

# Multiple Choice Exam Scoring Reference

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## **Introduction**

IITS provides a service to mark multiple choice examinations consisting of up to 120 questions with one choice of ten possible answers per question, or up to 180 questions with one choice of five possible replies. Exam results will be available to the professor with detailed results via the Concordia Hub.

## **General Notes on Exam Submissions**

Due to the volume of exams and the time required to manually correct errors, each instructor should assume responsibility for ensuring that the required procedures are followed and the information for every student is complete.

The turnaround time for an examination is usually two working days, though this is contingent on the exams being submitted properly.

Exam submission should include the following: the batch number received via email for each exam after submitting the Online Multiple Choice Exam Request Form, the Master Answer Sheet and the Student Answer Sheets.

Exams may be dropped off at LB800 (SGW) or CC207 (Loyola); when completed, the original scan sheets should also be picked up at these locations. For security reasons, exams should be submitted personally and not by mail.

Enquiries should be directed to Operations (SGW) at 7636, or Service Centre (LOY) at 3466.



# <u>Preparing the Multiple Choice Exam Form (Note to Professors)</u>

#### Master Answer Sheets

Each exam batch must have a **Master Answer Shee**t included. Insert the correct answer for each question in the appropriate bubble. These answers should be provided by the professor in authority.

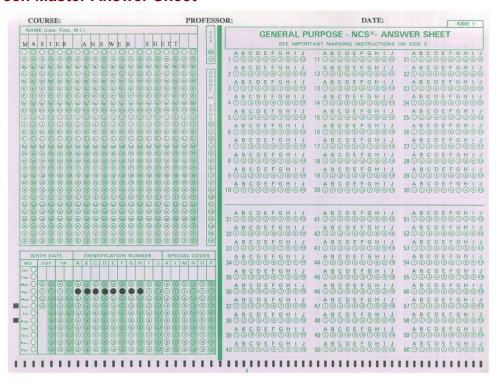
To omit any question within the range of the "Number of Last Question", the answer in the corresponding bubble must be left blank. If answers have been left blank, the exam will automatically be marked out of "Number of Last Question" minus "N", where "N" is the total of blank answers within the range of the exam. Example: If the last question is 50 and questions 14 and 32 are left blank on the **Master Answer Sheet**, the exam will be scored on a total of 48 possible marks. A message will be printed in the examination statistics report indicating no correct answer was supplied for that particular question. The number 0 will appear next to the number of the question under the heading "Weighted Mark".

