

BCH 3033 Exam 2 Key (Corrected) and Grade Distribution

Form 1.

Multiple Choice:

1-a	2-b	3-d	4-a	5-d	6-c	7-b	8-c	9-b	10-d
11-e	12-e	13-b	14-c	15-b	16-a	17-b	18-e	19-a	20-e
21-e	22-e	23-d	24-d	25-c	26-b	27-a	28-c	29-c	30-c

Written Answers:

1. IRAVE needed to have regular peptide bonds (in trans) and all atoms showing.
2. a. You needed to calculate the total activity (converting activity of the 50 μ L sample to the total volume of the fraction). Then dividing by the total protein of each fraction.

Crude Extract: 1.76 μ moles/sec/mg protein
 20-40% cut: 4.43 μ moles/sec/mg protein
 Affinity Chrom: 139.3 μ moles/sec/mg protein

- b. "the last step" $139.3 \mu\text{moles/sec/mg protein} / 4.43 \mu\text{moles/sec/mg protein} = 31.4X$
- c. $961 \mu\text{moles/sec total act recovered} / 1380 \mu\text{moles/sec total act crude} \times 100 = 70 \%$

Form 2.

Multiple Choice:

1-b	2-b	3-c	4-c	5-b	6-d	7-a	8-c	9-c	10-d
11-e	12-e	13-b	14-c	15-b	16-d	17-b	18-e	19-a	20-e
21-d	22-e	23-c	24-c	25-c	26-d	27-d	28-c	29-d	30-d

2. a. You needed to calculate the total activity (converting activity of the 50 μ L sample to the total volume of the fraction). Then dividing by the total protein of each fraction.

Crude Extract: 2.01 μ moles/sec/mg protein
 20-40% cut: 6.68 μ moles/sec/mg protein
 Affinity Chrom: 128.8 μ moles/sec/mg protein

- b. "the last step" $128.8 \mu\text{moles/sec/mg protein} / 6.68 \mu\text{moles/sec/mg protein} = 19.3X$
- c. $1069 \mu\text{moles/sec total act recovered} / 1984 \mu\text{moles/sec total act crude} \times 100 = 53.8\%$

SCORING: Multiple Choice (2 x Test Score) + 10 + Written Score = Total Score

Average: 46.7 +/- 12.4 High = 86 Low = 23