THEME OF THE AWARENESS SESSION

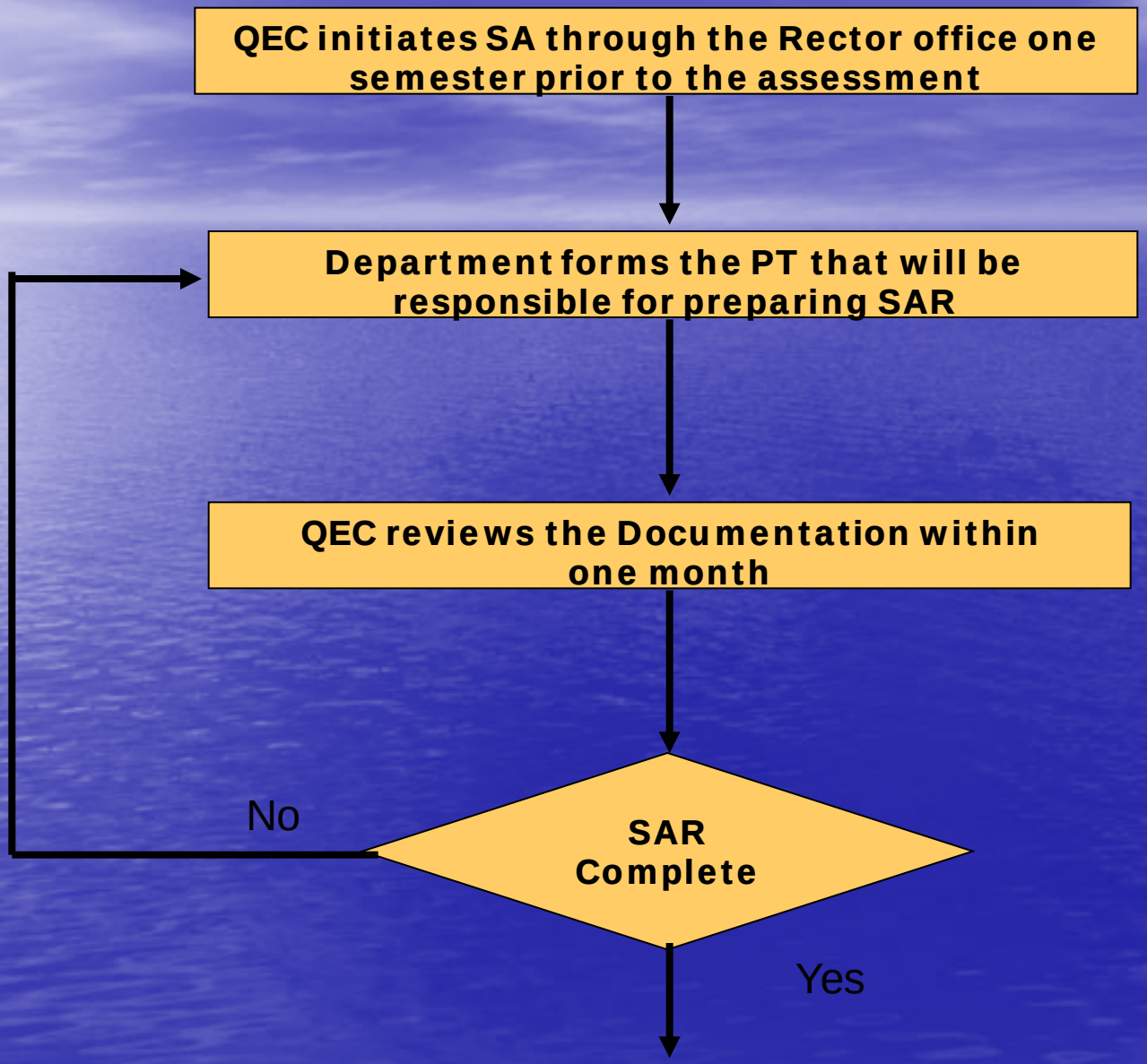
Implications of Self-Assessment Exercise:
A Bird's Eye View

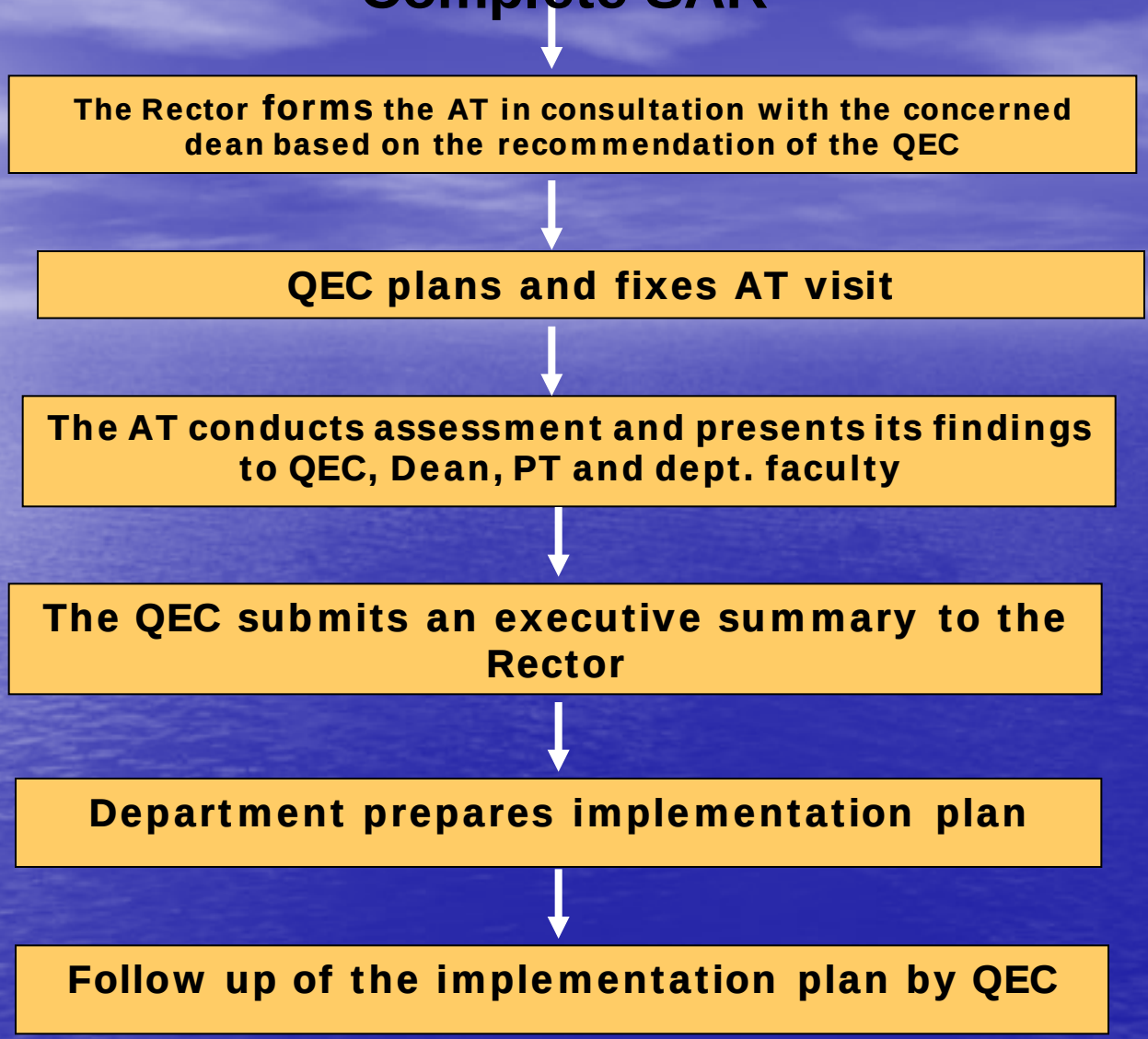
Date: 2nd March 2015

AGENDA

1) Significance of Self-Assessment Report
2) Procedure
3) Targets for 2015-16
4) Human Resource (PTs & ATs)
5) Preparing SAR a/c to 8 criteria & 31 standards

Self Assessment Procedure




Complete SAR
The Rector forms the AT in consultation with the concerned dean based on the recommendation of the QEC
QEC plans and fixes AT visit
The AT conducts assessment and presents its findings to QEC, Dean, PT and dept. faculty
The QEC submits an executive summary to the Rector
Department prepares implementation plan
Follow up of the implementation plan by QEC

COMPOSITION AND ROLE OF PROGRAM TEAMS

- Program Team is formed by the HoD and comprises two or three faculty members from within the department.

- The main role of program team is to collect and record information/data related to an on-going program in a department, as per the requirements of *Self Assessment Manual*, and prepare Self Assessment Report.

ASSESSMENT TEAMS

* One AT must be an expert in Assessed Team

Students	Program Team	Assessment Team
300	2 member	3 member

Skill set required by AT Member

1. Demonstrate Commitment
2. Enquiring Deposition
3. Power to Judge
4. Ability to work in teams
5. Time Management
6. Experienced Teachers
7. Acquire high standard of oral and written communication
8. Self motivated and willing to work

RESPONSIBILITIES OF ASSESSMENT TEAMS

- Check completeness of Self Assessment Report as per Self Assessment Manual & Rubric Format.

