

# Commissionerate of School Education-Government of Andhra Pradesh

## Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

|                           |                                                |
|---------------------------|------------------------------------------------|
| Question Paper Name :     | PGT NL Physical Science 14th June 2025 Shift 1 |
| Subject Name :            | PGT NL Physical Science                        |
| Creation Date :           | 2025-06-14 13:25:40                            |
| Duration :                | 180                                            |
| Total Marks :             | 100                                            |
| Display Marks:            | No                                             |
| Change Font Color :       | No                                             |
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| Show Progress Bar :       | No                                             |

## PGT NL Physical Science

|                          |          |
|--------------------------|----------|
| Group Number :           | 1        |
| Group Id :               | 39226659 |
| Group Maximum Duration : | 0        |
| Group Minimum Duration : | 180      |
| Show Attended Group? :   | No       |
| Edit Attended Group? :   | No       |
| Break time :             | 0        |
| Group Marks :            | 100      |

## Section 1

|                                       |           |
|---------------------------------------|-----------|
| Section Id :                          | 392266302 |
| Section Number :                      | 1         |
| Section type :                        | Online    |
| Mandatory or Optional :               | Mandatory |
| Number of Questions :                 | 20        |
| Number of Questions to be attempted : | 20        |
| Section Marks :                       | 10        |
| Maximum Instruction Time :            | 0         |
| Sub-Section Number :                  | 1         |
| Sub-Section Id :                      | 392266312 |
| Question Shuffling Allowed :          | Yes       |

Question Number : 1 Question Id : 3922669521 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

International Court of Justice is located in

1. New York
2. Beijing
3. Switzerland
4. Hague

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 2 Question Id : 3922669522 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify correct statement(s) related to NITI Aayog

- i. Established on 1-1-2015 and this contains 4 divisions.
  - ii. This is a think tank and Sub Ka Sath - Sub Ka Vikas is its slogan
1. i only
  2. ii only
  3. Both i & ii are correct
  4. Both i & ii are wrong

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 3 Question Id : 3922669523 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the correct matched pair

- |                        |                         |
|------------------------|-------------------------|
| i. Jai Jawan Jai Kisan | a. Dayananda Saraswati  |
| ii. Jai Hind           | b. Lal Bhahadur Shastri |
| iii. Jai Vignan        | c. A. B. Vajpayee       |
| iv. Return to Vedas    | d. Subhas Chandra Bose  |
- 
- |                                   |
|-----------------------------------|
| 1. i - a, ii - b, iii - c, iv - d |
| 2. i - b, ii - d, iii - c, iv - a |
| 3. i - a, ii - d, iii - b, iv - c |
| 4. i - b, ii - d, iii - a, iv - c |

Options :

- 1. ✖ 1
- 2. ✔ 2
- 3. ✖ 3
- 4. ✖ 4

Question Number : 4 Question Id : 3922669524 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“I have sold my kingdom to my beloved wife for a cup of wine and a cup of broth” – this is the statement of

- 1. Humayun
- 2. Akbar
- 3. Shajahan
- 4. Jahangir

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

Question Number : 5 Question Id : 3922669525 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct answer regarding Health activities and it's launchings

- |      |                                                      |    |      |
|------|------------------------------------------------------|----|------|
| i.   | Ayushman Bharat Digital Mission                      | a. | 2016 |
| ii.  | Pradhan Mantri Garib Kalyan Package Insurance Scheme | b. | 2021 |
| iii. | Pradhan Mantri Surakshit Matritva Abhiyan            | c. | 2008 |
| iv.  | Pradhan mantra Bharatiya Jana Aushadhi Pariyojana    | d. | 2020 |

1. i - b, ii - a, iii - d, iv - c
2. i - c, ii - a, iii - b, iv - d
3. i - a, ii - c, iii - d, iv - b
4. i - b, ii - d, iii - a, iv - c

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 6 Question Id : 3922669526 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Match the Authors with their Works and find correct answer

- |      |                   |    |                 |
|------|-------------------|----|-----------------|
| i.   | Arudra            | a. | Muntaj Mahal    |
| ii.  | Krishna Sastri    | b. | Twamevaham      |
| iii. | Gurram Jashua     | c. | Paana sala      |
| iv.  | Duvvuri Ramireddy | d. | Krishna Paksham |

