

NOTICE

Students appeared for DSO-2019 Level-I and Level-III,(on 22/12/2019) If anyone has query about questions or its options they should submit their application on or before 26/12/2019 to any one of the following teacher.

- Mr. Rajmane S.V.(Chemistry),
- Mr. Deshmukh S.P.(Chemistry),
- Dr. Chavan S.D.(Physics).
- Dr. Pawar S.G.(Physics),
- Mr. Kumbhare S.S.(Chemistry)

DAYANAND SCIENCE OLYMPIAD 2019-20

CHEMICAL SCIENCES

ANSWER KEY LEVEL- I (B.Sc.-I)

Date: 22/12/2019

Total Questions: 50

Time: 12.30 pm to 1.30 pm

Total marks: 50

SET -A

1	d	11	a	21	d	31	d	41	d
2	d	12	b	22	a	32	d	42	a
3	c	13	d	23	a	33	c	43	d
4	a	14	c	24	a	34	c	44	c
5	d	15	b	25	a	35	a	45	c
6	c	16	d	26	a	36	b	46	a
7	c	17	b	27	b	37	c	47	d
8	a	18	c	28	d	38	d	48	b
9	a	19	b	29	c	39	a	49	c
10	a	20	b	30	d	40	c	50	c

SET B

1	d	11	d	21	d	31	d	41	a
2	a	12	a	22	d	32	d	42	b
3	d	13	a	23	c	33	c	43	d
4	c	14	a	24	c	34	a	44	c
5	c	15	a	25	a	35	d	45	b
6	a	16	a	26	b	36	c	46	d
7	d	17	b	27	c	37	c	47	b
8	b	18	d	28	d	38	a	48	c
9	c	19	c	29	a	39	a	49	b
10	c	20	d	30	c	40	a	50	b

SET-C

1	a	11	d	21	d	31	d	41	d
2	b	12	d	22	d	32	a	42	a
3	d	13	c	23	c	33	a	43	d
4	c	14	c	24	a	34	a	44	c
5	b	15	a	25	d	35	a	45	c
6	d	16	b	26	c	36	a	46	a
7	b	17	c	27	c	37	b	47	d
8	c	18	d	28	a	38	d	48	b
9	b	19	a	29	a	39	c	49	c
10	b	20	c	30	a	40	d	50	c

SET-D

1	a	11	d	21	d	31	d	41	d
2	b	12	d	22	d	32	a	42	a
3	d	13	c	23	c	33	a	43	d
4	c	14	c	24	a	34	a	44	c
5	b	15	a	25	d	35	a	45	c
6	d	16	b	26	c	36	a	46	a
7	b	17	c	27	c	37	b	47	d
8	c	18	d	28	a	38	d	48	b
9	b	19	a	29	a	39	c	49	c
10	b	20	c	30	a	40	d	50	c

DAYANAND SCIENCE OLYMPIAD 2019-20
CHEMICAL SCIENCES

ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019

Total Questions: 100

Time: 11.00 am to 1.00 pm

Total marks: 10

SET -A

1	a	21	b	41	a	61	d	81	c
2	a	22	d	42	c	62	a	82	b
3	a	23	c	43	c	63	b	83	b
4	c	24	b	44	c	64	c	84	a
5	d	25	b	45	c	65	a	85	b
6	d	26	c	46	b	66	b	86	d
7	b	27	a	47	a	67	a	87	b
8	a	28	b	48	d	68	b	88	a
9	b	29	b	49	c	69	c	89	d
10	c	30	c	50	d	70	b	90	c
11	a	31	b	51	b	71	a	91	c
12	d	32	b	52	d	72	b	92	b
13	a	33	b	53	d	73	d	93	b
14	c	34	d	54	a	74	c	94	c
15	c	35	a	55	a	75	c	95	d
16	b	36	a	56	c	76	a	96	b
17	d	37	b	57	a	77	d	97	c
18	b	38	a	58	c	78	a	98	d
19	c	39	a	59	b	79	b	99	b
20	b	40	a	60	a	80	b	100	d

SET -B

1	c	21	a	41	b	61	a	81	d
2	b	22	a	42	d	62	c	82	a
3	b	23	a	43	c	63	c	83	b
4	a	24	c	44	b	64	c	84	c
5	b	25	d	45	b	65	c	85	a
6	d	26	d	46	c	66	b	86	b
7	b	27	b	47	a	67	a	87	a
8	a	28	a	48	b	68	d	88	b
9	d	29	b	49	b	69	c	89	c
10	c	30	c	50	c	70	d	90	b
11	c	31	a	51	b	71	b	91	a
12	b	32	d	52	b	72	d	92	b
13	b	33	a	53	b	73	d	93	d
14	c	34	c	54	d	74	a	94	c
15	d	35	c	55	a	75	a	95	c
16	b	36	b	56	a	76	c	96	a
17	c	37	d	57	b	77	a	97	d
18	d	38	b	58	a	78	c	98	a
19	b	39	c	59	a	79	b	99	b
20	d	40	b	60	a	80	a	100	b

DAYANAND SCIENCE OLYMPIAD 2019-20
CHEMICAL SCIENCES

ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019

Total Questions: 100

Time: 11.00 am to 1.00 pm

Total marks: 100

SET -C

1	d	21	c	41	a	61	b	81	a
2	a	22	b	42	a	62	d	82	c
3	b	23	b	43	a	63	c	83	c
4	c	24	a	44	c	64	b	84	c
5	a	25	b	45	d	65	b	85	c
6	b	26	d	46	d	66	c	86	b
7	a	27	b	47	b	67	a	87	a
8	b	28	a	48	a	68	b	88	d
9	c	29	d	49	b	69	b	89	c
10	b	30	c	50	c	70	c	90	d
11	a	31	c	51	a	71	b	91	b
12	b	32	b	52	d	72	b	92	d
13	d	33	b	53	a	73	b	93	d
14	c	34	c	54	c	74	d	94	a
15	c	35	d	55	c	75	a	95	a
16	a	36	b	56	b	76	a	96	c
17	d	37	c	57	d	77	b	97	a
18	a	38	d	58	b	78	a	98	c
19	b	39	b	59	c	79	a	99	b
20	b	40	d	60	b	80	a	100	a

SET -D

1	a	21	d	41	c	61	a	81	b
2	c	22	a	42	b	62	a	82	d
3	c	23	b	43	b	63	a	83	c
4	c	24	c	44	a	64	c	84	b
5	c	25	a	45	b	65	d	85	b
6	b	26	b	46	d	66	d	86	c
7	a	27	a	47	b	67	b	87	a
8	d	28	b	48	a	68	a	88	b
9	c	29	c	49	d	69	b	89	b
10	d	30	b	50	c	70	c	90	c
11	b	31	a	51	c	71	a	91	b
12	d	32	b	52	b	72	d	92	b
13	d	33	d	53	b	73	a	93	b
14	a	34	c	54	c	74	c	94	d
15	a	35	c	55	d	75	c	95	a
16	c	36	a	56	b	76	b	96	a
17	a	37	d	57	c	77	d	97	b
18	c	38	a	58	d	78	b	98	a
19	b	39	b	59	b	79	c	99	a
20	a	40	b	60	d	80	b	100	a

