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Dental Admission Test (DAT) 2021 User's Manual



American Dental Association		Department of Testing Services
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Dental Admission Test (DAT) User's Manual 2021



DENTAL ADMISSION TESTING PROGRAM USER'S MANUAL

2021

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INTRODUCTION

History of the Dental Admission Test Program

The development of the Dental Admission Test Program began in 1945. At that time, there were 39 accredited dental schools in the United States, and 12,000 students were enrolled. There were three basic reasons for the development of the Dental Aptitude Test Battery, as it was known at that time. One was the high rate of student attrition over the four years of dental school. It was estimated that 20% to 25% of the national first-year class withdrew from dental school before graduation. It was anticipated that the aptitude test data employed by the admission committees in the selection of new students would reduce the number of students withdrawing because of poor scholarship.

Another reason for developing the testing program was that veterans of World War II were beginning to apply to dental school in great numbers, and the schools were concerned at the prospect of making comparisons among educational records that were several years old with the more recent records of non-veterans. It was believed that veterans could be more accurately appraised through the use of both educational records and recent test scores. This leads to the third reason for developing the testing program. The dental school admission officers were aware that the grades from the various high schools and colleges had different meanings with regard to educational achievement, and it was thought that by using a national test, a common yardstick could be used to compare students' achievements.

In 1945, the committee that was developing the Dental Aptitude Test Battery was looking at the possibility of measuring students' ability to read and comprehend, to memorize verbal and visual material, to recognize word meaning, to reason, to visualize patterns, to express information orally, and to demonstrate manual dexterity. The committee was also interested in the possibility of measuring a student's interest, personality, perseverance, and social instincts. To the credit of that committee, the list was greatly reduced when the test battery was made definitive. The Dental Aptitude Test Battery was initiated as an instrument to measure basic abilities in mathematics, verbal reasoning, reading comprehension in the sciences, and academic achievement in the natural sciences. The committee also included tests of object visualization and chalk carving.

With some exceptions, the types of tests given in the testing program have remained rather consistent through the years. In 1972, an organic chemistry test was added to the Survey of the Natural Sciences, and the Chalk Carving Test was replaced by the Perceptual-motor Ability Test. Prior to 1972, the Chalk Carving Test and Space Relations Test provided information related to manual dexterity as well as the ability to visualize in three dimensions. For various reasons, including the difficulty and costliness of administering a manual test on a national basis, the Chalk Carving Test was replaced by the Perceptual-motor Ability Test. Validation studies (Graham, 1972, 1974) comparing Chalk Carving Test scores and paper and pencil Perceptual-motor Ability Test scores with dental school performance in technique courses indicated that the paper and pencil test scores were as valid as the Chalk Carving Test in predicting performance.

Four principles were established as desirable in developing the Perceptual-motor Ability Tests. In short, the tests must be: 1) suitable for group administration, 2) non-manual-performance-based, 3) of high reliability and not subject to practice effects, and 4) ability measures that discriminate between technical and non-technical proficiency. The underlying factor that permitted the replacement of the Chalk Carving Test with the Perceptual-motor Ability Test was that visual perception, when measured reliably through a pencil-and-paper test, would serve as a valid predictor for judging the probability of success in the technique courses required within the dental curriculum.

In 1981, the format of the test was once again changed to include only a test of quantitative reasoning ability, a test to measure reading comprehension ability, a perceptual ability test, and a survey of the natural sciences, which measured achievement in biology, general chemistry, and organic chemistry. The Verbal Reasoning Test was dropped because there had been little evidence of any significant positive relationship with dental school performance. The two perceptual tests were combined into one, including those parts having the highest positive correlations with technique courses in the annual validity studies.

In October 1988, the standard score scale that was used to report the results of the DAT was changed from the '-1' to '9' scale to the present '1' to '30' scale. The 1 to 30 standard score scale is based on the log ability scale defined by the Rasch Model (Rasch, 1960, 1980; Wright, 1977; and Wright & Stone, 1979) for dichotomous item responses. Beginning with the October 1988 test administration, results for all tests on the battery except the Reading Comprehension Test were equated to the October 1986 ability scale using the Rasch common item equating procedure. The Reading Comprehension Test could not be equated at that time because all of the items were dependent on a single long passage, which is inappropriate for the common item equating technique. Beginning in March 1989, the format of the Reading Comprehension Test was modified to include three shorter passages with 16 to 17 items associated with each passage. This format allowed for the use of the common item equating technique. Beginning with the October 1989 test administration, all of the reading comprehension standard scores were equated to the April 1989 ability scale.

Content of the Dental Admission Test

There are four individual tests contained in the Dental Admission Test (DAT) battery. The first is the Survey of the Natural Sciences (SNS). The SNS is an achievement test that evaluates examinees' knowledge of material typically taught in undergraduate science courses. The SNS consists of 100 multiple-choice items divided into three sections: 40 items involving basic biology, 30 items involving general chemistry, and 30 items involving organic chemistry. The content specifications for these three sections are listed in Figures 1 to 3. When the SNS is scored, separate scores are given for each of the subtests as well as an overall score for the Survey as a whole.

The second test is the Perceptual Ability Test (PAT). The PAT consists of 90 two-dimensional and three-dimensional problems. The PAT evaluates several of the major factors commonly identified in studies of perceptual or spatial ability (i.e. angle discrimination, block counting, paper folding, form development, and two forms of object visualization). The form development, paper folding, and object visualization factors relate almost exclusively to form perception. It has been demonstrated, especially in industrial psychology, that factors central to one's ability to visually perceive small differences are valuable in selecting applicants who need fine manual dexterity.

The third test is the Reading Comprehension Test (RCT). The RCT consists of 50-items and three reading passages of approximately 1,100-1,500 words each. The topics selected for these passages cover aspects of basic science that are taught in an undergraduate curriculum. Each passage is followed by 15 or 19 items that examine the concepts and ideas developed in the passage.

The fourth test is the Quantitative Reasoning Test (QRT). Prior to 1990, the QRT consisted of 50 items, 30 of which were mathematical problems and 20 of which covered applied mathematics. Beginning in spring 1990, the length of the QRT was reduced to 40 items. The test now consists of 30 mathematical problems and 10 applied mathematics problems. The content specifications for the QRT are listed in Figure 4. The number of items was reduced in order to resolve several issues associated with this test (Smith, Kramer, & Kubiak, 1989, 1990). There are no advanced mathematics or calculus problems. Knowledge of basic mathematics, algebra, data analysis, interpretation and sufficiency, and probability

and statistics required of a first-year college student in preparation for college science courses is assumed by the test.

A composite score—the Academic Average—is also included in the score report. The Academic Average is the rounded arithmetic mean of the quantitative reasoning, reading comprehension, biology, and general and organic chemistry standard scores. The four tests in the Dental Admission Test battery take approximately four hours and thirty minutes to complete. Prior to the computerization of the DAT, the written versions were offered twice each year, typically in April and October. The testing period usually started at 8:30 a.m. and ended about 1:00 p.m. With the introduction of the computerized DAT in 1999, the four tests can be taken nearly any day of the year at Prometric Testing Centers located throughout the United States.

Test Construction

The process of DAT content development occurs continuously. Test items for the Survey of the Natural Sciences and Quantitative Reasoning Test are developed by DAT Test Construction Team (TCT) members who are faculty members from accredited colleges and universities. Newly developed items are reviewed by TCTs and pretested in order to garner item performance statistics. After pretesting, the items are reviewed again and revised, if necessary, to ensure they meet established psychometric standards for the test. Perceptual Ability Test and Reading Comprehension Test items are developed by external consultants. These items undergo the same review and pre-testing process outlined above. The pretest items are not included in the scoring of the test.

Test construction teams are also responsible for selecting the items included on each edition of the test. This determination is based on meeting content specifications and various standards of item quality. Item quality is evaluated by considering an item's performance when administered to examinees. Two statistics in particular are of chief interest: the difficulty of the item and its discrimination index.

Item difficulty is represented by the percent of individuals who answered the item correctly. The difficulty level of the item is thus inversely related to the percentage of examinees who answer the item correctly; as this percentage increases the difficulty of the item decreases. In short, the more examinees who answer an item correctly, the less difficult the item. The recommended item difficulty level range for DAT items is between 40 and 89 percent; mean item difficulties tend toward the upper end of this range.

The discrimination index is essentially a point-biserial correlation coefficient. The coefficient associated with an item represents the correlation between scores on that item (correct or incorrect) and the total score on that particular test. A low correlation coefficient (e.g., 0.01) would indicate that the average test score of individuals who answered the item correctly was roughly the same as the average score of individuals who answered the item incorrectly. In this case, item performance would be unrelated to overall test performance, thus indicating that the item does not discriminate and should therefore be discarded. A higher correlation coefficient (e.g., 0.45) would indicate that the item can discriminate successfully between high scoring and low scoring examinees. Items with strong discrimination index values make a meaningful contribution to a test's ability to rank order examinees according to the ability being measured, and they also contribute greatly to the reliability of the test.

Items not having satisfactory difficulty levels or discrimination indices are either revised or discarded.

Scoring the Dental Admission Test

Each test in the DAT battery yields a raw score, which is the sum of the examinee's correct answers. The raw score is converted to a standard score so that it is possible to compare an examinee's performance across different editions of the examination.