#### PROFESSOR: COURSE: NAME (Last, First, M.I.) **GENERAL PURPOSE - NCS® - ANSWER SHEET** SEE IMPORTANT MARKING INSTRUCTIONS ON SIDE 2 A B C D E A B C D E A B C D E A B C D E A B C D E 2 0 2 0 4 0 12 0 2 0 4 0 22 0 2 0 4 0 32 0 2 0 4 0 42 0 2 0 4 0 A B C D E A B C D E A B C D E 3 ① 2 ③ 4 ⑤ 13 ① 2 ③ 4 ⑥ 23 ① 2 ③ 4 ⑤ 33 ① 2 ③ 4 ⑤ A B C D E A B C D E A B C D E 4 0 2 3 4 6 34 0 2 3 4 6 A B C D E A B C D E A B C D E A B C D E 5 ① 2 ③ 4 ⑤ 15 ① 2 ③ 4 ⑤ 25 ① 2 ③ 4 ⑥ 35 ① 2 ③ 4 ⑥ 45 ① 2 ③ 4 ⑥ A B C D E A B C D E A B C D E A B C D E 6 1 2 3 4 5 26 1 2 3 4 5 36 1 2 3 4 5 46 1 2 3 4 5 A B C D E A B C D E A B C D E A B C D E A B C D E 7 ① 2 ③ 4 ⑤ 17 ① 2 ③ 4 ⑤ 27 ① 2 ③ 4 ⑤ 37 ① 2 ③ 4 ⑤ 47 ① 2 ③ 4 ⑤ A B C D E A B C D E A B C D E 8 ① 2 ③ 4 ⑤ 18 ① 2 ③ 4 ⑤ 28 ① 2 ③ 4 ⑥ 38 ① 2 ③ 4 ⑥ A B C D E A B C D E A B C D E 9 0 2 3 4 5 19 0 2 3 4 5 28 0 2 3 4 5 38 0 2 3 4 5 A B C D E A B C D E A B C D E A B C D E 10 ① ② ③ ④ ⑤ 20 ① ② ③ ④ ⑤ 30 ① ② ③ ④ ⑤ 40 ① ② ③ ④ ⑥ 50 ① ② ③ ④ ⑥ A B C D E A B C D E A B C D E A B C D E B C D A B C D E A B C D E A B C D E A B C D E 52 ① 2 ③ 4 ⑤ 62 ① 2 ③ 4 ⑤ 72 ① 2 ③ 4 ⑤ 82 ① 2 ③ 4 ⑤ 92 ① 2 ③ 4 ⑥ A B C D E A B C D E A B C D E A B C D E 53 ① 2 3 ④ 6 53 ① 2 3 ④ 6 73 ① 2 3 ④ 6 83 ① 2 3 ④ 6 93 ① 2 3 ④ 6 | C | D | E | F | G | H | I | J | K | L | M | N | O | P A B C D E A B C D E A B C D E A B C D E A B C D E B C A B C D E A B C D E A B C D E A B C D E A B C D E 55 ① ② ③ ④ ⑤ 65 ① ② ③ ④ ⑤ 75 ① ② ③ ④ ⑥ 85 ① ② ③ ④ ⑥ 95 ① ② ④ ⑤ A B C D E A B C D E A B C D E A B C D E A B C D E 66 ① 20 3 4 6 86 ① 20 3 4 6 76 ① 20 3 4 6 86 ① 20 3 4 6 A B C D E A B C D E A B C D E A B C D E A B C D E 57 ① 2 ③ 4 ⑤ 67 ① 2 ③ 4 ⑤ 77 ① 2 ③ 4 ⑤ 87 ① 2 ③ 4 ⑤ 97 ① 3 ④ ⑤ A B C D E A B C D E A B C D E A B C D E 58 () 2 3 4 6 88 () 2 3 4 6 88 () 2 3 4 6 98 () 2 3 4 6 A B C D E A B C D E A B C D E 55 ① 2 ③ 4 ⑤ 55 ① 2 ③ 4 ⑤ 75 ① 2 ③ 4 ⑤ 85 ① 2 ② 4 ⑤ A B C D E A B C D E A B C D E A B C D E A B C D E 60 ① 2 ③ 4 ⑤ 70 ① 2 ③ 4 ⑤ 80 ① 2 ③ 4 ⑤ 90 ① 2 ③ 4 ⑤ 100 ① 2 ③ 4 ⑤

#### Blue Master Answer Sheet



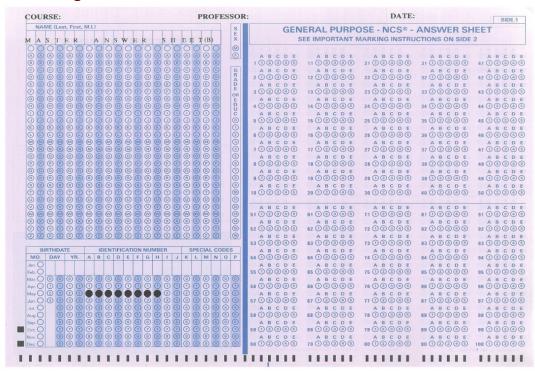
#### **Green Master Answer Sheet**



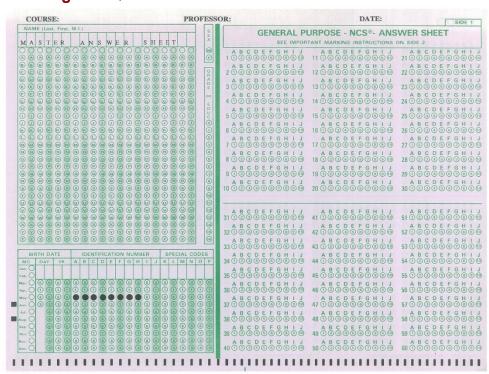


### Weighted Question Answer Sheets

#### **Blue Weighted Question Answer Sheet**



#### **Green Weighted Question Answer Sheet**





Note the information above applies to both the 120 (green) and 180 (blue) answer sheets. Note also the **Master Answer Sheet** and the **Weighted Question Answer Sheet** are similar except for the identification portion. The 1111111 ID identifies the scan sheet as a **Master Answer Sheet**, while the 22222222 ID indicates a **Weighted Question Answer Sheet**. Again, this applies to both formats.