DAYANAND SCIENCE OLYMPIAD 2019-20
PHYSICS
Level - I

Answer Key Set – A

1.	D	26.	C
2.	B	27.	B
3.	A	28.	A
4.	C	29.	B
5.	A	30.	C
6.	A	31.	B
7.	B	32.	D
8.	D	33.	D
9.	C	34.	C
10.	C	35.	A
11.	A	36.	D
12.	A	37.	A
13.	D	38.	D
14.	B	39.	A
15.	C	40.	A
16.	A	41.	B
17.	A	42.	B
18.	B	43.	C
19.	B	44.	B
20.	D	45.	C
21.	D	46.	B
22.	C	47.	C
23.	D	48.	C
24.	B	49.	A
25.	D	50.	B

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DAYANAND SCIENCE OLYMPIAD 2019-20

PHYSICS

Level - I

Answer Key Set – B

1.	C	26.	A
2.	B	27.	A
3.	A	28.	D
4.	B	29.	B
5.	C	30.	C
6.	D	31.	B
7.	B	32.	B
8.	A	33.	C
9.	C	34.	B
10.	A	35.	C
11.	B	36.	A
12.	D	37.	A
13.	D	38.	B
14.	C	39.	B
15.	A	40.	D
16.	A	41.	B
17.	B	42.	C
18.	D	43.	C
19.	C	44.	A
20.	C	45.	B
21.	D	46.	D
22.	A	47.	C
23.	D	48.	D
24.	A	49.	B
25.	A	50.	D

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DAYANAND SCIENCE OLYMPIAD 2019-20
PHYSICS
Level - I

Answer Key Set – C

1.	A	26.	B
2.	A	27.	C
3.	B	28.	C
4.	B	29.	A
5.	D	30.	B
6.	D	31.	A
7.	A	32.	B
8.	D	33.	D
9.	A	34.	C
10.	A	35.	C
11.	D	36.	C
12.	C	37.	B
13.	D	38.	A
14.	B	39.	B
15.	D	40.	C
16.	B	41.	A
17.	B	42.	A
18.	C	43.	D
19.	B	44.	B
20.	C	45.	C
21.	D	46.	B
22.	B	47.	D
23.	A	48.	D
24.	C	49.	C
25.	A	50.	A

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DAYANAND SCIENCE OLYMPIAD 2019-20
PHYSICS
Level - I

Answer Key Set – D

1.	A	26.	D
2.	A	27.	C
3.	B	28.	D
4.	B	29.	B
5.	D	30.	D
6.	C	31.	A
7.	B	32.	A
8.	A	33.	D
9.	B	34.	B
10.	C	35.	C
11.	A	36.	B
12.	B	37.	C
13.	D	38.	C
14.	C	39.	A
15.	C	40.	B
16.	B	41.	D
17.	B	42.	A
18.	C	43.	D
19.	B	44.	A
20.	C	45.	A
21.	B	46.	D
22.	D	47.	B
23.	D	48.	A
24.	C	49.	C
25.	A	50.	A

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DAYANAND SCIENCE OLYMPIAD 2019-20**EARTH SCIENCES****ANSWER KEY LEVEL- I (B.Sc.-I)****Date: 22/12/2019****Time: 3.30 pm to 4.30 pm****Total Questions: 50****Total marks: 50****SET -A**

Q.No.	ANSWER	Q.No.	ANSWER
1	A. Seismologists	26	B. sea organisms
2	B. Geology	27	C. coal
3	A. decreases	28	C. permeable rocks
4	C. latitude	29	A. petrol, coal and gas
5	C. both a and b	30	B. Sun
6	D. nitrogen	31	B. Chemical Sedimentary Rock
7	B. atmosphere	32	A. sedimentary rocks
8	B. stratosphere	33	D. heat and pressure
9	D. reflected	34	B. Calcium Carbonate (CaCO ₃)
10	D. landslide	35	B. Geochemistry
11	B. 10cm ³	36	D. Equator
12	A. intensity	37	A. climate
13	B. p wave	38	C. wavelength
14	B. epicenter	39	D. mineralogy and texture
15	C. open pits	40	D.by solidification of molten rock
16	C. Mohs hardness scale	41	B. dormant
17	B. arrangement of atoms	42	B. accumulation
18	D. sub-surface mining	43	D. Hot and Moist
19	A. Fracture	44	B. normal faults
20	D. rubbing it	45	C. Horst
21	A. minerals	46	A. in the center
22	C. ore	47	D. compression
23	A. minerals	48	C. The mineral grains in a quartzite are interlocking; those in a quartz sandstone are not.
24	D. Sulfides	49	A. Seismograph
25	C. nonmetallic cluster	50	D. fibrous

DAYANAND SCIENCE OLYMPIAD 2019-20
EARTH SCIENCES
ANSWER KEY LEVEL- I (B.Sc.-I)

Date: 22/12/2019

Time: 3.30 pm to 4.30 pm

Total Questions: 50

Total marks: 50

SET B

Q.No.	ANSWER	Q.No.	ANSWER
1	D. nitrogen	26	B. 10cm ³
2	B. atmosphere	27	A. intensity
3	B. stratosphere	28	B. p wave
4	D. reflected	29	B.epicenter
5	D. landslide	30	C. open pits
6	C. Mohs hardness scale	31	A. minerals
7	B. arrangement of atoms	32	C. ore
8	D. sub-surface mining	33	A. minerals
9	A. Fracture	34	D. Sulfides
10	D. rubbing it	35	C. nonmetalliccluster
11	B. Chemical Sedimentary Rock	36	B. sea organisms
12	A. sedimentary rocks	37	C. coal
13	D. heat and pressure	38	C. permeable rocks
14	B. Calcium Carbonate (CaCO ₃)	39	A. petrol, coal and gas
15	B. Geochemistry	40	B. Sun
16	A. in the center	41	D. Equator
17	D.compression	42	A. climate
18	B. The mineral grains in a quartzite are interlocking; those in a quartz sandstone are not.	43	C. wavelength.
19	A. Seismograph	44	D. mineralogy and texture
20	D. fibrous	45	D. by solidification of molten rock
21	A. Seismologists	46	B. dormant
22	B. Geology	47	B. accumulation
23	A. decreases	48	D. Hot and Moist
24	C. latitude	49	B. normal faults
25	C. both a and b	50	C. Horst

DAYANAND SCIENCE OLYMPIAD 2019-20**EARTH SCIENCES****ANSWER KEY LEVEL- I (B.Sc.-I)****Date: 22/12/2019****Time: 3.30 pm to 4.30 pm****Total Questions: 50****Total marks: 50****SET-C**

