

Exam Name

**FINAL ANSWER KEY**

**Paper Name: Scientist B (Natural Science and Agricultural Science)**

**Paper Code: SB – N &  
AGR**

Q. No.	Key	Q. No.	Key	Q. No.	Key	Q. No.	Key	Q. No.	Key	Q. No.	Key
01	B	12	A	23	B	34	C	45	D	56	B
02	B	13	A	24	D	35	A	46	A	57	C
03	C	14	A	25	B	36	B	47	A	58	B
04	B	15	B	26	C	37	D	48	C	59	D
05	A, C	16	A	27	A	38	B	49	C	60	A
06	B	17	A	28	B	39	A	50	A	61	A
07	A	18	B	29	D	40	C	51	A	62	A
08	B	19	D	30	D	41	A	52	B	63	C
09	B	20	C	31	C	42	A	53	B	64	B
10	C	21	B	32	D	43	D	54	C	65	D
11	D	22	A	33	C	44	C	55	A	66	B

## Exam Name

Q. No.	Key	Q. No.	Key	Q. No.	Key	Q. No.	Key	Q. No.	Key	Q. No.	Key
67	A	78	B	89	B	100	A	111	A		
68	D	79	C	90	C	101	C	112	C		
69	A	80	A	91	B	102	D	113	A		
70	C	81	D	92	A	103	D	114	B		
71	B	82	B	93	D	104	B	115	C		
72	B	83	C	94	B	105	D	116	C		
73	A	84	A	95	D	106	A	117	B		
74	C	85	D	96	B	107	D	118	A		
75	D	86	MTA	97	C	108	C	119	B		
76	B	87	D	98	B	109	D	120	C		
77	B	88	C	99	B	110	B				

Note: **MTA** stands for **Marks To All**.

# Question Paper

<b>Question Paper Name :</b>	Scientist B Natural Sc And Agricultural Sc
<b>Subject Name :</b>	Scientist B Natural Sc And Agricultural Sc
<b>Creation Date :</b>	2021-09-08 13:19:11
<b>Duration :</b>	120
<b>Total Marks :</b>	120
<b>Display Marks:</b>	Yes
<b>Calculator :</b>	Scientific
<b>Magnifying Glass Required? :</b>	No
<b>Ruler Required? :</b>	No
<b>Eraser Required? :</b>	No
<b>Scratch Pad Required? :</b>	No
<b>Rough Sketch/Notepad Required? :</b>	No
<b>Protractor Required? :</b>	No
<b>Show Watermark on Console? :</b>	Yes
<b>Highlighter :</b>	No
<b>Auto Save on Console? ( SA type of questions will be always auto saved ) :</b>	No

## Scientist B Natural Sc And Agricultural Sc

<b>Group Number :</b>	1
<b>Group Id :</b>	267236133

<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
<b>Edit Attended Group? :</b>	No
<b>Break time :</b>	0
<b>Group Marks :</b>	120
<b>Is this Group for Examiner? :</b>	No

## **Scientist B Natural Sc And Agricultural Sc**

<b>Section Id :</b>	267236261
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	120
<b>Number of Questions to be attempted :</b>	120
<b>Section Marks :</b>	120
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	267236379
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 26723610461 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

**Noise pollution has been inserted as pollution in the Air Act in:**

(A) 1981

(B) 1987

(C) 1986

(D) 1974

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 2 Question Id : 26723610462 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The Water (Prevention and Control of Pollution) Act was enacted in the year:

(A) 1981

(B) 1974

(C) 1986

(D) 2000

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✖ D

**Question Number : 3 Question Id : 26723610463 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

What is the most abundant greenhouse gas in the atmosphere?

- (A) Methane
- (B) Nitrogen dioxide
- (C) Water vapor
- (D) Carbon dioxide

**Options :**

- 1. ✔ A
- 2. ✖ B
- 3. ✖ C
- 4. ✖ D

**Question Number : 4 Question Id : 26723610464 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following is responsible for reducing global CFC production by half?

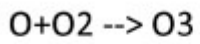
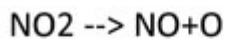
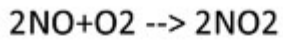
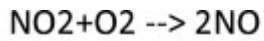
- (A) Copenhagen Protocol
- (B) Montreal Protocol
- (C) Kyoto Protocol
- (D) Convention on Long-Range Transboundary Air Pollution

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 5 Question Id : 26723610465 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



The above reactions describe the chemical process that forms:

- (A) Photochemical smog
- (B) Acid precipitation
- (C) Ozone
- (D) Peroxyacetyl nitrate

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 6 Question Id : 26723610466 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

5th June is observed as

- (A) World forest day
- (B) World environment day
- (C) World wildlife day
- (D) World population day

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 7 Question Id : 26723610467 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following types of electricity generation produces the least amount of greenhouse-gas emissions from cradle to grave?