- Evaluate responses of various criteria & standards

.

- Verify data/information given in SAR.

- Confirm the facts & figures provided by Program Team.

- Review the conclusion drawn by Program Team.

- List down the findings from the assessment of program

- Write down Assessment Team Report.

(AT Findings w.r.t infrastructure, teaching methodology, students' learning outcomes, faculty performance, curriculum design, etc)

8. Improper summaries of the feedback / survey Performa.

9. Absence of feedback conclusion drawn.

10. Ignoring the feedback performa

11. Irrelevant feedback from the faculty.

12. Including personal recommendation.

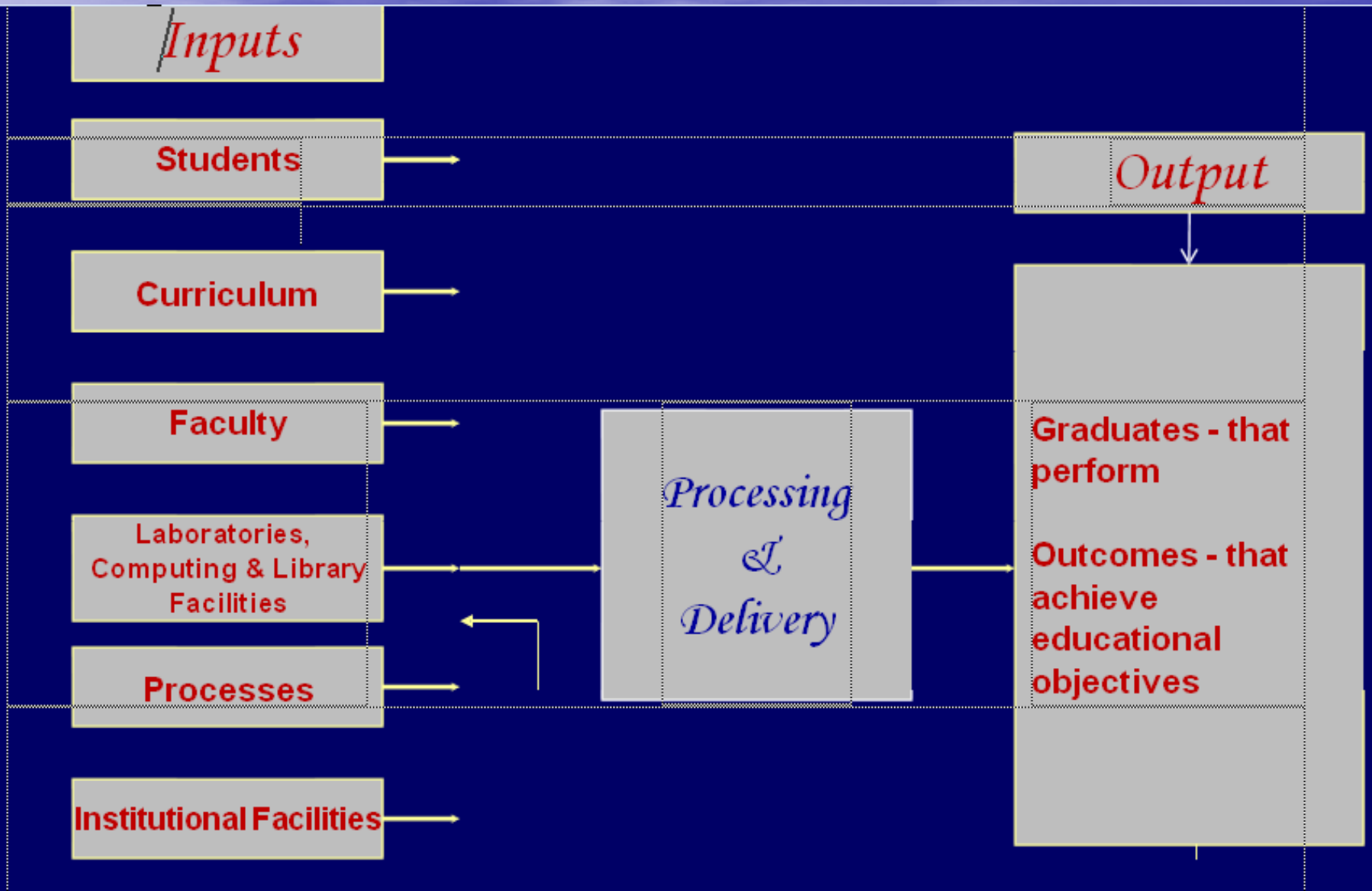
Reasons for weakness in SAR

1. Improper selection of Program Teams / Assessment Teams.
2. Lack of Commitment and sound understanding of SAP
3. Lack of Time Management.

Self Assessment
8 Criteria & Associated Standards

- Criterion 1: Program Mission, Objectives & Outcomes
- Criterion 2: Curriculum Design & Organization
- Criterion 3: Laboratories and Computing Facilities
- Criterion 4: Student Support and Advising
- Criterion 5: Process Control
- Criterion 6: Faculty
- Criterion 7: Institutional Facilities
- Criterion 8: Institutional Support

Assessment Model



PROGRAM MISSION STATEMENT

1. Brief, Concise and Distinctive

- General Format: Primary Purpose/ Secondary Purpose.

2. Program Objectives

- Aim High, Be realistic.

3. What, How and When

- Outcome Objectives.

4. Outcome must be addressed

- What Knowledge Skills & Abilities (KSA) graduates must demonstrate?

MEETING STANDARD 1-1

- Document institution, department and program mission statements.
- State program objectives (objectives are statements that describe the accomplishments graduates must demostrate upon completion of degree)
- Describe how objectives are aligned with theprogram, departmental and institution mission statements.

CONTINUED

- **Outline the main elements of the strategic plan (teaching strategies) to achieve the program mission and objectives.**

- **Provide for each objective how it was measured, when it was measured and improvements identified and made.**

MEETING STANDARD 1-2

Describe the means/ tools for assessing the extent to which graduates are performing the stated program outcomes / learning objectives:

- Conducting a survey of graduating student every semester (Proforma – 3)
- Conduct a survey of alumni every two years (Proforma – 7)
- Conduct a survey of employers every two Years (Proforma – 8)
- Carefully designed questions asked during design projects
- Specially designed Outcome assessment examination

Note: Data obtained from above sources should be analyzed & presented in SAR

Outcomes Vs Objectives

Expected Learning Outcomes	Program Objective		
	1	2	3
1			
2			
3			

Table 4.2: Outcomes versus objectives

OUTCOMES-OBJECTIVES MATRIX

- Outcomes are the attributes a student is required to develop on completing the program

- Program objective s achieved by the students on completing the program are to be shown by marking ‘x’.

SAMPLE OF MATRIX RELATING OUTCOMES TO OBJECTIVES

Program Learning Outcomes	Program Objectives				
	Skills in critical thinking, problem solving and communication	Initiate and manage change	Understand professional ethics and responsibility	Employ Information Technology	Enable organizations to make optimal decision making
Change Mgt	x	x			x
Life long learning	x		x	x	
Professional ethics and responsibility	x		x		

Standard 1-3

The results of program's assessment and the extent to which they are used to improve the program must be documented.

- Describe major future program improvement plans based on recent assessments.
- List strengths and weaknesses of the program.

ASSESSMENT RESULTS IMPLEMENTATION PLAN SUMMARY

AT Findings	Corrective Action	Implementa-tion Date	Responsible Body	Resources Needed
1				
2				
3				
Chairman's Comments Name & Signature				
Comments &				
QEC Comments Name & Signature				

Table A.2 Assessment Results Implementation Plan Summary

CRITERIA REFERENCED SELF ASSESSMENT - METHODOLOGY & EVALUATION TOOL

Criterion 1 – Program Mission, Objectives and Outcomes

S#	Questions
1	Does the Program have documented measureable objectives that support faculty / college and institution mission statements?
2	Does the Program have documented outcomes for graduating students?
3	Do these outcomes support the Program objectives?
	the students of these outcomes?
5	Does the department assess its overall performance periodically using quantifiable measures?
6	Is the result of the Program Assessment documented?

Criteria 2

CURRICULUM DESIGN & ORGANIZATION

The curriculum must be designed and organized to achieve the program's objectives and outcomes. Also course objectives must be in line with program outcomes. The breakdown of the curriculum must satisfy the standards specified in this section. Curriculum standards are specified in terms of credit hours of study.

Provide the following curriculum:	information about the program's

(A) Title of degree program {Ex: MSc (Phy), BE (Mech)}

(B) Definition of credit hour {50 minutes class}

Criteria 2

prerequisites, core, and elective courses.