Q.No.	ANSWER	Q.No.	ANSWER
1	A. in the center	26	B. 10cm ³
2	D. compression	27	A. intensity
3	B. The mineral grains in a quartzite are interlocking; those in a quartz sandstone are not.	28	B. p wave
4	A. Seismograph	29	B.epicenter
5	D. fibrous	30	C. open pits
6	B. Chemical Sedimentary Rock	31	A. minerals
7	A. sedimentary rocks	32	C. ore
8	D. heat and pressure	33	A. minerals
9	B. Calcium Carbonate (CaCO ₃)	34	D. Sulfides
10	B. Geochemistry	35	C. nonmetallic cluster
11	C. Mohs hardness scale	36	B. sea organisms
12	B. arrangement of atoms	37	C. coal
13	C. sub-surface mining	38	C. permeable rocks
14	A. Fracture	39	A. petrol, coal and gas
15	D. rubbing it	40	B. Sun
16	D. nitrogen	41	D. Equator
17	B. atmosphere	42	A. climate
18	B. stratosphere	43	C. wavelength.
19	D. reflected	44	D. mineralogy and texture
20	D. landslide	45	D. by solidification of molten rock
21	A. Seismologists	46	B. dormant
22	B. Geology	47	B. accumulation
23	A. decreases	48	D. Hot and Moist
24	C. latitude	49	B. normal faults
25	C. both a and b	50	C. Horst

DAYANAND SCIENCE OLYMPIAD 2019-20
EARTH SCIENCES
ANSWER KEY LEVEL- I (B.Sc.-I)

Date: 22/12/2019

Time: 3.30 pm to 4.30 pm

Total Questions: 50

Total marks: 50

SET-D

Q.No.	ANSWER	Q.No.	ANSWER
1	D. Equator	26	A. Seismologists
2	A. climate	27	B. Geology
3	C. wavelength.	28	A. decreases
4	D. mineralogy and texture	29	C. latitude
5	D. by solidification of molten rock	30	C. both a and b
6	B. dormant	31	B. Chemical Sedimentary Rock
7	B. accumulation	32	A. sedimentary rocks
8	D. Hot and Moist	33	D. heat and pressure
9	B. normal faults	34	B. Calcium Carbonate (CaCO ₃)
10	C. Horst	35	B. Geochemistry
11	A. minerals	36	C. Mohs hardness scale
12	C. ore	37	B. arrangement of atoms
13	A. minerals	38	C. sub-surface mining
14	D. Sulfides	39	A. Fracture
15	C. nonmetallic cluster	40	D. rubbing it
16	B. sea organisms	41	D. nitrogen
17	C. coal	42	B. atmosphere
18	C. permeable rocks	43	B. stratosphere
19	A. petrol, coal and gas	44	D. reflected
20	B. Sun	45	D. landslide
21	B. 10cm ³	46	A. in the center
22	A. intensity	47	D. compression
23	B. p wave	48	B. The mineral grains in a quartzite are interlocking; those in a quartz sandstone are not.
24	B. epicenter	49	A. Seismograph
25	C. open pits	50	D. fibrous

DAYANAND SCIENCE OLYMPIAD 2019-20
EARTH SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III)

Date: 22/12/2019

Total Questions: 100

Time: 11.00 am to 1.00 pm

Total marks: 100

SET -A

Q.No.	ANSWER	Q.No.	ANSWER
1	D. Any type of rock	26	C. an erosional surface between horizontal sedimentary rocks
2	B. Ductile	27	C. angular unconformity
3	D. Height of fold	28	A. They represent a gap in the geologic rock record.
4	B. Horizontal	29	C. natural levees
5	D. Axial plane need not pass through all points of maximum curvature in a folded sequence	30	D. erosion deposition
6	D. All the above.	31	B. Box jointing
7	B. Transform fault.	32	D. Columnar jointing
8	A. Folding	33	B. Joints
9	D. Hornblende	34	C. Andalusite
10	C. Lineation.	35	A. 1.537
11	B. syncline	36	C. 1.658
12	B. faulting	37	D. very high
13	A. Physa	38	C. Phyllosilicate
14	A. Lamination	39	A. Nesosilicate
15	C. angle at which the bed inclines from the horizontal	40	B. Polymorph
16	B. shearing forces	41	B. microcline
17	D. rocks under low confining pressure are more likely to deform ductily than rocks under high confining pressure	42	C. twinkling
18	B. two limbs dipping in the same direction - with one tilted beyond vertical	43	D. all of these
19	D. all of these	44	A. Asbestos
20	A. Non-conformity	45	A. Mg and Fe
21	B. a faulted anticline	46	C. jasper
22	C. Deep focus earthquakes	47	B. feldspathoid
23	C. Flood plain deposits	48	D. dolomite
24	B. River-piracy	49	A. Isotropic
25	D. Marine	50	C. pseudomorph

Q.No.	ANSWER	Q.No.	ANSWER
51	A. Plagioclase	76	B. retrograde metamorphism
52	C. pleochroism	77	A. Low temperature and low pressure
53	A. Cyclo	78	D. Hornfels
54	D. Mica	79	B. Kyanite
55	A. Chlorite	80	C. Mylonite
56	D. opal	81	B. Dynamothermal
57	C. isomorphs	82	D. shape of fragments
58	A. Eutectic	83	B. Residual
59	B. Holohyaline	84	C. Desert
60	B. SiO ₂ and temperature	85	C. 2 to 10
61	C. 45-52 wt%	86	C. 0.1 to 2
62	D. The process by which the same magma may produce different composition igneous rocks.	87	A. Greenschist
63	A. Assimilation	88	B. Amphibolite
64	C. xenolith	89	C. Volcanic
65	A. diorite	90	C. schistosity
66	D. texture and mineral composition	91	C. spit formation
67	C. Extrusive	92	B. limestone
68	C. Inequigranular	93	C. granite
69	A. Rhyolite	94	C. Regional
70	B. diorite	95	A. Ca-plagioclase
71	B. Breccia	96	A. Area A
72	B. Reducing	97	D. Area D
73	D. ilite	98	D. foliation
74	C. Eclogite	99	C. migmatite
75	D. Porphyroblasts	100	A. Hornfels

DAYANAND SCIENCE OLYMPIAD 2019-20
EARTH SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III)

Date: 22/12/2019

Time: 11.00 am to 1.00 pm

Total Questions: 100

Total marks: 100

SET -B

Q.No.	ANSWER	Q.No.	ANSWER
1	A. Non-conformity	26	A. Assimilation
2	B. a faulted anticline	27	C. xenolith
3	C. Deep focus earthquakes	28	A. diorite
4	C. Flood plain deposits	29	D. texture and mineral composition
5	B. River-piracy	30	C. Extrusive
6	D. Marine	31	C. Inequigranular
7	C. an erosional surface between horizontal sedimentary rocks	32	A. Rhyolite
8	C. angular unconformity	33	B. diorite
9	A. They represent a gap in the geologic rock record.	34	C. Mylonite
10	C. natural levees	35	B. Dynamothermal
11	D. erosion deposition	36	D. shape of fragments
12	B. Polymorph	37	B. Residual
13	B. microcline	38	C. Desert
14	C. twinkling	39	C. 2 to 10
15	D. all of these	40	C. 0.1 to 2
16	A. Asbestos	41	A. Greenschist
17	A. Mg and Fe	42	B. Amphibolite
18	C. jasper	43	C. Volcanic
19	B. feldspathoid	44	C. schistosity
20	D. dolomite	45	D. Any type of rock
21	A. Isotropic	46	B. Ductile
22	C. pseudomorph	47	D. Height of fold
23	B. SiO ₂ and temperature	48	B. Horizontal
24	C. 45-52 wt%	49	D. Axial plane need not pass through all points of maximum curvature in a folded sequence
25	D. The process by which the same magma may produce different composition igneous rocks.	50	D. All the above.