Since the adoption of the Rasch psychometric model by the DAT program in 1988, each test within the DAT battery contains a set of anchor items which has been used in previous administrations of the test. The Rasch difficulty parameters for these items are used to equate the test. The conversion of raw scores to the standard score scale is based on the underlying log ability scale used by the Rasch psychometric model (Rasch, 1960; Wright, 1977; Wright & Stone, 1979). The log ability scale offers several advantages. First, it makes no assumptions about the underlying distribution of scores. Second, person ability and item difficulty are on a common metric that enables interpretation of log abilities in terms of the skills or tasks represented on the tests. Third, the log ability scale is an interval scale by nature. This means that the amount of ability represented by the difference between the scores of 3 and 4 is the same as the amount of ability represented by the difference between the scores of 16 and 17. A complete description of the new standard score scale can be found in Smith, Kramer, and Kubiak (1988), and a description of equating procedures can be found in Larkin (1992).

Because the current standard score scale was first used with the October 1988 test edition, the cumulative frequency distributions for the October 1988 test results are provided in order to facilitate comparison among groups (See Tables 1-8). For the Reading Comprehension Test, the cumulative frequency distribution for the base year (i.e., April 1989) for that test is presented. Frequency distributions for 2021 are also supplied in the same tables, to facilitate comparison.

Sources of Validity Evidence for the Dental Admission Testing Program

For any testing program, validity is the most important consideration. Validity refers to the degree to which logic and evidence support the use of test scores for making critical decisions, such as admission of examinees to dental education programs. National testing standards provide useful guidance to testing organizations that can help improve validation efforts. It is important to follow these standards and provide the corresponding evidence. Sources of validity evidence for the DAT include reliability evidence, content validity evidence, and external correlational evidence.

Reliability Evidence

Reliability refers to the extent to which test scores are free from random sources of measurement error, providing consistent, stable, and precise measurement (e.g., yielding the same results from one test administration to another). Reliability can be assessed using a variety of methods, each of which addresses different sources of error. For purposes of the DAT Program, a measure of internal consistency reliability, KR₂₀, is used for the discipline-based scores, and a composite reliability estimate is calculated for the Academic Average. Reliability estimates for the DAT score for 2021 are provided below.

DAT Score Reliability: 2021 Administrations

Score	Reliability
Academic Average	.95 to .96
Survey of the Natural Sciences	.93 to .95
Perceptual Ability Test	.90 to .93
Reading Comprehension Test	.75 to .83
Quantitative Reasoning Test	.84 to .88

Note. The table provides the range of reliability coefficients calculated across examination forms.

Content Validity Evidence

Content relevance and representativeness, narrowly defined, refers to the quality of the sample of content from a specific content domain. It is based on professional judgments about test content and the content domain. For example, content found in the DAT's Survey of the Natural Sciences covers a content domain that includes general biology, and general and organic chemistry as typically presented in the undergraduate curriculum in predental courses. For the Dental Admission Test battery, content validity evidence is assessed primarily by the evaluation and judgment of TCT members, who are subject matter experts. TCT members judge the appropriateness, relevance, and representativeness of test content relative to the content domain. Reading Comprehension content validity assessment is a collaborative process between basic science undergraduate faculty and experts in reading comprehension passage development and item writing.

External Correlational Evidence

External correlational evidence is also obtained to determine the extent to which important outcomes can be predicted from test performance. For example, test performance should be related to future performance in dental school. Correlational evidence can also be useful in enhancing one's understanding of the psychological constructs involved, and the relationship among similar and dissimilar constructs as they are assessed via different methods (Messick, 1989, pp. 16-46).

The Department of Testing Services uses meta-analytic techniques to study the relationship between DAT scores and dental school grades. In contrast to the early days of the DAT Program, there are currently far more individuals that complete the DAT, and far more schools with dental education programs. In the 2020-2021 academic year, there were 67 fully operational, accredited dental schools in the United States. Among these, 66 dental schools had 25,381 students enrolled. Table 10 presents the corrected correlation coefficients generated from the most recent meta-analysis involving a sampling of these schools. The correlations indicate that DAT scores are positively correlated with performance in the first year of dental school.

Other Information Available Regarding the Dental Admission Test

- A. Dental Admission Test (DAT) 2021 Program Guide. This publication provides policies and procedures related to the administration of the DAT, along with information concerning content specifications and preparation materials.
- B. Dental Admission Test Validity Study 2018-2020 Data. This is the most recent validity study for the DAT. This study examined the empirical relationship between various predictors (i.e., DAT

- scores and predental GPAs) and student performance during the first two years of dental school.
- C. Dental Admission Test (DAT) Examinee Information 2021. This report provides general information concerning the self-reported demographic characteristics of individuals who participated in the testing program. The information is presented at an aggregate level, and includes breakdowns based on the following: gender, ethnicity, parents' income/ occupations/ethnicity, undergraduate major, GPA, and whether the examinee took a review course.
- D. The DAT and ADAT Programs: Overview of Policies and Procedures Supporting and Promoting Fairness. This report describes the policies and procedures undertaken in support of the fairness of the DAT and the Advanced Dental Admission Test (ADAT).

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Table 1
Dental Admission Test
Quantitative Reasoning
Cumulative Percentile Distribution

	Octob	per 1988 †		2011	:	2016	:	2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
								_
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
8	0.1	0.2	0.0	0.1	0.0	0.1	0.1	0.1
9	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.2
10	0.6	0.8	0.4	0.6	0.4	0.7	0.4	0.7
11	1.7	2.5	1.1	1.7	1.1	1.7	1.0	1.7
12	5.2	7.7	2.3	4.0	1.9	3.6	2.3	3.9
13	9.8	17.5	4.4	8.4	3.8	7.4	4.1	8.0
14	12.6	30.2	7.9	16.3	7.4	14.8	7.4	15.5
15	16.1	46.3	10.3	26.6	10.2	25.1	8.9	24.4
16	19.3	65.6	15.5	42.1	12.9	38.0	9.6	34.0
17	12.1	77.7	13.6	55.7	11.7	49.7	14.5	48.6
18	9.2	86.9	12.3	68.0	13.8	63.5	10.6	59.2
19	8.1	94.9	12.4	80.3	11.8	75.3	11.1	70.3
20	2.0	96.9	6.3	86.7	6.9	82.2	5.8	76.1
21	1.9	98.8	6.3	93.0	6.3	88.5	7.1	83.1
22	0.6	99.4	2.9	95.9	4.3	92.8	4.2	87.4
23	0.2	99.7	0.8	96.7	2.5	95.4	4.3	91.7
24	0.3	100.0	1.8	98.5	1.4	96.8	3.2	94.9
25	0.0	100.0	0.1	98.6	0.6	97.4	0.8	95.7
26	0.0	100.0	0.6	99.2	0.8	98.2	1.2	96.8
27	0.0	100.0	0.3	99.6	0.6	98.8	1.6	98.4
28	0.0	100.0	0.0	99.6	0.0	98.8	0.1	98.5
29	0.0	100.0	0.0	99.6	0.6	99.4	0.0	98.5
30	0.0	100.0	0.4	100.0	0.6	100.0	1.5	100.0
Mean	15.75		17.29		17.71		18.12	
SD	2.39		3.00		3.32		3.73	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 2
Dental Admission Test
Reading Comprehension
Cumulative Percentile Distribution

Score	Apri Percent	il 1989 † Cumulative Percent	Percent	2011 Cumulative Percent	Percent	2016 Cumulative Percent	Percent	2021 Cumulative Percent
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 9	0.0	0.0	0.0 0.0	0.0 0.1	0.0 0.0	0.0 0.0	0.0	0.0 0.1
10	0.0 0.1	0.0 0.2	0.0	0.1	0.0	0.0	0.0 0.1	0.1
11	0.1	1.0	0.1	0.1	0.0	0.1	0.1	0.2
12	1.2	2.2	0.1	0.6	0.1	0.4	0.2	0.3
13	2.1	4.3	0.4	1.5	0.2	0.7	0.3	1.4
14	3.6	7.9	2.2	3.7	1.1	1.8	1.6	3.0
15	8.6	16.5	4.7	8.3	2.6	4.4	3.3	6.3
16	9.7	26.2	7.2	15.5	4.8	9.2	5.0	11.3
17	13.1	39.3	10.8	26.3	7.6	16.8	8.1	19.5
18	15.7	55.0	11.7	38.0	11.0	27.7	10.1	29.6
19	15.4	70.4	15.4	53.5	12.0	39.8	12.1	41.7
20	12.8	83.2	11.8	65.3	17.2	57.0	14.0	55.7
21	7.0	90.2	11.6	76.8	13.2	70.2	12.0	67.7
22	5.7	95.9	9.5	86.4	12.0	82.2	7.0	74.7
23	1.6	97.4	4.8	91.2	8.2	90.4	9.2	83.9
24	1.1	98.5	3.7	94.9	3.6	94.0	5.0	88.8
25	0.7	99.2	2.7	97.6	3.0	97.0	3.6	92.4
26	0.6	99.9	1.2	98.8	1.8	98.8	3.2	95.6
27	0.0	99.9	0.3	99.1	0.7	99.5	1.1	96.7
28	0.1	100.0	0.7	99.7	0.3	99.8	8.0	97.5
29	0.0	100.0	0.0	99.8	0.1	99.9	0.9	98.4
30	0.0	100.0	0.2	100.0	0.1	100.0	1.6	100.0
Mean	18.12		19.42		20.10		20.34	
SD	2.70		2.96		2.75		3.42	
Count*	2255		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 3
Dental Admission Test
Biology
Cumulative Percentile Distribution