## **General Instructions for Students**

The examination consists of multiple choice questions which are answered by filling in the bubble of your choice on the scantron sheet.

Clearly print your name at the top of the answer sheet. Enter your valid student ID number in the bottom left box starting from column A to H. Make sure it is entered correctly and complete as it is the only way the scanning program can credit you for writing the exam.

- 1. Use an HB-pencil. Forms filled out in **pen or marker cannot be read.** The scanning program will ignore these entries and return blank results. Blackout your response very clearly within the appropriate bubble. **Never mark two choices for any question: your answer will be ignored and marked as blank.**
- 2. Erase if you need to but erase completely. Never "X" out a wrong question.
- 3. Do not look for any sequence of right answers, and do not worry if you seem to have too many 1's or 2's etc.; this may be how the exam has been constructed.
- 4. Make certain the question on your answer sheet corresponds to the appropriate question number of the exam before you mark your choice.
- 5. Do not fold, bend, punch holes or tear the answer sheets. This will cause problems in processing and delays in returning your results. In severe cases the exam may be unreadable.



## **General Instructions for Professors**

There are two formats of answer sheets available. The first (blue sheet) allows up to 5 answers to each question and up to 180 questions. The second type (green sheet) allows for up to 10 answers and up to 120 questions. Note it is not possible to mix formats: you cannot have an exam with a combination of both forms. On both forms fill in the I.D. 11111111 under IDENTIFICATION NUMBER (column A to H).

Questions may have different weights: questions may be given different point values. Point values must be integer values between 1 and 5. On the weighted question form fill in the **I.D. 22222222** under **IDENTIFICATION NUMBER** (column A to H) portion of the form. The scanner will recognize and distribute values for each question where "A" will equal one point and so on until "E" equals 5 points. If you want a series of questions to be worth only  $\frac{1}{2}$  of a point and the remainder to be worth 1, then double the values for all the questions and scale the final mark at the end.

Penalties may be imposed for incorrect and/or blank responses. These penalties may be fractional marks (i.e.: 0.250).

Before the date of the exam ensure you have enough answer sheets for your class. These sheets may be picked up at SGW LB 800 or at Loyola CC 207. **Do not photocopy the answer sheet to make more copies. The sheets do not photocopy well and will be unreadable by the scanner.** 

## 

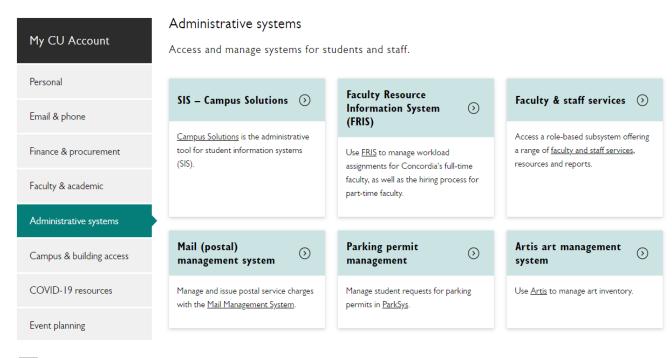
As noted in the Undergraduate Calendar (Section 16.3.9 (3)): **instructors are responsible for the preservation of course work** [which includes tests, examinations, essays and other work that has contributed to the grading of a course] that has not been returned to students as follows: until December 31 of the next calendar year for Fall term courses; until April 30 of the next calendar year for Fall/Winter and Winter-term courses; and until August 31 of the next calendar year for Summer-term courses.

Scantron sheets must be picked up within two weeks of receiving the exam results via Carrefour at the location that was indicated on the Online Multiple Choice Exam Request Form when it was submitted.



## **Beginning the Multiple Choice Exam Process**

To start the exam process, complete the Online Multiple Choice Exam Request Form by going to <a href="https://hub.concordia.ca/carrefour/account.html?category=admin">https://hub.concordia.ca/carrefour/account.html?category=admin</a>. Click Faculty & staff services at the far right. Login with your Netname, then under IITS Multiple Choice Exam Processing, click Submit Online Multiple Choice Request Form.





