

## **EXECUTIVE SUMMARY**

The present study 'changing trends in science as a career' is based on the responses of students in various schools (11<sup>th</sup> standard) and in colleges (first year of the under-graduate level) studying in the North-Western region of our country across **five** states, covering **thirteen** major cities in these states.

Following some standard statistical techniques a sample of **7705** (Seven Thousand seven Hundred and Five) students, which includes: boys and girls both, at school level as well as college level was selected. The student's sample included schools from : Kendriya Vidyalayas (Central Schools), Public schools, Government and semi-government schools and private schools. The colleges were selected covering: boys colleges, Girls colleges and co-educational colleges. In the cities included in survey, these schools and colleges were selected randomly within the 'strata' in which they fall.

Out of the total sample the sample size of students for schools is: **4877** and that for colleges is: **2828**. In the above samples the number of boys is: **4256** and the number of girls is: **3449**. These students have been contacted **personally** by the members of the investigating team, to obtain the data on a structured printed questionnaire. The findings presented below are based on the extensive statistical analysis of this data.

1. The TOTAL sample analysis gives an estimated decline of 38% among the students (of 11<sup>th</sup> standard) for opting science stream, at the first year college level.

2. 'CHANGE' in trend for opting science stream is to the tune of 27%. This indicates that the students studying science at present are opting 'Arts Stream' and 'Commerce stream'. This percentage also included the choice for management courses.
3. A total of 35% of the students studying in science stream will continue to study science stream. This percentage includes those students also who are opting for courses in Applied Sciences (such as course in : Bio-technology, Bio-chemistry, Microbiology etc.).
4. DECLINE in **Gujarat state**, observed to be 38% where as given a chance 49% of the students (11<sup>th</sup> standard) would like to CHANGE their science stream to commerce or Arts stream, including Management courses. ONLY 13% of students studying in science stream would like to continue with their stream, but this is motivated by the fact that they can opt for Applied Science courses at the college level.
5. DECLINE is **lowest** in **Rajasthan state** where 46% of the students continue with their science stream (including courses in Applied sciences) where as the estimated decline is 26% and the remaining 28% of the students would like to change their stream from science to 'Arts' stream and 'commerce' stream, inclusive of choice for management course.
6. DECLINE is **highest** and estimated to be 44% in **UTTRANCHAL (U.A.) state**, where these many students do not opt science from school level to college level. 30% of the student continue with their science stream at college level, which mostly includes courses opted in Applied sciences. 26%

of the students are estimated to change their stream from science to 'commerce' (including management courses) stream and 'Arts' stream.

7. In **UTTAR PRADESH (U.P.) State** a decline of 37% is estimated for students opting for Science stream, where as 34% of the students would continue with their science stream (including Applied Sciences) and it is 29% of the students, who would change their science stream to either 'Arts' or 'Commerce' stream (including management courses).
8. In **DELHI State** a decline of 35% is estimated for opting science stream. A considerable percentage of 37% of students would change their stream from science to 'Arts' stream and 'commerce' stream (including the management courses) 28% of the students would opt for NO change in science stream i.e. they would continue with the same (including Applied Science Courses).
9. Highest 'decline' in estimated is **UTTARANCHAL** with a lowest in Rajasthan.
10. 'CHANGE' is estimated to be maximum in Gujarat and minimum in **UTTARANCHAL**.
11. Maximum NO change is estimated in **RAJASHTAN** where as minimum is observed in Gujarat.

(STRENGTHS)

12. Total sample analysis show that **three** most important reasons for opting science stream are 'Better career goals' (4907), 'Natural liking' (7624) and 'To pursue higher studies & research' (8277).

(WEAKNESS)

13. **Three** most important reasons for **NOT** opting science stream are : Tough syllabus (28174), Amount of labour & time (29911) and expense in terms of coaching fees (37267), this is for total sample of 7705 students.

(OPPURTUNITIES)

14. For total sample of students **three** most important reasons for **opting ARTS** stream were found to be: Helps in competitive examinations (5760), personal liking (6846) and Diversified career opportunities (7755).