	Octob	per 1988 †		2011	:	2016	:	2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
9	0.7	1.0	0.0	0.1	0.0	0.1	0.1	0.2
10	2.1	3.1	0.2	0.3	0.1	0.2	0.3	0.5
11	4.6	7.7	0.5	8.0	0.3	0.5	0.7	1.2
12	9.5	17.2	1.2	2.0	0.9	1.4	2.3	3.5
13	12.2	29.4	2.7	4.7	1.9	3.2	4.6	8.0
14	13.4	42.9	5.1	9.8	3.5	6.7	4.9	12.9
15	16.3	59.1	8.2	18.0	7.3	14.0	9.7	22.6
16	10.6	69.8	13.0	31.0	9.5	23.5	11.2	33.7
17	14.0	83.8	14.0	45.0	13.3	36.8	10.3	44.0
18	7.4	91.2	15.3	60.3	14.0	50.9	13.7	57.7
19	4.3	95.5	13.9	74.2	13.8	64.7	10.5	68.1
20	1.7	97.2	12.1	86.2	13.1	77.8	10.5	78.6
21	1.4	98.6	4.9	91.2	7.7	85.4	5.1	83.7
22	0.8	99.4	4.1	95.3	6.0	91.4	6.1	89.8
23	0.3	99.6	1.9	97.2	4.0	95.4	3.5	93.4
24	0.0	99.6	1.7	98.9	2.4	97.8	2.7	96.0
25	0.3	99.9	0.2	99.0	0.4	98.3	1.1	97.1
26	0.0	99.9	0.6	99.6	1.1	99.4	1.3	98.4
27	0.0	99.9	0.1	99.7	0.1	99.5	0.5	99.0
28	0.1	100.0	0.1	99.8	0.3	99.8	0.2	99.2
29	0.0	100.0	0.0	99.8	0.0	99.8	0.0	99.2
30	0.0	100.0	0.2	100.0	0.2	100.0	0.8	100.0
Mean	15.05		17.87		18.53		18.13	
SD	2.66		2.73		2.90		3.45	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 4
Dental Admission Test
General Chemistry
Cumulative Percentile Distribution

	Octob	per 1988 †		2011		2016		2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
7	0.2	0.3	0.0	0.0	0.0	0.1	0.0	0.1
8	0.0	0.3	0.0	0.1	0.0	0.1	0.0	0.1
9	1.1	1.3	0.1	0.2	0.1	0.2	0.2	0.3
10	1.5	2.9	0.2	0.4	0.3	0.6	0.5	8.0
11	4.9	7.7	0.7	1.0	0.4	1.0	1.1	1.9
12	8.9	16.6	1.6	2.6	1.4	2.5	2.3	4.2
13	10.3	26.9	3.3	5.9	2.6	5.0	4.1	8.4
14	12.9	39.8	5.9	11.8	4.3	9.3	6.2	14.5
15	12.9	52.7	7.6	19.4	7.3	16.6	7.7	22.3
16	11.6	64.3	10.1	29.5	9.8	26.5	8.4	30.7
17	10.6	74.9	12.0	41.5	10.6	37.1	12.0	42.7
18	9.9	84.8	14.4	55.8	11.6	48.6	9.0	51.8
19	4.5	89.3	9.2	65.0	15.4	64.0	11.0	62.7
20	3.2	92.5	10.9	75.9	9.1	73.2	10.3	73.0
21	3.4	95.9	8.1	84.1	8.5	81.7	7.8	80.7
22	2.1	98.1	6.1	90.1	7.1	88.8	7.6	88.3
23	1.1	99.1	3.5	93.6	5.2	94.0	0.8	89.1
24	0.0	99.1	2.2	95.9	2.6	96.5	3.9	93.1
25	0.0	99.1	1.6	97.5	0.6	97.1	1.8	94.8
26	0.7	99.8	1.0	98.5	1.4	98.5	1.8	96.6
27	0.0	99.8	0.1	98.6	0.8	99.3	0.5	97.2
28	0.0	99.8	0.3	98.9	0.1	99.4	1.7	98.8
29	0.2	100.0	0.9	99.8	0.1	99.5	0.0	98.8
30	0.0	100.0	0.2	100.0	0.5	100.0	1.2	100.0
Mean	15.54		18.34		18.60		18.49	
SD	3.14		3.34		3.28		3.86	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 5
Dental Admission Test
Organic Chemistry
Cumulative Percentile Distribution

	Octob	per 1988 †	:	2011	:	2016	:	2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
					1		1	
1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
3	0.2	0.3	0.0	0.1	0.0	0.1	0.0	0.1
4	0.0	0.3	0.0	0.1	0.0	0.1	0.0	0.1
5	0.0	0.3	0.0	0.1	0.0	0.1	0.0	0.1
6	0.2	0.4	0.0	0.1	0.0	0.1	0.0	0.1
7	0.4	8.0	0.0	0.1	0.0	0.1	0.1	0.2
8	0.5	1.4	0.0	0.1	0.1	0.2	0.1	0.2
9	3.2	4.6	0.2	0.3	0.2	0.4	0.3	0.5
10	2.9	7.5	0.4	0.7	0.5	1.0	0.9	1.4
11	7.6	15.1	1.6	2.3	1.1	2.1	1.7	3.1
12	10.2	25.2	2.4	4.7	3.0	5.1	3.8	6.9
13	16.0	41.3	3.6	8.3	3.4	8.5	4.5	11.4
14	11.3	52.6	5.6	14.0	5.1	13.5	5.9	17.3
15	10.3	62.9	8.3	22.3	7.5	21.0	8.3	25.5
16	14.3	77.1	11.0	33.2	9.5	30.5	8.8	34.3
17	4.4	81.5	12.3	45.5	8.3	38.8	8.5	42.8
18	7.6	89.2	8.4	53.9	10.7	49.5	11.6	54.3
19	3.4	92.6	13.2	67.1	11.0	60.5	9.1	63.4
20	2.3	94.9	9.4	76.5	11.3	71.8	10.4	73.8
21	2.3	97.2	8.2	84.7	7.8	79.6	7.2	81.0
22	1.6	98.8	4.2	88.8	5.7	85.3	6.6	87.6
23	0.0	98.8	4.5	93.3	4.8	90.1	3.0	90.6
24	1.0	99.8	1.4	94.7	3.4	93.6	3.0	93.6
25	0.0	99.8	2.4	97.1	2.0	95.6	0.6	94.1
26	0.0	99.8	0.5	97.6	1.2	96.8	3.5	97.6
27	0.2	100.0	0.5	98.1	1.4	98.2	0.6	98.2
28	0.0	100.0	1.0	99.1	0.0	98.2	0.0	98.2
29	0.0	100.0	0.7	99.8	0.7	99.0	0.2	98.4
30	0.0	100.0	0.2	100.0	1.0	100.0	1.6	100.0
Mean	14.58		18.17		18.60		18.25	
SD	3.25		3.60		3.85		4.02	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 6
Dental Admission Test
Survey of the Natural Sciences
Cumulative Percentile Distribution

	Octob	per 1988 †		2011	:	2016	:	2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
10	1.1	1.2	0.1	0.1	0.0	0.1	0.1	0.2
11	4.0	5.2	0.3	0.4	0.2	0.3	0.6	8.0
12	7.7	13.0	1.0	1.4	1.0	1.3	2.1	2.9
13	12.5	25.4	2.7	4.1	2.0	3.3	4.0	6.9
14	18.4	43.8	5.6	9.6	4.1	7.5	6.6	13.5
15	14.3	58.1	8.5	18.2	7.2	14.7	7.8	21.3
16	14.0	72.2	11.5	29.7	10.1	24.8	10.7	32.0
17	11.4	83.5	14.4	44.0	12.2	37.0	11.5	43.5
18	7.7	91.3	14.6	58.7	14.0	51.0	12.9	56.3
19	5.0	96.3	14.6	73.2	14.4	65.4	10.7	67.0
20	1.5	97.8	10.1	83.3	12.3	77.7	9.9	77.0
21	1.1	98.9	7.5	90.8	8.9	86.6	8.3	85.3
22	0.8	99.6	4.5	95.3	6.2	92.9	5.8	91.1
23	0.1	99.7	2.0	97.4	3.3	96.2	3.4	94.5
24	0.2	99.8	1.3	98.7	2.0	98.2	2.5	96.9
25	0.1	99.9	0.7	99.4	0.8	99.1	1.1	98.1
26	0.1	100.0	0.3	99.7	0.7	99.7	0.9	99.0
27	0.0	100.0	0.1	99.9	0.1	99.9	0.5	99.4
28	0.0	100.0	0.1	99.9	0.1	100.0	0.2	99.7
29	0.0	100.0	0.0	100.0	0.0	100.0	0.1	99.8
30	0.0	100.0	0.0	100.0	0.0	100.0	0.2	100.0
Mean	15.14		17.96		18.44		18.15	
SD	2.43		2.69		2.80		3.26	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 7
Dental Admission Test
Perceptual Ability
Cumulative Percentile Distribution