- (A) Nuclear
- (B) Natural gas
- (C) Biomass
- (D) Oil

**Options :**

- 1. ✓ A
- 2. ✗ B



3. ✖ C

4. ✖ D

**Question Number : 8 Question Id : 26723610468 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

In which of the following ecosystems do tree roots serve as important havens for biodiversity?

(A) Coral reefs

(B) Mangrove forests

(C) Estuaries

(D) Freshwater wetlands

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 9 Question Id : 26723610469 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The total salary of A, B, C is Rs. 444. If they spend 80%, 85%, 75% of their salaries, respectively, their savings are as 7 : 6 : 9. The salary of B is

(A) Rs. 140

(B) Rs. 160

(C) Rs. 144

(D) Rs. 156

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 10 Question Id : 26723610470 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A sum of money invested at compound interest amounts to Rs. 650 at the end of first year and Rs. 676 at the end of second year. The sum of money is:

(A) Rs. 600

(B) Rs. 540

(C) Rs. 625

(D) Rs. 560

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 11 Question Id : 26723610471 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

What is the height of a solid cylinder of radius 5 cm and total surface area is 660 sqcm?

(A) 10 cm

(B) 12 cm

(C) 15 cm

(D) 16 cm

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 12 Question Id : 26723610472 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

In a test paper there are total 10 questions. In how many different ways can you choose 6 questions to answer?

- (A) 210
- (B) 540
- (C) 336
- (D) None of these

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 13 Question Id : 26723610473 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A box contains 5 defective and 15 non-defective bulbs. Two bulbs are chosen at random. Find the probability that both the bulbs are non-defective.

- (A)  $21/38$
- (B)  $3/20$
- (C)  $5/19$
- (D) None of these

**Options :**

- 1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 14 Question Id : 26723610474 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The average rainfall in the months of January and February is 6 cm and in the months of March to June is 5 cm and July to October is 10 cm and, in the months of November and December, it is 6 cm. The average rainfall for the whole year is:

(A) 7

(B) 5.5

(C) 7.5

(D) None of these

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 15 Question Id : 26723610475 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The average age of all the 100 employees in an office is 29 years, where  $\frac{2}{5}$  employees are ladies and the ratio of average age of men to women is 5 : 7. The average age of female employees is:

- (A) 18 years
- (B) 35 years
- (C) 25 years
- (D) 27 years

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 16 Question Id : 26723610476 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The Narendra Modi Stadium was previously known as

- (A) Motera Stadium
- (B) Ahmed Patel Stadium
- (C) Ahmedabad Stadium
- (D) Morar ji Stadium

**Options :**

- 1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 17 Question Id : 26723610477 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Carbon dioxide constitutes about \_\_\_\_\_ percentage of the air?

(A) 0.03

(B) 0.3

(C) 3

(D) 30

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 18 Question Id : 26723610478 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

When India got independence, the Prime Minister of England was:

- (A) Winston Churchill
- (B) Clement R. Atlee
- (C) Neville Chamberlain
- (D) Harold Macmillan

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 19 Question Id : 26723610479 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Gandhiji's Champaran Movement was for:

- (A) The security of rights of Harijans
- (B) Maintaining the unity of Hindu Society
- (C) Civil Disobedience Movement
- (D) Solving the problem of the indigo workers

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C



4. ✖ D

**Question Number : 20 Question Id : 26723610480 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

India liberated Goa from Portuguese in

(A) 1950

(B) 1965

(C) 1961

(D) 1947

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 21 Question Id : 26723610481 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Who among the following won the highest number of National film awards in acting?

(A) Amitabh Bachhan

(B) Shabana Azmi

(C) Satyajit Ray

(D) Kamal Haasan

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 22 Question Id : 26723610482 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which among the following is the largest Hindu temple in the world?

- (A) Angkorwat (Cambodia)
- (B) Akshardham (Delhi)
- (C) Belur Math (Howrah)
- (D) Brihadeshwar (Jhanjavar)

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 23 Question Id : 26723610483 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Tsunami is the result of?

(A) Shrining of Earth's crust

(B) Submarine Earthquakes

(C) Cyclones

(D) Tides

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 24 Question Id : 26723610484 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The instrument used for recording earthquake wavers is:

(A) Barograph

(B) Hydrograph

(C) Pantograph

(D) Seismograph

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✖ D

**Question Number : 25 Question Id : 26723610485 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The Tropic of Cancer does not pass through:

- (A) Gujarat
- (B) Odisha
- (C) Tripura
- (D) West Bengal

**Options :**

- 1. ✔ A
- 2. ✖ B
- 3. ✖ C
- 4. ✖ D

**Question Number : 26 Question Id : 26723610486 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Water stored in a dam possesses:

- (A) No energy
- (B) Kinetic energy
- (C) Potential energy
- (D) Electrical energy

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 27 Question Id : 26723610487 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following is best conductor of electricity?