Q.No.	ANSWER	Q.No.	ANSWER
51	B. Transform fault.	76	D. Mica
52	A. Folding	77	A. Chlorite
53	D. Hornblende	78	D. opal
54	C. Lineation.	79	C. isomorphs
55	B. syncline	80	A. Eutectic
56	B. faulting	81	B. Holohyalline
57	A. Physis	82	B. Breccia
58	A. Lamination	83	B. Reducing
59	C. angle at which the bed inclines from the horizontal	84	D. ilite
60	B. shearing forces	85	C. Eclogite
61	D. rocks under low confining pressure are more likely to deform ductily than rocks under high confining pressure	86	D. Porphyroblasts
62	B. two limbs dipping in the same direction - with one tilted beyond vertical	87	B. retrograde metamorphism
63	D. all of these	88	A. Low temperature and low pressure
64	B. Box jointing	89	D. Hornfels
65	D. Columnar jointing	90	B. Kyanite
66	B. Joints	91	C. spit formation
67	C. Andalusite	92	B. limestone
68	A. 1.537	93	C. granite
69	C. 1.658	94	C. Regional
70	D. very high	95	A. Ca-plagioclase
71	C. Phyllosilicate	96	A. Area A
72	A. Nesosilicate	97	D. Area D
73	A. Plagioclase	98	D. foliation
74	C. pleochroism	99	C. migmatite
75	A. Cyclo	100	A. Hornfels

DAYANAND SCIENCE OLYMPIAD 2019-20
EARTH SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III)

Date: 22/12/2019

Time: 11.00 am to 1.00 pm

Total Questions: 100

Total marks: 100

SET -C

Q.No.	ANSWER	Q.No.	ANSWER
1	D. erosion deposition	26	B. Horizontal
2	B. Box jointing	27	D. Axial plane need not pass through all points of maximum curvature in a folded sequence
3	D. Columnar jointing	28	D. All the above.
4	B. Joints	29	B. Transform fault.
5	C. Andalusite	30	A. Folding
6	A. 1.537	31	D. Hornblende
7	C. 1.658	32	C. Lineation.
8	D. very high	33	B. syncline
9	C. Phyllosilicate	34	B. faulting
10	A. Nesosilicate	35	A. Physa
11	B. Polymorph	36	A. Lamination
12	C. Mylonite	37	C. angle at which the bed inclines from the horizontal
13	B. Dynamothermal	38	B. shearing forces
14	D. shape of fragments	39	D. rocks under low confining pressure are more likely to deform ductily than rocks under high confining pressure
15	B. Residual	40	B. two limbs dipping in the same direction - with one tilted beyond vertical
16	C. Desert	41	D. all of these
17	C. 2 to 10	42	A. Non-conformity
18	C. 0.1 to 2	43	B. a faulted anticline
19	A. Greenschist	44	C. Deep focus earthquakes
20	B. Amphibolite	45	C. Flood plain deposits
21	C. Volcanic	46	B. River-piracy
22	C. schistosity	47	D. Marine
23	D. Any type of rock	48	C. an erosional surface between horizontal sedimentary rocks
24	B. Ductile	49	C. angular unconformity
25	D. Height of fold	50	A. They represent a gap in the geologic rock record.

Q.No.	ANSWER	Q.No.	ANSWER
51	C. natural levees	76	D. Area D
52	A. Plagioclase	77	D. foliation
53	C. pleochroism	78	C. migmatite
54	A. Cyclo	79	A. Hornfels
55	D. Mica	80	A. Isotropic
56	A. Chlorite	81	C. pseudomorph
57	D. opal	82	C. 45-52 wt%
58	C. isomorphs	83	D. The process by which the same magma may produce different composition igneous rocks.
59	A. Eutectic	84	A. Assimilation
60	B. Holohyaline	85	C. xenolith
61	B. SiO ₂ and temperature	86	A. diorite
62	B. microcline	87	D. texture and mineral composition
63	C. twinkling	88	C. Extrusive
64	D. all of these	89	C. Inequigranular
65	A. Asbestos	90	A. Rhyolite
66	A. Mg and Fe	91	B. diorite
67	C. jasper	92	B. Breccia
68	B. felspathoid	93	B. Reducing
69	D. dolomite	94	D. lilitite
70	C. spit formation	95	C. Eclogite
71	B. limestone	96	D. Porphyroblasts
72	C. granite	97	B. retrograde metamorphism
73	C. Regional	98	A. Low temperature and low pressure
74	A. Ca-plagioclase	99	D. Hornfels
75	A. Area A	100	B. Kyanite

DAYANAND SCIENCE OLYMPIAD 2019-20
EARTH SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III)

Date: 22/12/2019

Time: 11.00 am to 1.00 pm

Total Questions: 100

Total marks: 100

SET -D

Q.No.	ANSWER	Q.No.	ANSWER
1	C. schistosity	26	D. lillite
2	C. spit formation	27	C. Eclogite
3	B. limestone	28	D. Porphyroblasts
4	C. granite	29	B. retrograde metamorphism
5	C. Regional	30	A. Low temperature and low pressure
6	A. Ca-plagioclase	31	D. Hornfels
7	A. Area A	32	B. Kyanite
8	D. Area D	33	C. Mylonite
9	D. foliation	34	C. pseudomorph
10	C. migmatite	35	A. Plagioclase
11	A. Hornfels	36	C. pleochroism
12	C. Lineation.	37	A. Cyclo
13	B. syncline	38	D. Mica
14	B. faulting	39	A. Chlorite
15	A. Physa	40	D. opal
16	A. Lamination	41	C. isomorphs
17	C. angle at which the bed inclines from the horizontal	42	A. Eutectic
18	B. shearing forces	43	B. Holohyalline
19	D. rocks under low confining pressure are more likely to deform ductily than rocks under high confining pressure	44	B. SiO ₂ and temperature
20	B. two limbs dipping in the same direction - with one tilted beyond vertical	45	D. Any type of rock
21	D. all of these	46	B. Ductile
22	A. Non-conformity	47	D. Height of fold
23	B. diorite	48	B. Horizontal
24	B. Breccia	49	D. Axial plane need not pass through all points of maximum curvature in a folded sequence
25	B. Reducing	50	D. All the above.