	Octob	per 1988 †	:	2011		2016		2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
10	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1
11	1.4	1.7	0.4	0.7	0.2	0.3	0.2	0.3
12	3.4	5.1	0.9	1.5	0.5	0.8	0.8	1.1
13	7.6	12.7	2.2	3.8	1.2	2.0	1.9	3.0
14	14.3	27.0	3.7	7.5	2.8	4.9	3.9	6.9
15	14.5	41.5	6.3	13.8	5.2	10.1	6.3	13.2
16	18.4	59.8	8.3	22.1	8.0	18.1	8.9	22.1
17	10.9	70.8	10.9	33.0	11.9	30.0	11.3	33.3
18	11.2	81.9	12.6	45.6	14.7	44.7	14.1	47.5
19	8.1	90.0	14.8	60.4	15.2	59.9	13.7	61.2
20	4.1	94.1	12.5	73.0	15.0	74.8	10.9	72.1
21	2.7	96.8	9.7	82.7	11.6	86.4	8.9	81.0
22	1.4	98.2	7.9	90.5	6.8	93.2	7.3	88.3
23	1.0	99.2	4.4	95.0	3.4	96.6	5.1	93.4
24	0.5	99.7	2.7	97.6	1.9	98.6	2.1	95.6
25	0.2	99.9	1.2	98.8	0.7	99.3	2.3	97.9
26	0.1	100.0	0.7	99.5	0.4	99.7	0.7	98.6
27	0.0	100.0	0.3	99.8	0.2	99.9	0.7	99.3
28	0.0	100.0	0.0	99.8	0.1	100.0	0.3	99.6
29	0.0	100.0	0.0	99.9	0.0	100.0	0.0	99.6
30	0.0	100.0	0.1	100.0	0.0	100.0	0.4	100.0
		-		· -		· -		
Mean	16.21		18.75		18.80		18.86	
SD	2.58		2.94		2.58		3.09	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 8
Dental Admission Test
Academic Average
Cumulative Percentile Distribution

	Octob	per 1988 †		2011	:	2016	:	2021
		Cumulative		Cumulative		Cumulative		Cumulative
Score	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
	•							
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
10	0.4	0.5	0.0	0.1	0.0	0.1	0.0	0.1
11	1.7	2.1	0.1	0.2	0.1	0.2	0.2	0.3
12	5.2	7.3	0.5	0.7	0.4	0.6	0.8	1.1
13	11.3	18.7	1.8	2.5	1.1	1.7	2.5	3.6
14	16.0	34.6	3.7	6.2	2.9	4.6	4.0	7.6
15	16.9	51.5	6.9	13.1	5.3	9.9	6.9	14.5
16	16.7	68.2	11.0	24.1	9.2	19.1	9.7	24.1
17	12.8	81.0	14.6	38.7	13.0	32.1	12.4	36.5
18	9.7	90.6	16.7	55.4	15.3	47.4	13.6	50.2
19	5.0	95.7	15.3	70.7	15.6	63.0	12.8	63.0
20	2.3	97.9	12.4	83.2	13.4	76.5	10.9	73.8
21	1.4	99.4	7.7	90.9	10.1	86.5	8.9	82.7
22	0.4	99.8	4.6	95.5	6.3	92.8	6.3	89.1
23	0.2	99.9	2.5	98.0	3.7	96.5	4.4	93.5
24	0.1	100.0	1.2	99.2	2.0	98.5	2.9	96.4
25	0.0	100.0	0.5	99.7	1.0	99.5	1.8	98.1
26	0.0	100.0	0.2	99.9	0.4	99.9	1.2	99.3
27	0.0	100.0	0.1	100.0	0.1	100.0	0.4	99.7
28	0.0	100.0	0.0	100.0	0.0	100.0	0.2	99.9
29	0.0	100.0	0.0	100.0	0.0	100.0	0.1	100.0
30	0.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0
Mean	15.53		18.22		18.71		18.66	
SD	2.24		2.47		2.56		3.03	
Count*	2630		13182		12733		13242	

[†] Base Exam

^{*} Number of examinations given to examinees

Table 9
Dental Admission Test
Standard Score Analysis
2021

N = 13,242	Number of Items	Mean	S.D
Quantitative Reasoning	40	18.12	3.73
Reading Comprehension	50	20.34	3.42
Biology	40	18.13	3.45
General Chemistry	30	18.49	3.86
Organic Chemistry	30	18.25	4.02
Survey of the Natural Sciences	100	18.15	3.26
Perceptual Ability	90	18.86	3.09
Academic Average		18.66	3.03

Table 10
First-Year Class
Corrected Correlation Coefficients (Pearson R)
Meta-Analysis Results
School Year 2018-2020

	Biomedical Science	Preclinical Operative Technique	First Year GPA
Predental GPAs			
Total [†]	0.35	0.28	0.38
Science [†]	0.33	0.28	0.34
DAT Scores			
Quantitative Reasoning [‡]	0.27	0.24	0.29
Reading Comprehension [‡]	0.27	0.23	0.29
Biology [‡]	0.41	0.18	0.37
General Chemistry [‡]	0.38	0.24	0.37
Organic Chemistry [‡]	0.38	0.22	0.36
Survey of the Natural Sciences‡	0.56	0.33	0.53
Perceptual Ability [‡]	0.26	0.38	0.31
Academic Average [‡]	0.60	0.40	0.58
Multiple R			
DAT [†]	0.47	0.41	0.47
DAT and GPAs [†]	0.55	0.48	0.55

[†] Correlation is corrected for unreliability in dental school grades.

[‡] Correlation is corrected for range restriction and unreliability in dental school grades.

Table 11

Dental Admission Test
Scores for First Time Test Takers and Repeaters
2021

	First Time	First Time Test Takers		eaters
Subject	Mean	Std. Dev.	Mean	Std. Dev.
Quantitative Reasoning	18.27	3.77	16.74	2.88
Reading Comprehension	20.45	3.43	19.37	3.16
Biology	18.29	3.49	16.62	2.61
General Chemistry	18.67	3.91	16.80	2.84
Organic Chemistry	18.43	4.07	16.56	2.96
Survey of the Natural Sciences	18.32	3.30	16.60	2.28
Perceptual Ability	18.96	3.12	17.98	2.58
Academic Average	18.82	3.07	17.21	2.08

Table 12
Dental Admission Test
Quantitative Reasoning by Gender
2021

Score	Females	Males	Total	Count
4	0.00/	0.00/	0.00/	4
1	0.0%	0.0%	0.0%	1
2	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	1
7	0.0%	0.0%	0.0%	2
8	0.1%	0.1%	0.1%	8
9	0.1%	0.1%	0.1%	16
10	0.6%	0.2%	0.4%	59
11	1.3%	0.5%	1.0%	132
12	2.9%	1.3%	2.3%	297
13	5.1%	2.6%	4.1%	545
14	9.2%	4.8%	7.5%	985
15	10.2%	6.9%	8.9%	1179
16	10.8%	7.9%	9.7%	1273
17	14.8%	14.0%	14.5%	1915
18	10.5%	10.8%	10.6%	1402
19	10.3%	12.4%	11.1%	1465
20	5.1%	7.0%	5.8%	765
21	6.1%	8.4%	7.0%	926
22	3.3%	5.7%	4.3%	561
23	3.3%	5.7%	4.3%	562
24	2.6%	4.1%	3.2%	419
25	0.5%	1.1%	0.8%	102
26	1.0%	1.4%	1.2%	154
27	1.1%	2.3%	1.6%	205
28	0.0%	0.2%	0.1%	12
29	0.0%	0.0%	0.0%	0
30	1.0%	2.4%	1.5%	198
	61.1%	38.9%	100.0%	13184
Mean	17.55	19.01	18.11	
SD	3.56	3.80	3.72	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 13
Dental Admission Test
Reading Comprehension by Gender
2021

Score	Females	Males	Total	Count
1	0.0%	0.0%	0.0%	1
2	0.0%	0.0%	0.0%	1
3	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	1
7	0.0%	0.0%	0.0%	1
8	0.0%	0.0%	0.0%	1
9	0.0%	0.0%	0.0%	2
10	0.1%	0.1%	0.1%	14
11	0.3%	0.1%	0.2%	24
12	0.4%	0.2%	0.3%	46
13	0.9%	0.5%	0.7%	96
14	1.7%	1.5%	1.6%	210
15	3.5%	3.0%	3.3%	436
16	5.1%	4.8%	5.0%	660
17	8.8%	7.1%	8.1%	1072
18	10.5%	9.6%	10.1%	1337
19	12.4%	11.8%	12.1%	1601
20	13.8%	14.2%	14.0%	1841
21	11.9%	12.3%	12.1%	1591
22	6.7%	7.4%	7.0%	918
23	8.7%	9.7%	9.1%	1203
24	4.8%	5.3%	5.0%	658
25	3.4%	3.8%	3.6%	470
26	2.9%	3.6%	3.2%	421
27	1.0%	1.2%	1.1%	145
28	0.7%	0.9%	0.8%	106
29	0.9%	0.9%	0.9%	120
30	1.5%	1.7%	1.6%	208
	61.1%	38.9%	100.0%	13184
Mean	20.20	20.57	20.34	
SD	3.43	3.40	3.42	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 14
Dental Admission Test
Biology by Gender
2021

Score	Females	Males	Total	Count
	0.00/	0.00/	0.00/	•
1	0.0%	0.0%	0.0%	3
2	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	1
5	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	1
8	0.0%	0.0%	0.0%	1
9	0.1%	0.0%	0.1%	14
10	0.4%	0.2%	0.3%	40
11	0.9%	0.5%	0.8%	99
12	2.9%	1.3%	2.3%	300
13	5.5%	3.2%	4.6%	601
14	5.4%	4.1%	4.9%	645
15	10.5%	8.4%	9.7%	1278
16	11.6%	10.4%	11.1%	1469
17	10.3%	10.2%	10.3%	1354
18	13.8%	13.5%	13.7%	1804
19	10.4%	10.7%	10.5%	1381
20	9.6%	11.8%	10.5%	1381
21	4.5%	6.0%	5.1%	670
22	5.6%	6.9%	6.1%	806
23	3.0%	4.2%	3.5%	459
24	2.4%	3.1%	2.7%	354
25	0.8%	1.6%	1.1%	144
26	1.2%	1.6%	1.3%	174
27	0.4%	0.7%	0.5%	67
28	0.2%	0.3%	0.2%	32
29	0.0%	0.0%	0.0%	0
30	0.5%	1.2%	0.8%	106
	61.1%	38.9%	100.0%	13184
Mean	17.79	18.66	18.13	
SD	3.39	3.47	3.45	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 15
Dental Admission Test
General Chemistry by Gender
2021

