Formula Sheet

Straight Line Depreciation (Chapter 4):
Annual Depreciation Cost =
Value of Fixed Asset – Salvage Value
Life Span (Years)

Float (Chapter 6):
Total Float =
LS - ES or LF - EF

Free Float =
ES (Successor) – [EF (Predecessor) + 1]

Triangular Expected Value (Chapters 6 and 7):
(o + p + m) / 3

Beta (a.k.a. PERT) Expected Value (Chapters 6 and 7):
(o + p + (4 x m)) / 6

Beta (a.k.a. PERT) Standard Deviation:
(p - o) / 6

Where:
o = optimistic estimate
p = pessimistic estimate
m = most likely estimate

1 Standard Deviation ≈ 68.26%
2 Standard Deviations ≈ 95.44%
3 Standard Deviations ≈ 99.73%

Program Evaluation and Review Technique (PERT) standard deviation for an entire project (Chapters 6 and 7):

$$\sqrt{\sum S^2}$$

Earned Value Formulas (Chapter 7):
SV = ES - AT ***new***
CV = EV - AC
SPI = ES/AT ***new***
CPI = EV/AC
VAC = BAC - EAC

Forecasting Formulas (Chapter 7):
EAC = AC + bottom-up Estimate to Complete
EAC = (AC + BAC) – EV ***changes not permanent***
EAC = BAC / (CPI) ***changes permanent***
EAC = AC + [(BAC – EV) / (CPI x SPI)]

TCPI using BAC = **(BAC – EV) / (BAC – AC)** ***BAC valid***
TCPI using EAC = **(BAC – EV) / (EAC – AC)** ***BAC invalid***

Communication Lines Formula (Chapter 10):
(n x (n - 1)) ÷ 2, where n = number of individuals

Cost Plus Incentive Fee–Final Fee and Final Price (Chapter 12):
(AC + FF) + SS% x (TC – AC), where:
AC = Actual Cost
TC = Targeted Cost
SS = Seller's Share
FF = Fixed Fee

Fixed Fee Formula = Final Price - Actual Cost

Fixed Price Incentive Fee: Point of Total Assumption (Chapter 12):
((CP – TP)/(BS)) + TC, where:
CP = Ceiling Price
TP = Target (projected) Price
BS = Buyer's Share
TC = Target (projected) Cost

Cost Range (Chapter 7):

Estimate	Tolerance Range
ROM	-25% to +75%
Budget	-10% to +25%
Definitive	-5% to +10%

DO NOT TAKE THIS SHEET INTO THE TESTING CENTER!