Q.No.	ANSWER	Q.No.	ANSWER
51	B. Transform fault.	76	D. all of these
52	A. Folding	77	A. Asbestos
53	D. Hornblende	78	A. Mg and Fe
54	B. a faulted anticline	79	C. jasper
55	C. Deep focus earthquakes	80	B. feldspathoid
56	C. Flood plain deposits	81	D. dolomite
57	B. River-piracy	82	A. Isotropic
58	D. Marine	83	C. 45-52 wt%
59	C. an erosional surface between horizontal sedimentary rocks	84	D. The process by which the same magma may produce different composition igneous rocks.
60	C. angular unconformity	85	A. Assimilation
61	A. They represent a gap in the geologic rock record.	86	C. xenolith
62	C. natural levees	87	A. diorite
63	D. erosion deposition	88	D. texture and mineral composition
64	B. Box jointing	89	C. Extrusive
65	D. Columnar jointing	90	C. Inequigranular
66	B. Joints	91	A. Rhyolite
67	C. Andalusite	92	B. Dynamothermal
68	A. 1.537	93	D. shape of fragments
69	C. 1.658	94	B. Residual
70	D. very high	95	C. Desert
71	C. Phyllosilicate	96	C. 2 to 10
72	A. Nesosilicate	97	C. 0.1 to 2
73	B. Polymorph	98	A. Greenschist
74	B. microcline	99	B. Amphibolite
75	C. twinkling	100	C. Volcanic

DAYANAND SCIENCE OLYMPIAD 2019-20

LIFE SCIENCES

ANSWER KEY LEVEL- I (B.Sc.-I)

Date: 22/12/2019

Time: 11.00 am to 12.00 noon

Total Questions: 50

Total marks: 50

SET -A

Sr. no.	Answer	Sr. No	Answer	Sr. no	Answer	Sr. No.	answer	Sr. no.	Answer
1)	b	11)	b	21)	a	31)	c	41)	b
2)	a	12)	b	22)	d	32)	c	42)	a
3)	a	13)	d	23)	a	33)	d	43)	a
4)	a	14)	a	24)	d	34)	a	44)	b
5)	b	15)	d	25)	d	35)	c	45)	c
6)	b	16)	a	26)	d	36)	c	46)	b
7)	a	17)	b	27)	b	37)	b	47)	c
8)	b	18)	a	28)	b	38)	b	48)	c
9)	b	19)	d	29)	c	39)	b	49)	c
10)	b	20)	a	30)	a	40)	b	50)	d

SET B

Sr. no.	Answer	Sr. No	Answer	Sr. no	Answer	Sr. No.	answer	Sr. no.	Answer
1)	a	11)	d	21)	b	31)	b	41)	a
2)	b	12)	d	22)	c	32)	a	42)	c
3)	d	13)	b	23)	d	33)	a	43)	b
4)	b	14)	d	24)	c	34)	c	44)	b
5)	d	15)	d	25)	d	35)	c	45)	c
6)	c	16)	b	26)	b	36)	a	46)	b
7)	a	17)	a	27)	b	37)	a	47)	b
8)	b	18)	a	28)	c	38)	a	48)	c
9)	a	19)	b	29)	b	39)	a	49)	b
10)	a	20)	d	30)	a	40)	b	50)	b

SET-C

Sr. no.	Answer	Sr. No	Answer	Sr. no	Answer	Sr. No.	answer	Sr. no.	Answer
1)	a	11)	b	21)	b	31)	b	41)	c
2)	d	12)	a	22)	c	32)	a	42)	d
3)	a	13)	d	23)	a	33)	b	43)	c
4)	b	14)	d	24)	b	34)	a	44)	b
5)	c	15)	b	25)	b	35)	c	45)	b
6)	a	16)	a	26)	d	36)	b	46)	d
7)	a	17)	b	27)	d	37)	d	47)	c
8)	a	18)	b	28)	d	38)	b	48)	b
9)	b	19)	b	29)	a	39)	c	49)	b
10)	b	20)	c	30)	a	40)	a	50)	c

SET-D

Sr. no.	Answer	Sr. No	Answer	Sr. no	Answer	Sr. No.	answer	Sr. no.	Answer
1)	b	11)	a	21)	b	31)	a	41)	a
2)	a	12)	d	22)	a	32)	b	42)	c
3)	a	13)	d	23)	b	33)	c	43)	c
4)	d	14)	a	24)	b	34)	c	44)	b
5)	c	15)	b	25)	d	35)	b	45)	d
6)	a	16)	b	26)	d	36)	d	46)	c
7)	a	17)	b	27)	a	37)	d	47)	b
8)	a	18)	b	28)	a	38)	b	48)	b
9)	b	19)	b	29)	b	39)	c	49)	c
10)	b	20)	c	30)	a	40)	d	50)	b

DAYANAND SCIENCE OLYMPIAD 2019-20
LIFE SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019
Time: 11.00 am to 1.00 pm

Total Questions: 100
Total marks: 100

SET-A

No.	Ans.	No.	Ans.	No.	Ans.	No.	Ans.
1.	d	26.	b	51.	b	76.	a
2.	c	27.	a	52.	d	77.	d
3.	a	28.	b	53.	b	78.	d
4.	c	29.	d	54.	c	79.	c
5.	c	30.	a	55.	a	80.	d
6.	c	31.	d	56.	c	81.	b
7.	c	32.	a	57.	d	82.	c
8.	a	33.	d	58.	b	83.	d
9.	a	34.	b	59.	d	84.	a
10.	b	35.	c	60.	b	85.	d
11.	d	36.	a	61.	a	86.	b
12.	a	37.	d	62.	b	87.	d
13.	d	38.	d	63.	d	88.	c
14.	a	39.	d	64.	b	89.	c
15.	c	40.	b	65.	b	90.	a
16.	b	41.	d	66.	c	91.	d
17.	c	42.	c	67.	c	92.	d
18.	c	43.	d	68.	c	93.	d
19.	a	44.	a	69.	a	94.	b
20.	b	45.	d	70.	a	95.	c
21.	c	46.	a	71.	a	96.	d
22.	a	47.	c	72.	c	97.	c
23.	b	48.	d	73.	a	98.	d
24.	d	49.	b	74.	d	99.	d
25.	a	50.	c	75.	d	100.	a

DAYANAND SCIENCE OLYMPIAD 2019-20
LIFE SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019

Time: 11.00 am to 1.00 pm

Total Questions: 100

Total marks: 100

SET-B

No.	Ans.	No.	Ans.	No.	Ans.	No.	Ans.
1.	a	26.	b	51.	d	76.	b
2.	d	27.	a	52.	c	77.	d
3.	d	28.	b	53.	a	78.	b
4.	c	29.	d	54.	c	79.	c
5.	d	30.	a	55.	c	80.	a
6.	b	31.	d	56.	c	81.	c
7.	c	32.	a	57.	c	82.	d
8.	d	33.	d	58.	a	83.	b
9.	a	34.	b	59.	a	84.	d
10.	d	35.	c	60.	b	85.	b
11.	b	36.	a	61.	d	86.	a
12.	d	37.	d	62.	a	87.	b
13.	c	38.	d	63.	d	88.	d
14.	c	39.	d	64.	a	89.	b
15.	a	40.	b	65.	c	90.	b
16.	d	41.	d	66.	b	91.	c
17.	d	42.	c	67.	c	92.	c
18.	d	43.	d	68.	c	93.	c
19.	b	44.	a	69.	a	94.	a
20.	c	45.	d	70.	b	95.	a
21.	d	46.	a	71.	c	96.	a
22.	c	47.	c	72.	a	97.	c
23.	d	48.	d	73.	b	98.	a
24.	d	49.	b	74.	d	99.	d
25.	a	50.	c	75.	a	100.	d

