, B

3.   If the number of weeks for Phase 5 of Plan A were decreased by 20%, how many weeks would the new total of weeks be?

   A.   36
   B.   38
   C.   39
   D.   40

TIMETABLE TO COMPLETE NEW PROJECT

PLAN	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	TOTAL # of WEEKS
A	5	6	12	7	10	
B	7	7	11	5	8	
C	3	7	14	11	8	
D	5	3	13	9	12	
E	6	5	14	5	9	

4. If the total number of weeks for Plan E were reduced by 23%, how many weeks would the new total of weeks be? (round to the nearest whole number)

   A.   28
   B.   29
   C.   30
   D.   31

5. If each plan utilized a new design that eliminated the need for Phase 4, which plans would take the **LEAST** and **MOST** number of total weeks?

   A.   C, E
   B.   A, E
   C.   B, C
   D.   D, A

INSTRUCTIONS: To answer questions <u>6-10</u>, determine the correct values to complete the table displayed below. NOTE: actual test questions will vary in format, content, and level of difficulty.

TRAINING ATTENDANCE AND RELATED COSTS BY DIVISION

Division	TRAINING ATTENDANCE					RELATED COSTS					Adjusted Cost per Registration ($)
	Number of Employees				Attendance Ratio of Those Registered	Salary ($)	Registration Cost			Total Training Cost ($)	
	Paid Registrations	Attended	No Shows (Non-refundable)	Cancellations (Refundable)			Cost per Registration ($)	Registration Payment ($)	Cancellation Refunds ($)		
Accounting	50	26	14	**(I)**	0.52	6,700	100	5,000	1,000	10,700	268
Personnel	90	81	6	3	0.90	2,700	75	6,750	225	**(IV)**	106
Information Technology	208	156	28	24	0.75	10,400	200	**(III)**	4,800	47,200	257
Sales	150	102	31	17	**(II)**	6,000	140	21,000	2,380	24,620	185
Production	185	157	23	5	0.85	4,625	60	11,100	300	15,425	**(V)**

6.   The value of (I) is

   A. 10.
   B. 12.
   C. 24.
   D. 36.

7.   The value of **(II)** is

   A. .30.
   B. .55.
   C. .60.
   D. .68.

TRAINING ATTENDANCE AND RELATED COSTS BY DIVISION

	TRAINING ATTENDANCE					RELATED COSTS					
	Number of Employees				Attendance Ratio of Those Registered	Salary ($)	Registration Cost			Total Training Cost ($)	Adjusted Cost per Registration ($)
Division	Paid Registrations	Attended	No Shows (Non-refundable)	Cancellations (Refundable)			Cost per Registration ($)	Registration Payment ($)	Cancellation Refunds ($)		
Accounting	50	26	14	**(I)**	0.52	6,700	100	5,000	1,000	10,700	268
Personnel	90	81	6	3	0.90	2,700	75	6,750	225	**(IV)**	106
Information Technology	208	156	28	24	0.75	10,400	200	**(III)**	4,800	47,200	257
Sales	150	102	31	17	**(II)**	6,000	140	21,000	2,380	24,620	185
Production	185	157	23	5	0.85	4,625	60	11,100	300	15,425	**(V)**

8.   The value of **(III)** is

   A. $31,200.
   B. $32,448.
   C. $40,000.
   D. $41,600.

9.   The value of **(IV)** is

   A. $6,525.
   B. $7,050.
   C. $9,225.
   D. $9,450.

10.   The value of **(V)** (rounded to the nearest whole dollar) is

   A. $71.
   B. $83.
   C. $86.
   D. $98.

11.   June Williams is a 37 year-old single parent with two dependent children. Her monthly income consists of $550 in child support and $100 in alimony. Based ONLY on this information, the family would qualify for the

    A. Housing and Food Programs.
    B. Food and Medical and Dental Care Programs.
    C. Food, Child Care, and Medical and Dental Care Programs.
    D. Housing, Food, Child Care, and Medical and Dental Care Programs.

12.   Gil Paxton, age 58, lives in Green County with his wife, age 56, and their 17-year old daughter. He and his wife earn a combined monthly income of $750 from manufacturing jobs. Based ONLY on this information, for which assistance program(s) would the family qualify?

