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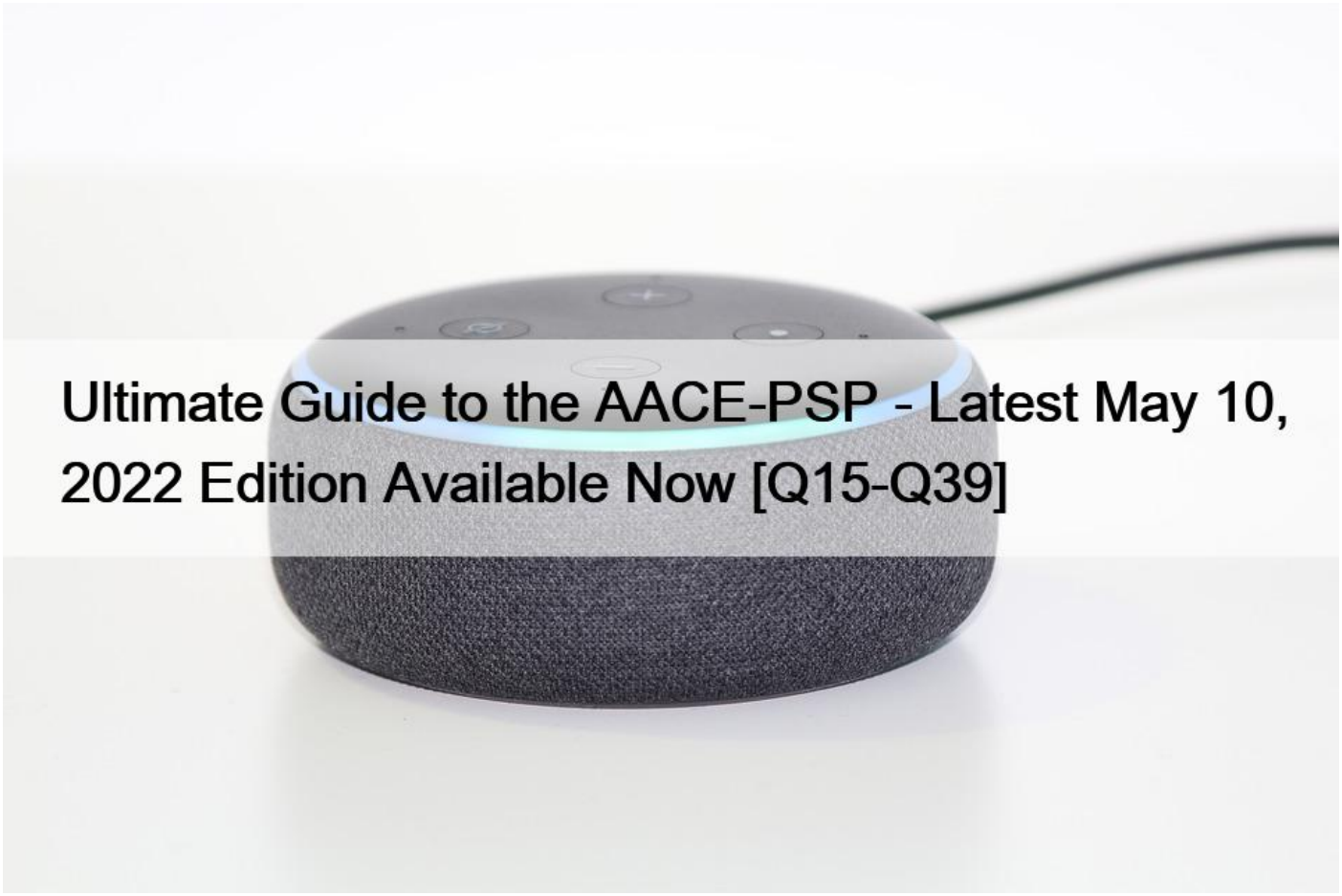

