Bihar Public Service Commission, Patna

Advt. No. 32/2024 (Civil Engineering-II, Paper-VI)

Assistant Engineer, Civil Written (Objective) Competitive Examination

Final Answer key (Set-A)

Question No.	Ans. Key	Question No.	Ans. Key
1	A	26	D
2	B	27	Deleted
3	C	28	C
4	B	29	A
5	A	30	A
6	D	31	A
7	A	32	D
8	B	33	C
9	A	34	A
10	D	35	D
11	D	36	D
12	B	37	A
13	A	38	C
14	A	39	D
15	C	40	D
16	C	41	D
17	D	42	D
18	D	43	C
19	C	44	D
20	Deleted	45	B

Question No.	Ans. Key	Question No.	Ans. Key
21	A	46	C
22	A	47	C
23	A	48	D
24	D	49	C
25	B	50	C

	(Set	B)	
Question No.	**Ans. Key**	**Question No.**	**Ans. Key**
1	B	26	A
2	A	27	D
3	B	28	A
4	D	29	C
5	D	30	A
6	A	31	B
7	D	32	B
8	B	33	B
9	D	34	A
10	D	35	B
11	C	36	B
12	C	37	Deleted
13	D	38	A
14	B	39	C
15	C	40	A
16	A	41	B
17	Deleted	42	D
18	D	43	B
19	D	44	A
20	D	45	B
21	A	46	A
22	A	47	D
23	A	48	A
24	D	49	C
25	A	50	D

(Set-C)			
Question No.	Ans. Key	Question No.	Ans. Key
1	D	26	B
2	B	27	D
3	B	28	D
4	Deleted	29	C
5	B	30	A
6	C	31	B
7	A	32	B
8	C	33	C
9	D	34	A
10	D	35	B
11	D	36	B
12	C	37	B
13	Deleted	38	C
14	C	39	C
15	B	40	D
16	B	41	A
17	C	42	C
18	C	43	A
19	C	44	D
20	B	45	C
21	C	46	A
22	D	47	C
23	C	48	C
24	B	49	D
25	B	50	D

(Set-D)

Question No.	Ans. Key	Question No.	Ans. Key
1	A	26	B
2	Deleted	27	B
3	B	28	B
4	C	29	C
5	D	30	C
6	C	31	B
7	D	32	A
8	C	33	A
9	B	34	B
10	D	35	A
11	C	36	C
12	C	37	A
13	A	38	A
14	C	39	B
15	B	40	Deleted
16	C	41	A
17	A	42	C
18	B	43	C
19	D	44	B
20	D	45	B
21	A	46	B
22	B	47	A
23	B	48	D
24	C	49	A
25	C	50	B

Question Sequence as per Set- A				
Set-A	Set-B		Set-C	Set-D
7	10		3	4
8	12		7	19
9	42		24	11
11	2		12	15
15	41		17	49
20	37		13	40
21	13		15	29
25	15		34	7
27	17		4	2
39	6		29	3
43	14		49	38
44	25		14	18
47	3		1	41

Reasons as per Set-A

Q. No. 07-   No change.
Reason   :-   Canal falls are provided to destroy surplus energy.

Q. No. 08-   The Provisional answer is option 'C'. But the correct answer is option 'B'.
Reason   :-   For the derivation of equation for the hydraulic jump in a rectangular channel in terms of conjugate depths and initial Froude number continuity and momentum equation are used.

Q. No. 09-   No Change.
Reason   :-   The highest CBR Value is required for sub-grade.

Q. No. 11-   No Change.
Reason   :-   Generally hydroelectric power plants are multipurpose to justify its cost.

Q. No. 15-   No Change.
Reason   :-   As per CWC, MoWR, GOI recommendation.

Q. No. 20-   Deleted.
Reason   :-   The question is confusing i.e. it is saliant about the type of Dimension of the soak pit i.e. whether it is its length, width or Depth.

Q. No. 21-   No Change.
Reason   :-   Transition zone is provided in zoned embankment for preventing piping through cracks.

Q. No. 25-   No Change.
Reason   :-   The purpose of a travel time and delay study is to evaluate the quality of traffic movement along a route and determine the Locations type and extent of traffic delays by using a moving test vehicle.

Q. No. 27-   Deleted.
Reason   :-   The question is confusing i.e. it should be either most efficient theoretical channel (Option-C) section or practical channel section (Option-D).

Q. No. 39- The Provisional answer is option 'B'. But the correct answer is option 'D'.

Reason :- When climbing a upgrade, the overtaking vehicle has less acceleration to complete the maneuver requiring a longer distance to safely overtake. On a downgrade, the overtaking vehicle can accelerate more readily, potentially reducing the required overtaking sight distance.

Q. No. 43- No Change.

Reason :- A detention basin for flood control is provided with controlled outlet and spillway.

Q. No. 44- No Change.

Reason :- Source: Waste water engineering by Metcalf & Eddy.

Q. No. 47- No Change.

Reason :- For class A pan, Pan coefficient = Kp=0.7

Therefore, volume of water evaporated in a month of 30 days in m^3 will be equal to 0.70 x 80 x 1000 x 15 x 0.5/100 x 30 = 126000 m^3.