(THREATS)

15. Across the five states and thirteen cities, surveyed in this study, the **three** most important reasons for opting commerce stream are obtained as: Better career options (7042), professional degrees offered (9148) and job opening available (10998).
16. Total sample analysis for **MALES** (whose number is **4256**) (i.e. 55% of the total data) revealed that: Better career goals (2862), Natural liking (4518) and To pursue higher studies & research (4881) are the three most important reasons for **opting** science stream.
17. **MALE** student's sample analysis shows that, the three most important reasons for **NOT** opting science stream are: Amount of labour & time (15979), Tough syllabus (16172) and expense in terms of coaching fees etc. (19658).

18. **MALE** students data analysis gives that the **three** most important reasons for opting **ARTS** stream as: Helps in competitive exams: (2529), personal liking (3341), and Diversified career opportunities (3909).
19. **Three** most important reasons for **MALE** students to opt for **commerce** stream are found to be: Better career option (4183), professional degrees offered (5222) and job opening available (6297).
20. The total sample analysis for **FEMALES** (whose is number is: 3449 i.e. 45% of the total data) shows that: Better career goals (2045), Natural liking (3106) and To pursue higher studies & research (3396) are the **three** most important reasons for opting science stream.
21. Tough syllabus (12002), Amount of labour & time (13932) and expense in terms of coaching fees (17699) are **three** most important factors for **not** opting the science stream, according to the **FEMALE** students.
22. Most favorable (important) **three** reasons for **FEMALES** to opt for **ARTS** stream are: Helps in complete exams. (3231), personal liking (3505), and Diversified career opportunities (3846).
23. Most important reasons for **FEMALE** to change their stream to **commerce** stream are: Better career option (2859), professional degrees offered (3926) and job openings available (4701).
24. It is to be noted that the difference between **MALE & FEMALE** data analysis for, **not** opting science relates to 'Tough syllabus' and 'amount

of labour & time' in the analysis these ranking interchanged i.e. for MALE students, Amount of labour & time is most (No. 1) important reasons while 'tough syllabus is next i.e. No. 2 but in the case of **FEMALE** it is the tough syllabus which is No.1 and the amount of labour & time is next (i.e. No. 2) most important reasons for NOT opting science.

25. (TOTAL DATA SET) Principal Component Analysis findings suggest that these changing trends may be attributed to the reasons: amount of labour & time and tough syllabus, poor school teaching and not many respectful job, openings these reasons contribute 18.099%, similarly comparative economic return is less and study with job is not possible contribute 13.744% to the total variance explained possibly these are the highest contributor towards the reasons for not opting science. However, Better Career goals, natural liking, honour in society and motivation by teacher contribute 16.588% towards the total variance explained.
26. Impact of Commerce stream on Science stream is due to the factors: Amount of labour & time, Not many respectful job openings and poor numerical ability & these reasons contribute 19.448% (negatively) while professional degrees offered, job openings available, study with job is possible and poor assessment & result of 12<sup>th</sup> standard contribute 13.176% towards the total variance explained for the reasons for opting Commerce stream vis-a-vis not opting Science stream.
27. Reasons for opting Arts Stream when compared with the reasons for not opting Science stream include: Diversified career opportunities, study

with job is possible, easy course contents and personal liking contribute 13.072% towards the total variance explained, whereas: Amount of labour & time, tough syllabus, NOT many respect job opening contribute (Negatively) 18.748% for the reasons responsible for not opting Science stream.

28. OVER ALL analysis of total data (7705) students when asked: what should be done to 'Revert' the declining trend their suggestions included: To provide more facilities (1402), Revise syllabus (1350) and to improve school teaching (1303).\* Figures within parenthesis represent the counts.
29. (Strengths) Analysis of data for **DELHI** state gives the following reasons for opting science stream: Better career goals (723), Natural liking (1119), To pursue higher studies & research (1124).
30. (Weakness) The reasons responsible for not opting science have their own impact but **three** most important reasons out of these are: Tough syllabus (4071), Amount of labour & time (4928), and expense in terms of coaching fees etc. (5860). The contribution of these factors put together is 24.057% towards the total variance.
31. (Opportunities) Reasons responsible for opting Arts, **three** most important of them are: Helps in competitive exams (1086), personal liking (1339) and Diversified career opportunities.
32. (Threats) from commerce stream to science stream involve these **three** most important reasons: Better career options (1161), Professional

degrees offered (16126), and job openings available (1816). These factors contribute 25.169% towards the total variance explained which is 61.246%.