Score	Females	Males	Total	Count
1	0.1%	0.0%	0.1%	7
2	0.0%	0.0%	0.1%	0
3	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	3
8	0.0%	0.0%	0.0%	3
9	0.1%	0.2%	0.2%	24
10	0.7%	0.3%	0.5%	70
11	1.4%	0.6%	1.1%	146
12	3.0%	1.3%	2.3%	308
13	4.9%	2.8%	4.1%	543
14	7.3%	4.5%	6.2%	818
15	8.6%	6.4%	7.7%	1021
16	9.1%	7.5%	8.4%	1114
17	12.6%	11.1%	12.0%	1582
18	9.0%	9.1%	9.0%	1190
19	11.0%	10.9%	11.0%	1446
20	9.7%	11.2%	10.3%	1354
21	6.8%	9.3%	7.8%	1025
22	6.4%	9.2%	7.5%	991
23	0.7%	1.0%	0.8%	106
24	3.2%	5.0%	3.9%	517
25	1.5%	2.3%	1.8%	235
26	1.2%	2.8%	1.8%	237
27	0.4%	0.7%	0.5%	67
28	1.2%	2.4%	1.7%	220
29	0.0%	0.0%	0.0%	0
30	1.0%	1.5%	1.2%	157
	61.1%	38.9%	100.0%	13184
Mean	18.00	19.25	18.48	
SD	3.77	3.87	3.86	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 16
Dental Admission Test
Organic Chemistry by Gender
2021

Score	Females	Males	Total	Count
	0.40/	0.00/	0.40/	40
1	0.1%	0.0%	0.1%	10
2	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	3
6	0.0%	0.0%	0.0%	1
7	0.1%	0.0%	0.1%	8
8	0.0%	0.1%	0.1%	7
9	0.3%	0.2%	0.3%	36
10	1.1%	0.7%	0.9%	120
11	1.9%	1.3%	1.7%	222
12	4.3%	3.1%	3.8%	504
13	5.1%	3.6%	4.5%	598
14	6.7%	4.5%	5.9%	772
15	9.3%	6.6%	8.3%	1090
16	9.3%	8.0%	8.8%	1154
17	9.0%	7.8%	8.5%	1120
18	12.0%	10.8%	11.6%	1523
19	9.0%	9.2%	9.1%	1196
20	9.6%	11.7%	10.4%	1377
21	6.3%	8.5%	7.2%	946
22	5.8%	7.6%	6.5%	863
23	2.6%	3.6%	3.0%	392
24	2.5%	3.7%	3.0%	394
25	0.4%	0.8%	0.6%	74
26	2.7%	4.7%	3.5%	460
27	0.4%	0.7%	0.6%	73
28	0.0%	0.0%	0.0%	0
29	0.1%	0.4%	0.2%	32
30	1.2%	2.2%	1.6%	209
30	1.2 /0	2.270	1.070	209
	61.1%	38.9%	100.0%	13184
Mean	17.81	18.94	18.25	
SD	3.91	4.08	4.02	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 17
Dental Admission Test
Survey of the Natural Sciences by Gender
2021

Score	Females	Males	Total	Count
1	0.0%	0.0%	0.0%	3
2	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	1
8	0.0%	0.0%	0.0%	0
9	0.0%	0.0%	0.0%	1
10	0.1%	0.1%	0.1%	16
11	0.8%	0.4%	0.6%	83
12	2.8%	1.1%	2.1%	280
13	4.8%	2.7%	4.0%	525
14	7.8%	4.7%	6.6%	871
15	8.7%	6.4%	7.8%	1032
16	11.1%	10.2%	10.7%	1412
17	12.1%	10.6%	11.5%	1518
18	12.7%	13.1%	12.9%	1695
19	10.6%	10.9%	10.7%	1408
20	9.4%	10.7%	9.9%	1307
21	7.2%	10.0%	8.3%	1092
22	4.8%	7.3%	5.8%	760
23	2.9%	4.2%	3.4%	449
24	1.9%	3.3%	2.5%	325
25	0.9%	1.6%	1.2%	152
26	0.7%	1.3%	0.9%	119
27	0.4%	0.6%	0.5%	61
28	0.1%	0.4%	0.2%	29
29	0.1%	0.2%	0.1%	15
30	0.1%	0.4%	0.2%	30
	61.1%	38.9%	100.0%	13184
Mean	17.75	18.76	18.14	
SD	3.19	3.27	3.26	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 18
Dental Admission Test
Perceptual Ability by Gender
2021

Score	Females	Males	Total	Count
4	0.00/	0.00/	0.00/	4
1	0.0%	0.0%	0.0%	1
2 3	0.0%	0.0%	0.0%	0
	0.0%	0.0% 0.0%	0.0%	0
4	0.0%		0.0%	0
5	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	0
8	0.0%	0.0%	0.0%	0
9	0.0%	0.0%	0.0%	2
10	0.1%	0.0%	0.1%	11
11	0.2%	0.2%	0.2%	29
12	0.9%	0.5%	0.8%	103
13	2.4%	1.2%	1.9%	252
14	4.8%	2.5%	3.9%	513
15	7.2%	4.9%	6.3%	830
16	10.1%	7.0%	8.9%	1173
17	12.1%	10.0%	11.2%	1482
18	15.2%	12.6%	14.2%	1868
19	13.2%	14.5%	13.7%	1810
20	10.3%	11.7%	10.9%	1433
21	8.0%	10.4%	8.9%	1179
22	6.4%	8.7%	7.3%	961
23	4.1%	6.7%	5.1%	673
24	1.6%	2.9%	2.1%	281
25	1.6%	3.3%	2.3%	300
26	0.5%	1.0%	0.7%	91
27	0.5%	1.0%	0.7%	94
28	0.2%	0.5%	0.3%	39
29	0.0%	0.0%	0.0%	0
30	0.4%	0.5%	0.4%	59
	61.1%	38.9%	100.0%	13184
Mean	18.47	19.46	18.86	
SD	3.01	3.11	3.09	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 19
Dental Admission Test
Academic Average by Gender
2021

Score	Females	Males	Total	Count
	0.00/	0.00/	0.09/	0
1	0.0%	0.0%	0.0%	0
2 3	0.0% 0.0%	0.0% 0.0%	0.0% 0.0%	0
3 4	0.0%	0.0%	0.0%	0 0
5	0.0%	0.0%	0.0%	2
6	0.0%	0.0%	0.0%	1
7	0.0%	0.0%	0.0%	0
8	0.0%	0.0%	0.0%	1
9	0.0%	0.0%	0.0%	0
10		0.0%		4
11	0.0%	0.0%	0.0%	
12	0.3%		0.2%	28 112
	1.2%	0.3%	0.8%	
13	3.1%	1.5%	2.5%	328
14	4.8%	2.7%	4.0%	525
15	8.1%	5.0%	6.9%	911
16	10.6%	8.2%	9.7%	1275
17	13.3%	11.1%	12.4%	1639
18	13.9%	13.3%	13.6%	1799
19	12.8%	12.7%	12.8%	1686
20	10.0%	12.4%	10.9%	1436
21	7.8%	10.4%	8.8%	1166
22	5.3%	7.9%	6.3%	831
23	3.6%	5.7%	4.4%	582
24	2.4%	3.5%	2.9%	376
25	1.3%	2.5%	1.8%	236
26	0.8%	1.7%	1.2%	153
27	0.3%	0.7%	0.4%	59
28	0.1%	0.3%	0.2%	25
29	0.0%	0.1%	0.1%	9
30	0.0%	0.0%	0.0%	0
	61.1%	38.9%	100.0%	13184
Mean	18.26	19.28	18.66	
SD	2.98	3.01	3.03	
Count*	8053	5131	13184	

