Lab #5

IICT BS DS Fall 2022

Task 01: Checking Exam Status [25 minutes]

Student_ID	Student Name	Dues Remaining	Fee_Status	Absentees	Exam_Status
1	ali	28000	UNPAID	8	FALSE
2	ahmad	0	PAID	9	FALSE
3	ahsan	0	PAID	2	TRUE

Fig. 1

- Create above shown worksheet with at least **10 rows**
- **Student_ID** column will contain only **whole numbers**
- **Dues Remaining** column will also contain **whole numbers** with range (0,30000)
- **Fee Status** should be **PAID** (If Dues Remaining are equal to zero) and **UNPAID** (If Dues Remaining are greater than zero)
- **Exam Status** should be **TRUE** (If Fee Status is PAID and Absentees are less than eight) otherwise **FALSE**
- Remove duplications on the basis of **Student_ID**
- Formulas must be used where required
- Freeze only first row of the data
- Name excel file with **"Your Roll No"**
- Email the file to the TA, the subject should be **"Lab 05_Task 01_Your Roll No"**

Task 02: Creating Chart [20 minutes]

Department	2010	2011	2012	2013
Sales	500000	700000	1200000	120000
Accounts	100000	300000	600000	300000
Marketing	300000	1000000	200000	500000
HR	200000	300000	300000	100000

Fig. 2

- For the above data, create a 3D bar chart
- Only the following elements should be the part of the chart:
  - Axes, Data Table, Gridline, Legend

Task 03: GPA Calculation [50 marks]

SR #	Course Code	Course Name	Cr. Hrs	Obt. Marks	Tot. Marks	Percent.	Grade	Grade Points (GP)
							GPA	....

Fig. 3

Create a worksheet as shown above.

- **Marks** & **Total Marks** column should have a data validation of **whole numbers** with a range between **0 to 100**
- **Percentage** should be calculated by the formula
- Use Multiple **IF Functions** to fill **Grade** and **Grade Points** columns

Marks in Percent	Letter Grade	Grade Point
0	F	0.00
50	D	1.00
55	C-	1.70
58	C	2.00
61	C+	2.30
65	B-	2.70
70	B	3.00
75	B+	3.30
80	A-	3.70
85	A	4.00

Fig. 4

- Grade Points (GPs) in a course are equal to grade point obtained by the candidate multiplied by number of credit hours of the course for example if a student obtains 75 marks in a three credit hours course then his/her Grade Points in this course would be

  Grand Points = Grade Point x Credit Hours
  = 3.3 x
  3 = 9.9
- Use **SUM** function to calculate **GPA** (Grade Point Average) cell using following criteria

  GPA = (sum of all grade points) / total credit hours

- **Secure** your Workbook **(Password must be your Roll No)**
- Following are some samples of the GPA calculation sheet

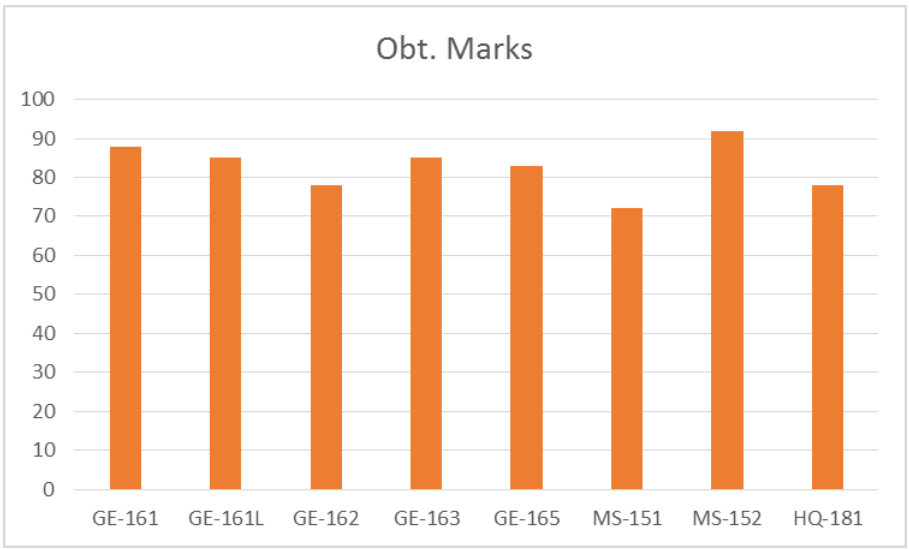
SR #	Course Code	Course Name	Cr. Hrs	Obt. Marks	Tot. Marks	Percent.	Grade	Grade Points (GP)
1	GE-161	Introduction to ICT	2	88	100	88%	A	8
2	GE-161L	Introduction to ICT Lab	1	85	100	85%	A	4
3	GE-162	English Composition & Comprehension	3	78	100	78%	B+	9.9
4	GE-163	Islamic Studies	2	85	100	85%	A	8
5	GE-165	Pakistan Studies	2	83	100	83%	A-	7.4
6	MS-151	Applied Physics	3	72	100	72%	B	9
7	MS-152	Calculus & Analytical Geometry	3	92	100	92%	A	12
8	HQ-181	Quran Translation	0.5	78	100	78%	B+	1.65
							GPA	3.633333333