33. WHAT SHOULD BE DONE: (**DELHI**): The changing trend in science is observed due to the above mentioned reasons: student's response indicate that if: more facilities are provided (402), syllabus is revised (350) and the school teaching is improved (303), it would be possible to 'revert' the declining trend. ('Figures within parenthesis represent the counts).
34. In NORTH DELHI the three most important reasons for opting science are: Better career goals (137), Natural liking (225), To pursue higher studies & research (249). Whereas the most important factors responsible for NOT opting science in this region are: Tough syllabus (1021), Amount of labour & time (1061) and expense in terms of coaching fees (1364).
35. The contribution of these factors put together towards the total variance explained for reasons for opting science is (19.505%) whereas the factors amount of labour & time, though syllabus and expense in terms of coaching fees contribute (29.822%) (negatively) towards the total variance explained.
36. Most important reasons motivating choice for ARTS stream are: Helps in competitive exam, (364), personal liking (381), Diversified career opportunities (414). The contribution of helps in competitive exams and

diversified career opportunities is (23.592%) towards the total variability explained for the reasons responsible for opting Arts stream.

37. Three most important reasons for opting the commerce stream are: Better career options (234), Professional degrees offered (350), and Natural liking (411) of which the contribution of the reason, Better career options and Professional degrees offered is maximum (21.996%), towards the total variance explained for the reason for opting Arts Stream in comparison to science stream.
38. Most of the students felt that in order to revert the declining trend in science stream can be reverted if we: revise the syllabus (179), provide proper guidance (178) and give more facilities (160). (Figures within parenthesis represent the counts).
39. In **SOUTH DELHI** the three most important reasons for opting science stream are: Better career goals (220), To pursue higher studies & research (339) and the Natural liking. The contribution of these factors put together for this happening is: (17.865%) factors responsible for NOT opting the science stream are: Tough syllabus (839), Amount of labour & time (1048), expense in terms of coaching fees etc. (1667), their contribution towards the total variance explained for the reasons for NOT opting science is to the tune of 31.143%.
40. Factors motivating to opt for ARTS stream are: Helps in competitive exams : (84), Personal liking (144) and diversified career opportunities (200). The contribution of these factors towards this happening is 30.648%. Out of total variance explained.

41. Factors responsible to opt for COMMERCE stream are : Better career options (346), Professional degrees offered (533) and the job openings available (584). These are responsible to the extent of 28.969% out of the total variance explained for opting commerce stream in comparison to science stream.
42. To revert the trend (for not opting science) suggestions from the students include: More facilities (239), Revise syllabus (192) and to provide proper guidance (173). (Figures represent the counts).
43. **EAST DELHI** shows a declining trend in science stream due to the factors: Tough syllabus (1185), Amount of labor & time (1363) and expense in terms of coaching fees etc (1378). Positive reasons for opting the science stream include among the Top-3. Better career goals (187), to pursue higher studies & research (289) and the Natural liking (312). The contribution of these Negative factors (responsible for NOT opting science) is: 15.109% where as the positive factors (for opting the science stream) contribute a 21.695% towards the total variance explained.
44. Inclination towards ARTS stream in comparison to the science stream is due to: Helps in competitive exams (301), personal liking (328), easy course contents (340) with a total contribution of 28.967%.
45. COMMERCE stream attracts more students because of Better career options (317), Professional degrees offered (383), and job opening available (482). The contribution of these factors towards the reasons

responsible for opting commerce stream in comparison to science stream is 29.822% towards the total variance explained.

46. The students of **EAST DELHI** felt that if more facilities are provided (208), School teaching is improved and the syllabus is revised (152) then it is possible to 'revert' the declining trend in science stream. (Figures represent count).
47. **WEST DELHI** students gave maximum weightage to: Better career goals (179), Natural liking (215) and to pursue higher studies & research (247) as the factors responsible for opting science stream and put together their contribution is 16.319%. Factors responsible for NOT opting science stream are: Tough syllabus (1026), expense in terms of coaching fees (1451), and Amount of labour & time (1456). A contribution of 20.678% is due to these factors towards the total variance explained for the factors responsible for TISAC. (Trends in science as a career).
48. Factors responsible for opting **ARTS** stream include: Helps in competitive examinations (337), easy course contents (401) and diversified career opportunities (461) contribution of these factors for choosing this stream is 19.335%.
49. Commerce stream attracts more & more students due to: Better career goals (264), job opening available (325) and professional degrees offered (360). A total of 15.832% is contributed by these factors, which are responsible for opting commerce stream

50. In response to: what should be done? So, as to attract the students towards science stream suggestions include: To provide more facilities (171), To revise the syllabus (167) and to import proper guidance (158). (Figures with parenthesis represents the counts).

