Frequency table.

i) Attendance

| | Pass | fail | high |
|---|---|---|---|
| poor | 8 | 18 | 1 |
| Average | 7 | 21 | 3 |
| Good | 24 | 14 | 4 |

ii) Assignment

| | Pass | Fail | high |
|---|---|---|---|
| weak | 7 | 19 | 5 |
| Average | 17 | 20 | 2 |
| Excellent | 15 | 14 | 1 |

iii) class participation

| | Pass | fail | high |
|---|---|---|---|
| Normal | 8 | 35 | 0 |
| High | 31 | 18 | 8 |

iv) Gender

| | Pass | fail | high |
|---|---|---|---|
| Male | 18 | 17 | 1 |
| Female | 21 | 36 | 7 |

Likelihood table

| | Pass | fail | high | |
|---|---|---|---|---|
| Poor | 8/39 | 18/53 | 1/8 | 27/100 |
| Average | 7/39 | 21/53 | 3/8 | 31/100 |
| Good | 24/39 | 14/53 | 4/8 | 42/100 |
| | 39/100 | 53/100 | 8/100 | |

v) Attendance

iii) Assignment

| | Pass | Fail | high | |
|---|---|---|---|---|
| Weak | 7/39 | 19/53 | 5/8 | 31/100 |
| Average | 17/39 | 20/53 | 2/8 | 39/100 |
| Excellent | 15/39 | 14/53 | 1/8 | 30/100 |
| | 39/100 | 53/100 | 8/100 | |

iii) class participation

| | Pass | fail | high | |
|---|---|---|---|---|
| Normal | 8/39 | 17/53 | 1/8 | 26/100 |
| High | 31/39 | 36/53 | 7/8 | 74/100 |
| | 39/100 | 53/100 | 8/100 | |

iv) Gender

| | Pass | fail | high | |
|---|---|---|---|---|
| Male | 18/39 | 17/53 | 1/8 | 36/100 |
| Female | 21/39 | 36/53 | 7/8 | 64/100 |
| | 39/100 | 53/100 | 8/100 | |

Likelihood of 'pass' = P(Attendance = Poor/Pass) *
P(Assignment = Average /Pass) *
P(class Participation = High /Pass) *
P(Gender = Female/Pass) * P(Pass)

$$= \frac{8}{39} * \frac{17}{39} * \frac{31}{39} * \frac{21}{39} * \frac{39}{100}$$

$$= 0.014925403$$

Likelihood of 'fail' = P(Attendance = Poor/Fail) *
P(Assignment = Average/Fail) *
P(class Participation = High/Fail) *
P(Gender = Female/Fail) * P(Fail)

$$= \frac{18}{53} \times \frac{20}{53} \times \frac{36}{53} \times \frac{36}{53} \times \frac{53}{100}$$

$= 0.031338621$

Likelihood of 'high' = P(Attendance = Poor/high) *
P(Assignment = Average / high) *
P(class Participation = High/high) *
P(Gender = Female/high) * P(High

$= \frac{1}{8} * \frac{2}{8} * \frac{7}{8} * \frac{7}{8} * \frac{8}{100}$

$= 0.001940625$

P(Pass) = 0.014925/(0.014925+0.031338621+
0.001940625)

$= 0.014925/0.048204649$

$= 0.309628$

P(Fail) = 0.031338621/0.048204649

$= 0.65011$

P(high) = 0.001940625/(0.014925403+
0.31338621 + 0.001940

$= 0.001940625/0.048204649$

$= 0.04$

∴ The result is Pass - 31%
Fail - 65%
high - 4%