Help | Main Faculty and Staff Menu | Set Preferences | Log Off

## **Main Menu**





#### Read the instructions then click "Continue" at the bottom of the page

#### Please read before proceeding to the Online Multiple Choice Exam Request Form

#### • Master Answer Sheet

 The Master Answer Sheet must be completed in pencil with the Identification Number section filled out as number 1 from A through H as shown below.

#### **Master Answer Sheet**

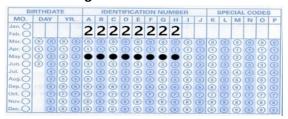
BI	RTI	IDA	TE			IDENTIFICATION NUMBER						SPECIAL CODES								
MO.	D	AY	Y	R.	A	В	C	D	E	F.	G	н		J	K	L	IM	N	0	P
Jan. O					1	1	1	1	1	1	1	1	. 1							
Feb. O																				
Mar. O	0	0	0		0		0		0		0		0		0	0	0	0	(0)	0
Apr. O	1	1	1	1	•		•						1	1	1	0	0	0	0	0
May O	(2)	2	2		2	2	2	(2)	(2)	3	(2)		(2)	(2)	(2)	3	(2)	(3)	(3)	(2)
Jun. O	3	3	3	3	3	3	3	3	3	3	(3)	(3)	(3)	3	(3)	(3)	(3)		(3)	(0)
Jul. O		4	(4)	(4)	(4)	(1)	(4)	(1)	(4)	(1)	(1)	0				(4)	(4)	0	(4)	(4)
Aug.O		(3)	(3)	(3)	(3)	(3)	(5)	(3)			(3)		(3)							(6)
Sep. O		0	0	6	(6)	(1)	(6)	(6)	0	0	0		(6)				0		0	(G)
Oct. O		(7)	7	7	7	7	0	0			7			Ø		0	(7)	0	0	0
Nov.		0	(8)	(8)	(8)	(8)	(8)	(8)								0	(8)	0	(0)	Ö
Dec. O		0	0	0	0	0	0	0			(9)				0	0		0	_	ŏ

- o The professor's name should be included on the top of the master sheet.
- There must not be more than one correct answer per question.
- Each exam batch must have its own master answer sheet.

#### • For exams with weighted scores

 A separate scantron sheet should be used, the Identification Number section must be filled out as number 2 from A through H as shown below.

#### **Weighted Answer Sheet**



- The weighted marks should be indicated in the questions section with the corresponding bubble darkened to match the question's point value. For example: A = 1 point, B = 2 points, C = 3 points and so forth.
- Every exam submitted must be either all <u>BLUE</u> exam sheets or all <u>GREEN</u> exam sheets. <u>DO NOT</u> mix the 2 colors.

Any questions or comments please call 514-848-2424 extension 7636

Continue



## Online Multiple Choice Request Form Explained

* Required Fields Online	Multiple Choice Request Form Help Guide
T.A. filling in Request Form? $\Box$	
Pick Up Location:	Please choose a location below *
Course Name:	* Course Number: * Course Section: *
Netname:	
Firstname:	
Lastname:	
Number of Last Question:	* Total Score (No Decimal): *
Additional Deductions? $\Box$	
Submitting more than one version? $\Box$	
Email:	*
Contact Phone Number:	Ext
	Submit Form Reset

- 1. Number of Last Question— The last question on the Master Answer Sheet.
- 2. **Total Score (No Decimal)** Total points out of which the examination is to be marked. The student's raw result will be normalized to this amount on the output see condensed students' results.
- 3. If applicable, **Additional Deductions?** These factors are multiplied by the weighted mark given for the questions and then deducted from the students' final result if:
  - a. Answer is wrong.
  - b. Answer is left blank. The deduction factors are a percentage, expressed as a decimal of the value of each question.
- 4. **Submitting more than one version?** If you are submitting more than one version of the same exam, click the checkbox, a Textbox will appear and beside it, type whatever you would like to call your version.



- 5. **Email** This email address is automatically filled in and is connected to your Netname. Make sure this email address is the one you are using as this is the address the batch numbers will be sent to after submitting the Online Multiple Choice Request Form. If it is not the correct one, you can change it.
- 6. After clicking "Submit Form", a popup message window will appear with instructions to follow.

## To view and download results

Go to <a href="https://hub.concordia.ca/carrefour/account.html?category=admin">https://hub.concordia.ca/carrefour/account.html?category=admin</a>. Click Faculty & staff services at the far right. Login with your Netname, then under IITS Multiple Choice Exam Processing, click View and download Exam Results.