Ultimate Guide to the AACE-PSP - Latest May 10, 2022 Edition Available Now
2022 Updated Verified Pass AACE-PSP Exam - Real Questions and Answers

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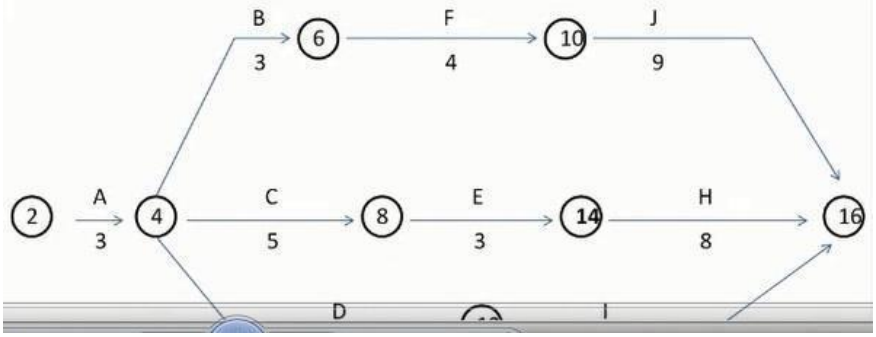
NO.15 Identify the late finish to develop plans and specs.

Refer to the following table and diagram to answer the following questions. Consider this to be the entire network. The diagram is incomplete. This table represents activities, predecessors and durations for a hazardous waste incineration facility:

Activity	Description	Predecessors	Duration (months)
A	Develop information for public hearings	-	3
B	Hold public hearings	A	3
C	Develop draft plans and specifications	A	5
D	Contact stakeholders and others	A	7
E	Obtain permits	B, C	3
F	Order equipment for facility	B	4
G	Procure and prepare land	B	6
H	Construct facility	D, E, F & G	8
I	Approval of operating procedures	D	6
J	Install equipment, staff, faculty	F	9



* 9 months.
* 10 months.
* 8 months.
* 7 months.

NO.16 Total float is defined as the amount of time an activity can be delayed without impacting
* The overall project completion
* The buoyancy of a successor activity
* The next activity
* The end of that activity

NO.17 Using the “normal” schedule, given Activity 3001 and the relationship with Activity 4001, what is indicated?

		Logic			Normal Schedule		Crashed Schedule	
ID	Activity	Succ.	Rel.	Lag	Days	Direct Costs	Days	Direct Costs
1000	General Conditions	11001	FF		1072	$3,080,000	910	$2,902,900
1001	Preliminary Civil Work	1000 2001 7001	SS FS FS		85	$563,000	67	$728,000
2001	River Diversion Stage 1	2002	FS		92	$150,000	75	$190,000
2002	River Diversion Stage 2	2003	FS		38	$25,000	28	35,000
2003	River Diversion Dam	2004 3001	FS FS		15	$18,000	11	$20,000
2004	River Diversion to Pipeline	3001 7001	FS FS		38	$96,000	38	$96,000
3001	Excavation, Dam Site	4001 4001 5001 5001 7001	SS FF SS FF FS	15 15 65 65	30	$482,000	100	$515,000
4001	Excavation, Spillway	5001 5001 [illegible]	SS [illegible] FS	[illegible] 45	152	$[illegible]	118	$692,000
5001	Drill and Grout Dam Site	6001	FS		102	$637,000	92	$650,000
6001	Rock Fill: to elevation 25	6002	FS		140	$1,352,000	105	$1,470,000
6002	Rock Fill: to elevation 38	6003	FS		115	$969,000	95	$1,125,000
6003	Rock Fill: to elevation 50	8001 9002 9002 9003	FS SS FF FS	65 65	152	$1,360,000	113	$1,540,000
7001	Permanent Roads	11001 9004	FS FS		48	$180,000	38	$205,000
8001	Valve House Embankment	9004	FS		28	$28,000	22	$36,000
9001	Spillway – Concrete	11001 9002 9003	FS FS FS		175	$1,120,000	155	$1,305,000
9002	Dam Concrete Facing – Concrete	1001 9005	FS FS		180	$1,260,000	160	$1,485,000
9003	Inlet Tower – Concrete 1 of 2	9005	FS	7	70	$275,000	65	$295,000
9004	Valve House – Concrete	10002	FS	7	72	$245,000	66	$265,000
9005	Inlet Tower – Concrete 2 of 2	10001	FS	7	35	$28,000	35	$28,000
10001	Inlet Tower – Complete	11001	FS		25	$147,000	25	$147,000
[illegible]	Valve House –	10001	FS		24	$132,000	24	$133,000