- (A) Silver
- (B) Mercury
- (C) Platinum
- (D) Copper

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 28 Question Id : 26723610488 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

-40° Fahrenheit is equal to:

(A) -20° centigrade

(B) -40° centigrade

(C) -10° centigrade

(D) -80° centigrade

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 29 Question Id : 26723610489 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A family consists of six members. There is at least one married couple in the family.

- I. Venkat is not the husband of Savita.
- II. Charan is the brother of Jyothi.
- III. Jyothi is not the wife of Ravi.
- IV. Sekhar is the grandfather of Charan.
- V. Jyothi is Savita's daughter.
- VI. Savita's husband is living with her.

If Sekhar has his two children living with him, which of the following pairs can be siblings?

- (A) Ravi & Venkat
- (B) Sekhar & Ravi
- (C) Venkat & Savita
- (D) Either A or C

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 30 Question Id : 26723610490 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Seven villages A, B, C, D, E, F and G are situated as follows:

E is 2km to the west of B.

F is 2km to the north of A.

C is 1km to the west of A.

D is 2km to the south of G.

G is 2km to the east of C.

D is exactly in the middle of B and E.

A is in the middle of:

(A) E and C

(B) F and E

(C) F and G

(D) G and C

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 31 Question Id : 26723610491 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



The statement given below is followed by two arguments numbered I and II. You have to decide which of the following arguments a “strong” argument is and which a “weak” argument is.

**Statement:** Should the Government introduce Gross Happiness Index on the lines of that introduced in Bhutan?

**Arguments:** I. Yes. It will greatly help India in becoming a prosperous nation.  
II. No. Bhutan has not gone anywhere even after introducing GHI over four decades ago.

(A) If only argument I is strong

(B) If only argument II is strong

(C) If neither I nor II is strong

(D) If both I and II are strong

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 32 Question Id : 26723610492 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Choose the most appropriate answer

**Statement (1):** Due to deforestation, the chances of flooding have increased in city X.

**Statement (2):** City X suffered from disrupted water flow.

- (A) I is the cause and II is the effect
- (B) II is the cause and I is the effect
- (C) Both I and II are independent causes
- (D) Both I and II are effects of common causes

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 33 Question Id : 26723610493 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

In the following questions, the first and the last parts of the sentence are numbered 1 and 6. The rest of the sentence is split into four parts and named P, Q, R, and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Then find the correct answer.

1.A dictionary

P.arranged words

Q.about which information

R.containing alphabetically

S.is a book

6.is given.

(A) RPQS

(B) RPSQ

(C) SRPQ

(D) SPRQ

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 34 Question Id : 26723610494 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Choose the option that exhibits the same analogy.

Artist : Canvas ::

- (A) Driver : Car
- (B) Pedestrian : Road
- (C) Composer : Symphony
- (D) Surgeon : Operation

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 35 Question Id : 26723610495 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Choose the alternative which best expresses the meaning of the idiom/.phrase printed in bold type.

**To hold somebody to ransom**

- (A) To keep captive and demand concession
- (B) To humiliate somebody
- (C) To offer bribe
- (D) To blackmail and extract money

**Options :**

- 1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 36 Question Id : 26723610496 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

In following questions, groups of words are given. In each group, one word is correctly spelt. Find the correctly spelt word.

(A) Asassin

(B) Assassin

(C) Assasin

(D) Assassen

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 37 Question Id : 26723610497 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A particle of mass  $m$  carrying charge  $q$  is moving in a circle in a magnetic field  $B$ , according to Bohr's model, the energy of the particle in the  $n$ th level is

(A)  $\frac{1}{n^2} \frac{hqb}{m}$

(B)  $n \frac{hqb}{m}$

(C)  $n \frac{hqb}{2m}$

(D)  $n \frac{hqb}{4m}$

**Options :**

1. ✓ A

2. ✗ B

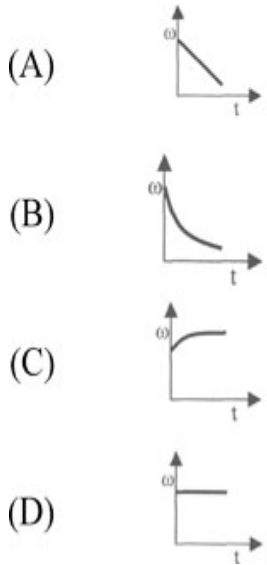
3. ✗ C

4. ✗ D

**Question Number : 38 Question Id : 26723610498 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A spherical ball of ice has radius  $R_0$  and is rotating with an angular speed  $\omega$  about an axis passing through its centre. At time  $t=0$ , it starts acquiring mass because the moisture (at rest) around it starts to freeze on it uniformly. As a result, its radius increases as  $R(t) = R_0 + \alpha t$ , where  $\alpha$  is a constant. The curve which best describes its angular speed with time is



Options :

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

Question Number : 39 Question Id : 26723610499 Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0.25

The best type of laser which is used to do the spectroscopy experiment over a range of visible wavelength is

- (A) Dye laser
- (B) He-Ne laser
- (C) Excimer laser
- (D) Nd-YAG laser

Options :

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 40 Question Id : 26723610500 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A metal hammer and rubber mallet of identical masses are swung at a nail with identical speeds. Which applies the greater impulse?