LIST OF COURSES

Core Courses

S.N	Course / Code No.	Title	Credit hours	Laboratory Hours	Total Credit Hours	Pre-Requisites
1	Elect-202	Electrical Circuits	3	1	4	Elect-201, Phy-101
2	Math-101	Differential Equations	3	0	3	-

Elective Courses

S.N	Course / Code No.	Title	Credit hours	Laboratory Hours	Total Credit Hours	Pre-Requisites
1	CS-402	Super Computers	3	1	4	CS-202
2	Elect-303	Microprocessors	3	1	4	Elect-201

Criteria 2

D. (For Engineering Courses) Complete Table 4.3 showing curriculum breakdown in terms of mathematics and basic sciences, major requirements, social sciences and other requirements.

Sem	Course Number	Category (Credit Hours)				
		Maths & Basic Sciences		Core Courses	Electives Courses 'Technical'	Humanities & Social Sciences
		Maths	Basic Sc			
Total						
Minimum						

BS Engineering Program

Domain	Knowledge Area	No. of Courses	No. of Crd hrs	% Overall
Non-Engg	Humanities (Eng, Culture, Social Scs)	8	19-21	
	Management Sciences (Engg Mgt)	2	6	30- 35
	Natural Sciences (Maths, Physics, Elective)	6	19-20	
	Sub Total	**16**	44-47	
Engg	Computing (Fundl, Prog, Design)	3	9	65- 70
	Engineering Foundation	8	29	
	Major Based Core (Breadth)	5	19-20	
	Major Based Core (Depth)	5	17-18	
	Inter-Disciplinary Engineering Breadth (Electives)	2	6-7	
	Senior Design Project	2	6	
	Industrial Training (Summer)			
	Sub Total	**25**	86-89	

PROGRAM OUTCOMES

Courses or Group of Courses	Program Outcomes			
	1	2	3	4
1				
2				
3				

Table 4.4: Courses versus program outcomes

Courses or Group of courses	Program Outcomes						
	1	2	3	4	5	6	7
COE 200, COE 205, COE 305, COE 360	+	+	+	+	+	+	+
COE 400, COE 485	+	+	+	+	+	+	+
COE 399, COE 350, 351, 352	+	+	+			+	+
COE 390							
COE 308	+						
COE 342	+	+					
COE 442	+	+					
ICS Courses	+	+	+	+			
Stat & Mathematics, Phy & Chem Courses	+			+			
English Courses					+		
IAS Courses					+		
EE Courses	+	+	+				+
Technical Electives	+			+		+	
COE Electives	+					+	

Standard 2.2

Theoretical background, problems analysis and solution design must be stressed within the program's core

- Indicate which courses contain a significant portion (more than 30%) of the elements in this standard.

Elements	Courses
Theoretical Background	
Analysis	
Solution Design	

Table 4.5: Standard 2-2 requirement

Standard 2-3

The curriculum must satisfy the core requirements for the program, as specified by the respective accreditation body. Examples of such requirements are given in Table A.1a (SAM).

Standard 2-4

The curriculum must satisfy the major requirements for the program as specified by the respective accreditation body. Examples of such requirements are given in Table A.1a (SAM).

Standard 2-5

The curriculum must satisfy general education, arts, and professional and other discipline requirements for the program, as specified by the respective accreditation body. Examples of such requirements are given in Table

	Maths & Sciences	Engineering Topics	General Education	Others
BE Mechanical	20	67	10	03
MBBS	94	1	05	-

Table A.1a Minimum Requirements for Each Program (Program Semester Credit Hours)

- HEC Requirements / Accreditation Council Requirements
- Program Requirements
- Deviations

Justification Deviations

Criterion 2 – Curriculum Design and Organization	
S#	**Questions**
1	Is the curriculum consistent?
	The support program s objectives?
3	Are theoretical background, problem analysis and solution design stressed within the program's core material?
4	Does the curriculum satisfy the core requirements laid down by respective accreditation bodies? (refer Appendix A of the Self Assessment Manual)
5	Does the curriculum satisfy the major requirements laid down by HEC the councils accreditation (Refer appendix A of the Self Assessment Manual)
6	Does the curriculum satisfy the general education, arts and professional and other discipline requirements as laid down by the respective / accreditation bodies / councils? (Refer to Appendix A of the Self Assessment Manual)
7	Is the information technology component integrated throughout the program?
8	Are oral and written skills of the students developed and applied in

CRITERION 3

Standard 3-1

Laboratory manuals/documentation/instructions for experiments must be available and readily accessible to faculty and students

Standard 3-2

There must be adequate support personnel for instruction and maintaining the laboratories

Standard 3-3

The University computing infrastructure and facilities must be adequate to support program's objectives

CRITERIA REFERENCED SELF ASSESSMENT - METHODOLOGY & EVALUATION TOOL

Criterion 3 – Laboratories and Computing Facilities

S#	Questions
1	Are laboratory manuals / documentation / instructions etc. for experiments available and readily accessible to faculty and students?
2	Are there adequate number of support personnel for instruction and maintaining the laboratories?
3	Are the university's infrastructure and facilities adequate to the objectives?

CRITERION 4

STUDENT SUPPORT AND ADVISING

- Student must have adequate support to complete the program in a timely manner and must have ample opportunity to interact with their and timely about program requirements and career alternatives.

CRITERION 4

Standard 4-1

Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner

Standard 4-2

Courses in the major must be structured to ensure effective interaction between students, faculty and teaching assistants

Standard 4-3

Guidance on how to complete the program must be available to all students *(in particular to graduate students)*, and

CRITERIA REFERENCED SELF ASSESSMENT - METHODOLOGY & EVALUATION TOOL

Criterion 4 – Student Support and Advising

S#	Questions
1	Are the courses being offered in sufficient frequency and number
2	Are the courses in the major area structured to optimize interaction between the students, faculty and teaching assistants?
3	Does the university provide academic advising on course decisions and career choices to all students?

CRITERION 5
PROCESS CONTROL

The processes by which major functions are delivered must be in place, controlled, periodically reviewed, evaluated and continuously improved. To meet this criterion a set of standards must be satisfied.

Standard 5-1

The process by which students are admitted to the program must be based on quantitative and qualitative criteria and clearly documented (Source: Prospectus).

Standard 5-2

The process by which students are registered in the program and monitoring of students progress to ensure timely completion of the *(MS/PhD)* program must be documented.

{ Use Research Student Progress Review Form (Proforma – 4)}

Standard 5-3

The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation, promotion must be consistent with institution mission statement.

{ Use Teacher Evaluation Form (Proforma - 10)}

Standard 5-4

The process and procedures used to ensure that teaching and delivery of course material to the students emphasizes active learning and that course learning outcomes are met.

{Use Course Evaluation Questionnaire (Proforma - 1)}

Standard 5-5

The process that ensures that graduates have completed the of program be on standards effective and clearly documented procedures

METHODOLOGY & EVALUATION TOOL

Criterion 5 – Process Control	
S#	Questions
1	Is the process to enroll students to a program based on quantitative and qualitative criteria?
2	evaluated to ensure that it is meeting its objectives?
3	Is the process to register students in the program and monitoring
4	Is the process above periodically evaluated to ensure that it is meeting its objectives?
5	Is the process to recruit and retain faculty in place and documented?

Criteria 6 Faculty

in their discipline and have the necessary technical depth and breadth to support the program.

- There must be enough faculty members to provide continuity and stability, to cover the curriculum adequately and effectively, and to allow for scholarly activities.

FACULTY DISTRIBUTION BY PROGRAM AREAS

Program's area of specialization	Courses in the area and average number of sections per year	Number of Faculty members in each area	Number of faculty with Ph.D. degree
Area 1 (Aero)	4 & 4	3	2
Area 2 (Therm)	3 & 3	2	1
Area 3 (Struct)	5 & 3	2	1
Area (Math)	6 & 4	2	1
Total			

Table 4.6: Faculty distribution by program areas.

Standard 6-2

All faculty members must remain current in the discipline and sufficient time must be provided for scholarly activities and professional development.

Also, effective programs for faculty development must be in place. *(Faculty development plan be attached)*

Standard 6-3

All faculty members should be motivated and have job satisfaction to excel in their profession.

Obtain faculty input using *Faculty Survey (Proforma -5)* on programs for faculty motivation and job satisfaction.

METHODOLOGY & EVALUATION TOOL

Criterion 6 – Faculty	
S#	Questions
1	Are there enough full time faculty members to provide adequate coverage of the program areas / courses with continuity and stability?
2	Are the qualifications and interests of faculty members sufficient to teach all courses, plan, modify and update courses and curricula?
3	Do the faculty members posses a level of competence that would be obtained through graduate work in the discipline?
4	Do the majority of faculty members hold a PhD degree in their discipline?
5	Do faculty members dedicate sufficient time to research to remain current in their disciplines?
6	Are there mechanisms in place for faculty development?

CRITERION 7

INSTITUTIONAL FACILITIES

Institutional facilities including library, laboratories, classrooms and offices must be adequate to support the objective of the program. To satisfy this criterion a number of standards must be met.

Standard 7-1

The institution (besides usual provisions in the library) must have the infrastructure to support new trends in learning such as e-learning, video learning etc.