* These activities are concurrent with Activity 4001 starting 15 days after the start of Activity 3001.
* These activities are concurrent with Activity 4001 starting 15 days earlier than the start of Activity 3001.
* The activities occur in series with a 15-day lag.
* The activities run concurrently.

NO.18 Determine the correct formula and date for the late finish for Activity 2001.

		Logic			Normal Schedule		Crashed Schedule	
ID	Activity	Succ.	Rel.	Lag	Days	Direct Costs	Days	Direct Costs
1000	General Conditions	11001	FF		1072	$3,080,000	910	$2,902,900
1001	Preliminary Civil Work	1000 2001 7001	SS FS FS		85	$563,000	67	$728,000
2001	River Diversion Stage 1	2002	FS		92	$150,000	75	$190,000
2002	River Diversion Stage 2	2003	FS		38	$25,000	28	35,000
2003	River Diversion Dam	2004 3001	FS FS		15	$18,000	11	$20,000
2004	River Diversion to Pipeline	3001 7001	FS FS		38	$96,000	38	$96,000
3001	Excavation, Dam Site	4001 4001 5001 5001 7001	SS FF SS FF FS	15 15 65 65	30	$482,000	100	$515,000
4001	Excavation, Spillway	5001 5001 [illegible]	SS [illegible] FS	[illegible] 45	152	$[illegible]08,000	118	$692,000
5001	Drill and Grout Dam Site	6001	FS		102	$637,000	92	$650,000
6001	Rock Fill: to elevation 25	6002	FS		140	$1,352,000	105	$1,470,000
6002	Rock Fill: to elevation 38	6003	FS		115	$969,000	95	$1,125,000
6003	Rock Fill: to elevation 50	8001 9002 9002 9003	FS SS FF FS	65 65	152	$1,360,000	113	$1,540,000
7001	Permanent Roads	11001 9004	FS FS		48	$180,000	38	$205,000
8001	Valve House Embankment	9004	FS		28	$28,000	22	$36,000
9001	Spillway – Concrete	11001 9002 9003	FS FS FS		175	$1,120,000	155	$1,305,000
9002	Dam Concrete Facing – Concrete	1001 9005	FS FS		180	$1,260,000	160	$1,485,000
9003	Inlet Tower – Concrete 1 of 2	9005	FS	7	70	$275,000	65	$295,000
9004	Valve House – Concrete	10002	FS	7	72	$245,000	66	$265,000
9005	Inlet Tower – Concrete 2 of 2	10001	FS	7	35	$28,000	35	$28,000
10001	Inlet Tower – Complete	11001	FS		25	$147,000	25	$147,000
[illegible]	Valve House –	10001	FS		24	$132,000	24	$133,000

* LF.2001 – 1 day -> 08-28-01.
* LS.2002- 1 day-> 08-29-01.
* LS.2002 + 1 day -> 08-30-01.
* LS.2002 – 1 day -> 08-28-01.

NO.19 Determine the driving activity for Activity 10001.