1. i - b, ii - c, iii - a, iv - d
2. i - b, ii - d, iii - a, iv - c
3. i - d, ii - a, iii - b, iv - c
4. i - a, ii - d, iii - c, iv - d

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 7 Question Id : 3922669527 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Choose the correctly matched set

- |                            |                               |
|----------------------------|-------------------------------|
| i. World Water day         | a. September 16 <sup>th</sup> |
| ii. World Theatre Day      | b. June 5 <sup>th</sup>       |
| iii. World Environment Day | c. March 22 <sup>nd</sup>     |
| iv. World Ozone Day        | d. March 27 <sup>th</sup>     |

1. i - d, ii - b, iii - a, iv - c
2. i - b, ii - d, iii - c, iv - a
3. i - a, ii - d, iii - c, iv - b
4. i - c, ii - d, iii - b, iv - a

**Options :**

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

**Question Number : 8 Question Id : 3922669528 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Match the Reform movement and it's Leaders/Founders

- |                           |                        |
|---------------------------|------------------------|
| i. Brahma Samaj           | a. Dayananda Saraswati |
| ii. Tatwa bodhini         | b. Raja Ram Mohan Rai  |
| iii. Arya Samaj           | c. Debendranath Tagore |
| iv. Bharatiya Brahmasamaj | d. Kesava Chandra Sen  |

1. i - b, ii - c, iii - a, iv - d
2. i - b, ii - a, iii - c, iv - d
3. i - b, ii - d, iii - c, iv - a
4. i - b, ii - c, iii - d, iv - a

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 9 Question Id : 3922669529 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose the correct answer

- a. Rocky and Ural mountains are Block mountains.
  - b. Himalayas and Andes are Fold Mountains
1. a – correct, b – incorrect
  2. a – incorrect, b – incorrect
  3. a – correct, b – correct
  4. a – incorrect, b – correct

Options :

1. ✗ 1
2. ✗ 2
3. ✗ 3
4. ✓ 4

Question Number : 10 Question Id : 3922669530 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Match the Chemical with its General name

- |                      |                 |
|----------------------|-----------------|
| i. Calcium Carbonate | a. Laughing gas |
| ii. Sodium Chloride  | b. Washing Soda |
| iii. Nitrous Oxide   | c. Lime Stone   |
| iv. Sodium Carbonate | d. Common salt  |

1. i - a, ii - b, iii - c, iv - d
2. i - c, ii - d, iii - a, iv - b
3. i - d, ii - a, iii - b, iv - c
4. i - d, ii - b, iii - c, iv - a

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 11 Question Id : 3922669531 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

This can be surveyed in villages under SVAMITVA Yojana.

1. Agricultural lands
2. Tanks
3. Horticulture crops
4. Illiterates

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 12 Question Id : 3922669532 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Famous writer Popuri Lalita Kumari who was awarded Sri Krishna Murthi Sahitya Puraskaram - 2024 is familiar with this name.

1. Ragathi Pandari
2. Veena Pani
3. Volga
4. Kinnera

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 13 Question Id : 3922669533 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Gold medalist of 38<sup>th</sup> National games in Kanoi Slalom water sports is

1. Nishika Agarwal
2. Nagidi Gayatri
3. Pranathi Nayak
4. Divija Rajolu

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 14 Question Id : 3922669534 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

S. Devasenan, who wrote a story book 'Dev and Little Pingu' at the age of six, belongs to this state

1. Tamil Nadu
2. Karnataka
3. Punjab
4. Gujarat

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 15 Question Id : 3922669535 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

'Euphoria Musical Concert' was conducted recently in Vijayawada with this objective

1. Help orphan children
2. Enshrine mother tongue
3. Benefit of Thalassemia diseased children
4. Attract investments

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 16 Question Id : 3922669536 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The state that came under the President's Rule in the month of February 2025 is

1. Arunachal Pradesh
2. West Bengal
3. Manipur
4. Assam

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 17 Question Id : 3922669537 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

37<sup>th</sup> National games : Goa : : 38<sup>th</sup> National games :