Standard 7-2

The library must possess an up-to-date (technical) collection (of books and journals) relevant to the program and must be adequately staffed with professional (library) personnel

Standard 7-3

Class-rooms must be adequately equipped and offices must be proper to enable faculty to carry out their responsibilities

LIBRARY RESOURCES

Item	Quantity	Remarks
Text / Reference Books		
Periodicals (bound volumes)		
Full- text journals		
E-books / Journals		
DVDs		
Films		
Newspapers / Magazines		
Other media		
Seating Capacity		
Computer s / Printers		
Photo Copier		

TOTAL NUMBER OF LABS, OFFICES AND CLASSROOMS

Sr. #	Items	Total	Remarks
1	Classrooms for Students	7	One more class rooms needed
2	Labs	5	List of deficient lab equipment is attached
3	Computer Labs	1	Air conditioner is out of order
4	Total Computers	50	10 computers need to be replaced
5	Office for Faculty Members	8	02 more offices needed

CRITERIA REFERENCED SELF ASSESSMENT - METHODOLOGY & EVALUATION TOOL

Criterion 7 – Institutional Facilities

S#	Questions
1	Does the institution have the infrastructure to support new such e
2	Does the library contain technical collection relevant to the program and is it adequately staffed?
3	Are the class rooms and offices adequately equipped and capable of helping faculty carry out their responsibilities?

CRITERION 8

INSTITUTIONAL SUPPORT

The institution's support and the financial resources for the program be to an in which the program can achieve its objectives and retain its strength.

Standard 8-1

There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to maintain competence as teachers and researchers / scholars

Standard 8-2

There must be an adequate number of high quality graduate students, research assistants and Ph.D. students as per facilities

Standard 8-3

Financial resources must be provided to acquire and maintain Library holdings, laboratories and computing facilities

NUMBER OF GRADUATE STUDENTS DURING LAST THREE YEARS

	2007-08	No. of Students	2008-09	No. of Students	2009-10	No. of Students
Bachelors	-	-	-	-	-	-
Masters						
.Phil						
Ph.D						
Others						

CRITERIA REFERENCED SELF ASSESSMENT - METHODOLOGY & EVALUATION TOOL

Criterion 8 – Institutional Support

S#	Questions
1	Is there sufficient support and finances to attract and retain high quality faculty?
2	Are there an adequate number of high quality graduate students, teaching assistants and Ph.D students?

Analysis of Feedback Performa

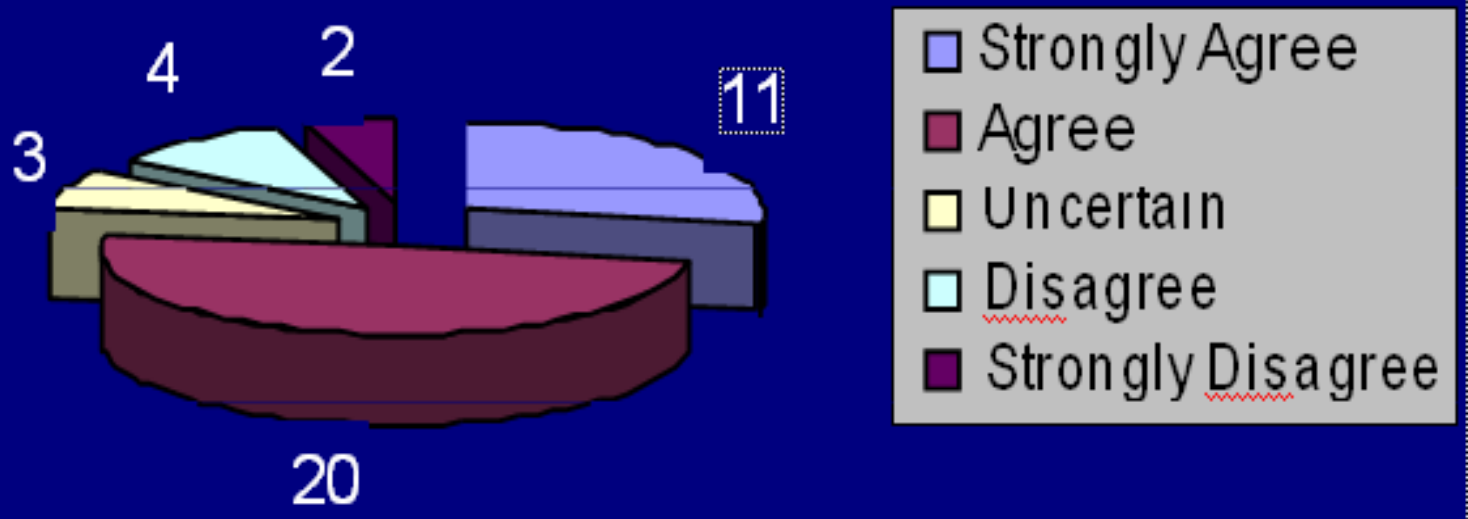
STUDENT COURSE EVALUATION QUESTIONNAIRE

- To be filled by each Student at the time of Course Completion

- Encourage the students to give their honest opinion so that Course quality can be improved. They should be frank and constructive in their comments

Student Course Evaluation Questionnaire

STUDENT COURSE EVALUATION QUESTIONNAIRE



FACULTY COURSE REVIEW REPORT

- To be filled by each teacher at the time of Course Completion

- It should be completed by the course instructor and transmitted to Head of Department (through Dept Quality Officer) together with copies of the course outline

Faculty Course Review Report

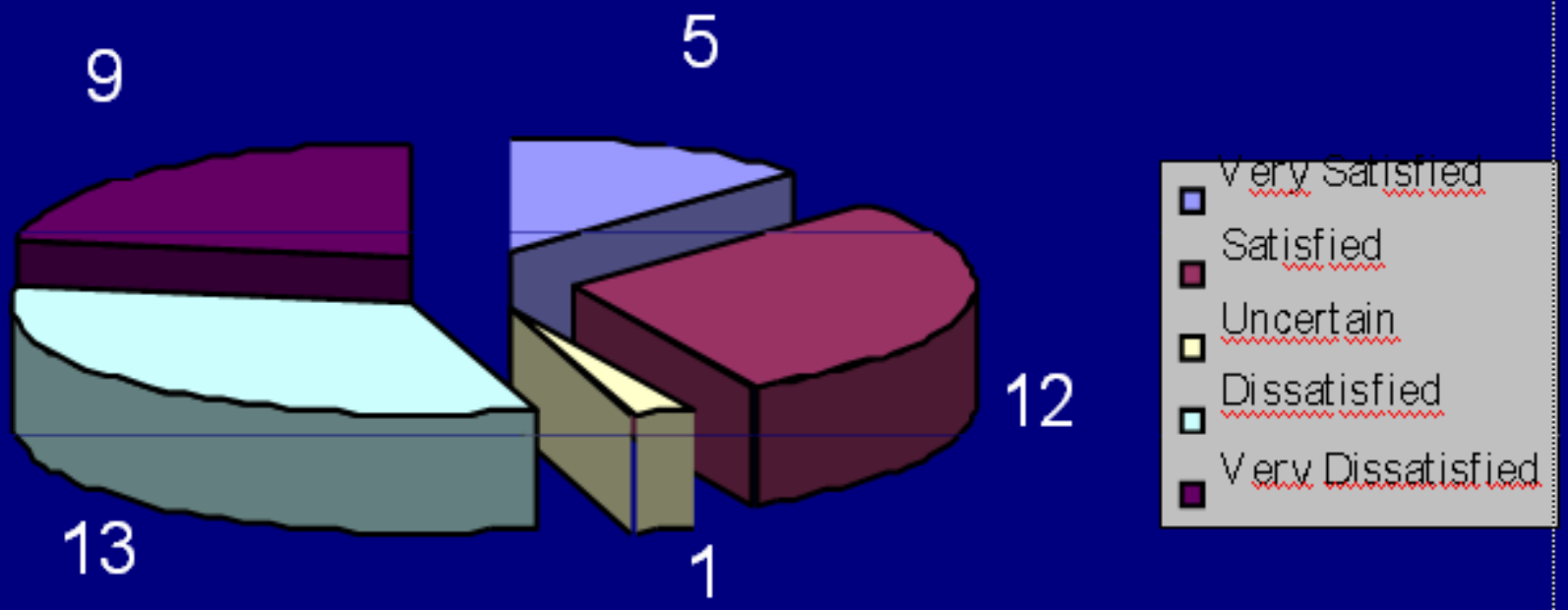
SURVEY OF GRADUATING STUDENTS

- To be filled out by graduating students in last semester / year before the award of degree

- The survey seeks graduating students' input on the quality of education they received in their program and level preparation had the university. The purpose of this survey is to assess the quality of the academic programs.