		Logic			Normal Schedule		Crashed Schedule	
ID	Activity	Succ.	Rel.	Lag	Days	Direct Costs	Days	Direct Costs
1000	General Conditions	11001	FF		1072	$3,080,000	910	$2,902,900
1001	Preliminary Civil Work	1000 2001 7001	SS FS FS		85	$563,000	67	$728,000
2001	River Diversion Stage 1	2002	FS		92	$150,000	75	$190,000
2002	River Diversion Stage 2	2003	FS		38	$25,000	28	35,000
2003	River Diversion Dam	2004 3001	FS FS		15	$18,000	11	$20,000
2004	River Diversion to Pipeline	3001 7001	FS FS		38	$96,000	38	$96,000
3001	Excavation, Dam Site	4001 4001 5001 5001 7001	SS FF SS FF FS	15 15 65 65	30	$482,000	100	$515,000
4001	Excavation, Spillway	5001 5001 [illegible]	SS [illegible] FS	[illegible] 45	152	$[illegible]	118	$692,000
5001	Drill and Grout Dam Site	6001	FS		102	$637,000	92	$650,000
6001	Rock Fill: to elevation 25	6002	FS		140	$1,352,000	105	$1,470,000
6002	Rock Fill: to elevation 38	6003	FS		115	$969,000	95	$1,125,000
6003	Rock Fill: to elevation 50	8001 9002 9002 9003	FS SS FF FS	65 65	152	$1,360,000	113	$1,540,000
7001	Permanent Roads	11001 9004	FS FS		48	$180,000	38	$205,000
8001	Valve House Embankment	9004	FS		28	$28,000	22	$36,000
9001	Spillway – Concrete	11001 9002 9003	FS FS FS		175	$1,120,000	155	$1,305,000
9002	Dam Concrete Facing – Concrete	1001 9005	FS FS		180	$1,260,000	160	$1,485,000
9003	Inlet Tower – Concrete 1 of 2	9005	FS	7	70	$275,000	65	$295,000
9004	Valve House – Concrete	10002	FS	7	72	$245,000	66	$265,000
9005	Inlet Tower – Concrete 2 of 2	10001	FS	7	35	$28,000	35	$28,000
10001	Inlet Tower – Complete	11001	FS		25	$147,000	25	$147,000
[illegible]	Valve House –	10001	FS		24	$132,000	24	$133,000

* Activity 11001.
* Activity 10002.
* Activity 9005.
* There is no driving activity for Activity 10001 in the backward pass.

NO.20 The amount of time that an activity can be delayed from its early start date without delaying project completion is called
* Negative float.
* Free float.
* Total float.
* Interfering float.

NO.21 If a detailed estimate is NOT available to assist in the formulation of activity durations but unit quantities have been

identified, what information can be utilized to estimate work package/activity durations?

* The Eichleay formula
* Historical production rates
* Time impact analysis
* Black-Scholes model

NO.22 Theoretically construct a summary activity for activities 6001 through 6003. Identify the governing predecessor and successor activities for the hammock:

		Logic			Normal Schedule		Crashed Schedule	
ID	Activity	Succ.	Rel.	Lag	Days	Direct Costs	Days	Direct Costs
1000	General Conditions	11001	FF		1072	$3,080,000	910	$2,902,900
1001	Preliminary Civil Work	1000 2001 7001	SS FS FS		85	$563,000	67	$728,000
2001	River Diversion Stage 1	2002	FS		92	$150,000	75	$190,000
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3001	Excavation, Dam Site	4001 4001 5001 5001 7001	SS FF SS FF FS	15 15 65 65	30	$482,000	100	$515,000
4001	Excavation, Spillway	5001 5001 00	SS FF FS	4	152	$ 8,000	118	$692,000
5001	Drill and Grout Dam Site	6001	FS		102	$637,000	92	$650,000
6001	Rock Fill: to elevation 25	6002	FS		140	$1,352,000	105	$1,470,000
6002	Rock Fill: to elevation 38	6003	FS		115	$969,000	95	$1,125,000
6003	Rock Fill: to elevation 50	8001 9002 9002 9003	FS SS FF FS	65 65	152	$1,360,000	113	$1,540,000
7001	Permanent Roads	11001 9004	FS FS		48	$180,000	38	$205,000
8001	Valve House Embankment	9004	FS		28	$28,000	22	$36,000
9001	Spillway – Concrete	11001 9002 9003	FS FS FS		175	$1,120,000	155	$1,305,000
9002	Dam Concrete Facing – Concrete	1001 9005	FS FS		180	$1,260,000	160	$1,485,000
9003	Inlet Tower – Concrete 1 of 2	9005	FS	7	70	$275,000	65	$295,000
9004	Valve House – Concrete	10002	FS	7	72	$245,000	66	$265,000
9005	Inlet Tower – Concrete 2 of 2	10001	FS	7	35	$28,000	35	$28,000
10001	Inlet Tower – Complete	11001	FS		25	$147,000	25	$147,000
	Valve House –	10001	FS		24	$132,000	24	$133,000