^{*} Number of examinations given to examinees

Table 20
Dental Admission Test
Quantitative Reasoning by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	1
7	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	2
8	0.0%	0.0%	0.0%	0.1%	0.4%	0.0%	0.1%	7
9	0.0%	0.0%	0.0%	0.5%	0.4%	0.1%	0.1%	17
10	0.0%	0.1%	0.0%	1.3%	1.2%	0.2%	0.4%	54
11	2.2%	0.3%	0.0%	3.1%	2.2%	0.6%	1.0%	124
12	2.2%	1.2%	0.0%	6.5%	4.3%	1.2%	2.1%	266
13	6.5%	2.9%	0.0%	11.1%	6.9%	2.7%	4.1%	517
14	8.7%	4.9%	19.5%	16.2%	10.3%	6.2%	7.4%	929
15	19.6%	6.1%	7.3%	15.1%	12.4%	8.2%	8.9%	1121
16	15.2%	7.3%	14.6%	10.9%	11.9%	10.0%	9.7%	1222
17	15.2%	12.9%	14.6%	15.3%	13.9%	15.5%	14.5%	1838
18	15.2%	9.6%	9.8%	6.7%	10.2%	12.0%	10.6%	1342
19	6.5%	12.3%	19.5%	5.3%	8.5%	12.4%	11.2%	1415
20	2.2%	6.7%	7.3%	1.8%	4.1%	6.7%	5.9%	742
21	4.3%	8.7%	0.0%	2.3%	5.5%	7.6%	7.1%	894
22	2.2%	6.0%	2.4%	1.3%	2.8%	4.4%	4.3%	546
23	0.0%	6.1%	0.0%	0.9%	1.8%	4.8%	4.4%	552
24	0.0%	4.9%	0.0%	0.9%	1.3%	3.2%	3.2%	403
25	0.0%	1.1%	0.0%	0.2%	0.6%	0.8%	0.8%	98
26	0.0%	2.2%	2.4%	0.3%	0.4%	0.9%	1.1%	145
27	0.0%	3.1%	0.0%	0.0%	0.6%	1.3%	1.6%	199
28	0.0%	0.2%	0.0%	0.0%	0.1%	0.0%	0.1%	12
29	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
30	0.0%	3.3%	2.4%	0.0%	0.4%	1.2%	1.5%	192
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	16.33	19.40	17.49	15.53	16.69	18.36	18.15	
SD	2.37	4.01	3.23	2.83	3.35	3.42	3.72	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 21
Dental Admission Test
Reading Comprehension by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
2	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
7	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
8	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	1
9	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	2
10	0.0%	0.1%	0.0%	0.3%	0.0%	0.1%	0.1%	14
11	0.0%	0.1%	0.0%	0.5%	0.4%	0.1%	0.2%	23
12	0.0%	0.3%	0.0%	1.1%	0.5%	0.2%	0.3%	44
13	0.0%	0.7%	0.0%	1.5%	0.7%	0.5%	0.6%	81
14	0.0%	1.0%	0.0%	3.7%	2.3%	1.3%	1.6%	196
15	4.3%	2.9%	2.4%	6.3%	5.4%	2.5%	3.4%	424
16	2.2%	4.0%	4.9%	8.1%	6.7%	4.3%	4.9%	617
17	17.4%	7.3%	9.8%	12.7%	10.2%	6.8%	8.0%	1010
18	19.6%	9.8%	14.6%	13.8%	10.9%	9.2%	10.1%	1272
19	21.7%	12.0%	2.4%	13.4%	12.8%	11.7%	12.1%	1527
20	13.0%	14.0%	22.0%	11.7%	12.9%	14.7%	14.0%	1775
21	15.2%	11.8%	7.3%	9.3%	11.3%	13.1%	12.2%	1538
22	4.3%	7.4%	2.4%	4.2%	6.5%	7.5%	7.0%	887
23	0.0%	9.6%	17.1%	6.2%	7.1%	10.2%	9.2%	1168
24	2.2%	5.4%	4.9%	2.8%	3.8%	5.6%	5.0%	637
25	0.0%	3.9%	4.9%	1.5%	2.9%	4.2%	3.7%	462
26	0.0%	4.0%	2.4%	1.4%	1.9%	3.4%	3.2%	402
27	0.0%	1.5%	2.4%	0.6%	0.7%	1.2%	1.1%	143
28	0.0%	0.9%	0.0%	0.0%	0.5%	1.0%	0.8%	101
29	0.0%	1.3%	2.4%	0.2%	0.7%	0.8%	0.9%	110
30	0.0%	1.9%	0.0%	0.3%	1.6%	1.7%	1.6%	201
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	18.89	20.70	20.68	18.77	19.70	20.68	20.37	
SD	1.88	3.46	3.23	3.16	3.45	3.32	3.41	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 22
Dental Admission Test
Biology by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	3
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	1
8	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
9	0.0%	0.1%	0.0%	0.6%	0.1%	0.0%	0.1%	13
10	2.2%	0.2%	0.0%	0.9%	0.5%	0.2%	0.3%	38
11	2.2%	0.6%	0.0%	1.5%	1.5%	0.5%	0.8%	97
12	2.2%	1.4%	0.0%	5.3%	2.8%	1.9%	2.2%	275
13	17.4%	3.2%	4.9%	8.4%	6.2%	4.1%	4.6%	578
14	10.9%	3.2%	4.9%	9.1%	6.5%	4.4%	4.8%	610
15	19.6%	7.4%	17.1%	14.6%	11.3%	9.6%	9.7%	1231
16	19.6%	9.8%	14.6%	13.3%	12.3%	11.2%	11.2%	1411
17	8.7%	9.1%	14.6%	11.3%	10.3%	10.8%	10.3%	1303
18	13.0%	13.2%	12.2%	12.1%	14.1%	14.1%	13.7%	1726
19	0.0%	10.8%	7.3%	8.1%	10.0%	11.0%	10.5%	1325
20	0.0%	11.4%	7.3%	6.1%	9.7%	10.9%	10.4%	1315
21	2.2%	6.6%	0.0%	2.6%	4.2%	5.1%	5.1%	649
22	2.2%	8.0%	7.3%	3.4%	4.5%	6.1%	6.2%	778
23	0.0%	5.1%	7.3%	1.1%	2.1%	3.4%	3.5%	438
24	0.0%	3.4%	2.4%	0.7%	1.7%	3.0%	2.7%	343
25	0.0%	1.4%	0.0%	0.3%	0.8%	1.2%	1.1%	139
26	0.0%	2.4%	0.0%	0.4%	0.5%	1.2%	1.3%	168
27	0.0%	0.8%	0.0%	0.0%	0.2%	0.5%	0.5%	64
28	0.0%	0.4%	0.0%	0.1%	0.1%	0.3%	0.2%	31
29	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
30	0.0%	1.4%	0.0%	0.1%	0.6%	0.6%	0.8%	101
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	15.33	18.94	17.63	16.42	17.41	18.23	18.13	
SD	2.34	3.59	2.93	3.04	3.30	3.32	3.45	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 23
Dental Admission Test
General Chemistry by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.1%	7
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	3
8	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	3
9	0.0%	0.1%	4.9%	0.5%	0.4%	0.1%	0.2%	24
10	0.0%	0.3%	0.0%	1.2%	1.1%	0.4%	0.5%	67
11	4.3%	0.6%	0.0%	3.5%	1.7%	0.7%	1.1%	138
12	4.3%	1.3%	2.4%	6.5%	3.2%	1.8%	2.3%	291
13	13.0%	2.8%	0.0%	8.4%	5.2%	3.7%	4.1%	514
14	21.7%	4.1%	9.8%	10.2%	9.0%	5.7%	6.2%	781
15	15.2%	5.3%	4.9%	13.1%	9.2%	7.6%	7.7%	974
16	13.0%	6.1%	7.3%	11.2%	10.9%	8.6%	8.5%	1073
17	10.9%	10.2%	14.6%	12.1%	14.1%	12.5%	12.1%	1524
18	4.3%	8.4%	7.3%	7.2%	8.8%	9.8%	9.0%	1140
19	4.3%	11.3%	12.2%	9.3%	10.3%	11.4%	11.0%	1390
20	4.3%	11.2%	4.9%	6.7%	8.7%	10.9%	10.2%	1294
21	0.0%	9.8%	7.3%	3.4%	5.2%	8.3%	7.8%	991
22	4.3%	10.6%	17.1%	4.0%	4.9%	7.2%	7.5%	951
23	0.0%	1.3%	0.0%	0.2%	0.8%	0.7%	0.8%	103
24	0.0%	5.2%	4.9%	0.6%	2.4%	4.3%	3.9%	496
25	0.0%	2.6%	0.0%	0.5%	1.4%	1.6%	1.7%	221
26	0.0%	3.0%	0.0%	0.4%	0.7%	1.7%	1.8%	229
27	0.0%	0.7%	0.0%	0.3%	0.5%	0.4%	0.5%	64
28	0.0%	2.9%	2.4%	0.2%	0.7%	1.6%	1.7%	211
29	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
30	0.0%	2.3%	0.0%	0.3%	0.6%	0.9%	1.2%	150
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	15.39	19.64	18.24	16.28	17.42	18.58	18.49	
SD	2.59	3.97	3.94	3.36	3.65	3.67	3.85	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 24
Dental Admission Test
Organic Chemistry by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.3%	0.2%	0.0%	0.1%	9
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	3
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
7	0.0%	0.1%	0.0%	0.2%	0.1%	0.0%	0.1%	7
8	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.1%	7
9	0.0%	0.2%	0.0%	0.9%	0.4%	0.2%	0.3%	36
10	0.0%	0.7%	2.4%	2.2%	1.5%	0.6%	0.9%	115
11	2.2%	1.2%	0.0%	3.6%	2.1%	1.5%	1.7%	215
12	13.0%	3.2%	2.4%	6.4%	5.7%	3.1%	3.8%	482
13	10.9%	3.0%	4.9%	8.1%	5.9%	4.3%	4.5%	575
14	15.2%	4.4%	9.8%	10.7%	6.6%	5.4%	5.8%	738
15	17.4%	6.2%	14.6%	10.9%	9.4%	8.6%	8.3%	1049
16	15.2%	7.3%	7.3%	9.0%	9.7%	9.1%	8.7%	1100
17	8.7%	7.0%	7.3%	10.4%	8.6%	8.9%	8.5%	1075
18	2.2%	11.2%	9.8%	11.5%	12.3%	11.6%	11.6%	1460
19	6.5%	9.4%	9.8%	7.5%	9.3%	9.1%	9.0%	1143
20	2.2%	11.1%	4.9%	7.1%	9.3%	11.2%	10.5%	1327
21	0.0%	8.7%	14.6%	4.0%	6.3%	7.2%	7.2%	909
22	2.2%	8.3%	4.9%	2.9%	4.4%	6.8%	6.5%	820
23	0.0%	3.9%	0.0%	1.4%	2.1%	2.9%	2.9%	368
24	2.2%	4.5%	0.0%	0.7%	1.4%	3.0%	3.0%	377
25	0.0%	0.7%	0.0%	0.2%	0.4%	0.6%	0.6%	70
26	2.2%	5.1%	7.3%	0.9%	2.3%	3.5%	3.5%	447
27	0.0%	0.9%	0.0%	0.2%	0.5%	0.5%	0.6%	70
28	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
29	0.0%	0.3%	0.0%	0.0%	0.3%	0.3%	0.2%	30
30	0.0%	2.6%	0.0%	0.3%	1.0%	1.5%	1.6%	206
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	15.50	19.17	17.78	16.25	17.44	18.36	18.25	
SD	3.13	4.14	3.78	3.64	3.90	3.89	4.03	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 25
Dental Admission Test
Survey of the Natural Sciences by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	3
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
9	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
10	0.0%	0.1%	0.0%	0.5%	0.3%	0.0%	0.1%	15
11	0.0%	0.4%	0.0%	2.1%	1.0%	0.4%	0.6%	79
12	4.3%	1.3%	2.4%	5.6%	3.4%	1.5%	2.1%	266
13	13.0%	2.6%	2.4%	9.0%	5.6%	3.2%	3.9%	494
14	21.7%	4.3%	9.8%	12.1%	9.2%	6.1%	6.6%	840
15	21.7%	5.7%	14.6%	12.1%	8.5%	7.9%	7.8%	988
16	8.7%	8.9%	14.6%	13.3%	12.5%	10.7%	10.7%	1352
17	19.6%	9.8%	2.4%	12.3%	12.4%	12.3%	11.6%	1466
18	2.2%	12.0%	12.2%	11.3%	13.0%	13.7%	12.9%	1628
19	2.2%	10.7%	12.2%	8.0%	10.9%	10.9%	10.6%	1338
20	4.3%	11.6%	7.3%	6.0%	8.4%	10.1%	9.9%	1251
21	0.0%	10.5%	4.9%	3.2%	5.6%	8.9%	8.3%	1052
22	0.0%	8.1%	9.8%	2.5%	3.6%	5.8%	5.8%	732
23	2.2%	4.8%	7.3%	1.0%	2.4%	3.3%	3.4%	426
24	0.0%	3.5%	0.0%	0.6%	1.4%	2.6%	2.5%	315
25	0.0%	1.9%	0.0%	0.1%	0.6%	1.2%	1.2%	148
26	0.0%	1.9%	0.0%	0.2%	0.4%	0.7%	0.9%	114
27	0.0%	0.9%	0.0%	0.0%	0.2%	0.4%	0.5%	61
28	0.0%	0.5%	0.0%	0.1%	0.1%	0.1%	0.2%	27
29	0.0%	0.2%	0.0%	0.0%	0.1%	0.1%	0.1%	14
30	0.0%	0.4%	0.0%	0.0%	0.2%	0.2%	0.2%	28
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	15.41	19.05	17.76	16.29	17.34	18.24	18.15	
SD	2.23	3.36	3.06	2.89	3.14	3.10	3.26	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 26
Dental Admission Test
Perceptual Ability by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
9	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	2
10	0.0%	0.0%	0.0%	0.3%	0.2%	0.0%	0.1%	10
11	0.0%	0.2%	0.0%	0.8%	0.1%	0.1%	0.2%	27
12	0.0%	0.6%	0.0%	3.1%	1.1%	0.3%	0.8%	95
13	0.0%	1.3%	0.0%	6.4%	2.2%	1.3%	1.9%	237
14	13.0%	2.9%	2.4%	10.2%	5.3%	2.7%	3.9%	488
15	6.5%	4.7%	4.9%	14.6%	8.4%	5.0%	6.2%	787
16	19.6%	7.3%	2.4%	15.3%	10.3%	8.3%	9.0%	1135
17	13.0%	9.8%	26.8%	14.4%	12.5%	11.0%	11.2%	1417
18	21.7%	12.9%	14.6%	13.9%	14.6%	14.6%	14.1%	1782
19	13.0%	13.9%	12.2%	9.0%	14.0%	14.3%	13.7%	1726
20	2.2%	11.6%	7.3%	5.3%	10.3%	11.8%	10.9%	1379
21	6.5%	10.1%	14.6%	3.4%	7.0%	9.9%	9.0%	1132
22	2.2%	8.5%	7.3%	1.7%	5.9%	8.1%	7.3%	923
23	0.0%	7.1%	2.4%	0.6%	3.7%	5.4%	5.2%	654
24	2.2%	3.1%	2.4%	0.4%	0.9%	2.3%	2.2%	274
25	0.0%	3.1%	0.0%	0.3%	2.1%	2.3%	2.3%	292
26	0.0%	0.9%	0.0%	0.0%	0.3%	0.9%	0.7%	90
27	0.0%	0.9%	0.0%	0.0%	0.6%	0.8%	0.7%	92
28	0.0%	0.4%	2.4%	0.0%	0.3%	0.3%	0.3%	39
29	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
30	0.0%	0.8%	0.0%	0.2%	0.1%	0.4%	0.5%	57
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	17.35	19.44	18.95	16.57	18.31	19.16	18.88	
SD	2.28	3.16	2.70	2.58	2.96	2.97	3.09	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 27
Dental Admission Test
Academic Average by Ethnicity
2021