1. Uttarakhand
2. Delhi
3. Surat
4. Hyderabad

**Options :**

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

**Question Number : 18 Question Id : 3922669538 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Identify the correct order of RBI Governors

- a. Sanjay Malhotra
  - b. Urjit Patel
  - c. Sakthi Kanth Das
- 1. a, b, c
  - 2. b, c, a
  - 3. a, c, b
  - 4. c, a, b

Options :

- 1. ✖ 1
- 2. ✔ 2
- 3. ✖ 3
- 4. ✖ 4

Question Number : 19 Question Id : 3922669539 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

During his visit to America in 2025, the book presented by American President to Prime Minister of India was

- 1. Glimpses of America
- 2. Two Nations
- 3. Our Journey Together
- 4. Let's Talk

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✔ 3
- 4. ✖ 4

Question Number : 20 Question Id : 3922669540 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The Hydropower project that will be developed by Nepal, Bangladesh and India.

1. Kaligandaki - 3
2. Upper Tamakoshi
3. Sunkoshi - 3
4. Arun – 4

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

## Section 2

|                                       |           |
|---------------------------------------|-----------|
| Section Id :                          | 392266303 |
| Section Number :                      | 2         |
| Section type :                        | Online    |
| Mandatory or Optional :               | Mandatory |
| Number of Questions :                 | 20        |
| Number of Questions to be attempted : | 20        |
| Section Marks :                       | 10        |
| Maximum Instruction Time :            | 0         |
| Sub-Section Number :                  | 1         |
| Sub-Section Id :                      | 392266313 |
| Question Shuffling Allowed :          | Yes       |

Question Number : 21 Question Id : 3922669541 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the correct set from the following

- |                                  |         |
|----------------------------------|---------|
| i) Juvenile Justice Act          | a) 1960 |
| ii) Orphan children Act          | b) 1956 |
| iii) Young Persons Act           | c) 1986 |
| iv) Child Marriage Restraint Act | d) 1929 |

1. i – d ii – c iii – a iv – b
2. i – c ii – b iii – d iv – a
3. i – b ii – a iii – d iv – c
4. i – c ii – a iii – b iv – d

**Options :**

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

**Question Number : 22 Question Id : 3922669542 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Choose the correct pairs among the following

- |    |               |   |                                |
|----|---------------|---|--------------------------------|
| a. | September – 8 | - | International Literacy Day     |
| b. | October – 8   | - | International Child Rights Day |
| c. | October – 18  | - | National Girl Child Day        |
| d. | December – 10 | - | International Human Rights Day |
1. a, d
  2. a, c
  3. b, d
  4. c, d

**Options :**

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 23 Question Id : 3922669543 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

‘Common School System’ from Kashmir to Kanyakumari was the recommendation of

1. POA - 1992
2. NEP - 1986
3. Baktavatsalam Committee
4. Kothari Commission

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 24 Question Id : 3922669544 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct matching of books and Authors

- a. Nicomachean Ethics - Aristotle
  - b. A system of National Education - Arabindo Ghosh
  - c. The origin of inequality among men - Rousseau
  - d. Protagoras - Socrates
1. a, b, d
  2. a, b, c
  3. a, c, d
  4. b, c, d

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 25 Question Id : 3922669545 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Unit cost formula for one student expenditure where school as one unit is

1.  $\frac{T+A+Q+N+J}{M}$
2.  $\frac{T+A+J+Q}{M+N}$
3.  $\frac{T+A+Q+M+J}{N}$
4.  $\frac{A+J+N+Q+N}{T}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 26 Question Id : 3922669546 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct answer

- a. Destitution is the root cause of all problems in our country - Swami Vivekananda
  - b. Education is not only for attaining knowledge but also for employment - Mahatma Gandhi
  - c. Education shall make children dynamic not mechanical - Arabindo
1. a, c
  2. a, b
  3. a, b, c
  4. b, c

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 27 Question Id : 3922669547 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct statement

- a. Intuition is a way of getting Knowledge with inner senses
  - b. Axiology is branch of philosophy deals with values.
  - c. Meta Physics helps us to understand about beyond physical world.
- 1. a, b
  - 2. b, c
  - 3. a, c
  - 4. a, b, c

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

Question Number : 28 Question Id : 3922669548 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Fund allocated to girl child education in NEP – 2020 is