### GUJARAT STATE

51. An over all decline of 38% in students enrolling for science stream is observed in Gujarat with an alarming 49% of the students willing to change their stream. The reasons responsible for this happening include: Tough syllabus (6927), Amount of labour & time (7212) and poor assessment & result of the 12<sup>th</sup> standard (7908) with a contribution of 17.207% (Negatively). Factors motivating to opt for Commerce stream include: Better career options, professional degrees offered and study with job is possible, with their contribution of 16.103%.
52. Reasons like: Helps in competitive exams, diversified career opportunities, easy course contents and study with job is possible have a positive contribution of 20.002% towards the total variance explained (which is 58.593%) for the reasons for opting Arts Stream compared to the reasons responsible for not opting Science stream.
53. To 'revert' the declining trends in science students suggested: To improve the school teaching (430) Reduce the cost (369) and to provide the proper guidance (278). (Figures represent count).

54. **RAJKOT** (Capital of Saurashtra): Reasons for opting the science stream include (Top-3) Better career goals (234), Natural liking (336) and to pursue higher studies & research (401) and the contribution of these factors is to the tune of 17.554%. Reasons responsible for NOT opting science are: Tough syllabus (1702), Amount of labour & time (1826) and poor assessment & result of 12<sup>th</sup> standard (1913), their contribution put together is: 17.975%.

55. Reasons responsible for opting **ARTS** stream are: Personal liking (176), Diversified career opportunities (207), to pursue higher studies & research (233). The contribution of these factors is 23.455%.

Commerce stream has the major attractions due to the reasons: Better career options (522), Professional degrees offered (613) Job opening available (722). The positive contribution of these factors is: 17.681%.

56. To bring back students towards science stream it was suggested: To improve school teaching (179), To reduce the cost (168) and to revise the syllabus (150) (Figures with parenthesis represents the counts).

57. **SURAT** (The diamond city) includes three major reasons for NOT opting science stream as: Tough syllabus (2160), Amount of labour & time (2171) and expense in terms of coaching fees etc. (2338). A negative contribution of 26.484% is due to these factors. Factors responsible for opting science stream are: Better career goals (399), Natural liking (568) To pursue higher studies & research (784), they contribute 19.329%

towards the total variance explained for reasons responsible for changing trends in science.

- 58.** ARTS stream is popular due to: personal liking (106), study with job is possible (115), To pursue higher studies & research (147) their contribution is 30.867% COMMERCE stream attracts most of the students because of: Better career options (602), Professional degrees offered (712) and Natural liking (950), the contribution of these factors is: 25.859%.
- 59.** To 'revert' the declining trend students suggested (1) Improve school teaching (179), (2) Revise the syllabus (150) (3) Provide proper guidance (121). (Figures with parenthesis represents the counts).
- 60.** VADODARA (The cultural capital) students are attracted towards science stream due to : Better career goals (280), Natural liking (424) and To pursue higher studies & research (459). The contribution of these factors is: 15.565%. whereas; Tough syllabus (1117), Amount of labour & time (1244), Poor assessment of result of 12<sup>th</sup> standard (1635) are the factors responsible for NOT opting science and their contribution is 14.878%.
- 61.** IMPACT of commerce stream on science stream is due to: Better Career options (288), Professional degrees offered (363), Job opening available (402) with a contribution of 19.219%.