    A. Housing and Food Programs
    B. Housing and Medical and Dental Care Programs
    C. Child Care and Medical and Dental Care Programs
    D. Housing, Food, Child Care, and Medical and Dental Care Programs

13.   Alan and Margaret Robinson moved to Green County over one year ago, after Alan completed a tour of duty in the U.S. Air Force. They are married and have four children, ages 6, 9, 11, and 15. Alan earns $1120 per month as an Office Assistant, and Margaret is a part-time student at the local college. Based ONLY on this information, the Robinsons would qualify for the

    A. Housing Program.
    B. Medical and Dental Care Program.
    C. Child Care and Medical and Dental Care Program.
    D. Child Care and Veterans Programs.

14.   Robyn Chang is a 58 year-old widow who lives by herself and earns $420 per month from working part-time as a chef. She has been receiving Housing Program assistance for almost one year. Based ONLY on this information, for what other program(s) would Robyn qualify?

    A. Tuition, Transportation, Utilities, and Medical and Dental Care Programs
    B. Food, Transportation, and Utilities Programs
    C. Tuition and Utilities Programs
    D. None of the Above

15.   Barbara Woodbeck is 38 years old and earns $1020 per month as a freelance photographer. She pays $180 per month in child support for her two children, ages 9 and 11, and receives no public assistance. Based ONLY on this information, Barbara would qualify for the

    A. Child Care Program.
    B. Transportation Program.
    C. Medical and Dental Care Program.
    D. None of the Above.

ATTACHMENT A

GREEN COUNTY PROGRAM ASSISTANCE WORKER

The Green County Social and Community Services Agency offers programs for residents in need of public assistance. A Public Assistance Worker is responsible for determining whether a resident would be eligible for agency programs based on the income and individual program requirements displayed below.

PROGRAM INFORMATION

Applicants for public assistance must be residents of Green County. Income counted in determining eligibility includes salary, wages, tips, income from rental property, Social Security, pensions, dividends, alimony, and child support. Applicants must meet program eligibility guidelines to be considered for assistance.

PROGRAM	DESCRIPTION	ELIGIBILITY GUIDELINES
Housing	Provides a housing subsidy of $75 per month.	✓ Employed or enrolled in school or job training. ✓ Household income of $1000 or less per month.
Food	Provides vouchers of $65 per week toward the purchase of food.	✓ Single or married and living separately. ✓ One or more dependent children who reside in the home full-time. ✓ Household income of $750 or less per month.
Child Care	Provides dependent care subsidy, less $5 of daily cost.	✓ Must be employed or enrolled in school or job training. ✓ One or more dependent children under age 13 who reside in the home full-time. ✓ Household income of $1150 or less per month.
Tuition	Provides tuition assistance for full-time students attending an accredited college, university, or training program.	✓ Enrolled in Housing and/or Food Programs for at least 3 months.
Transportation	Provides free or discounted metro bus/rail passes.	✓ Employed or enrolled in school or training. ✓ Household income of $700 or less per month.
Home Utilities	Provides counseling and payment negotiation to maintain utilities during months of extreme temperatures.	✓ Enrolled in Housing Program. ✓ Household income of $600 or less per month.
Medical and Dental Care	Provides no-cost medical and dental care for children up to age 18 and seniors 55 and older.	✓ Age 18 or under or 55 and older. ✓ Household income of $1000 or less per month.
Veteran	Provides a housing subsidy of $62 per month for disabled veterans of the Armed Forces.	✓ Veteran of the U.S. Armed Forces. ✓ Not receiving Housing Program benefits. ✓ Household income of $1200 or less per month.

Answers and Explanations to Data Interpretation Sample Questions

1. The correct answer is <u>D</u>. To solve:
    - In the *Timetable*, locate the five different phases.
    - Add the number of weeks it takes to complete each phase across the different plans (i.e., total each of the Phase columns).
    - The total number of weeks to complete each phase regardless of the plan is as follows: Phase 1 (26), Phase 2 (28), Phase 3 (64), Phase 4 (37), and Phase 5 (47).
    - Identify the Phase, from the provided choices, that takes the longest time to complete (Phase 5).

