Q46. There are seven activities, *a* through *g* shown in the table below. At least how many days does it take to complete these seven activities? Here, activities *a* and *b* can be performed concurrently, but the others cannot be done until their preceding activities are completed. For example, *c* cannot begin until *a* is completed. The optimistic time estimate is *x* in days, the most likely or normal time estimate is *y*, and the pessimistic time estimate is *z*. The expected time T_e is computed using the formula $(x + 4y + z)/6$.

Unit: day

Activity	Preceding activity	Optimistic x	Normal y	Pessimistic z	T_e $(x + 4y + z) / 6$
a	--	2	4	6	4.00
b	--	3	5	9	5.33
c	*a*	4	5	7	5.17
d	*a*	4	6	10	6.33
e	*b, c*	4	5	7	5.17
f	*d*	3	4	8	4.50
g	*e*	3	5	8	5.17

a) 15.67 b) 19.51 c) 19.69 d) 20.00