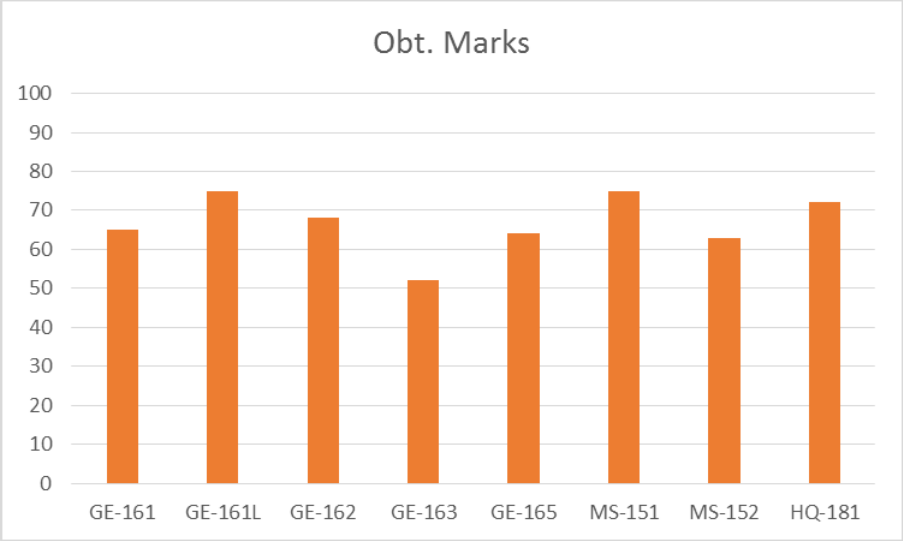
SR #	Course Code	Course Name	Cr. Hrs	Obt. Marks	Tot. Marks	Percent.	Grade	Grade Points (GP)
1	GE-161	Introduction to ICT	2	65	100	65%	B-	5.4
2	GE-161L	Introduction to ICT Lab	1	75	100	75%	B+	3.3
3	GE-162	English Composition & Comprehension	3	68	100	68%	B-	8.1
4	GE-163	Islamic Studies	2	52	100	52%	D	2
5	GE-165	Pakistan Studies	2	64	100	64%	C+	4.6
6	MS-151	Applied Physics	3	75	100	75%	B+	9.9
7	MS-152	Calculus & Analytical Geometry	3	63	100	63%	C+	6.9
8	HQ-181	Quran Translation	0.5	72	100	72%	B	1.5
							GPA	2.527272727

SR #	Course Code	Course Name	Cr. Hrs	Obt. Marks	Tot. Marks	Percent.	Grade	Grade Points (GP)
1	GE-161	Introduction to ICT	2	95	100	95%	A	8
2	GE-161L	Introduction to ICT Lab	1	85	100	85%	A	4
3	GE-162	English Composition & Comprehension	3	75	100	75%	B+	9.9
4	GE-163	Islamic Studies	2	25	100	25%	F	0
5	GE-165	Pakistan Studies	2	55	100	55%	C-	3.4
6	MS-151	Applied Physics	3	98	100	98%	A	12
7	MS-152	Calculus & Analytical Geometry	3	60	100	60%	C	6
8	HQ-181	Quran Translation	0.5	63	100	63%	C+	1.15
							GPA	2.693939394

Fig. 5

- Draw a bar chart of marks obtained by the student having course code on x- axes




Obt. Marks
100
90
80
70
60
50
40
30
20
10
0
GE-161
GE-161L
GE-162
GE-163
GE-165
MS-151
MS-152
HQ-181

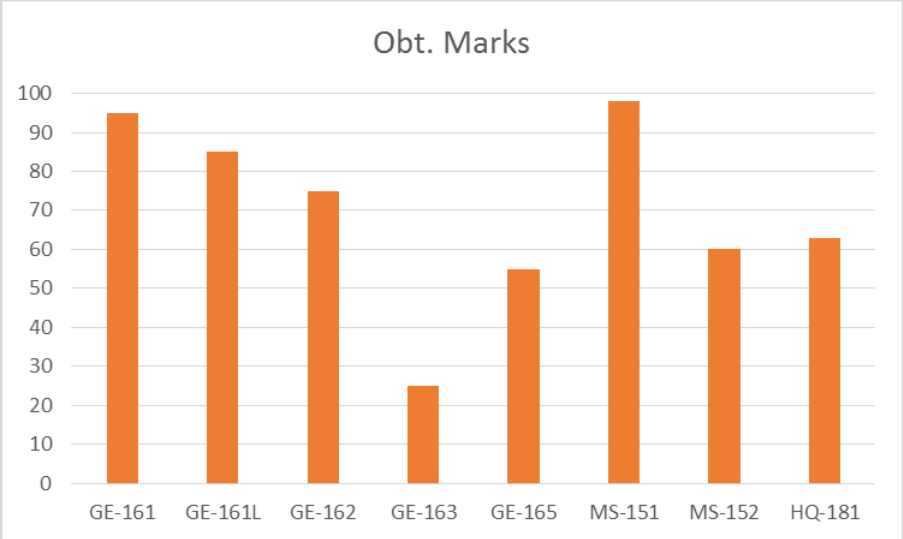

Obt. Marks
100
90
80
70
60
50
40
30
20
10
0
GE-161
GE-161L
GE-162
GE-163
GE-165
MS-151
MS-152
HQ-181

Fig. 6