Score	American Indian	Asian	Native Hawaiian	Black	Multi	White	Total	Count
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
5	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	2
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1
7	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
8	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1
9	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
10	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	3
11	0.0%	0.1%	0.0%	0.8%	0.6%	0.1%	0.2%	27
12	2.2%	0.5%	0.0%	3.2%	1.5%	0.4%	0.8%	106
13	4.3%	1.6%	2.4%	7.4%	4.1%	1.5%	2.4%	307
14	6.5%	2.5%	4.9%	9.2%	6.8%	2.9%	3.9%	496
15	26.1%	4.8%	9.8%	14.3%	10.2%	5.6%	6.9%	870
16	21.7%	7.2%	9.8%	14.1%	11.1%	9.6%	9.6%	1213
17	17.4%	9.0%	12.2%	15.4%	14.0%	13.3%	12.4%	1572
18	10.9%	12.8%	19.5%	13.3%	13.6%	14.2%	13.7%	1727
19	2.2%	12.1%	9.8%	9.2%	12.6%	14.0%	12.8%	1619
20	6.5%	11.7%	4.9%	4.7%	8.9%	12.2%	10.9%	1377
21	0.0%	11.7%	9.8%	3.7%	6.3%	9.1%	8.9%	1127
22	0.0%	8.8%	4.9%	2.3%	4.2%	6.5%	6.4%	808
23	2.2%	6.1%	9.8%	1.6%	2.8%	4.4%	4.4%	556
24	0.0%	4.2%	2.4%	0.3%	1.8%	2.9%	2.9%	362
25	0.0%	3.3%	0.0%	0.3%	0.5%	1.6%	1.8%	227
26	0.0%	2.2%	0.0%	0.0%	0.6%	1.0%	1.2%	149
27	0.0%	0.8%	0.0%	0.0%	0.1%	0.5%	0.5%	58
28	0.0%	0.4%	0.0%	0.0%	0.1%	0.1%	0.2%	22
29	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	9
30	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0
	0.4%	27.3%	0.3%	9.2%	13.5%	49.4%	100.0%	12639
Mean	16.26	19.56	18.39	16.64	17.73	18.84	18.68	
SD	2.05	3.12	2.84	2.62	2.93	2.82	3.03	
Count*	46	3452	41	1161	1701	6238	12639	

^{*} Number of examinations given to examinees

Table 28
Dental Admission Test
DAT scores by Examinees of Hispanic Origin
2021

Score	QRT	RCT	BIO	GCH	ОСН	SNS	PAT	AA
1	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%
2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
7	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%
8	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
9	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
10	1.5%	0.0%	0.8%	0.4%	1.5%	0.4%	0.4%	0.4%
11	1.5%	0.4%	0.4%	2.7%	1.1%	0.4%	0.8%	0.0%
12	9.8%	0.0%	6.1%	5.3%	6.1%	4.5%	2.7%	1.5%
13	8.0%	3.8%	6.1%	7.2%	7.2%	8.7%	3.4%	7.2%
14	14.0%	2.7%	8.7%	12.1%	8.3%	8.7%	6.8%	6.8%
15	15.2%	1.9%	12.5%	11.7%	8.0%	11.0%	11.4%	12.1%
16	10.6%	11.4%	12.9%	11.0%	9.5%	15.9%	7.2%	16.3%
17	13.3%	15.5%	10.2%	9.8%	9.1%	6.8%	12.1%	13.6%
18	9.1%	15.9%	12.9%	8.7%	14.4%	12.5%	16.3%	12.9%
19	6.8%	14.4%	9.1%	7.2%	8.0%	9.5%	15.2%	9.5%
20	2.7%	9.8%	9.1%	8.7%	8.0%	8.7%	9.1%	8.3%
21	3.8%	8.3%	2.7%	3.8%	6.1%	6.4%	6.8%	5.7%
22	1.9%	5.3%	3.4%	6.1%	5.3%	3.0%	5.7%	2.3%
23	0.0%	4.9%	2.3%	0.4%	3.0%	1.9%	1.1%	1.5%
24	0.8%	1.9%	1.5%	1.9%	1.9%	0.4%	0.4%	1.1%
25	0.0%	0.4%	0.0%	1.1%	0.4%	0.8%	0.0%	0.4%
26	0.0%	1.1%	0.0%	0.8%	0.8%	0.0%	0.0%	0.4%
27	0.4%	0.0%	0.4%	0.4%	0.4%	0.0%	0.4%	0.0%
28	0.0%	0.8%	0.4%	0.0%	0.0%	0.4%	0.0%	0.0%
29	0.0%	1.1%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%
30	0.4%	0.4%	0.4%	0.8%	0.0%	0.0%	0.4%	0.0%
Mean	15.82	18.77	16.94	16.95	17.18	16.96	17.63	17.14
SD	3.00	3.07	3.21	3.56	3.69	3.03	2.85	2.7
Count*	264	264	264	264	264	264	264	264