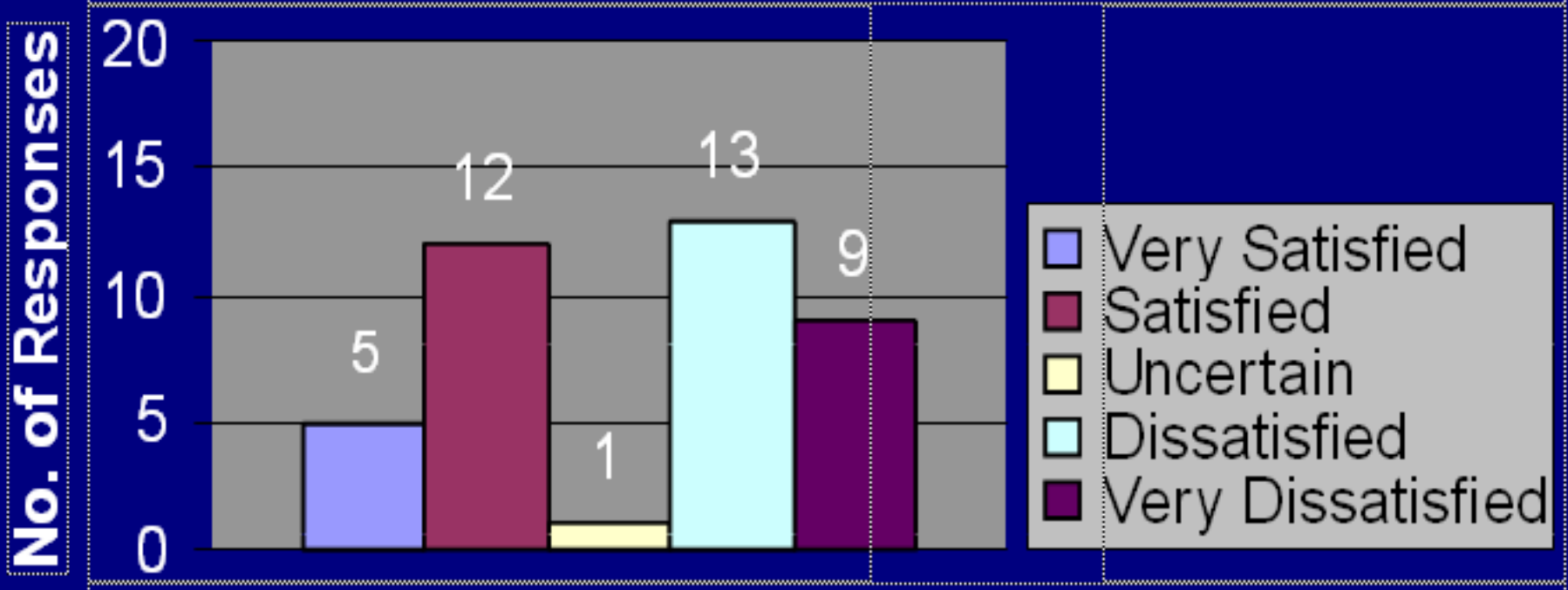
Survey of Graduating Students

SURVEY OF GRADUATING STUDENTS



The program is effective in developing planning ability

SURVEY OF GRADUATING STUDENTS



The Program is effective in developing planning ability

RESEARCH STUDENT PROGRESS REVIEW FORM

- To be filled out by Master / M Phil / PhD Research Students on six monthly basis
- Filled proforma to be submitted by the HoD / Dept Quality Officer to the QEC for the perusal of the VC Rector

Research Student Progress Review Form

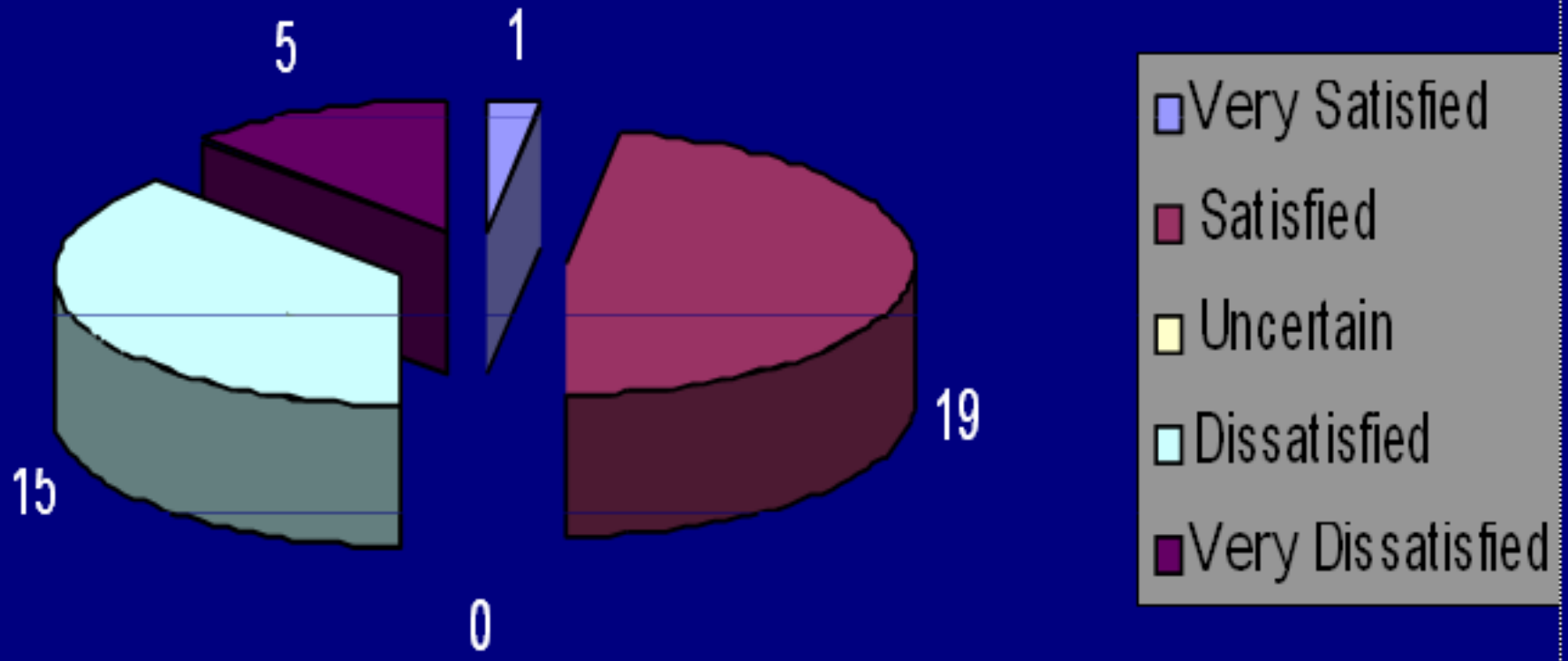
FACULTY SURVEY

- To be submitted on annual basis by each faculty member

- The Purpose of this survey is to assess faculty members' satisfaction level and the effectiveness of programs in place to help them progress and excel in profession. information provided should be kept confidential.