* Predecessor is activity 5001, successor is activity 8001
* Predecessor is activity 4001, successor is activity 8001
* Predecessor is activity 9001, successor is activity 9002

* Predecessor is activity 5001, successor is activity 8002

NO.23 All the following describe the critical path of a schedule EXCEPT:
* Determined by network logic and is the chain of activities that controls the overall project completion time.
* Frequently defined as the shortest path through the schedule.
* Changed by redefining the network logic or changing activity durations or both.
* The series of activities having the least amount of total float.

NO.24 Which of the following is NOT a tool or technique used to perform scope planning?
* Benefit cost analysis.
* Schedule performance indexing.
* Expert Judgment.
* Alternatives identification.

NO.25 Which of the following is NOT required when performing weekly or monthly schedule updates?
* Percent complete.
* Remaining duration of activities.
* Actual finish of activities.
* Original duration of activities.

NO.26 Assuming that you had only one crane capable of 30 lifts per day, 3 column pours requiring 28 lifts each, plus associated assorted work requiring an additional 150 lifts, what is the minimum planned working duration for this work?

Small Tower Crane

Typical capacity for a Small Crane

Maximum Load 5 tons

Minimum Load 1.5 tons

Operation	Time (in minutes)
Sling Up	5
Hoist Up	4
Discharge	3
Clear Unload Area	3
Hoist Down	2

* 8 work days
* 18 work days
* 7 work days
* 15 workdays

NO.27 Which of the following are NOT considerations or constraints of the planning process for construction scheduling?
* Consideration of all stakeholders.
* Value engineering.
* Project variables.
* Interest rate of owner’s construction bonds.

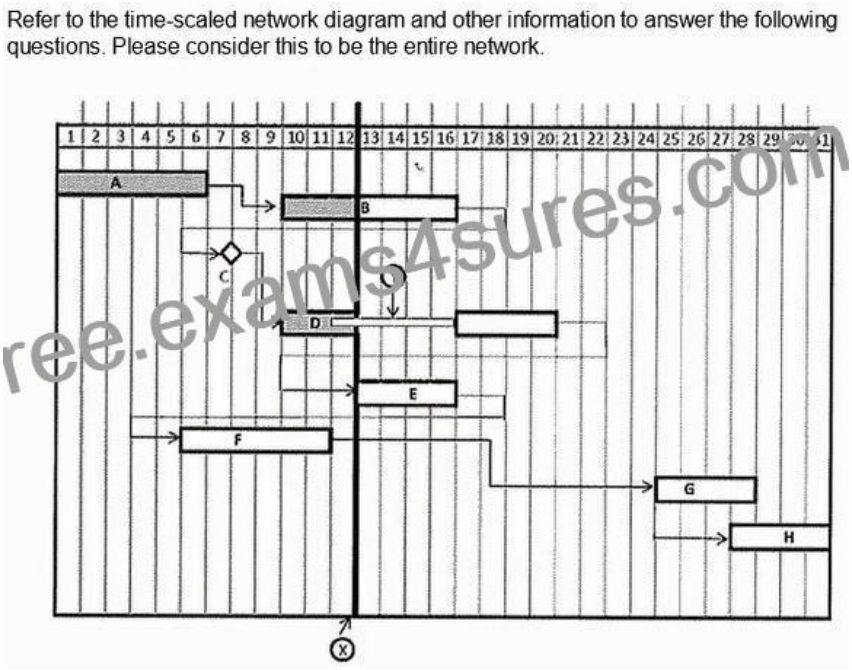
NO.28 Which of the following phases does NOT describe the commonly accepted construction life cycle?
* Claims and disputes phase.
* Installation phase.
* Planning and design phase.