^{*} Number of examinations given to examinees

Figure 1 Survey of the Natural Sciences S

Survey of the Natural Sciences
Biology Content Specifications
40 items

- I. Cell and Molecular Biology
 - Α. Origin of Life
 - B. Cell metabolism (including photosynthesis/ enzymology)
 - C. Cellular Processes
 - D. Thermodynamics
 - E. Organelle structure and function
 - Mitosis / Meiosis F.
 - G. Cell structure and function
 - H. Experimental cell biology
 - I. Biomolecules
 - J. Integrated relationships
- **Diversity of Life: Biological** Organization and Relationship of Major Taxa (Six-Kingdom Three-Domain System)
 - A. Plantae
 - B. Animalia
 - C. Protista
 - D. Fungi
 - E. Eubacteria (Bacteria)
 - F. Archae
 - Integrated relationships G.
- III. Structure and Function of Systems
 - Integumentary A.
 - B. Skeletal
 - C. Muscular
 - D. Circulatory
 - Lymphatic/immune E.
 - F. Digestive
 - G. Respiratory
 - H. Urinary
 - I. Nervous/senses
 - J. Endocrine
 - K. Reproductive
 - Integrated relationships

- IV. **Developmental Biology**
 - Fertilization Α.
 - B. Descriptive embryology
 - C. Developmental mechanisms
 - D. Integrated relationships
- ٧. **Genetics**
 - Α. Molecular genetics
 - Human genetics B.
 - Classical genetics C.
 - D. Chromosomal genetics
 - E. Genetic technology
 - F. Integrated relationships
- VI. **Evolution, Ecology, and Behavior**
 - Natural Selection Α.
 - Population genetics/speciation B.
 - C. Population and community ecology
 - D. **Ecosystems**
 - E. Animal behavior (including social)
 - F. Integrated relationships

Figure 2 Survey of the Natural Sciences General Chemistry Content Specifications 30 items

I.	Stoic	chiometry and General Concepts		E.	Heat transfer
	A.	Percent composition			
	B.	Empirical formulae	VIII.	Chemical	Kinetics
	C.	Balancing equations		Α.	Rate Laws
	D.	Moles and molecular formulas		В.	Activation Energy
	E.	Molar mass		C.	Half-life
	F.			C .	i iaii-iiie
	G.	Density	IX.	Ovidation	Deduction Deactions
	G.	Calculations from balanced equations	IA.		-Reduction Reactions
	_			Α.	Balancing equations
II.	Gase			B.	Determination of oxidation numbers
	A.	Kinetic molecular theory of gases		C.	Electrochemical calculations
	B.	Dalton's gas law		D.	Electrochemical concepts and
	C.	Boyle's gas law			terminology
	D.	Charles's gas law			
	E.	Ideal gas law	Χ.	Atomic ar	nd Molecular Structure
		3		A.	Electron configuration
III.	Liqui	ids and Solids		B.	Orbital types
••••	A.	Intermolecular forces		C.	Lewis-Dot diagrams
	Д. В.	Phase changes		D.	Atomic theory
		•			
	C.	Vapor pressure		E.	Quantum theory
	D.	Structures		F.	Molecular geometry
	E.	Polarity		G.	Bond types
	F.	Properties		H.	Sub-atomic particles
IV.	Solu	tions	XI.	Periodic I	Properties
IV.	Solu ¹		XI.		Properties Representative elements
IV.	A.	Polarity	XI.	A.	Representative elements
IV.		Polarity Properties	XI.	A. B.	Representative elements Transition elements
IV.	A.	Polarity Properties 1. Colligative	XI.	A. B. C.	Representative elements Transition elements Periodic trends
IV.	A. B.	Polarity Properties 1. Colligative 2. Non-colligative	XI.	A. B.	Representative elements Transition elements
IV.	A. B. C.	Polarity Properties 1. Colligative 2. Non-colligative Forces		A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry
IV.	A. B.	Polarity Properties 1. Colligative 2. Non-colligative	XI.	A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions
	A. B. C. D.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations		A. B. C. D. Nuclear R A.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations
IV.	A. B. C. D.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases		A. B. C. D. Nuclear R A. B.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy
	A. B. C. D. Acid:	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations		A. B. C. D. Nuclear R A.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations
	A. B. C. D.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases		A. B. C. D. Nuclear R A. B.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy
	A. B. C. D. Acid:	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH		A. B. C. D. Nuclear R A. B. C.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles
	A. B. C. D. Acid: A. B.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength		A. B. C. D. Nuclear R A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes
	A. B. C. B. C.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions	XII.	A. B. C. D. Nuclear R A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology
V.	A. B. Acid: A. B. C. D.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations		A. B. C. D. Nuclear R A. B. C. D. E.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology
	A. B. C. Acida A. B. C. D. Cher	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations mical Equilibria	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques
V.	A. B. C. Acida A. B. C. D. Cher A.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations mical Equilibria Molecular	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment
V.	A. B. C. D. Cher A. B.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations mical Equilibria Molecular Acid/base	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B. C.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment Error analysis
V.	A. B. C. Cher A. B. C.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations nical Equilibria Molecular Acid/base Precipitation	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment Error analysis Safety
V.	A. B. C. D. Cher A. B. C. D.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations mical Equilibria Molecular Acid/base Precipitation Calculations	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B. C.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment Error analysis
V.	A. B. C. Cher A. B. C.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations nical Equilibria Molecular Acid/base Precipitation	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment Error analysis Safety
V. VI.	A. B. C. D. Cher A. B. C. D. E.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations mical Equilibria Molecular Acid/base Precipitation Calculations Le Chatelier's principle	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment Error analysis Safety
V.	A. B. C. D. Cher A. B. C. D. E.	Polarity Properties 1. Colligative 2. Non-colligative Forces Concentration calculations s and Bases pH Strength Brønsted-Lowry reactions Calculations mical Equilibria Molecular Acid/base Precipitation Calculations	XII.	A. B. C. D. Nuclear R A. B. C. D. E. Laborator A. B. C. D.	Representative elements Transition elements Periodic trends Descriptive chemistry Reactions Balancing equations Binding energy Decay processes Particles Terminology ry Basic Techniques Equipment Error analysis Safety

Hess's law
Spontaneity
Enthalpies and entropies

B. C. D.

Figure 3 Survey of the Natural Sciences Organic Chemistry Content Specifications 30 items

I.	Mechanis A. B. C. D. E.	Ems: Energetics and Structure Elimination Addition Free radical Substitution mechanisms Other	V.	Func of Re A.	idual Reactions of the Major ctional Groups and Combinations eactions to Synthesize Compounds Alkene/Alkyne 1. General 2. One-step 3. Multi-step
II.	Chamiaa	Land Physical Properties of		B.	Aromatic 1. General
11.	Molecule	l and Physical Properties of			2. One-step
	A.	Spectroscopy			3. Multi-step
	<i>,</i>	1. ¹ H NMR		C.	Substitution/Elimination
		2. ¹³ C NMR		0.	1. General
		3. Infrared			2. One-step
		4. Multi-spectra			3. Multi-step
	B.	Structure		D.	Aldehyde/Ketone
		1. Polarity			1. General
		Intermolecular forces			2. One-step
		(solubility, melting/boiling			Multi-step
		point, etc.)		E.	Carboxylic acids and derivatives
	C.	Laboratory theory and techniques (i.e.			1. General
		TLC, separations, etc.)			2. One-step
				_	3. Multi-step
				F.	Other
III.		ochemistry (Structure Evaluation)			1. General
	Α.	Chirality			2. One-step
	B.	Isomer relationships			Multi-step
	C.	Conformations			
			VI.	Acid-Base Chemistry	
IV.	Nome	nclature (2)	· · ·	A.	Ranking Acidity/ basicity
	A.	IUPAC rules			Structure analysis
	В.	Functional groups in molecules			2. pH/pK _a data analysis
		5 1		B.	Prediction of products and equilibria
			VII.	Aromatics and Bonding	
				A.	Concept of aromaticity
				B.	Resonance
				_	A 4 : - / -

C. D.

E.

Atomic/molecular orbitals

Bond angles/lengths

Hybridization

Figure 4 Quantitative Reasoning Content Specifications 40 items

- I. Mathematics Problems
 - A. Algebra
 - 1. Equations and expressions
 - 2. Inequalities
 - 3. Exponential notation
 - 4. Absolute value
 - 5. Ratios and proportions
 - 6. Graphical analysis
 - B. Data Analysis, Interpretation, and Sufficiency
 - C. Quantitative Comparison
 - D. Probability and Statistics
- II. Applied Mathematics (Word) Problems

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