62. ARTS Stream has an edge over science stream due to: Personal liking (133), study with job is possible (175), Diversified career opportunities (181). The contribution of these factors is: 20.271%.
63. Revise the syllabus (288), Provide more facilities (274) and improve school teaching (255) are the key factory to bring back the students towards the science stream( Figures with parenthesis represents the counts).
64. **AHMEDABD** (the metro city of Gujarat). Better career goals (348), Natural liking (526) and To pursue higher studies & research (542), contribute 15.342% towards the reasons for opting the Science stream where as a negative contribution of 24.968% is due to tough syllabus (1931), poor assessment & result of 12<sup>th</sup> standard (1948) & Amount of labour & time (1971). The contribution (negative) of these factors put together is 15.515% towards the reasons for NOT opting science as a career.
65. Three major reasons for opting the 'ARTS' stream are: personal liking (158), Helps in competitive exam (167) and study with job is possible (184). The positive contribution of these factors put together towards the reasons responsible for opting the stream is: 18.442%.
66. Three major reasons for opting the 'COMMERCE stream' are: Better career options (581), Professional degrees offered (667) and the job is opening available (946) these reason put together account for 17.202% towards the total variance explained for opting the Commerce stream.

67. In response to the suggestions: What should be done? Students felt that: By revising the syllabus (798), by improving the school teaching (466) and by providing the proper guidance (186) the students can be brought back to opt for Science stream.
68. Overall impression in Gujarat State is that students are opting for 'Commerce' stream in preference to any other stream.

### UTTAR PRADESH (U.P.)

69. The total sample of U.P. was of 2400 students (1500 school students & 900 college students) which registered a decline of 37%. It was 29% of the students who wanted to change their stream from 'Science' to some other stream and it was only 34% students who wanted to continue with the Science stream. The reasons for this changing trend is attributed to positive (for opting) & Negative (for NOT opting) factors. The three most important reasons for **opting** Science stream turned out to be: Better career goals (1354), To pursue higher studies & research (2294) and Natural liking (2309) where as the three most important reasons for NOT opting Science stream are: Tough syllabus (7847), Amount of labour & time (8096), expense in terms of coaching fees (9158).
70. Most important reasons for opting the '**ARTS**' stream are: Helps in competitive exam (2046), personal liking (2561) and the diversified career opportunities (3009) where as the most important reasons for opting Commerce stream are: Better career options (1360), Professional degrees offered (2487) and the job opening available (2895). The contribution of 'factors' for opting Arts is to the tune of 15.349%

similarly the contribution of factors responsible for opting Commerce is 19.247%.

71. What should be done in order to attract the students to opt for science stream, the response of the students from U.P. revealed that : They should be provided with more facilities (1968), improve school teaching (1577) and reduce the cost (1253). (figures within parenthesis represents the count).
72. VARANASI (Internationally famous city of Lord SHIVA) TOP-3 reasons for opting science include: Better career goals (353), To pursue higher studies & research (542) and the Natural liking (635), where the three most important reasons for NOT opting science were : Amount of labour & time (1952), Tough syllabus (2136), and the expense in terms of coaching fees etc. (2516). The contribution of these positive & negative factors are: 17.885% & 19.362% respectively.
73. Top-3 Reasons for opting 'ARTS' stream are: Helps in competitive exam (422), personal liking (603) and the diversified career opportunities (714), the contribution of factors put together is: 23.658% where as the most important (three) reasons for opting **Commerce** stream are found to be: Better career options (471), Professional degrees offered (667) and the job opening available (769) these reasons have a positive contribution of 36.847% towards the total variance explained.

74. The response of students to check the declining trends in Science include: more facilities (351), Improve school teaching (271), reduce the cost (26) (figures within parenthesis represent the count).
75. **LUCKNOW** (The **HISTORIC CITY**)  
Students in this city in this city find that: Better career goals (759), Natural liking (1132), To pursue higher studies & research (1262) are the three most important reasons for opting the science stream. The positive contribution of these factors this happening is 15.379%. The three most important reasons for NOT opting Science the Science streams are: Tough syllabus (4165), Amount of labour & time (4498) and the expense in terms of coaching fees etc. (5005). The negative contribution of these factors put together is: 17.128% .
76. Reasons for responsible for opting ‘**ARTS**’ stream are: Helps in competitive exam (1180), personal liking (1452) and study with job is possible (1589). The positive contribution of these factors put together is: 15.046% where as the three most important reasons for opting **Commerce** stream are: Better career options (956), Professional degrees offered (1398) and the job opening available (1594) the contribution of these factors put together is 15.476%.
77. In order to ‘revert’ the declining trend student’s suggested that we should provide: more facilities (577) and improve the school teaching (434) and at the same time cost must be reduced (334).