DAYANAND SCIENCE OLYMPIAD 2019-20
LIFE SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019

Time: 11.00 am to 1.00 pm

Total Questions: 100

Total marks: 100

SET-C

No.	Ans.	No.	Ans.	No.	Ans.	No.	Ans.
1	b	26.	d	51.	a	76.	b
2	d	27.	c	52.	d	77.	a
3	b	28.	a	53.	d	78.	b
4	c	29.	c	54.	c	79.	d
5	a	30.	c	55.	d	80.	a
6	c	31.	c	56.	b	81.	d
7	d	32.	c	57.	c	82.	a
8	b	33.	a	58.	d	83.	d
9	d	34.	a	59.	a	84.	b
10	b	35.	b	60.	d	85.	c
11	a	36.	d	61.	b	86.	a
12	b	37.	a	62.	d	87.	d
13	d	38.	d	63.	c	88.	d
14	b	39.	a	64.	c	89.	d
15	b	40.	c	65.	a	90.	b
16	c	41.	b	66.	d	91.	d
17	c	42.	c	67.	d	92.	c
18	c	43.	c	68.	d	93.	d
19	a	44.	a	69.	b	94.	a
20	a	45.	b	70.	c	95.	d
21	a	46.	c	71.	d	96.	a
22	c	47.	a	72.	c	97.	c
23	a	48.	b	73.	d	98.	d
24	d	49.	d	74.	d	99.	b
25	d	50.	a	75.	a	100.	c

DAYANAND SCIENCE OLYMPIAD 2019-20
LIFE SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019

Time: 11.00 am to 1.00 pm

Total Questions: 100

Total marks: 100

SET-D

No.	Ans.	No.	Ans.	No.	Ans.	No.	Ans.
1	b	26.	a	51.	b	76.	d
2	a	27.	d	52.	d	77.	c
3	b	28.	d	53.	b	78.	a
4	d	29.	c	54.	c	79.	c
5	a	30.	d	55.	a	80.	c
6	d	31.	b	56.	c	81.	c
7	a	32.	c	57.	d	82.	c
8	d	33.	d	58.	b	83.	a
9	b	34.	a	59.	d	84.	a
10	c	35.	d	60.	b	85.	b
11	a	36.	b	61.	a	86.	d
12	d	37.	d	62.	b	87.	a
13	d	38.	c	63.	d	88.	d
14	d	39.	c	64.	b	89.	a
15	b	40.	a	65.	b	90.	c
16	d	41.	d	66.	c	91.	b
17	c	42.	d	67.	c	92.	c
18	d	43.	d	68.	c	93.	c
19	a	44.	b	69.	a	94.	a
20	d	45.	c	70.	a	95.	b
21	a	46.	d	71.	a	96.	c
22	c	47.	c	72.	c	97.	a
23	d	48.	d	73.	a	98.	b
24	b	49.	d	74.	d	99.	d
25	c	50.	a	75.	d	100.	a

DAYANAND SCIENCE OLYMPIAD 2019-20
MATHEMATICAL SCIENCES
ANSWER KEY LEVEL- I (B.Sc.-I)

Date: 22/12/2019

Time: 09.30 am to 10.30 am

Total Questions: 50

Total marks: 50

SET -A

1	a	11	b	21	b
2	b	12	c	22	c
3	a	13	b	23	a
4	d	14	b	24	d
5	b	15	a	25	d
6	a	16	a		
7	b	17	c		
8	a	18	b		
9	b	19	c		
10	d	20	b		

SET B

1	d	11	a	21	b
2	d	12	b	22	d
3	a	13	b	23	a
4	c	14	c	24	b
5	b	15	b	25	a
6	b	16	d		
7	c	17	b		
8	b	18	a		
9	c	19	b		
10	a	20	a		

SET-C

1	a	11	b	21	a
2	b	12	c	22	c
3	a	13	a	23	b
4	d	14	d	24	c
5	b	15	d	25	b
6	b	16	a		
7	c	17	b		
8	b	18	a		
9	b	19	b		
10	a	20	d		

SET-D

1	a	11	b	21	a
2	b	12	d	22	b
3	a	13	a	23	a
4	b	14	b	24	d
5	d	15	a	25	b
6	a	16	a		
7	c	17	b		
8	b	18	b		
9	c	19	c		
10	b	20	b		

DAYANAND SCIENCE OLYMPIAD 2019-20
MATHEMATICAL SCIENCES
ANSWER KEY LEVEL- III (B.Sc.-III and M.Sc.)

Date: 22/12/2019

Total Questions: 50

Time: 11.00 am to 1.00 pm

Total marks: 100

SET -A

Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans
1	c	11	d	21	c	31	b	41	c
2	d	12	c	22	a	32	d	42	c
3	a	13	c	23	d	33	c	43	c
4	b	14	d	24	a	34	b	44	b
5	b	15	d	25	d	35	a	45	a
6	d	16	b	26	b	36	d	46	b
7	d	17	c	27	a	37	b	47	b
8	a	18	a	28	d	38	b	48	d
9	c	19	d	29	c	39	c	49	c
10	c	20	b	30	d	40	b	50	a

SET-B

Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans
1	d	11	c	21	b	31	c	41	c
2	c	12	a	22	d	32	c	42	d
3	c	13	d	23	c	33	c	43	a
4	d	14	a	24	b	34	b	44	b
5	d	15	d	25	a	35	a	45	b
6	b	16	b	26	d	36	b	46	d
7	c	17	a	27	b	37	b	47	d
8	a	18	d	28	b	38	d	48	a
9	d	19	c	29	c	39	c	49	c
10	b	20	d	30	b	40	a	50	c

SET-C

Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans
1	c	11	b	21	c	31	c	41	d
2	a	12	d	22	c	32	d	42	c
3	d	13	c	23	c	33	a	43	c
4	a	14	b	24	b	34	b	44	d
5	d	15	a	25	a	35	b	45	d
6	b	16	d	26	b	36	d	46	b
7	a	17	b	27	b	37	d	47	c
8	d	18	b	28	d	38	a	48	a
9	c	19	c	29	c	39	c	49	d
10	d	20	b	30	a	40	c	50	b

SET-D

Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans	Q no.	Ans
1	b	11	c	21	c	31	d	41	c
2	d	12	c	22	d	32	c	42	a
3	c	13	c	23	a	33	c	43	d
4	b	14	b	24	b	34	d	44	a
5	a	15	a	25	b	35	d	45	d
6	d	16	b	26	d	36	b	46	b
7	b	17	b	27	d	37	c	47	a
8	b	18	d	28	a	38	a	48	d
9	c	19	c	29	c	39	d	49	c
10	b	20	a	30	c	40	b	50	d