Faculty and Staff Services

Help | Main Faculty and Staff Menu | Set Preferences | Log Off

## **Main Menu**

#### **Employee Self Service**

- ACUMAE Retroactive Amount
- Annual Increase Information
- Annual Pension Statement
- Change Challenge Question
- CUCEPTFU Benefit Enrolment
- CULEU Retroactive Amount
- CUPEU Retroactive Amount
- CUPFA Benefits Enrolment
- CUSSU Retroactive Amount
- CUUSS-TS Retroactive Amount
- Pay Equity Maintenance

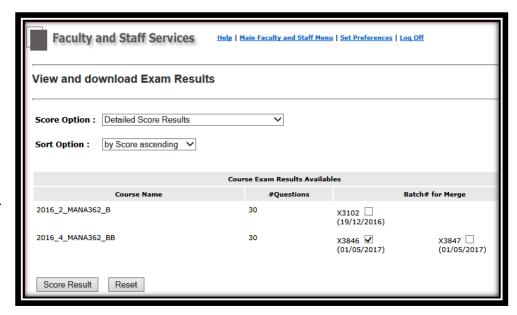
#### IITS Multiple Choice Exam Processing

- Submit Online Multiple Choice Request Form
- View and download Exam Results
  - . View Exam Scoring Documentation



The View and download Exam Results main menu comes up. Choose the score option, sort option and click the exam you want to view. Click the "Score Result" button.

The result will be displayed. At the bottom of the page, you will find the link to download the results in an Excel file format report.



#### **NOTE (IMPORTANT):**

If a student's I.D. number does not match up with the ID number in the current registrar's student database system, a temporary I.D. will be assigned and the message "\* not available \*" will be indicated in the Student Name column or you will have a student that does not belong in your class.

If you require further assistance, please call Operations at 514-848-2424 ext. 7636.

## **Exam Scoring Output**

The output of the program consists of:

**Detailed Score Results** 

Condensed Score Results

Condensed Score Results Group by Student

**General Statistics** 

In order to provide the maximum amount of output in the minimum amount of space, some information of necessity is compressed.



## **Explanation of the different Score Results**

#### **Detail Score Results**

These results indicate how each student performed on the exam. This data will be in either numerical or alphabetical order. The results include:

- Batch Number
- Student ID
- Student Name
- The student's mark out of the maximum possible. (The maximum possible is the sum of the weighted inputs.)
- The student's mark normalized to a desired value (generally as a percentage).
- A series of digits in **black** indicating which questions were answered correctly, and a series
  in **red** indicating which questions were answered incorrectly. These digits must be used
  in conjunction with the range indicated on the top of the page. These digits indicate the
  question within the range answered correctly or incorrectly. An "\*" indicates the question
  was left blank. An "x" indicates the professor left the question blank.
- The total number of questions answered correctly or incorrectly and the total number of questions left blank.

NB: The report in excel file format is similar to the Html format report except for the following:

- A "\_" indicates that the question was answered incorrectly.



#### **Condensed Score Results**

These results give the final mark for each student expressed as both raw and normalized scores.

#### **Example:**

2010_4_KELM999_4									
Batch	Student		Score	Score					
#	ID	Name	/ 41	/ 25					
X122	99999999	PEREIRA, MIRA	32.00	19.51					
X122	99999988	WU, IRENE	18.00	10.98					
X122	99999977	SMITH, JOHN	21.00	12.80					

The above example indicates that the student with student id 99999999 scored 32 marks out of possible 41, and normalized score of 19.51 out of 25.

The sorted order of these results is changeable by the users, so check the IITS Multiple Choice Exam Scoring Online Help document.

#### General Statistics

The frequency distribution table shows how many students received each score. If the raw score and normalized score are different you will receive one set for each score. The following information will be given under the tables:

Means: The average class score.

• Standard Deviation: The measure of the dispersion about the class mean; being based

on the same units of the original scores. Mathematically it is the

square root of the variance.

Variance: Measures the dispersion about the mean to indicate how closely

the individual scores cluster around the class average.

Minimum: The lowest score obtained in the class.

• **Maximum:** The highest score obtained.

Range: The highest score minus the lowest score.

• **Median:** The score obtained by the middle student, once all the students

have been ranked.

• **Sum:** The result of adding all the scores together; this figure divided by

the total number of students in the class gives the mean.