



Bihar Public Service Commission
Advt. No 57/2024, Lecturer, Mining Engineering
Written (Objective) Competitive Examination

Final Answer key

Set-I		Set-J		Set-K		Set-L	
Q. No.	Answer Key	Q. No.	Answer Key	Q. No.	Answer Key	Q. No.	Answer Key
1	A	1	C	1	D	1	B
2	C	2	A	2	D	2	D
3	C	3	D	3	C	3	C
4	C	4	B	4	A	4	B
5	B	5	B	5	C	5	D
6	D	6	A	6	B	6	B
7	C	7	A	7	D	7	A
8	C	8	C	8	C	8	A
9	C	9	A	9	B	9	B
10	A	10	D	10	B	10	D
11	B	11	B	11	C	11	D
12	C	12	C	12	B	12	C
13	D	13	A	13	A	13	C
14	A	14	A	14	B	14	B
15	A	15	D	15	A	15	A
16	B	16	D	16	C	16	C
17	D	17	C	17	D	17	A
18	A	18	B	18	D	18	B
19	B	19	C	19	C	19	C
20	A	20	C	20	D	20	C
21	B	21	A	21	A	21	C
22	A	22	A	22	A	22	B
23	D	23	B	23	D	23	D
24	C	24	B	24	A	24	C
25	C	25	A	25	D	25	Deleted
26	A	26	Deleted	26	D	26	C
27	B	27	A	27	C	27	D
28	A	28	A	28	B	28	D
29	D	29	C	29	D	29	C
30	B	30	D	30	Deleted	30	C

Set-I		Set-J		Set-K		Set-L	
Q. No.	Answer Key	Q. No.	Answer Key	Q. No.	Answer Key	Q. No.	Answer Key
31	B	31	A	31	C	31	B
32	D	32	A	32	C	32	B
33	C	33	D	33	C	33	A
34	Deleted	34	D	34	B	34	C
35	B	35	B	35	A	35	C
36	A	36	B	36	D	36	A
37	B	37	B	37	B	37	A
38	B	38	C	38	A	38	C
39	C	39	D	39	C	39	D
40	B	40	D	40	C	40	A
41	C	41	C	41	D	41	D
42	B	42	D	42	A	42	D
43	D	43	A	43	B	43	A
44	A	44	A	44	D	44	B
45	D	45	C	45	A	45	A
46	D	46	D	46	C	46	B
47	D	47	B	47	D	47	D
48	B	48	B	48	B	48	D
49	B	49	C	49	A	49	A
50	A	50	B	50	B	50	B
51	B	51	Deleted	51	A	51	C
52	A	52	B	52	B	52	D
53	C	53	C	53	Deleted	53	D
54	C	54	C	54	B	54	B
55	B	55	D	55	D	55	A
56	B	56	B	56	B	56	B
57	A	57	C	57	A	57	C
58	A	58	C	58	C	58	B
59	A	59	B	59	D	59	B
60	D	60	B	60	D	60	A
61	C	61	C	61	D	61	D
62	B	62	A	62	D	62	D
63	A	63	C	63	C	63	A
64	C	64	D	64	C	64	C
65	B	65	A	65	A	65	C
66	D	66	A	66	A	66	B

Set-I		Set-J		Set-K		Set-L	
Q. No.	Answer Key	Q. No.	Answer Key	Q. No.	Answer Key	Q. No.	Answer Key
67	D	67	B	67	C	67	B
68	A	68	B	68	A	68	D
69	D	69	B	69	B	69	C
70	Deleted	70	A	70	D	70	C
71	C	71	D	71	C	71	C
72	A	72	D	72	A	72	Deleted
73	B	73	A	73	D	73	B
74	A	74	B	74	C	74	D
75	C	75	D	75	C	75	C
76	D	76	B	76	C	76	D
77	B	77	A	77	C	77	D
78	C	78	D	78	A	78	D
79	A	79	B	79	C	79	A
80	C	80	D	80	B	80	C
Question Sequence							
Set-I	Set-J	Set-K	Set-L				
34	26	30	25				
70	51	53	72				
74	52	79	68				
Reason as per Set-I							

Q. No-34. - Deleted

Reason: - All the four options are correct. Hence Deleted.

Optionwise explanations are given below for the reference.

- (A) Belt speed: Average loading Factor (ALF) is directly associated with belt speed as the speed of the belt conveyor increases, the actual load will be increased, and hence average loading factor will increase.
- (B) Location of the conveyor: Positioning of the belt conveyor i.e. near the loading point or away from the loading point is very much concerned with average loading factor (ALF). If belt conveyor is positioned near the loading point the ALF will increase & vice versa.
- (C) Volume of the mineral at face: It is directly related to ALF. If the material is not available at face or properly not heaped then the ALF will become low and vice versa.
- (D) Belt Inclination: It also affects the ALF. As the belt inclination increases, the material may slide downward, therefore, the loading on belt conveyor will become low and it affects the ALF.

Q. No-70. - Deleted.

Reason- The question is inadequate as Cauchy's Mean value theorem requires two functions. Here in the question the second function is not given. Hence the given question should be Deleted.

Q. No-74. - The Provisional answer is option 'B' but the correct answer is option 'A'.

Reason- Here $N = 71$ ($= \sum f$), $\therefore 1^{\text{st}}$ quartile is given by $(\frac{N}{4})^{\text{th}}$ item i.e. $\frac{71}{4}$ item = 17.75^{th} item. Hence Q_1 class is 9.5-14.5 as the table is as follows

Item	F	C.f	Making the C.I Continuous		
0-4	7	7	-0.5-4.5	7	7
5-9	9	16	4.5-9.5	9	16
10-14	13	29	9.5-14.5	13	29
15-19	18	47	14.5-19.5	18	47
20-24	14	61	19.5-24.5	14	61
25-29	10	71	24.5-29.5	10	71

$N=71$

$$\therefore Q_1 = L + \frac{\frac{N}{4} - c}{f} \times h$$

$$= 9.5 + \frac{\frac{71}{4} - 16}{13} \times 5$$

$$= 9.5 + \frac{7 \times 5}{4 \times 13} = 9.5 + \frac{35}{52} \approx 10.1$$

\therefore Correct option is 'A'