GOVERNMENT CITY COLLEGE (A) Hyderabad-500002
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## CALCULATION FOR PROGRAM OUTCOME ATTAINMENT

Step1: Develop CO - PO mapping at each Course Level and Program level

|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{C O 1}$ | 3 | 3 | 3 | 1 | 3 | 2 | 2 |
| $\mathbf{C O 2}$ | 3 | 3 | 3 | 1 | 3 | 2 | 2 |
| $\mathbf{C O 3}$ | 3 | 3 | 3 | 2 | 3 | 2 | 2 |
| $\mathbf{C O 4}$ | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| $\mathbf{C O 5}$ | 3 | 3 | 3 | 3 | 2 | 2 | 2 |
| Average | 3 | 3 | 3 | 1.8 | 2.6 | 2 | 2 |

$W P_{i}=\frac{\sum_{i=1}^{5} \operatorname{COj}}{5} \quad\left(i=1\right.$ to 7 and $j=1$ to 5 ) (where $W P_{i}$ is the Weight factor for Program Outcome $\mathrm{PO}_{\mathrm{i}}$ )

Step 2: COs Attainment Targets at Course Level

| Course Evaluation | Levels of <br> Assessment <br> (Marks <br> Distribution) | Target <br> Fixed | Attainment Level |
| :--- | :--- | :--- | :--- |
| CIA (20Marks) | DA (5 Marks) | $\geq 3$ Marks | 1, otherwise 0 |
|  | IA (15 Marks) | $\geq 8$ Marks | 1, otherwise 0 |
| SEE (80 Marks) | FA | $\geq 32$ Marks | 1, otherwise 0 |

(CIA- Continuous Internal Assessment, SEE - Semester End Exam, DA Direct Assessment, IA - Indirect Assessment, FA- Final Assessment)

Step 3: Calculating Attainment at each Level of Assessment for Course
CO is said to be attained by a student if he/she gets greater than $40 \%$ of marks in FA, greater
than $60 \%$ of marks in DA and around $55 \%$ of marks in IA as fixed targets. The number of
students who attained the target is calculated for a course as a whole using the following

## Formulas:

CO_DA = Total Number of Students reached the target / Total number of students attended

CO_IA $=$ Total Number of Students reached the target / Total number of students attended

CO_FA = Total Number of Students reached the target / Total number of students attended

Step 4: Calculating Semester-wise Attainment for each Level
Calculating the Final PO attainment Levels for a Course and Semester:
After calculating weights and fraction of students attained at each level of assessment for
a particular course, semester-wise PO attainment will be calculated by using the following

Formula for three different levels of assessment.

## Direct <br> Assessment:

$$
P_{\mathrm{IDA}_{1}}=\frac{\sum\left(W P_{1} * C O_{-} D A\right)}{\sum W P_{1}}
$$

Indirect Assessment:

$$
P_{\mathrm{IA}_{1}}=\frac{\Sigma\left(W P_{i} * C O_{-} I A\right)}{\Sigma W P_{i}}
$$

Final Assessment:

$$
P_{I} A_{1}=\frac{\sum\left(W P_{1} * C O_{-} F A\right)}{\sum W P_{1}}
$$

(Fix $\mathrm{j}=1$ to 6 (Semester number) and i vary from 1 to 7 )

Step 5: Calculating attainment at each level for a Program
After calculating semester wise PO attainment for each level of assessment for sixsemesters, Program wise attainment will be calculated by using the following formula forthree different levels of assessment.

$$
\text { Direct Assessment: } \quad P_{i D A}=\frac{\sum_{j} P_{i D A j}}{} \times 100
$$

n

Indirect Assessment:

$$
\mathrm{P}_{\mathrm{ilA}}=\frac{\sum_{j} \mathrm{P}_{\mathrm{ilA} \mathrm{i}}}{n} \times 100
$$

## Final Assessment:

$$
P_{i F A}=\frac{\sum_{j} P_{i F A j}}{n} \times 100
$$

( $i=1, \ldots 7, j=1, \ldots 6$ and $n=$ Total No. of Semesters )
For Example: The PO Attainment for a faculty B.Sc. Life Sciences, B.Sc. Physical Sciences, BA(HEP) and B. Com (CA), B.B.A for the 202023 batch is as follows:

| BSC PS | PO1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FA | 86.30389 | 86.29915 | 92.35663 | 88.7287 | 87.16571 | 91.07505 |
| DA | 99.79161 | 99.79508 | 99.92267 | 99.82923 | 99.80484 | 99.89754 |
| IA | 97.86921 | 97.87536 | 98.5034 | 98.18205 | 98.04116 | 98.36587 |


| BSC LS | PO1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FA | 89.0362 | 89.0502 | 91.2029 | 89.3086 | 89.6085 | 91.2657 |
| DA | 99.5637 | 99.5241 | 99.6723 | 99.5362 | 99.5719 | 99.607 |
| IA | 99.5637 | 99.5241 | 99.6723 | 99.6723 | 99.5362 | 99.607 |


| BA(HEP) | PO1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| FA | 96.2276 | 96.4524 | 96.2524 | 96.2524 | 96.316 | 95.9224 |
| DA | 99.122 | 99.1895 | 99.4482 | 99.2976 | 99.3862 | 99.3256 |
| IA | 99.122 | 99.1895 | 99.1895 | 99.2976 | 99.3862 | 99.3256 |


| B.COM(CA) | PO1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| FA | 95.2962 | 95.6601 | 95.5745 | 95.6288 | 95.9939 | 95.7877 |
| DA | 91.2444 | 91.7103 | 96.8306 | 92.2327 | 93.1311 | 93.5786 |
| IA | 97.5798 | 97.8664 | 97.872 | 98.1266 | 98.3047 | 98.471 |


| BBA | PO1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FA | 98.4615 | 98.6151 | 98.3568 | 98.3824 | 98.5164 | 98.354 |
| DA | 99.877 | 99.8313 | 99.7394 | 99.8795 | 99.7872 | 99.7638 |
| IA | 99.6093 | 99.6625 | 99.6737 | 98.3824 | 99.6413 | 99.6117 |



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