* Turnover and start-up phase.

NO.29 Project delays are best analyzed
* After either the contractor or the owner acknowledges responsibility for the delay.
* Contemporaneously with the delay.
* By an expert after the project is finished when complete records are available and the impact is known.
* Late in the project.

NO.30 In its simplest form, what is the main drawback of critical path method scheduling?
* It requires a backward pass to calculate late dates.
* It assumes that resources are unlimited.
* It doesn’t account for interdependent between activities.
* It allows for Precedence Diagramming Method to be used in place of Arrow Diagramming Method.

NO.31 What does the heavy, vertical line at “X” represent?



* Delay fault line.
* The status or data date.
* Change-over limits.
* International Date Line.

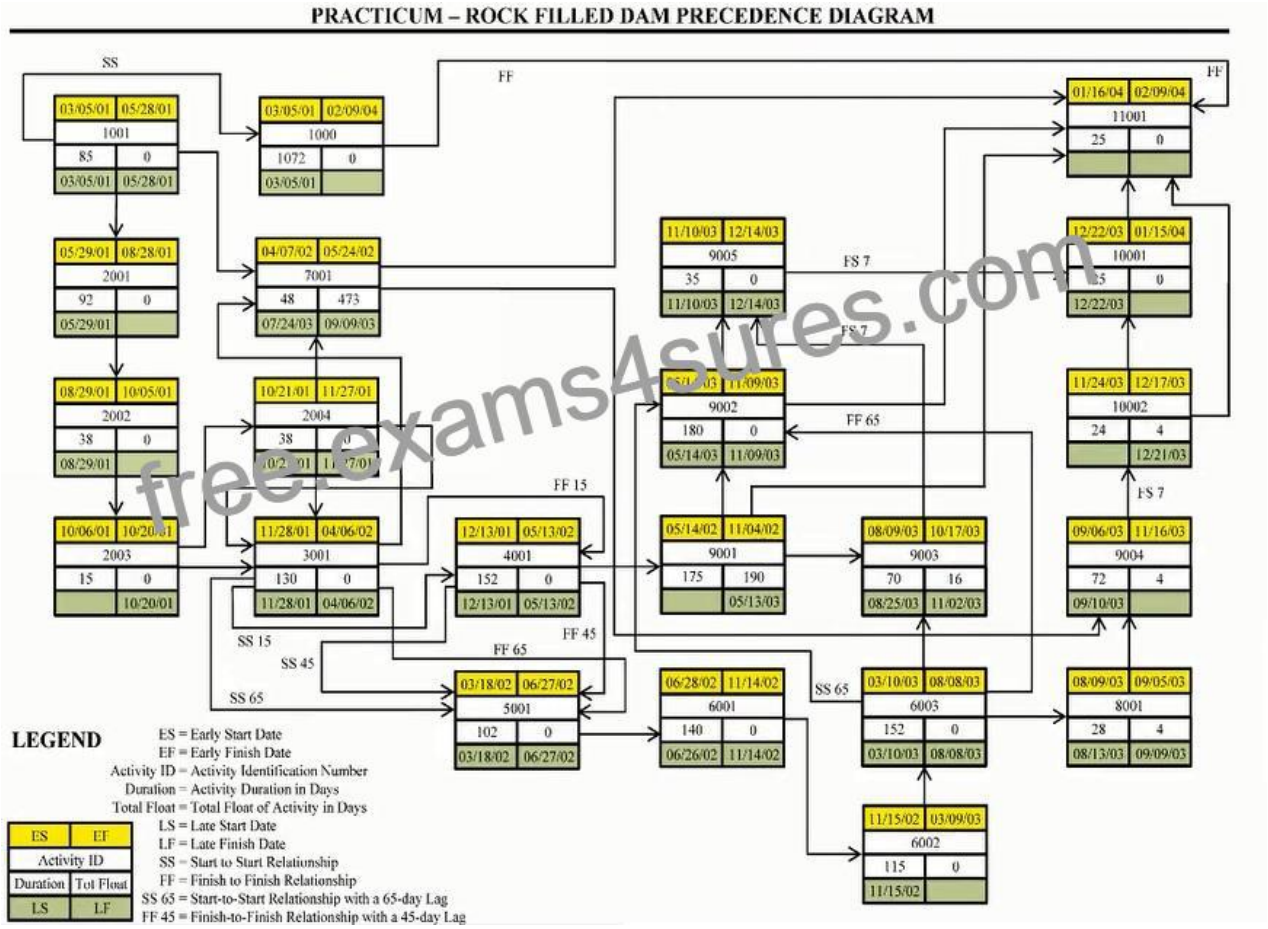
NO.32 Constraints control events or activities that _____.
* Affect only the forward pass.
* Are not based on project relationships.
* Affect only the backward pass.
* May be over-ridden by activity logic.