(A) Hammer

(B) Mallet

(C) The impulses are same

(D) The impulses are different

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 41 Question Id : 26723610501 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



What kind of equations is represented by the Lagrange's equations of motion for a system?

- (A) Newton's
- (B) Laplace
- (C) Poisson
- (D) Maxwell's

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 42 Question Id : 26723610502 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

If the Lagrangian does not depend on time explicitly, then

- (A) The Hamiltonian is constant
- (B) The Hamiltonian cannot be constant
- (C) The kinetic energy is constant
- (D) The potential energy is constant

**Options :**

- 1. ✓ A
- 2. ✗ B

3. ✖ C

4. ✖ D

**Question Number : 43 Question Id : 26723610503 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

What is the value of constant of integration for  $\delta$  function normalized momentum eigen function?

(A)  $1/2\sqrt{L}$

(B)  $1/\sqrt{L}$

(C)  $1/\sqrt{\pi}$

(D)  $1/\sqrt{2\pi}$

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 44 Question Id : 26723610504 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The isothermal compressibility, of an ideal gas at temperatures  $T_0$  and  $V_0$  is given by

(A)  $-1/V_0 (\delta V/\delta P)_{T_0}$

(B)  $1/V_0 (\delta V/\delta P)_{T_0}$

(C)  $-V_0((\delta P/\delta V)_{T_0})$

(D)  $V_0((\delta P/\delta V)_{T_0})$

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 45 Question Id : 26723610505 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

For an ideal Fermi gas in three dimensions, the electron velocity  $V_F$  at the Fermi surface is related to electron concentration  $n$  as,

(A)  $V_F \propto n^{2/3}$

(B)  $V_F \propto n$

(C)  $V_F \propto n^{1/2}$

(D)  $V_F \propto n^{1/3}$

**Options :**

1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 46 Question Id : 26723610506 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

$\pi^+$  meson decays into a  $\mu^+$  meson and a neutrino with a mean lifetime of about  $2.5 \times 10^{-8}$  sec in a frame in which it is at rest. If the velocity of the  $\pi^+$  mesons in the laboratory frame be  $0.9c$ , then the expected lifetime in this frame is

(A)  $5.7 \times 10^{-8}$  sec

(B)  $2.5 \times 10^{-8}$  sec

(C)  $3.1 \times 10^{-8}$  sec

(D) None of these

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 47 Question Id : 26723610507 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The minimum temperature required to initiate fusion of deuteron and triton is of the order of

- (A)  $10^9$  K
- (B)  $10^6$  K
- (C)  $10^{13}$  K
- (D)  $10^{15}$  K

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 48 Question Id : 26723610508 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Two-point charges  $+q_1$  and  $+q_2$  are fixed with a finite distance  $d$  between them.

It is desired to put a third charge  $q_3$  in between these two charges on the line joining them so that the charge  $q_3$  is in equilibrium. This is

- (A) possible only if  $q_3$  is positive
- (B) possible only if  $q_3$  is negative
- (C) possible irrespective of the sign of  $q_3$
- (D) not possible at all

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 49 Question Id : 26723610509 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Water is considered unfit for drinking if total hardness is more than 0.004 CaCO<sub>3</sub> equivalents per 1 litre. A 100ml sample is tested for total hardness by Complexometric Titration method. 30ml of 0.02M EDTA is used to achieve end point. How much distilled water must be added per 1 litre of sample to make it fit for consumption?

- (A) 0.33 litres
- (B) 0.5 litres
- (C) 2 litres
- (D) Already fit

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 50 Question Id : 26723610510 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

If air quality standard for Carbon monoxide is 9.0 ppmV, the percentage as in  $\text{mg}/\text{m}^3$  at 1 atm at  $25^\circ\text{C}$  is

(A)  $10.3 \text{ mg}/\text{m}^3$

(B)  $15.2 \text{ mg}/\text{m}^3$

(C)  $20.0 \text{ mg}/\text{m}^3$

(D)  $5.6 \text{ mg}/\text{m}^3$

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 51 Question Id : 26723610511 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Match list-1 with list-2 and choose the correct answer from code given bellow

**List-1 (Air Pollutant)**

- (a) Carbon monoxide
- (b) Nitrogen Oxide
- (c) Sulphur dioxide with VOCs
- (d) Ozone Plant

**List -2 (Sources/ Activity)**

- 1. Coal burning
- 2. Cigarette smoking
- 3. Chemical reaction
- 4. Power and industrial

**Codes:**

(A) (a) (b) (c) (d)  
2 4 1 3

(B) (a) (b) (c) (d)  
1 2 3 4

(C) (a) (b) (c) (d)  
3 1 4 2

(D) (a) (b) (c) (d)  
4 3 2 1

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 52 Question Id : 26723610512 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



What is Ecomark?