**78. ALLAHABAD (The SANGAM CITY)**

Most important reasons for opting Science stream in this city are:

Better career goals (242), To pursue higher studies & research (490) and Natural liking (542), the contribution of these factors turns out to be 15.284% whereas the reasons responsible for NOT opting Science stream are: Tough syllabus (1546), Amount of labour & time (1646) & Poor school teaching (1751). Their contribution is: 18.712% towards the total variance explained.

**79.** Reasons for opting Arts Stream include: Helps in competitive exam (444), personal liking (506) and Diversified career opportunities (592) with a contribution of 19.006%. The top-3 reasons for opting **Commerce** stream are: Professional degrees offered (422), Better career options (433), job opening available (536) & their contribution is: 14.332%.

**80.** Students expected that: More facilities (300) improvement in school teaching (252) & the proper checking (196) could help to 'revert' the declining trend in Science stream.

**81.** U.A. registers a decline of 44%, with of the students willing to change their stream from Science stream to Commerce, Arts and applied sciences 30% of the students at the school level wanted to continue with their Science stream.

**82.** Three most important reasons for opting Science stream are: Better career goals (634), Natural liking (881) and to pursue higher studies & research (930). The contribution of these factors put together is: 11.764%.

The contribution of Tough syllabus (2593), Amount of labour & time (3073) & poor assessment & result of 12<sup>th</sup> standard (4300) is negative in the sense that these are responsible for NOT opting science & their contribution put together is: 19.989%.

83. Top three reasons which attract students to opt for Commerce stream are: Better career options (519), Professional degrees offered (769) & job openings available (769) the contribution of these factors is: 12.816%.
84. Reasons, which students feel that are most important for opting 'ARTS' stream are: Helps in competitive exam (441), personal liking (580) and study with job is possible (695). Their contribution put together is: 15.127% towards the total variance explained for the reasons responsible to opt for Arts stream.
85. Maximum number of students (224) felt that by improving school teaching, providing more facilities (175) and with proper guidance (156), it would be possible to 'revert' the declining trend of students for opting the Science stream (Figures with parenthesis represents the counts).
86. **DEHARADOON** (The **CAPITAL OF U.A.**)  
This capital city shows a declining trend in Science stream due to the factors. Tough syllabus (1028), Amount of labour & time (1231), poor assessment & result of 12<sup>th</sup> standard (1945) with a calibration of 15.255% while students opting for Science stream attribute it to: Better career goals (281), Natural liking (398) and to pursue higher studies & research

(436) with a contribution of 16.009% towards the total variance explained.

87. Students observe that: Better career options (243), job openings available (379) and Natural liking (394) are the factors due to which students are tuned towards Commerce stream, with a contribution of 14.237%.
88. 'ARTS' stream: Helps in competitive exam (212), personal liking (306), study with job is possible (356) are the three factors with a contribution of 15.511% towards the total variance explained for happening.
89. To attract students to opt for Science stream, students of Dehradun felt that: by revising syllabus (210), providing more facilities (196) & By improving the school teaching (112) can help, to check the declining trend.
90. NANITAL (the city famous for Public Schools) students opting for Science stream, attribute this to: Better career goals (353), Natural liking (483) and to pursue higher studies & research (494). The contribution of these factors towards the total variance explained is: 18.549% where as the reasons for NOT opting science and poor school teaching (2264) the contribution of these factors towards NOT opting for Science is: 16.458%.
91. Commerce stream remains attractive due to: Better career options (276), Professional degrees offered (373) & Job opening available. These factors contribute 23.504% towards the total variance explained for reasons responsible for opting stream vis-a-vis opting Science stream.