NO.33 The expected remaining cost needed to complete an activity, group of activities or the project is the_____.
* Budget at completion (BAC)
* Budgeted cost of work performed (BCWP)

* Estimate to complete (ETC)
* Estimate at completion (EAC)

NO.34 Scenario:

The entire network consists of the following activities and relationships. Activity A is twenty days long and is tied to Activity B, a ten-day activity, with a finish-to-finish tie with a lag value of five Activity B is tied to Activity C, a twenty-day activity, with a start-to-start relationship with a lag value of five.



PSP Activities Table

Scope Known about Rock-Filled Dam Project:

The dam requires river diversion and work over two or more rainy seasons. The contract is lump sum, competitively bid, and will be self-performed. The owner has attempted to shift all risk to the contractor by employing “no differing sit conditions” and “no damage for delay” clauses. There is a bonus/penalty provision of $2,500 per calendar day for early or late delivery. The early completion bonus is capped at $500,000, with no cap for late delivery penalty.

Liquidated damages end at the finish of demobilization. Indirect costs per calendar day are $2,800 for the

“normal” schedule and $3,200 for the “crashed” schedule. The winter/wet weather season is 151 days between October 15 and March 25 of each year, reduces the efficiency of the contractor’s operations by 20% and costs the

contractor $10,000 per day. Assume a start date of March 5, 2001 and use a 7-day work week.

The following table lists work activities as planned by the contractor.

		Logic			Normal Schedule		Crashed Schedule	
ID	Activity	Succ.	Rel.	Lag	Days	Direct Costs	Days	Direct Costs
1000	General Conditions	11001	FF		1072	$3,080,000	910	$2,902,900
1001	Preliminary Civil Work	1000 2001 7001	SS FS FS		85	$563,000	67	$728,000
2001	River Diversion Stage 1	2002	FS		92	$150,000	75	$190,000
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2004	River Diversion to Pipeline	3001 7001	FS FS		38	$96,000	38	$96,000
3001	Excavation, Dam Site	4001 4001 5001 5001 7001	SS FF SS FF FS	15 15 65 65	30	$482,000	100	$515,000
4001	Excavation, Spillway	5001 5001 [illegible]	SS [illegible] FS	[illegible]	152	[illegible]	118	$692,000
5001	Drill and Grout Dam Site	6001	FS		102	$637,000	92	$650,000
6001	Rock Fill: to elevation 25	6002	FS		140	$1,352,000	105	$1,470,000
6002	Rock Fill: to elevation 38	6003	FS		115	$969,000	95	$1,125,000
6003	Rock Fill: to elevation 50	8001 9002 9002 9003	FS SS FF FS	65 65	152	$1,360,000	113	$1,540,000
7001	Permanent Roads	11001 9004	FS FS		48	$180,000	38	$205,000
8001	Valve House Embankment	9004	FS		28	$28,000	22	$36,000
9001	Spillway – Concrete	11001 9002 9003	FS FS FS		175	$1,120,000	155	$1,305,000
9002	Dam Concrete Facing – Concrete	1001 9005	FS FS		180	$1,260,000	160	$1,485,000
9003	Inlet Tower – Concrete 1 of 2	9005	FS	7	70	$275,000	65	$295,000
9004	Valve House – Concrete	10002	FS	7	72	$245,000	66	$265,000
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10001	Inlet Tower – Complete	11001	FS		25	$147,000	25	$147,000
[illegible]	Valve House –	10001	FS		24	$132,000	24	$133,000