- (A) Level given to recycled products
- (B) Level given to an environment friendly product
- (C) Land mark indicating boundaries of biopark
- (D) Level given to non-recycled products

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 53 Question Id : 26723610513 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A Student was performing a test for dissolved oxygen using Iodometric Titration. However, he forgot to add sodium azide and proceeded to observe end point and wrongly stated the amount of dissolved oxygen in water to be 10 ppm. While performing the experiment again on a 100ml water sample, 4ml of N/40 standard hypo solution was used to observe end point. By how much was the student off when he first conducted the experiment?

(A) 0.5 mM/L

(B) 2 mg/L

(C) 8 ppm

(D) 6 g/m<sup>3</sup>

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 54 Question Id : 26723610514 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The Environmental lapse rate during day time is governed by

- (i) Wind speed                      (ii) Sunlight  
(iii) Topographical Feature      (iv) Cloud cover

The correct answer is

(A) (i) and (ii) only

(B) (ii) and (iii) only

(C) (i) and (iv) only

(D) (i) and (ii) only

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 55 Question Id : 26723610515 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Sequence of a typical sewage treatment plant operation processes will be

(A) Aeration > Flocculation > Sedimentation > Recarbonation > Filtration > Disinfection

(B) Aeration > Sedimentation > Flocculation > Filtration > Recarbonation > Disinfection

(C) Flocculation > Aeration > Recarbonation > Sedimentation > Filtration > Disinfection

(D) Sedimentation > Flocculation > Aeration > Filtration > Recarbonation > Disinfection

**Options :**

1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 56 Question Id : 26723610516 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

5 days standard BOD is approximately x% of total BOD were x is about

(A) 58 %

(B) 68%

(C) 78%

(D) 88%

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 57 Question Id : 26723610517 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

If the concentration of DDT in bird is 10 ppm, the likely concentration of DDT in the carnivore eating that bird would be

- (A) 5 ppm
- (B) 10 ppm
- (C) 100 ppm
- (D) 1000 ppm

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 58 Question Id : 26723610518 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

It is known that  $\text{pH} + \text{pOH} = \text{pK}_w$  for any given temperature. The conductivity of water increases with an increase in temperature, because of a higher concentration of hydronium ions ( $\text{H}_3\text{O}^+$ ) and hydroxide ions ( $\text{OH}^-$ ). At  $50^\circ\text{C}$ ,  $\text{pK}_w = 13.26$ . Which of the following is FALSE for a neutral sample at that temperature?

- (A) The pH of sample would increase when it is cooled down
- (B) The pOH of neutral sample is 7.0
- (C) The pH of sample would change when it is added with neutral water of  $25^\circ\text{C}$
- (D)  $[\text{H}_3\text{O}^+] = [\text{OH}^-]$

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 59 Question Id : 26723610519 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following is not a waterborne disease?

- (A) Typhoid
- (B) Cholera
- (C) Infectious hepatitis
- (D) Filariasis

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 60 Question Id : 26723610520 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A stream with a flow of  $0.2 \text{ m}^3/\text{sec}$  and a chloride concentration of  $50 \text{ mg/L}$  receives a discharge of mine drainage water with a flow of  $0.05 \text{ m}^3/\text{sec}$  and chloride concentration of  $1500 \text{ mg/L}$ . The downstream concentration of chloride is:

(A)  $340 \text{ mg/L}$

(B)  $180 \text{ mg/L}$

(C)  $314 \text{ mg/L}$

(D)  $95 \text{ mg/L}$

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 61 Question Id : 26723610521 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Most common soil borne bacterial pathogen that manipulates plant by injecting its DNA segment into plant cell is:

(A) *Agrobacterium tumefaciens*

(B) *Actinomyces israelii*

(C) *Azotobacter chroococcum*

(D) *Acidaminococcus fermentans*

**Options :**

1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 62 Question Id : 26723610522 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Assume the dilution factor  $p$  for an unseeded mixture of waste and water is 0.03. The DO of the mixture is initially 9.0 mg/L and after 5 days, it has dropped to 3.0 mg/L. The reaction rate constant 'K' has been found to be 0.22/day. Find the value of BOD<sub>5</sub>.

(A) 200 mg/L

(B) 180 mg/L

(C) 270 mg/L

(D) 110 mg/L

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 63 Question Id : 26723610523 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



A wastewater treatment plant treats  $50,000 \text{ m}^3$  wastewater generated per day. For an average flow rate of  $25 \text{ m}^3/\text{day}/\text{m}^2$ , what should be the diameter of the circular primary settling tank?