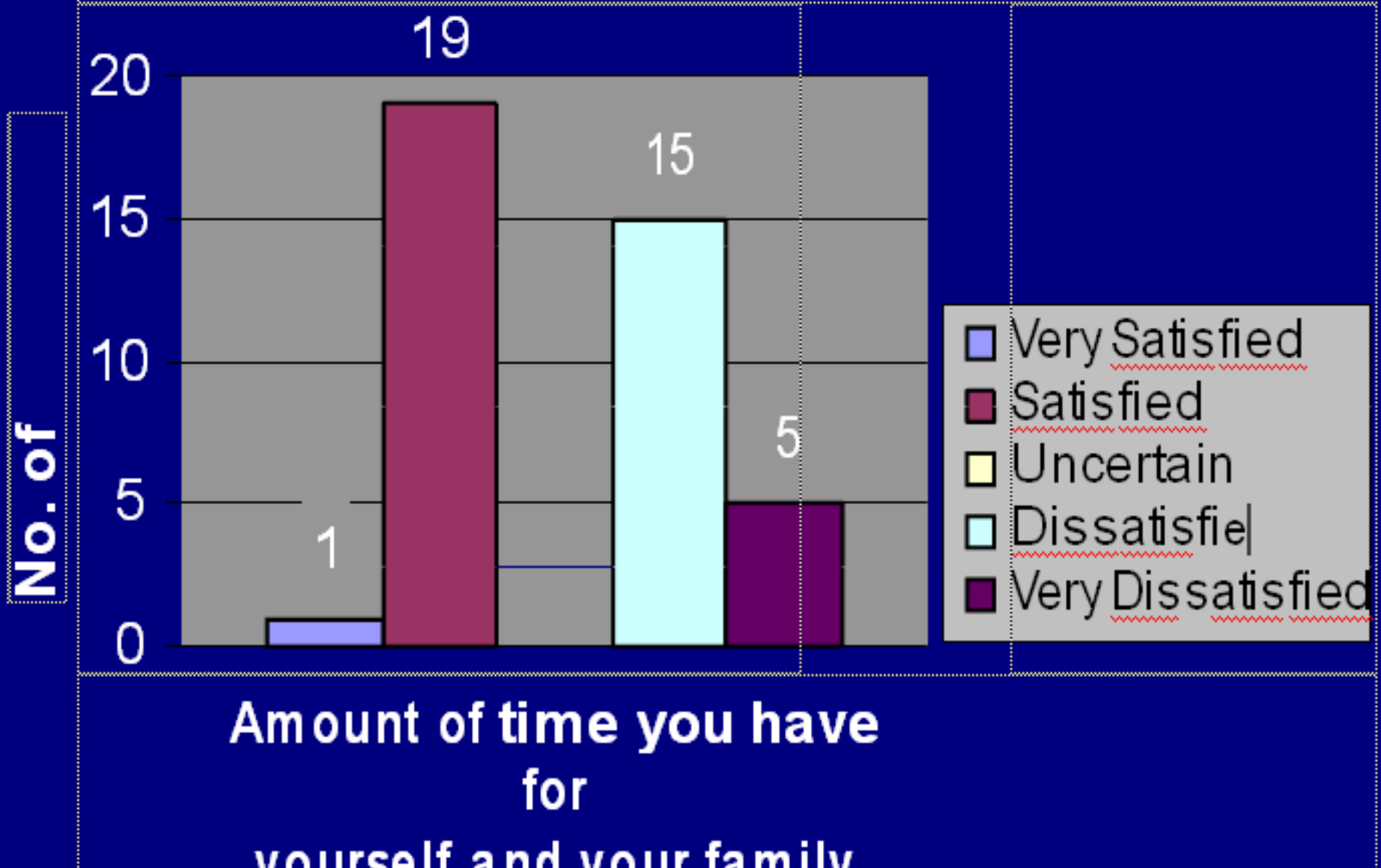
Faculty Survey

FACULTY SURVEY



Amount of time you have for yourself and your family

FACULTY SURVEY



SURVEY OF DEPARTMENT OFFERING Ph D PROGRAMS

The information is required for EACH Department in which a Ph D program is offered

Survey of Department Offering Ph.D. Programs

ALUMNI SURVEY

- To be filled by Alumni (old-students/graduates) - after the completion of each academic year

-

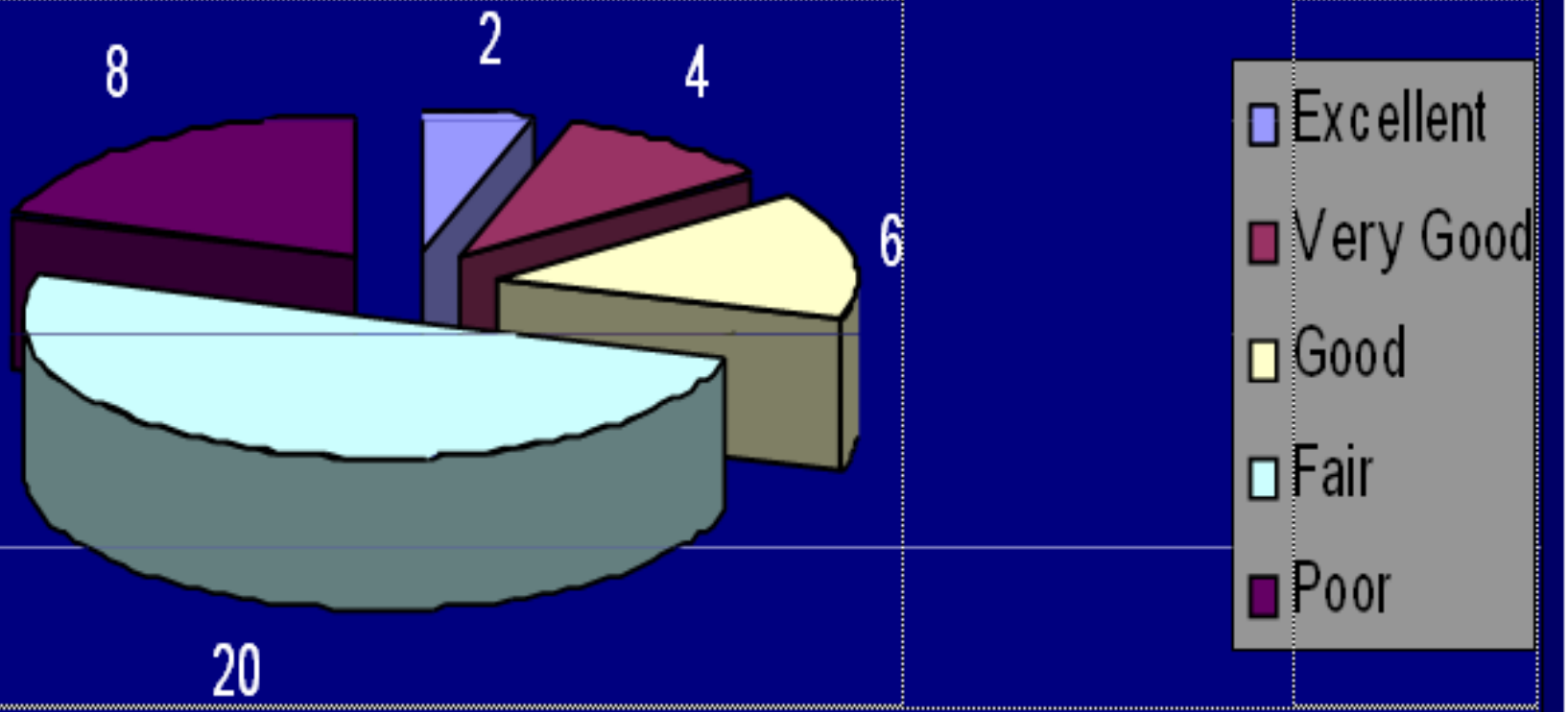
received and the level of preparation they had at University before joining the profession.

