

Maharaja Bir Bikram University

Statistics Honours [4th Semester]

Paper: STAT-SEC2 (Credit 2)

Database Management System

Assignments - MBB College – 2019 (Summer) - Total marks: 100

Assignment – 1 (Total marks: 60)

Details of Data

Data file format: MS Excel

File Name: students18.xlsx

No. of columns: 12

No. of records: 5143

Brief description: Information of applicants who want to take admission in MBB College during the academic session 2018-2019.

Fields (columns):

form_no: *Form number of the applicant*

name: *Name of the applicant*

category: *Caste (UR / ST / SC). Here UR includes OBC.*

minority: *Status of minority (NO / Muslim / Others)*

gender: *Gender (M / F)*

hs_total: *(Secured total marks in HS Exam.)*

hs_pass_year: *(HS Exam. passing year)*

first_choice_sub: *Subject sought by the applicant as First choice*

first_choice_marks: *Marks in first choice subject*

second_choice_sub: *Subject sought by the applicant as Second choice*

second_choice_marks: *Marks in second choice subject*

first_choice_stream: *Stream sought by the applicant as First choice*

second_choice_stream: *Stream sought by the applicant as Second choice*

Database to be used

Any appropriate Database

Required Queries and Analyses

1. Complete the following bi-variate table with appropriate frequencies (No. of students) and test whether Caste and Gender of applicants are related or not. (10)

		Caste				Total
		UR (Without OBC)	ST	SC	OBC (assuming Nath and Debnath sarnamed applicants as OBC)	
Gender	Male					
	Female					
	Total					5143

2. Obtain grouped frequency distribution and summary statistics of marks secured by the applicants in HS Exam. for different categories viz. UR (Without OBC), ST, SC and OBC (assuming Nath and Debnath sarnamed applicants as OBC). (10)
3. Draw Histogram, frequency Polygon and Ogives of the frequency distribution computed in question No. 2 (5)
4. Make a comparative study among UR, ST, SC and OBC applicants based on the outcomes of question No. 2 and 3. (5)
5. Compute frequencies of the following bivariate table and test whether choice of Stream (first choice) depends on Caste of applicants. (10)

		Caste				Total
		UR (Without OBC)	ST	SC	OBC (assuming Nath and Debnath sarnamed applicants as OBC)	
Stream	Arts					
	Commerce					
	Physical Science					
	Bio Science					
	Total					5143

6. Complete the following bi-variate table with appropriate frequencies and test whether choice of Stream (first choice) depends on Gender of applicants. (5)

		Stream				Total
		Arts	Commerce	Physical Science	Bio Science	
Gender	Male					
	Female					
	Total					5143

7. Obtain Form No., Name, HS Total, Marks in Political Science of top 25 (includes all categories) applicants who sought Political Science as first or second choice (honours) in decreasing order of HS Exam. passing year and HS Exam. marks + Marks in Political Science. (10)
8. Obtain Form No., Name, HS Total, Marks in Political Science of top 16 ST applicants who sought Political Science as first or second choice (honours) in decreasing order of HS Exam. passing year and HS Exam. marks + Marks in Political Science but not enlisted in the outcome of question No. 7. (5)