1. Ans. a) Diamagnetic
2. Ans.: c) pseudo
3. Ans.: b) only the centrifugal force.
4. Ans.: b) Reciprocal of H
5. Ans.: a) Protostar
6. Ans.: a) Bloch
7. Ans.: a) holes
8. Ans.: a) $\frac{1}{2} \hbar \omega$
9. Ans.: d) fourth power of frequency
10. Ans.: a) one
11. Ans.: a) solar
12. Ans.: a) 50
13. Ans.: b) $2n^2$
14. Ans.: c) two
15. Ans.: a) zero
16. Ans.: a) Positive
17. Ans.: a) radiates
18. Ans.: a) degenerate energy states
19. Ans.: c) Kepler
20. Ans.: b) 0.8 minutes
21. Ans.: c) S. Chandrasekhar
22. Ans.: b) generator
23. Ans.: a) $\frac{\epsilon_1}{\epsilon_2} = \frac{N_1}{N_2}$
24. Ans.: a) $\frac{2n_1}{n_1 + n_2}$
25. Ans.: a) from denser medium
26. Ans.: a) 0.96
27. Ans.: a) Maxwell's equations
28. Ans.: b) polarization vector (\vec{P})
29. Ans.: b) $\nabla \cdot \vec{B} = 0$
30. Ans.: c) heavy rocky material
31. Ans.: a) CO_2
32. Ans.: b) near equator
33. Ans.: d) wave nature of all material particles
34. Ans.: d) show diffraction
35. Ans.: c) $\epsilon_2 = -M \frac{dI_1}{dt}$
36. Ans.: c) linear momentum and angle
37. Ans.: c) 6
38. Ans.: a) one
39. Ans.: b) $\vec{L} = \vec{T} - \vec{V}$
40. Ans.: a) $\frac{h}{2\pi}$
41. Ans.: c) de-Broglie
42. Ans.: a) wave
43. Ans.: c) E
44. Ans.: c) 9
45. Ans.: a) $\frac{1}{2} \hbar \omega$
46. Ans.: a) infinite sequence of discrete energy levels.
47. Ans.: c) 4
48. Ans.: a) One
49. Ans.: c) energy
50. Ans.: (c) $\vec{F} = m\vec{a}$
51. Ans.: a) linear momentum
52. Ans.: b) $\vec{L} = \vec{R} \times \vec{P}$
53. Ans.: b) $\vec{\tau} = \frac{d\vec{L}}{dt}$
54. Ans.: a) range
55. Ans.: a) \hbar
56. Ans.: a) $|\psi| \rightarrow 0$ as $r \rightarrow \infty$
57. Ans.: b) one
58. Ans.: a) $\vec{p} = \hbar \vec{k}$
59. Ans.: b) $\vec{E} = \hbar \omega$
60. Ans.: b) α^2

61. Ans.: c) $\vec{E} = -\nabla\phi$
62. Ans.: b) spherical
63. Ans.: a) $\nabla^2\phi = \frac{\rho}{\epsilon_0}$
64. Ans.: a) Charge free region
65. Ans.: b) parabola
66. Ans.: a) cycloid
67. Ans.: b) attract each other
68. Ans.: b) Negative
69. Ans.: a) Spontaneous magnetization
70. Ans.: a) Curie
71. Ans.: c) magnetization per unit magnetic field intensity
72. Ans.: a) Neel point
73. Ans.: c) Ferromagnetic
74. Ans.: d) fast electrons
75. Ans.: c) the wave nature of electrons
76. Ans.: b) Negative
77. Ans.: d) de Broglie waves
78. Ans.: a) electron
79. Ans.: d) electrons
80. Ans.: d) none of these
81. Ans.: b) Reflection
82. Ans.: b) $2d \sin \theta = n\lambda$
83. Ans.: c) periodic array of atoms
84. Ans.: b) direct
85. Ans.: a) monochromatic
86. Ans.: c) 1 Å
87. Ans.: a) Isotropic
88. Ans.: a) only at the corners
89. Ans.: b) 2
90. Ans.: a) SC
91. Ans.: a) 0.7
92. Ans.: a) Cubic
93. Ans.: a) triclinic
94. Ans.: b) electromagnetic radiation
95. Ans.: b) 6
96. Ans.: d) $\frac{1}{3}, \frac{1}{6}, \frac{1}{1}$
97. Ans.: a) 0.32 nm
98. Ans.: b) face centered cubic
99. Ans.: a) 0.7
100. Ans.: a) Linear momentum

1. Ans.: b) $2n^2$
2. Ans.: b) only the centrifugal force.
3. Ans.: a) Protostar
4. Ans.: a) Bloch
5. Ans.: a) holes
6. Ans.: a) radiates
7. Ans.: a) $\frac{1}{2} \hbar \omega$
8. Ans.: d) fourth power of frequency
9. Ans.: a) one
10. Ans.: b) Reciprocal of H
11. Ans. a) Diamagnetic
12. Ans: a) solar
13. Ans: a) 50
14. Ans.: c) two
15. Ans.: a) zero
16. Ans.: a) Positive
17. Ans.: a) degenerate energy states
18. Ans.: c) Kepler
19. Ans.: b) 08 minutes
20. Ans.: c) S. Chandrasekhar
21. Ans.: b) generator
22. Ans.: a) $\frac{\epsilon_1}{\epsilon_2} = \frac{N_1}{N_2}$
23. Ans.: c) E
24. Ans.: b) spherical
25. Ans.: b) 2
26. Ans.: c) pseudo
27. Ans.: c) linear momentum and angle
28. Ans.: a) $\frac{2n_1}{n_1 + n_2}$
29. Ans.: d) show diffraction
30. Ans.: a) from denser medium
31. Ans.: a) One
32. Ans.: a) 0.96
33. Ans.: a) Maxwell's equations
34. Ans.: b) $\nabla \cdot \vec{B} = 0$
35. Ans.: c) heavy rocky material
36. Ans.: a) $|\psi| \rightarrow 0$ as $r \rightarrow \infty$
37. Ans.: a) CO₂
38. Ans.: b) near equator
39. Ans.: d) wave nature of all material particles
40. Ans.: c) $\epsilon_2 = -M \frac{dI_1}{dt}$
41. Ans.: a) $\nabla^2 \phi = \frac{\rho}{\epsilon_0}$
42. Ans.: c) 6
43. Ans.: a) one
44. Ans.: b) $L = T - V$
45. Ans.: a) $\frac{h}{2\pi}$
46. Ans.: c) de-Broglie
47. Ans.: a) wave
48. Ans.: a) Spontaneous magnetization
49. Ans.: c) 9
50. Ans.: c) $\vec{E} = -\nabla \phi$
51. Ans.: a) $\frac{1}{2} \hbar \omega$
52. Ans.: a) infinite sequence of discrete energy levels.
53. Ans.: c) 4
54. Ans.: c) energy
55. Ans.: c) $\vec{F} = m\vec{a}$
56. Ans.: a) Linear momentum
57. Ans.: b) $\vec{L} = \vec{R} \times \vec{P}$
58. Ans.: b) $\vec{\tau} = \frac{d\vec{L}}{dt}$
59. Ans.: a) range