- The purpose of this survey is to assess the quality

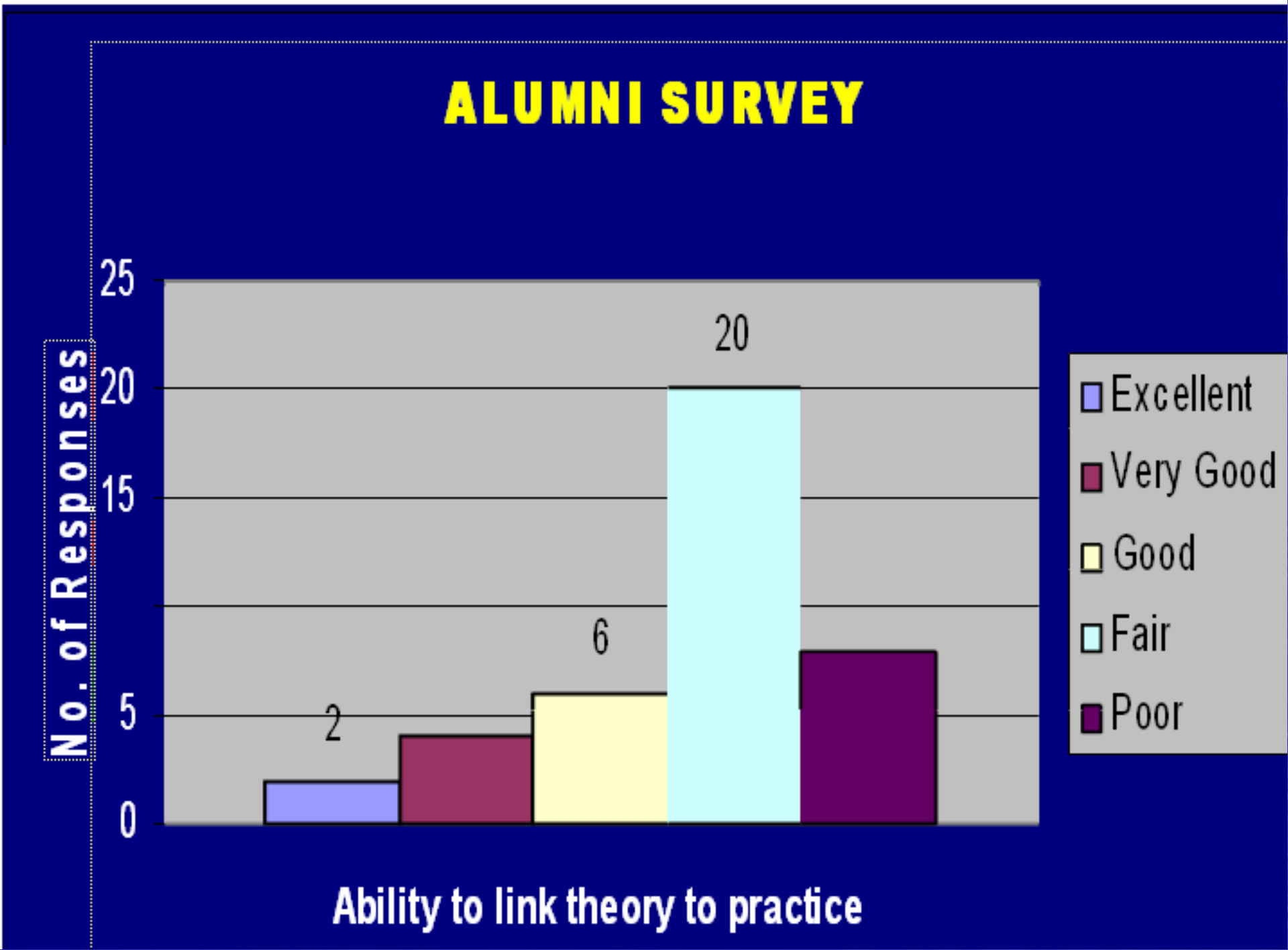
of the academic program

Alumni Survey

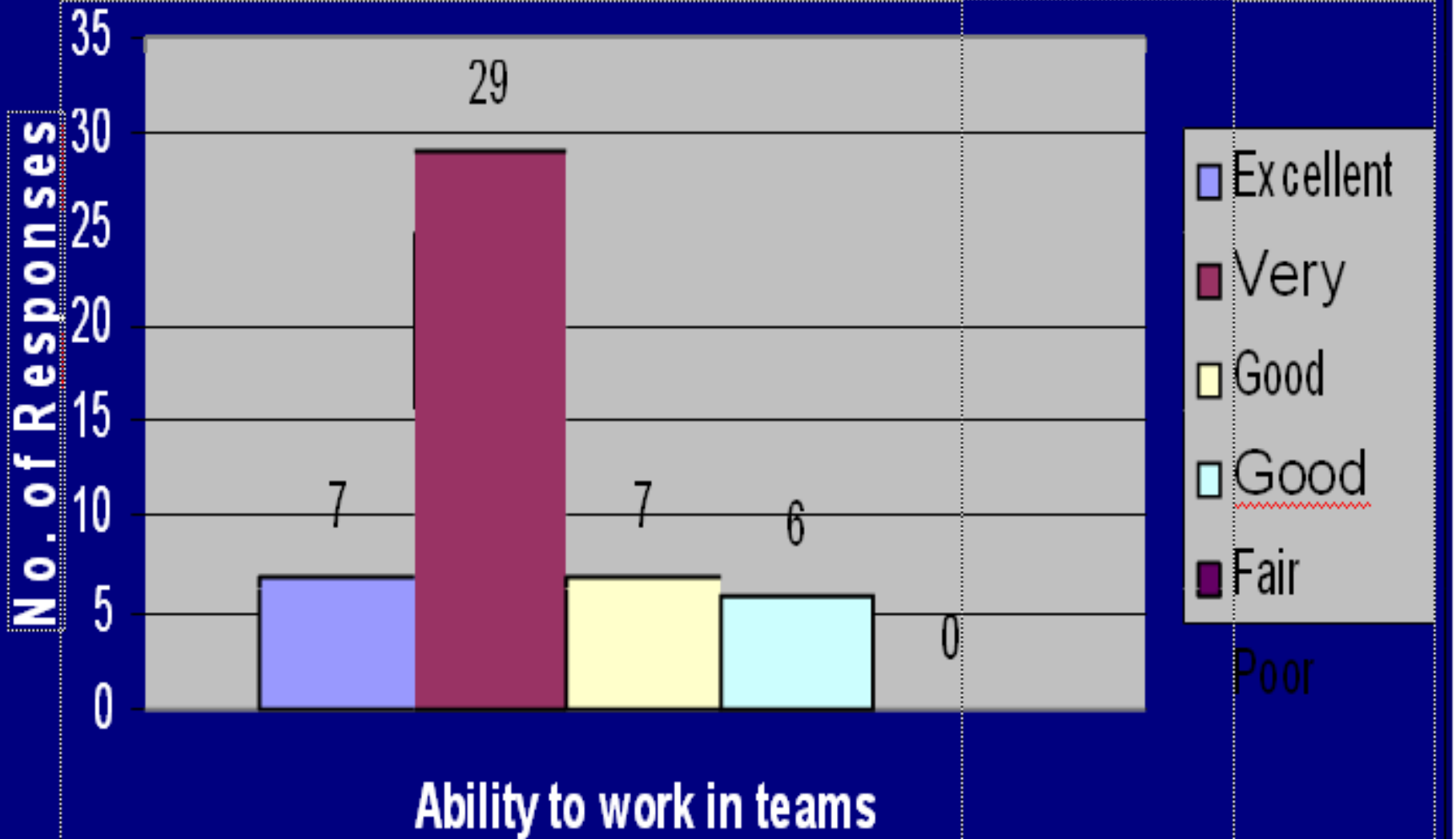
ALUMNI SURVEY



Ability to link theory to practice


ALUMNI SURVEY
No. of Responses
25
20
15
5
0
2
6
20
Excellent
Very Good
Good
Fair
Poor
Ability to link theory to practice

EMPLOYER SURVEY



FACULTY RESUME

All Faculty members must fill the *Resume Form* on annual basis to highlight (and record) their assignments, achievements, research & publications, grants/contracts secured, honours and awards etc

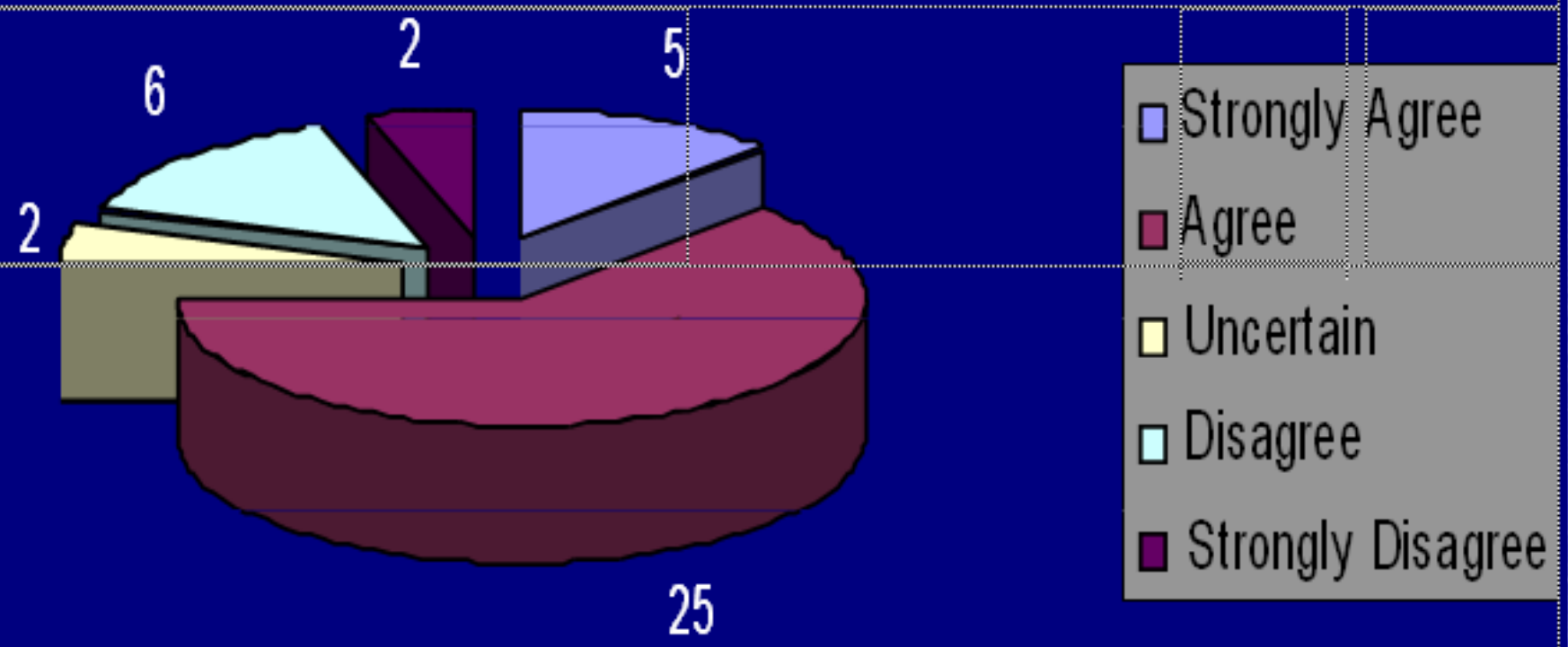
Faculty Resume

TEACHER EVALUATION FORM

To be filled by the students about the teacher who has just completed a course with them

Teacher Evaluation Form

TEACHER EVALUATION FORM



The instructor communicates the subject matter effectively

SUMMARY OF FEEDBACK PROFORMA

(FACULTY SURVEY-EXAMPLE)