2. The correct answer is <u>C</u>. To solve:
    - In the *Timetable*, locate the "PLAN" column.
    - Add the number of weeks across each of the five phases for each plan.
    - The total number of weeks to complete each plan is as follows: Plan A (40), Plan B (38), Plan C (43), Plan D (42), and Plan E (39).
    - Order the Plans from **LEAST** to **MOST** number of weeks as follows: Plan B (38), Plan E (39), Plan A (40), Plan D (42), and Plan C (43).

3. The correct answer is <u>B</u>. To solve:
    - In the *Timetable*, locate the row for Plan A, and identify the number of weeks it will take to complete Phase 5 of Plan A (10 weeks).
    - Multiply the 10 weeks by the decimal equivalent of 20% (10 weeks x .2 = 2 weeks).
    - To determine the new amount of time to complete Phase 5, subtract the 20% decrease time of 2 weeks from original 10 weeks (10 weeks – 2 weeks = 8 weeks).
    - Add the new total number of weeks to complete Plan A (5 + 6 + 12+ 7 + 8 = 38).

4. The correct answer is <u>C</u>. To solve:
    - In the *Timetable*, locate Plan E and total the number of weeks to complete the five phases (6 + 5 + 14 + 5 + 9 = 39).
    - Multiply the 39 weeks by the decimal equivalent of 23% (39 x .23 = 8.97, then round up to 9).
    - To determine the new amount of time to complete Plan E, subtract the 23% decreased time of 9 weeks from the original 39 weeks (39 weeks – 9 weeks = 30 weeks).

5. The correct answer is <u>A</u>. To solve:
    - In the *Timetable*, add the number of weeks to complete each plan for <u>only</u> phases 1, 2, 3, and 5.
    - The total number of weeks for each plan is as follows: Plan A (33), Plan B (33), Plan C (32), Plan D (33), and Plan E (34).
    - Identify the plans with the **LEAST** (Plan C) and **MOST** (Plan E) number of weeks.

6. The correct answer is <u>A</u>. To solve:
    - Add the number of employees from Accounting who attended training to the number of no shows to get the total number of non-refundable registrations (26 + 14) to equal 40;
    - Subtract the total number of non-refundable registrations from the total number of paid registrations to get the total number of refundable cancellations (50 – 40) to equal 10.

7.	The correct answer is <u>D</u>. To solve:
- Divide the number of employees in the Sales Division who attended the training by the number of employees who registered (102 ÷ 150) to equal .68.

8.	The correct answer is <u>D</u>. To solve:
- Multiply the number of employees in the Information Technology Division who registered for the training by the corresponding cost per registration (208 × $200) to equal $41,600.

9.	The correct answer is <u>C</u>. To solve:
- Add the total salaries for the Personnel Division to the total registration payment ($2,700 + $6,750) to equal $9,450;
- Subtract the amount derived above from the amount of the cancellation refunds ($9,450 − 225) to equal $9,225.

10.	The correct answer is <u>C</u>. To solve:
- Add the Production Division employees who attended the training to the no shows (157 + 23) to equal 180;
- Divide the total training cost by the result from above ($15,425 ÷ 180) to equal $85.69, which rounds up to $86.

11.	The correct answer is <u>B</u>. June and her family would qualify for the Food and Medical and Dental Care Programs based on household income and the dependent children in the home.

12.	The correct answer is <u>B</u>. The Paxtons would qualify for the Housing and Medical and Dental Care programs based on employment status, household income, and their daughter's age.

13.	The correct answer is <u>D</u>. The Robinson family would qualify for the Child Care and Veteran's Programs based on the number of children under 13 in the home, household income, and Alan's Veteran status.

14.	The correct answer is <u>A</u>. Robyn would also qualify for the Tuition, Transportation, Utilities, and Medical and Dental Care Programs based on her age, employment status, household income, and enrollment in the Housing Program.

15.	The correct answer is <u>D</u>. Barbara would not qualify for the listed programs based on the number of dependent children in the home, household income, and her age.