(A) 100.8 m

(B) 125.2 m

(C) 50.4 m

(D) 80.7 m

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 64 Question Id : 26723610524 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Term of reference is fixed at which stage of EIA processes?

(A) Screening stage

(B) Scoping stage

(C) Detailed EIA stage

(D) Project appraisal

**Options :**

1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 65 Question Id : 26723610525 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The water for domestic consumption should have a pH between 6.5 to 8.5. Given a 1 litre sample of water with pH 6 obtained from a natural Himalayan spring, neutral water is added to it to make it fit for consumption. What amount of neutral water is required to make the sample fit?

(A) Already fit

(B) 0.5 litre

(C) 1 litre

(D) 10 litres

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 66 Question Id : 26723610526 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The rate of replacement of species along a gradient of habitats pertains to

- (A) Alpha diversity
- (B) Beta diversity
- (C) Gamma diversity
- (D) Species Diversity

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 67 Question Id : 26723610527 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

How many carbon atoms are present in [18]-Crown-6 ether?

- (A) 12
- (B) 10
- (C) 18
- (D) 6

**Options :**

- 1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 68 Question Id : 26723610528 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

What is the geometry of  $\text{Ni}(\text{CN})_4^{2-}$  ?

(A) Octahedral

(B) Tetrahedral

(C) Trigonal planar

(D) Square planar

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 69 Question Id : 26723610529 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The structure of diborane ( $B_2H_6$ ) contains

- (A) four 2c-2e bonds and two 3c-2e bonds
- (B) two 2c-2e bonds and four 3c-2e bonds
- (C) two 2c-2e bonds and two 3c-3e bonds
- (D) four 2c-2e bonds and four 3c-2e bonds

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 70 Question Id : 26723610530 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Select the colour change when water is added to anhydrous white copper sulphate:

- (A) Yellow
- (B) Black
- (C) Blue
- (D) Red

**Options :**

- 1. ✓ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 71 Question Id : 26723610531 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

$^{18}\text{F}$  is found to undergo 90 percent radioactive decay in 366 min. What is its computed half-life from this observation? [ $\log 0.1 = -1$ ;  $\log 10 = 1$ ;  $\log 2 = 0.3010$ ]

(A) 90 min

(B) 110 min

(C) 200 min

(D) 50 min

**Options :**

1. ✔ A

2. ✖ B

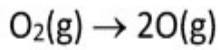
3. ✖ C

4. ✖ D

**Question Number : 72 Question Id : 26723610532 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Without consulting entropy tables, predict the sign of  $\Delta S$  for the process:



- (A) Negative
- (B) Positive
- (C) No Change
- (D) Entropy does not exist in this equation

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 73 Question Id : 26723610533 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Exactly 48.4 mL of HCl solution is required to neutralize completely 1.240 g of pure  $\text{CaCO}_3$ . Calculate the normality of the acid.

- (A) 0.512 N
- (B) 1.000 N
- (C) 0.803 N
- (D) 4.840 N

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 74 Question Id : 26723610534 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

What is the symmetry number for a homonuclear diatomic molecule?

(A) 0

(B) 1

(C) 2

(D) 3

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 75 Question Id : 26723610535 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



Enantiomers are:

- (A) Molecules that have a mirror image.
- (B) Molecules that have at least one stereogenic center.
- (C) Non-superposable molecules.
- (D) Non-superimposable molecules that are mirror images of each other

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 76 Question Id : 26723610536 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The colour of potassium dichromate is due to

- (A) Metal to ligand charge transfer
- (B) Ligand to metal charge transfer
- (C) d-d transition
- (D) Transition in  $K^+$  ion

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C

4. ✖ D

**Question Number : 77 Question Id : 26723610537 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

In which reaction, molecules absorbing light do not themselves react but induce other molecules to react?

(A) Dark reaction

(B) Photosensitized reaction

(C) Thermal reaction

(D) Irreversible

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 78 Question Id : 26723610538 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Predict the major product when thiophene is sulphonated with sulphuric acid:

- (A) Thiophene-1-sulfonic acid
- (B) Thiophene-2-sulfonic acid
- (C) Thiophene-3-sulfonic acid
- (D) No reaction at any condition

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 79 Question Id : 26723610539 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following is not an example of disaccharide?