- 1. Balika Nidhi
- 2. Gender Inclusion Fund
- 3. Girl Education Fund
- 4. Balika Samriddhi Yojana

Options :

- 1. ✖ 1
- 2. ✔ 2
- 3. ✖ 3
- 4. ✖ 4

Question Number : 29 Question Id : 3922669549 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Widely used multi-sensory training method of inclusive education is

1. CAVD
2. MMPI
3. VAKT
4. NIPUN

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 30 Question Id : 3922669550 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

National Council for Women Education was establishment in the year

1. 1958
2. 1976
3. 1989
4. 2000

**Options :**

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

**Question Number : 31 Question Id : 3922669551 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Identify the true statement regarding Education in Jain Period

1. Samyak Drushti is a Triratna, Samyak Darshana is an approach
2. Samyak Charitham is a Triratna, Samyak gnanam is an approach
3. Samyak Drushti and Samyak Charitham are approaches
4. Samyak gnanam is a Triratna, Samyak Drushti is an approach

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 32 Question Id : 3922669552 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

‘The current term for an old process of social change where by less developed societies acquire the characteristics common to more developed societies’ is

1. Globalization
2. Liberalization
3. Modernalization
4. Industrialization

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 33 Question Id : 3922669553 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The Christian priest who established St. Anns' college at Bandra, Bombay in 1574 was

1. Thomas, the Apostle
2. Father Charles Racine
3. William Carey
4. St. Francis Xavier

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 34 Question Id : 3922669554 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the correct statements

- a. Article 15 (1) - No Religious Education in Educational Institutes.
  - b. Article 15 (3) - Religious Education can be done in Endowment Departmental Institutes administered by the Government.
  - c. Article 16 (1) - Equal opportunities for men and women in jobs for public services.
  - d. Article 45 – Free Compulsory Education for all the children below 14 years.
1. a, b
  2. c, d
  3. a, c, d
  4. a, b, c, d

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 35 Question Id : 3922669555 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Rasthriya Avishkar Abhiyan (RAA) was inaugurated by

1. Dr. Kasturi Rangan
2. Dr. APJ. Abdul Kalam
3. Atal Bihari Vajpyee
4. M. S. Swaminathan

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 36 Question Id : 3922669556 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The factor that is least responsible to change 'Humans' as 'Resource'

1. Training
2. Nutrition
3. Weather conditions
4. Health

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 37 Question Id : 3922669557 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

For the first of its kind, MDM was introduced in / at

1. Kerala
2. Bombay Municipal Corporation
3. Temple Trust of India
4. Madras Municipal Corporation

**Options :**

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

**Question Number : 38 Question Id : 3922669558 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

‘Every school must setup the School Management Committee.  
It is directed by

1. NCF – 2005, Chapter -3
2. NEP – 2020, Chapter -2
3. RTE – 2009, Chapter -4
4. RTI – 2004, Chapter -3

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 39 Question Id : 3922669559 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

‘PARAKH’ full form

1. Performance Assessment, Regulation and Analysis of Knowledge for Higher Education.
2. Public Assessment, Review and Analysis of Knowledge for Holistic Development.
3. Programme of Assessment Research and Knowledge in Higher Education.
4. Performance Assessment Review and Analysis of Knowledge for Holistic Development.

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 40 Question Id : 3922669560 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Design prepared by a school

1. Professional Development Plan
2. Curriculum Plan
3. Institutional Plan
4. Academic Calendar

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

### Section 3

|                                       |           |
|---------------------------------------|-----------|
| Section Id :                          | 392266304 |
| Section Number :                      | 3         |
| Section type :                        | Online    |
| Mandatory or Optional :               | Mandatory |
| Number of Questions :                 | 20        |
| Number of Questions to be attempted : | 20        |
| Section Marks :                       | 10        |

Maximum Instruction Time : 0  
Sub-Section Number : 1  
Sub-Section Id : 392266314  
Question Shuffling Allowed : Yes

Question Number : 41 Question Id : 3922669561 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Development

1. Can be measured accurately
2. Can be predicted
3. Stops after attaining maturation
4. Is a simple comprehensive process

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 42 Question Id : 3922669562 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The important concept formed during sensory motor stage is