60. Ans.: a) SC
61. Ans.: b) $\mathbf{E} = \hbar\boldsymbol{\omega}$
62. Ans.: b) polarization vector (\vec{P})
63. Ans.: a) \hbar
64. Ans.: b) one
65. Ans.: a) 0.7
66. Ans.: a) $\mathbf{p} = \hbar\mathbf{k}$
67. Ans.: b) α^2
68. Ans.: d) electrons
69. Ans.: a) Neel point
70. Ans.: c) the wave nature of electrons
71. Ans.: a) Charge free region
72. Ans.: b) parabola
73. Ans.: a) cycloid
74. Ans.: b) attract each other
75. Ans.: b) Negative
76. Ans.: a) Curie
77. Ans.: c) magnetization per unit magnetic field intensity
78. Ans.: c) Ferromagnetic
79. Ans.: d) fast electrons
80. Ans.: b) Negative
81. Ans.: a) triclinic
82. Ans.: a) linear momentum
83. Ans.: a) Isotropic
84. Ans.: d) de Broglie waves
85. Ans.: a) electron
86. Ans.: d) none of these
87. Ans.: b) Reflection
88. Ans.: b) $2d \sin \theta = n\lambda$
89. Ans.: c) periodic array of atoms
90. Ans.: b) direct
91. Ans.: a) monochromatic
92. Ans.: a) 0.7
93. Ans.: c) 1 \AA
94. Ans.: a) only at the corners
95. Ans.: a) Cubic
96. Ans.: b) electromagnetic radiation
97. Ans.: b) 6
98. Ans.: d) $\frac{1}{3}, \frac{1}{6}, \frac{1}{1}$
99. Ans.: a) 0.32 nm
100. Ans.: b) face centered cubic

1. Ans.: a) Bloch
2. Ans.: a) radiates
3. Ans.: a) $\frac{1}{2} \hbar \omega$
4. Ans.: d) fourth power of frequency
5. Ans.: a) one
6. Ans.: b) Reciprocal of H
7. Ans.: a) Diamagnetic
8. Ans.: a) solar
9. Ans.: a) 50
10. Ans.: c) two
11. Ans.: a) zero
12. Ans.: a) Positive
13. Ans.: a) degenerate energy states
14. Ans.: a) $\frac{1}{2} \hbar \omega$
15. Ans.: b) direct
16. Ans.: a) monochromatic
17. Ans.: c) Kepler
18. Ans.: b) 08 minutes
19. Ans.: c) S. Chandrasekhar
20. Ans.: b) generator
21. Ans.: a) $\frac{\epsilon_1}{\epsilon_2} = \frac{N_1}{N_2}$
22. Ans.: c) E
23. Ans.: b) spherical
24. Ans.: b) 2
25. Ans.: b) $2n^2$
26. Ans.: b) only the centrifugal force.
27. Ans.: c) pseudo
28. Ans.: c) linear momentum and angle
29. Ans.: a) $\frac{2n_1}{n_1 + n_2}$
30. Ans.: d) show diffraction
31. Ans.: a) from denser medium
32. Ans.: a) One
33. Ans.: a) 0.96
34. Ans.: a) linear momentum
35. Ans.: b) $2d \sin \theta = n\lambda$
36. Ans.: a) Maxwell's equations
37. Ans.: b) $\nabla \cdot \vec{B} = 0$
38. Ans.: c) heavy rocky material
39. Ans.: a) $|\psi| \rightarrow 0$ as $r \rightarrow \infty$
40. Ans.: a) 0.7
41. Ans.: a) CO₂
42. Ans.: a) holes
43. Ans.: b) near equator
44. Ans.: d) wave nature of all material particles
45. Ans.: c) $\epsilon_2 = -M \frac{dI_1}{dt}$
46. Ans.: a) $\nabla^2 \phi = \frac{\rho}{\epsilon_0}$
47. Ans.: c) 6
48. Ans.: a) one
49. Ans.: b) $L = T - V$
50. Ans.: b) one
51. Ans.: a) $\frac{h}{2\pi}$
52. Ans.: c) de-Broglie
53. Ans.: a) wave
54. Ans.: a) Spontaneous magnetization
55. Ans.: a) Protostar
56. Ans.: c) $\vec{E} = -\nabla \phi$
57. Ans.: c) Ferromagnetic
58. Ans.: a) infinite sequence of discrete energy levels.
59. Ans.: c) 4
60. Ans.: c) energy

61. Ans.: (c) $\vec{F} = m\vec{a}$
62. Ans.: a) Linear momentum
63. Ans.: b) $\vec{L} = \vec{R} \times \vec{P}$
64. Ans.: b) $\vec{\tau} = \frac{d\vec{L}}{dt}$
65. Ans.: a) only at the corners
66. Ans.: a) range
67. Ans.: a) SC
68. Ans.: a) triclinic
69. Ans.: b) $E = \hbar\omega$
70. Ans.: b) polarization vector (\vec{P})
71. Ans.: a) \hbar
72. Ans.: a) 0.7
73. Ans.: a) $p = \hbar k$
74. Ans.: b) α^2
75. Ans.: d) electrons
76. Ans.: a) Neel point
77. Ans.: c) the wave nature of electrons
78. Ans.: a) Charge free region
79. Ans.: b) parabola
80. Ans.: d) $\frac{1}{3}, \frac{1}{6}, \frac{1}{1}$
81. Ans.: b) face centered cubic
82. Ans.: a) cycloid
83. Ans.: a) 0.32 nm
84. Ans.: c) 9
85. Ans.: b) attract each other
86. Ans.: b) Negative
87. Ans.: a) Curie
88. Ans.: b) Reflection
89. Ans.: c) magnetization per unit magnetic field intensity
90. Ans.: d) fast electrons
91. Ans.: b) Negative
92. Ans.: a) Isotropic
93. Ans.: d) de Broglie waves
94. Ans.: a) electron
95. Ans.: d) none of these
96. Ans.: c) periodic array of atoms
97. Ans.: c) 1 \AA
98. Ans.: a) Cubic
99. Ans.: b) electromagnetic radiation
100. Ans.: b) 6

1. Ans.: d) fourth power of frequency
2. Ans.: b) Reciprocal of H
3. Ans. a) Diamagnetic
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5. Ans: a) 50
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11. Ans.: a) $\frac{1}{2} \hbar \omega$
12. Ans.: b) direct
13. Ans.: a) monochromatic
14. Ans.: a) one
15. Ans.: b) $2d \sin \theta = n\lambda$
16. Ans.: b) 08 minutes
17. Ans.: c) S. Chandrasekhar
18. Ans.: b) generator
19. Ans.: a) $\frac{\epsilon_1}{\epsilon_2} = \frac{N_1}{N_2}$
20. Ans.: c) E
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27. Ans.: a) $\frac{2n_1}{n_1 + n_2}$
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41. Ans.: d) wave nature of all material particles
42. Ans.: c) $\epsilon_2 = -M \frac{dI_1}{dt}$
43. Ans.: a) Bloch
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52. Ans.: c) de-Broglie
53. Ans.: a) wave
54. Ans.: a) Linear momentum
55. Ans.: a) Spontaneous magnetization
56. Ans.: b) $\vec{\tau} = \frac{d\vec{L}}{dt}$
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91. Ans.: a) 0.32 nm
92. Ans.: b) Negative
93. Ans.: a) Curie
94. Ans.: c) magnetization per unit magnetic field intensity
95. Ans.: b) Negative
96. Ans.: a) Isotropic
97. Ans.: a) electron
98. Ans.: c) 1 \AA
99. Ans.: a) Cubic
100. Ans.: c) 9