- (A) Maltose
- (B) Lactose
- (C) Raffinose
- (D) Sucrose

**Options :**

- 1. ✓ A
- 2. ✗ B

3. ✖ C

4. ✖ D

**Question Number : 80 Question Id : 26723610540 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A primary alkyl halide (X) with molecular formula  $C_4H_9Br$  reacted with alcoholic KOH to give another compound (Y). The reaction of 'Y' with HBr gives a compound (Z) which is an isomer of 'X'. Find the compound 'Z' from the following:

(A) 2-Bromobutane

(B) 3-Bromobutane

(C) 1-Bromobutane

(D) None of these

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 81 Question Id : 26723610541 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

What will be the value of magnetic moment of  $M^{2+}$  ion? [atomic no of M = 27]

- (A) 0 BM
- (B) 8.11 BM
- (C) 5.21 BM
- (D) 3.87 BM

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 82 Question Id : 26723610542 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which phenomenon is involved for removal of moisture by silica gel?

- (A) Absorption
- (B) Adsorption
- (C) Dissolution
- (D) None of these

**Options :**

- 1. ✓ A
- 2. ✗ B

3. ✖ C

4. ✖ D

**Question Number : 83 Question Id : 26723610543 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

How many normal modes of vibration are there for  $C_{60}$ ?

(A) 180

(B) 150

(C) 174

(D) 54

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 84 Question Id : 26723610544 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which compound is consistent with an infrared spectrum showing: a broad absorption band at  $3200\text{ cm}^{-1}$  with some sharper bands appearing on its shoulder at about  $2930\text{ cm}^{-1}$ ; a strong absorption at about  $1705\text{ cm}^{-1}$ ; a sharp band at  $1500\text{ cm}^{-1}$ ; a series of sharp bands between  $630$  and  $805\text{ cm}^{-1}$ ?

(A)  $\text{C}_6\text{H}_5\text{COOH}$

(B)  $\text{C}_6\text{H}_5\text{CH}_2\text{OH}$

(C)  $\text{C}_6\text{H}_5\text{COC}_6\text{H}_5$

(D)  $\text{C}_6\text{H}_5\text{OCH}_3$

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 85 Question Id : 26723610545 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The purest form of iron is

(A) Rust

(B) Pig iron

(C) Nickel steel

(D) Wrought iron

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 86 Question Id : 26723610546 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The total number of ATP molecules produced per molecule of glucose is

- (A) 32
- (B) 34
- (C) 36
- (D) 38

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 87 Question Id : 26723610547 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



The animal used by Edward Jenner to prepare vaccine

(A) Pig

(B) Goat

(C) Rabbit

(D) Calf

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 88 Question Id : 26723610548 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Blood and Lymph are type of

(A) Muscular tissue

(B) Epithelial tissue

(C) Connective tissue

(D) Permanent tissue

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✖ D

**Question Number : 89 Question Id : 26723610549 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Book lungs occur in

(A) Earthworms

(B) Arachnids

(C) Mammals

(D) Insects

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 90 Question Id : 26723610550 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The largest invertebrate is

(A) Jelly fish

(B) Coral

(C) Squid

(D) Octopus

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 91 Question Id : 26723610551 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following is related to glycosylation of protein?

- (A) Peroxisome
- (B) Endoplasmic reticulum
- (C) Lysosome
- (D) Mitochondria

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 92 Question Id : 26723610552 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which one among the following nutrients is a structural component of the cell wall of plants?

- (A) Calcium
- (B) Potassium
- (C) Magnesium
- (D) Phosphorus

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 93 Question Id : 26723610553 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following is a living fossil?

- (A) Pinus
- (B) Ephedra
- (C) Selaginella
- (D) Cycus

**Options :**

- 1. ✓ A
- 2. ✗ B

3. ✘ C

4. ✘ D

**Question Number : 94 Question Id : 26723610554 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Minamata disease is due to pollutant

(A) Lead

(B) Mercury

(C) Hydrogen Sulphide

(D) Sulphur dioxide

**Options :**

1. ✔ A

2. ✘ B

3. ✘ C

4. ✘ D

**Question Number : 95 Question Id : 26723610555 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Heterosis is

- (A) Appearance of spontaneous mutations
- (B) Induction of mutations
- (C) Mixture of two or more traits
- (D) Superiority of hybrids over their parents

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 96 Question Id : 26723610556 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

A scientist wants to study the viral effects on plants. Which of the following part of the plant should be excluded?

- (A) Pith
- (B) Shoot apex
- (C) Phloem
- (D) Cortex

**Options :**

- 1. ✓ A
- 2. ✗ B

3. ✖ C

4. ✖ D

**Question Number : 97 Question Id : 26723610557 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

High protein content is found in

(A) Gram

(B) Rajmash

(C) Soybean

(D) Mung bean

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 98 Question Id : 26723610558 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Maximum edible oil in India is contributed by

(A) Sunflower

(B) Mustard

(C) Castor

(D) Groundnut

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 99 Question Id : 26723610559 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Country having maximum area under hybrid rice is

(A) India

(B) China

(C) Japan

(D) Indonesia

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C



4. ✖ D

**Question Number : 100 Question Id : 26723610560 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

In 1841 first hybrid in gladiolus was developed using one of the following species.