1. Animism
2. Abstract thinking
3. Conservation of concepts
4. Object permanence

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 43 Question Id : 3922669563 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

One of the following is not there in performance tests of Wechsler Intelligence Scale of Children (WISC)

1. Picture Completion Test
2. Similarities Test
3. Digit Symbol Test
4. Block Design Test

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 44 Question Id : 3922669564 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The first and the last psychosocial crisis faced by an individual, according to Psychosocial Theory of Development, respectively are

1. Autonomy Vs Shame; Initiative Vs Guilt
2. Generatively Vs Stagnation; Trust Vs Mistrust
3. Trust Vs Mistrust; Ego integrity Vs Despair
4. Industry Vs Inferiority; Ego integrity Vs Despair

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 45 Question Id : 3922669565 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

During solitary play, children

1. Allow only one person to play with them
2. Don't allow others in their activities
3. Play games in parallel to others
4. Play in groups

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 46 Question Id : 3922669566 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

A 10 year old boy is studying 5<sup>th</sup> class. As per psychological tests his age was determined as 15 years. Based on I Q, he can be categorized as

1. Moron
2. Superior
3. Very superior
4. Gifted

**Options :**

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

**Question Number : 47 Question Id : 3922669567 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Match the following with theory of learning and its example

- |                                     |                                                                                                                       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| i. Theory of Identical Elements     | a. Switch of fans while leaving a room in all places                                                                  |
| ii. Theory of Ideal                 | b. Hit a correct target that is dipped in water by using the principle of refraction                                  |
| iii. Theory of Generalisation       | c. Solve a rider by applying the knowledge of various theories of geometry and their whole interrelation meaningfully |
| iv. Gestaltein Transposition Theory | d. Driving a car as well a jeep easily                                                                                |

- |    |       |        |         |        |
|----|-------|--------|---------|--------|
| 1. | i – d | ii – a | iii – b | iv – c |
| 2. | i – d | ii – a | iii – c | iv – b |
| 3. | i – a | ii – d | iii – b | iv – c |
| 4. | i – b | ii – c | iii – a | iv – d |

Options :

1. ✓ 1  
2. ✗ 2  
3. ✗ 3  
4. ✗ 4

Question Number : 48 Question Id : 3922669568 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

When a modifiable connection is made between the situation and response the connections strength is increased by repeated practice. This is

1. Law of Effect
2. Law of Exercises
3. Law of Extinction
4. Law of Multiple responses

Options :

1. ✗ 1

2. ✓ 2

3. ✗ 3

4. ✗ 4

Question Number : 49 Question Id : 3922669569 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

One of the following is NOT a Gestalt Psychologist

1. Kohler
2. Koffka
3. Rosenthal
4. Wertheimer

Options :

1. ✗ 1

2. ✗ 2

3. ✓ 3

4. ✗ 4

Question Number : 50 Question Id : 3922669570 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

An employee was scolded by his boss for no reason. He got angry upon his boss. Unable to show his anger on him, he has shown his anger on his subordinates. Here the defense mechanism used the employee is

1. Projection
2. Displacement
3. Compensation
4. Internalisation

Options :

1. ✗ 1

2. ✓ 2

3. ✗ 3

4. ✗ 4

Question Number : 51 Question Id : 3922669571 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The following is a sort of self – observation in which one perceives, analyses and reports one's own feelings.

1. Natural observation
2. Introspection
3. Case study
4. Sociometry

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 52 Question Id : 3922669572 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

‘The memorization of Mathematical tables by students without understanding’ comes under the following type of memory

1. Logical Memory
2. Rote Memory
3. Sensory Memory
4. Dejavu

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 53 Question Id : 3922669573 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct matching

- |                 |                                         |
|-----------------|-----------------------------------------|
| i. Ability      | a. Indicates future state of a person   |
| ii. Achievement | b. Indicates present states of a person |
| iii. Aptitude   | c. Indicates past status of a person    |

1. i - a ii - b iii - c
2. i - b ii - c iii - a
3. i - b ii - a iii - c
4. i - c ii - a iii - b

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 54 Question Id : 3922669574 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Following is incorrect regarding longitudinal approach

1. Same group is studied for long time
2. Time taking process
3. There is followup at every stage
4. Very economic and easy to follow