SUMMARY : FACULTY SURVEY

S	Attributes	1	2	3	4	5	6	7	M
1	Your mix of research, teaching & community svc	5	4	4	3	5	3	4	4
2	The intellectual stimulation of your work.	3	2	2	2	2	3	2	2
3	Type of teaching / research you currently do.	4	5	4	3	4	5	3	4
4	interaction students.		4		4		5		5
5	Cooperation you receive from colleagues.	3	3	3	3	3	3	3	3
6	The mentoring available to you.	1	2	1	2	2	2	2	2
7	Administrative support from the department.	2	1	1	1	1	1	1	1
8	Salary and compensation package	3	4	4	4	3	4	4	4
	security stability the	3		4		4		4	4
10	Amount of time you have for yourself and family.	4	4	4	4	4	4	4	4

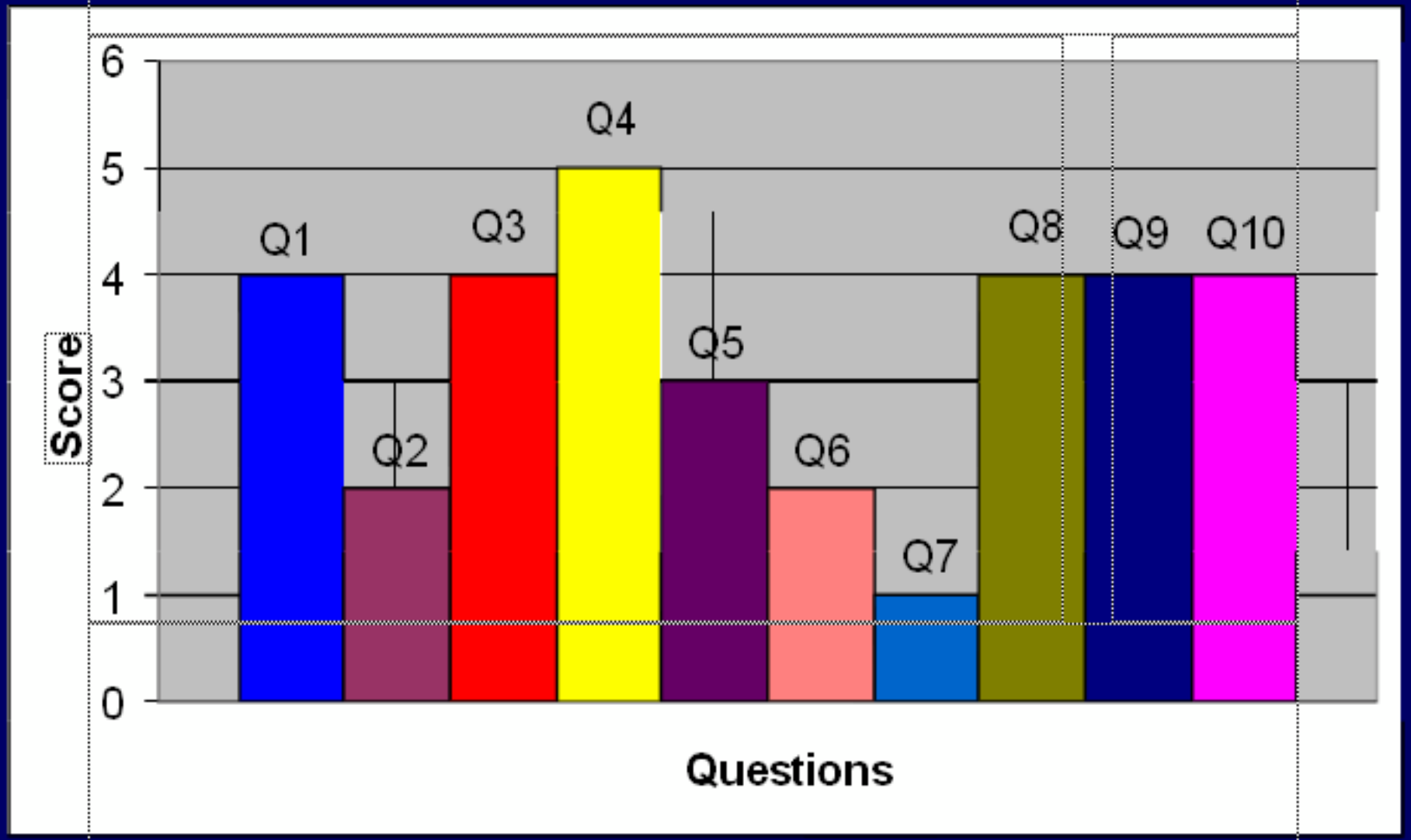
M – Mean

Remarks: _____

SUMMARY : FACULTY SURVEY

S	Attributes	A	B	C	D	E
1	Your mix of research, teaching & community svc.					
2	The intellectual stimulation of your work.					
3	of / you do.					
4	Your interaction with students.					
	you from .					
6	The mentoring available to you.					
7	Administrative support from the department.					
8	Salary and compensation package					
9	Job security and stability at the department					

SUMMARY : FACULTY SURVEY



EXECUTIVE SUMMARY OF SAR

Guidelines for Writing an Executive Summary

Executive Summary

ASSESSMENT RESULTS IMPLEMENTATION PLAN SUMMARY

AT Findings	Corrective Action	Implementation Date	Responsible Body	Resources Needed

ASSESSMENT RESULTS IMPLEMENTATION PLAN SUMMARY

ASSESSMENT TEAM REPORT FORMAT

REPORT CONTENTS		
Does the report contain primary contact person and information?	Y	N
Does the report clearly indicate the name of the program, the college to which it reports, and the year covered by the report?	Y	N
Does the report include names and particulars of the members of the Program Team?	Y	N
Does the report indicate the time frame for completing the Report?	Y	N
Does the report contain a summary of the assessment method(s) for outcome assessed?	Y	N
Does the report contain a summary of the assessment results?	Y	N
Does the report identify the group(s) who participated in the discussion of the assessment result and proposed changes?	Y	N
Does the report provide specific recommendations for changes or improvements based on the assessment result?	Y	N
Does the report specify who will be responsible for implementing the proposed change(s)?	Y	N
the identify resource to the change(s)?	Y	

ASSESSMENT TEAM REPORT FORMAT

Feedback on Report Contents	Comments
Assessment Methods / Results	
Does the summary indicate any modifications from the method(s) outlined in the Program Assessment Plan?	
Does the summary clearly identify the person responsible and the procedures employed for data collection and analysis?	
Does the summary provide specific details of the results of the assessment?	
Does the summary identify the extent to	
Does the summary provide a description of the process used to disseminate the compared?	

EXERCISE NO. 1

Group 1: Write down Mission statement of the university / Institute

Group 2: Write down Mission statement of your own Department

Group 3: Write down Mission statement of your own Program

EXERCISE NO. 2

Write down 03 objectives of your own programs:

Group 1 : Humanities

Group 2 : Sciences

Group 3: Engineering

ELEMENTS OF THE STRATEGIC PLAN

- Curriculum design: Core subjects, Elective subjects. A wide variety of elective subjects are offered which brings diversity in the program. It also includes provision of areas of specialization.
- Concept building through extensive laboratory work, applying theoretical knowledge.
- Small-scale practical projects compatible with contemporary technological advancements throughout the degree program, and one practical Project in the final semester; which may become basis for winning a good job.
- Compulsory summer internships to give hands-on experience to students. Internships are arranged by the University.
- Co-curricular activities like academic clubs, participating in national and international competitions and exhibitions.

PROGRAM LEARNING OUTCOMES

(Example for an Engineering Program)

The broad educational objectives of the undergraduate program are to provide a solid foundation of mathematical, scientific and engineering and develop basic that serve the students throughout their careers.

Degree of skills and capabilities that will reflect on their performance as engineers is their ability to:

- apply knowledge of mathematics science and fundamental engineering to mechanical engineering problems.
- identify, formulate and solve practical engineering problems.
- design components, processes and systems to meet desired needs.
- conduct engineering experiments to study different engineering systems, including various modes of operation, performance evaluation, properties of materials and manufacturing techniques, as well as to use laboratory instruments and computers to analyze and interpret data.

PROGRAM LEARNING OUTCOMES

(Example for an Engineering Program)

- Use modern tools, techniques, and skills necessary for practicing mechanical engineering including computational tools, statistical techniques, and instrumentation.
- work in a professional engineering environment, and to understand the associated economical considerations.
- work effectively in teams including multidisciplinary teams to solve engineering problems relevant to their field.
- communicate in , oral, graphical , including the use of professional quality visual aids.
- understand the professional and ethical responsibilities of engineers.
- understand the impact of engineering on the society and the environment.
- recognize the need and an ability to engage in lifelong learning of

PROFORMAE

- Student Course Evaluation Questionnaire *(Criterion–2)*
- Faculty Course Review Report *(Criterion–2)*
- Survey of Graduating Students *(Standard: 1-2)*
- Research Student Progress Review Form *(Standard: 1-2)*
- Faculty Survey *(Standard: 6-3)*
- Survey of Dept offering Ph D Programs *(Standard: 1-4)*
- Alumni Survey *(Standard: 1-2)*
- Employer Survey *(Standard: 1-2)*
- Faculty Resume *(Standard: 6-1)*
- Teacher Evaluation Form *(Criterion–2)*

THANK YOU

Please fill the feedback form and we highly appreciate your presence.