Chapter 9: Findings and interpretations:

9.1 Findings and interpretations for H-1:

9.1.1 The teaching faculty in all the institutions has a uniform perception about the parameters indicating quality of education perceived by them. The order of their priority is Qualified Faculty, Curriculum, Classroom Teaching, Academic Ambience, Library Facility, Continuous Assessment, Leadership and Infrastructure.

9.1.2 The parameter, Infrastructure has the lowest priority.

9.1.3 The students have indicated a strong choice for the parameter of Good Placement (Job).

9.1.4 The second best choice of parameter by the students is Qualified Faculty.

9.1.5 The parameter of third choice by the students is University Results.

9.1.6 The students give higher priority to the parameters indicating Teaching – Learning Process over the parameters indicating Infrastructure and other amenities.

9.1.7 The questionnaire designed for students, as per Annexure 2, when circulated to the faculty, gives similar results for choice of parameters as that of students except interchanging the first priority to Qualified Faculty from Good Placement.

9.1.8 A generalized index for indication of quality for an institute with reference to placement of the students could be introduced, for a particular academic year, as follows –

\[
Q_p = \frac{\text{No. of Students Placed in B.E.}}{\text{No. of Students Appearing for B.E. Examination}}
\]
9.2 Findings and interpretations for H-2:

Following are the observations made after looking at all the tables:-

9.2.1 In an institute, the infrastructure, teachers, curriculum is same for all the students. If the students belong to the same batch then the teaching-learning, examination and evaluation for all the students is under same conditions. Quality parameters, as proposed by National Board of Accreditation (NBA) of AICTE, New Delhi, for the input, remain the same for all the students. As a natural extension, if there are ten students of same marks at qualifying examination (at the time of admission to the institute), we may logically conclude that when academic support and environment is same, their result should have been the same. That is, even if the marks obtained by them at engineering examinations are not same, potentially they should all, at least, ‘pass’ or ‘fail’ in the examination. However it is not observed so.

9.2.2 The tables / graphs are made for the group of students for a range of 5% MARKS IN DESCENDING ORDER. That is starting from a range of qualifying marks of 95% to 100% down to lowest qualifying marks of 45%.

9.2.3 The study has been made for five consecutive years of admissions, i.e. academic year 2001-02 to Academic Year 2005-06. The results of all students for every consecutive academic year, that is first year (F.E), second year (S.E), third year (T.E) and final year (B.E) has been recorded and presented for their four years of degree course.

9.2.4 There is a nonzero strength of students in each span (row) however, the majority of the students are of high percentage of marks at qualifying examinations.

9.2.5 Although 95% to 100% marks at qualifying examination indicate students of a very high merit in the state of Maharashtra, their result should have been 100% pass, in all the five batches at all the levels of engineering examinations from the first to final year. However, it is observed that, only for the admission batch of academic year 2001-02, the result happens to be 100% at the final year (B.E) examinations, i.e. one in sixteen examinations.
9.2.6 It is also seen that for a given range of percentage of marks at any admission year, the probability of completing the four year UG program in four years is also not the same for all five batches.

9.2.7 Barring the exception of admission year 2001-02, for all batches some students of even the lowest range of qualifying marks have been passing at all the examinations and completing the four year UG program in four years time.

9.2.8 Table 6.15 gives comparative study of the performance of batches admitted for all five academic years.
Column A gives range of percentage at qualifying examination of the students admitted.
Column B to F gives percentage of students passing out in four years which is minimum period of the course duration and column G gives average percentage or probability of a student passing out for the particular range at qualifying examination.
Total average talks about average percentage of the probability of a student joining the institute and passing out in four years. This could be considered as a Quality Index for the particular institute for a particular batch.

\[ Q_r = \frac{\text{Total No.of Students completing B.E. in 4 years}}{\text{Total No. of Students admitted at F.E. (Entry) level}} \]

9.2.9 The percentage of students failing at F.E. and S.E. examinations is much larger as compared to the T.E and B.E. examinations.

9.2.10 In short, success or failure cannot be guaranteed on the basis of marks obtained by a student at the qualifying examination and it is irrespective of range of marks at entry level or at any successive level in engineering examinations.

9.2.11 In addition to the infrastructure, qualified faculty and curriculum (i.e. academic ambience in an Institute) if the performance of the students (results in the examination) during four years of a program is an indicator of quality of education at a given institute, then, there is a need to identify ways and processes other than standard teaching – learning process to enhance quality of education.
9.3 Findings and interpretations for H-3:

9.3.1 The students who have gone through the process of IPRinternalise™ have completed their UG program within the stipulated period of four years and have good opportunities after completing their program.