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 55 Question Id : 3922669575 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the correct pairs

- a. Enactive Method - Pictures, Words, Images
- b. Iconic Method - Models, Drawings by Children
- c. Intuitive Method - Visual memory, Work centered
- d. Symbolic Method - Language development, Number concept

- 1. a, b
- 2. b, c
- 3. a, d
- 4. b, d

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

Question Number : 56 Question Id : 3922669576 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the correct set of answers

- |                 |                              |
|-----------------|------------------------------|
| i) Dyslexia     | a) Disability in speaking    |
| ii) Disgraphia  | b) Disability in reading     |
| iii) Dysphasia  | c) Disability in calculation |
| iv) Dyscalculia | d) Disability in writing     |

- 1. i – a ii – d iii – b iv – c
- 2. i – b ii – a iii – c iv – d
- 3. i – a ii – b iii – d iv – c
- 4. i – b ii – d iii – a iv – c

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

**Question Number : 57 Question Id : 3922669577 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

### In Directive Counselling

1. Both Counselor and Counselee are active in decision making.
2. Solution to the problem is suggested by counselor.
3. Counselor is passive.
4. Counselee plays main role.

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 58 Question Id : 3922669578 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

### The following is NOT related to cognitive domain

1. Analysis
2. Synthesis
3. Valuing
4. Evaluation

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 59 Question Id : 3922669579 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

As per RTE Act 2009, the total number of instructional hours in an academic year for classes 6 to 8 is

1. 200
2. 220
3. 800
4. 1000

**Options :**

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

**Question Number : 60 Question Id : 3922669580 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

The square of standard deviation is equal to

1. Quartile deviation
2. Variance
3. Skewness
4. Mean deviation

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

## Section 4

|                                       |           |
|---------------------------------------|-----------|
| Section Id :                          | 392266305 |
| Section Number :                      | 4         |
| Section type :                        | Online    |
| Mandatory or Optional :               | Mandatory |
| Number of Questions :                 | 100       |
| Number of Questions to be attempted : | 100       |
| Section Marks :                       | 50        |
| Maximum Instruction Time :            | 0         |
| Sub-Section Number :                  | 1         |
| Sub-Section Id :                      | 392266315 |

Question Shuffling Allowed :

Yes

Question Number : 61 Question Id : 3922669581 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The S.I. unit of thermal conductivity is

1.  $\text{Js}^{-1} \text{m}^{-1} \text{k}^{-1}$
2.  $\text{Js m}^{-1} \text{k}^{-1}$
3.  $\text{Js}^{-1} \text{m k}^{-1}$
4.  $\text{Js m k}^{-1}$

Options :

1.  1
2.  2
3.  3
4.  4

Question Number : 62 Question Id : 3922669582 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The value of  $3.0 \text{ ms}^{-2}$  in  $\text{km h}^{-2}$  is

1.  $3.888 \times 10^4$
2.  $38.88 \times 10^4$
3.  $3.888 \times 10^5$
4.  $38.88 \times 10^5$

Options :

1.  1
2.  2
3.  3
4.  4

Question Number : 63 Question Id : 3922669583 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The limit of average acceleration is called

1. Instantaneous velocity
2. Velocity
3. Speed
4. Instantaneous acceleration

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 64 Question Id : 3922669584 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The centripetal acceleration in terms of angular speed is

1.  $\frac{V^2}{R}$
2.  $\omega^2 R$
3.  $V^2 R$
4.  $\frac{\omega^2}{R}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 65 Question Id : 3922669585 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The force applied by the archer to stretch the bow is an example of

1. Gravitational force
2. Frictional force
3. Muscular force
4. Nuclear force

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 66 Question Id : 3922669586 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

A car turns a corner on a slippery road at a constant speed of  $12 \text{ ms}^{-1}$ . If the co-efficient of friction is 0.4, the minimum radius of the arc in metres in which the car turns is (take  $g = 10 \text{ ms}^{-2}$ )

1. 72
2. 36
3. 18
4. 9

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 67 Question Id : 3922669587 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

There is a hole in the bottom of a tank having water. If total pressure at bottom is  $3 \times 10^5 \text{ Nm}^{-2}$ , then the velocity of water flowing from hole is

1.  $\sqrt{200} \text{ ms}^{-1}$
2.  $\sqrt{60} \text{ ms}^{-1}$
3.  $\sqrt{400} \text{ ms}^{-1}$
4.  $\sqrt{600} \text{ ms}^{-1}$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 68 Question Id : 3922669588 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

An object weighs 10 N when measured on the surface of the earth. Then its weight when measured on the surface of the moon is

1. 1.67 N
2. 16.7 N
3. 61.7 N
4. 16 N

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 69 Question Id : 3922669589 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Which of the following is correct?