92. Students opting for ARTS Stream vis-à-vis not opting for Science stream  
ARTS Stream as: Helps in competitive exam (229), personal liking (274)  
and Diversified career opportunities (336) with a contribution of 19.824%.
93. To check the declining trend in student to opt for Science stream it was  
suggested that: improve school teaching (226), Revise syllabus (226) and  
provide proper guidance (174).
94. **RAJASTHAN** state registered a decline of 26% where as 46% did not want  
to change, it was 28% of the students wanted to change their Science  
stream to some other stream.
95. Three most important reasons for opting Science stream are: Better career  
goals (935), Natural liking (1461), To pursue higher studies & research  
(1743). The contribution (positive) of these factors is: 11.627%. And the  
three most important reasons for NOT opting Science stream are: Amount of  
labour & time (6602), Tough syllabus (6736), expense in terms of coaching  
fees etc. (9257), the (negative) contribution of these factors is : 18.907%.
96. Students opted for Commerce stream vis-à-vis Science stream due to: Better  
career options (1509), Professional degrees offered (1911), Job opening  
available (2258) with a contribution of 14.746% towards the total variation  
explained 'Arts' stream attracted students due to: Helps in competitive exam  
(1404), personal liking (1793) and diversified career opportunities (1832)  
the contribution of these factors put together is : 18.435%.

97. To check the declining trend in science as career students of Rajasthan suggested to provide : (i) revise the syllabus (542), (ii) more facilities (520), and (iii) proper guidance (468) (Figures with parenthesis represents the counts).
98. **JAIPUR** (The PINK CITY & STATE CAPITAL): The students of this city find that : Better career goals (408), Natural liking (693) and To pursue higher studies & research (756) are the reasons responsible for opting Arts, the (positive) contribution of these factors is : 16.021% where as the reasons for NOT opting science are : Amount of labour & time (3022), Tough syllabus (3270) and poor school teaching with a (negative) contribution of : 14.827% towards the total variance explained.
99. Positive impact of Commerce stream is due to: Better career options (720), Professional degrees offered (923) and Job opening available (1000) the positive contribution of these factors is to the tune of : 17.803%.
100. 'ARTS' stream has its impact vis-a-vis Science stream due to the reasons: Helps in competitive exam (609), Diversified career opportunities (826) and the personal liking (856) these reasons have a contributing of 14.041%.
101. The pink students suggested to provide: proper guidance (299), more facilities (257) and to revise the syllabus to check the declining trend of students in Science stream.
102. **UDAIPUR** (The zinc city). Students in city opted for Science stream due: Better career goals (273), Natural liking (308), To pursue higher studies &

research (404) the (positive) contribution of these reasons put together is: 19.783% where as the (Negative) contribution of Amount of labour & time (1721), Tough syllabus (1728) and expense in terms of coaching fees (2454) is: 18.899% towards the total variance explained.

103. Students opted for Commerce stream in comparison to Science stream due to: Better career options (431), Professional degrees offered (458) & Job opening available (582) with a positive contribution of: 20.294% towards the total variance explained.
104. The students choice for '**ARTS**' stream in preference to Science stream is attributed to: Helps in competitive exam (340), personal liking (455) and diversified career opportunities (515)/The contribution of these factors put together is: 22.876%.
105. What should be done ? (To check the declining trend) The responses from the students suggest to provide: more facilities (186), Revise syllabus (120) and to provide the proper guidance (106). (Figures within parenthesis represent the counts).
106. **JODHPUR** (The **HEART OF RAJASTHAN**) : The changing trends in science include both positive/negative factors due to which students opt or do not opt the stream. Students opted for science due to the reasons: Better career goals (254), Natural liking (450) and to pursue higher studies & research (583), the (positive) contribution of these reasons put together is: 18.086% where as Amount of labour & time (1659), Tough syllabus (1738)

and poor school teaching (2594) and the (negative) contribution of these reasons put together is: 18.782%.

- 107.** IMPACT of commerce stream vis-à-vis science stream is due to: Better Career options (358), Professional degrees offered (530), Job opening available (676) the (Positive) contribution of these reasons put together is: 20.596% towards the total variance explained.
- 108.** The students preferred ‘ARTS’ stream in comparison to Science stream due to the reasons: Helps in competitive exam (455), personal liking (521) and diversified career opportunities (551). The positive contribution of these reasons is to the tune of 32.66% towards the variance explained.
- 109.** What should be done in short-term/long term to attract bright students to opt for Science stream? In response to this question (section-3) the students suggested: To provide more facilities (277), to revise the syllabus (251) and to improve the school teaching (154). (Figures within parenthesis represent the counts).

**“ SALVAGE SCIENCE EDUCATION AND SAVE SCIENCE”**