(A) *G. gandavensis*

(B) *G. psittacinus*

(C) *G. oppositiflorus*

(D) None of these

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 101 Question Id : 26723610561 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which is the most popular variety of roses cultivated in protected cultivation in India.

(A) Grand gala

(B) Konfetti

(C) First red

(D) All of these

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 102 Question Id : 26723610562 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Pelargenidin anthocyanin is present in one of the following colour.

(A) Orange red

(B) White

(C) Yellow

(D) Orange red

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 103 Question Id : 26723610563 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Chemical defoliation in roses is done by

- (A) Urea
- (B) Auxin
- (C) Gibberlic acid
- (D) Copper sulphate

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 104 Question Id : 26723610564 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Fungicide used for controlling powdery mildew disease of pea is

- (A) Captan
- (B) Karathane
- (C) Dithane M-45
- (D) None of these

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C

4. ✖ D

**Question Number : 105 Question Id : 26723610565 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Powdery mildew disease is a serious problem of which of the following crops

(A) *Capsicum frutescens*

(B) Okra

(C) Pea

(D) Cucurbits

**Options :**

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

**Question Number : 106 Question Id : 26723610566 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Puffy fruit in tomato is a

(A) Physiological disorder

(B) Viral disease

(C) Bacterial disease

(D) None of these

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 107 Question Id : 26723610567 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Purple Vienna, a knoll khol variety is of

- (A) Early
- (B) Mid
- (C) Late
- (D) All season

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 108 Question Id : 26723610568 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Plants suitable for Pergolas among the following

- (A) Thuja
- (B) Phyllanthus
- (C) Jasmine
- (D) Casurina

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 109 Question Id : 26723610569 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Xeriscaping is a type of landscaping that uses the plant that need very little

- (A) Clean air
- (B) Sunlight
- (C) Soil
- (D) Water

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C

4. ✖ D

**Question Number : 110 Question Id : 26723610570 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Plant suitable for topiary

- (A) Tecoma
- (B) Duranta
- (C) Thunbergia
- (D) Cleodendron

**Options :**

- 1. ✔ A
- 2. ✖ B
- 3. ✖ C
- 4. ✖ D

**Question Number : 111 Question Id : 26723610571 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The year in which Destructive Insect and Pest Act was formed.

- (A) 1914
- (B) 1954
- (C) 1964
- (D) 1974

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 112 Question Id : 26723610572 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which group of plants has maximum water use efficiency?

- (A) C3
- (B) C4
- (C) CAM
- (D) None

**Options :**

1. ✓ A
2. ✗ B
3. ✗ C
4. ✗ D

**Question Number : 113 Question Id : 26723610573 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**



Freezing point depression of a chemical solution is measured by

- (A) Osmometer
- (B) Viscometer
- (C) Calorimeter
- (D) None of these

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 114 Question Id : 26723610574 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following vector is suitable for DNA sequencing

- (A) EMBL
- (B) M 13
- (C) pBR322
- (D) Lambda

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C

4. ✖ D

**Question Number : 115 Question Id : 26723610575 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Francis Jacob and Monod proposed

- (A) Lock and key hypothesis
- (B) Gene for protein synthesis
- (C) Operon synthesis
- (D) mRNA for protein synthesis

**Options :**

- 1. ✔ A
- 2. ✖ B
- 3. ✖ C
- 4. ✖ D

**Question Number : 116 Question Id : 26723610576 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

The quickest way to produce homozygous breeding lines from heterozygous parents is through:

- (A) Aneuploidy
- (B) Half seed technique
- (C) Doubled haploids
- (D) Introgression

**Options :**

- 1. ✓ A
- 2. ✗ B
- 3. ✗ C
- 4. ✗ D

**Question Number : 117 Question Id : 26723610577 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Most commonly used method for transformation of plants is

- (A) Protoplast method
- (B) Agrobacterium mediated transformation
- (C) Microinjection
- (D) None of these

**Options :**

- 1. ✓ A
- 2. ✗ B

3. ✘ C

4. ✘ D

**Question Number : 118 Question Id : 26723610578 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Locusts fly long distances without losing getting tired because they derive energy from

(A) Fat bodies

(B) Proteins

(C) Carbohydrates

(D) None of the above

**Options :**

1. ✔ A

2. ✘ B

3. ✘ C

4. ✘ D

**Question Number : 119 Question Id : 26723610579 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Most widely grown basmati variety of rice in India is

(A) PB- 1637

(B) PB- 1121

(C) PB- 1509

(D) PB- 1

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

**Question Number : 120 Question Id : 26723610580 Is Question Mandatory : No**

**Correct Marks : 1 Wrong Marks : 0.25**

Which of the following does not possess plane of symmetry?

(A) ethane

(B) mesotartaric acid

(C) (+) tartaric acid

(D) Trans -1,2-dichloroethane

**Options :**

1. ✓ A

2. ✗ B

3. ✗ C