Theoretically construct a summary activity for only those activities with a finish-to-start relationship for Activities 8001 through 10001. Using the “normal” schedule, what is the cost of this hammock?

* $420,000.
* $307,000.
* $524,000.
* $552,000.

NO.35 What is the cycle time?

Small Tower Crane

Typical capacity for a Small Crane

Maximum Load 5 tons

Minimum Load 1.5 tons

Operation	Time (in minutes)
Sling Up	5
Hoist Up	4
Discharge	3
Clear Unload Area	3
Hoist Down	2

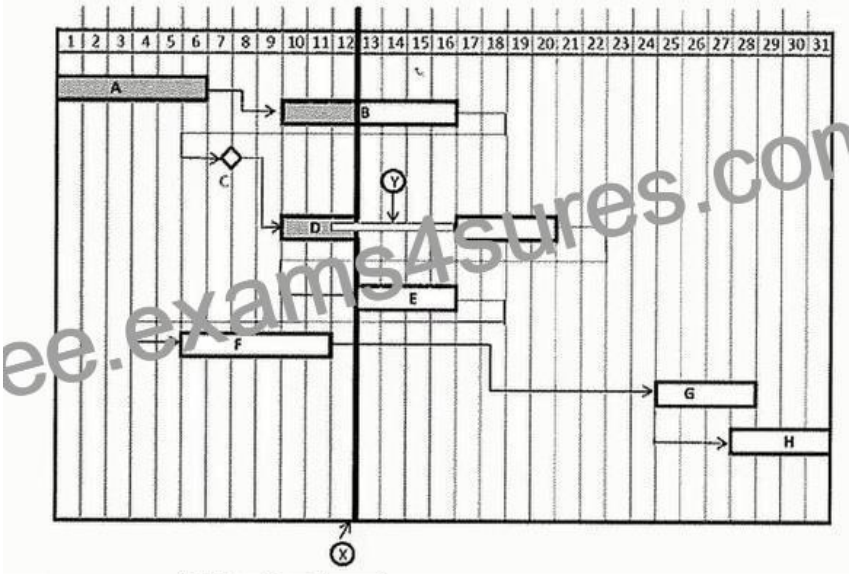
* 5 minutes
* 17 minutes
* 14 minutes
* 6 minutes

NO.36 Activity C is a
* Contentious activity.
* Continuous activity.
* 1-day activity.
* Milestone.

NO.37 Which of the following is NOT input data to the construction planning process?
* Input from the owner
* The contract
* Bonding capacity of subcontractors
* Input from the contractor

NO.38 What is the relationship depicted between Activity G and Activity H?

Refer to the time-scaled network diagram and other information to answer the following questions. Please consider this to be the entire network.



	Original Duration
Activity A	5
Activity B	5
Activity C	0
Activity D	5
Activity E	4
Activity F	3
Activity G	4

* You cannot tell with the supplied information.
* Start-to-start.
* Finish-to-start.
* Finish-to-finish.

NO.39 For which of these delays should an owner grant a time extension?
* Structural steel shop drawings.
* Shop drawings and centrifuge delay.
* Differing site conditions at parking structure.
* Differing site conditions and centrifuge delay.