1.  $f_s > f_k > f_r$
2.  $f_k > f_s > f_r$
3.  $f_r > f_k > f_s$
4.  $f_k > f_s > f_r$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 70 Question Id : 3922669590 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the density of sea water is  $1.03 \times 10^3 \text{ kgm}^{-3}$ , acceleration due to gravity is  $10 \text{ ms}^{-2}$ , then the absolute pressure at a depth of 1000 m in an ocean is approximately equal to  
[Atmospheric pressure =  $1.01 \times 10^5 \text{ Pa}$ ]

1.  $10^5 \text{ atm}$
2. 104 atm
3. 1 atm
4. 5 atm

Options :

1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 71 Question Id : 3922669591 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A particle on earth's surface is given a velocity equal to its escape velocity. Its total mechanical energy will be

1. Negative
2. Zero
3. Positive
4. Infinity

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 72 Question Id : 3922669592 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The percentage of the energy of a satellite has to be increased to shift it from one orbit of radius  $r$  to  $\frac{3}{2}r$  is

1. 66.7%
2. 15%
3. 20.3%
4. 33.3%

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 73 Question Id : 3922669593 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

There is a spherical shell of mass 'M' and radius 'R'. The energy required to double its radius is

1.  $\frac{GM^2}{R}$
2.  $\frac{3GM^2}{2R}$
3.  $\frac{GM^2}{4R}$
4.  $\frac{GM^2}{2R}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 74 Question Id : 3922669594 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The position vector of a particle of mass 'm' moving under the influence of a force is given by  $r = A \sin \omega t \hat{i} + B \cos \omega t \hat{j}$ , the expression for its force is

1.  $-m\omega^2 r$
2.  $\frac{m\omega^2}{r}$
3.  $m r \omega$
4.  $-m\omega^2$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 75 Question Id : 3922669595 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A metallic rod having a length 3 mm and cross section  $2.5\text{m}^2$  is subjected to the force 500 N. Elongation in the rod is 1.5 mm, then the potential energy stored in it is

1. 1.5 J
2. 1 J
3. 0.75 J
4. 0.5 J

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 76 Question Id : 3922669596 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

An object of mass 12 kg is at a certain height above the ground. If the potential energy of the object is 480J, then the height at which the object is with respect to the ground is (Take  $g = 10\text{ms}^{-2}$ )

1. 2 m
2. 3 m
3. 4 m
4. 1 m

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 77 Question Id : 3922669597 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A roller is pulled at an angle of  $30^\circ$  with the horizontal through a distance and work done is  $W$ . when the same roller is pulled with the same force at  $60^\circ$  with the horizontal on the same ground through the same distance, the work done is

1.  $W\sqrt{3}$
2.  $W$
3.  $\frac{W}{\sqrt{3}}$
4.  $2W$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 78 Question Id : 3922669598 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the momenta of two bodies are in the ratio of  $2 : 3$  and their kinetic energies are in the ratio of  $16 : 9$ , then the ratio of their masses is

1.  $3 : 4$
2.  $1 : 4$
3.  $4 : 1$
4.  $4 : 3$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 79 Question Id : 3922669599 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

When a belt moves horizontally at a constant speed of  $1.5 \text{ ms}^{-1}$ , gravel is falling on it at  $5 \text{ kg s}^{-1}$ , then the extra power needed to drive the belt is

1. 7.5 W
2. 0.3 W
3. 37.5 W
4. 11.25 W

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 80 Question Id : 3922669600 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A string of length 60 cm is tied to two rigid supports. Then the maximum wavelength of a stationary wave produced on it is

1. 30 cm
2. 80 cm
3. 120 cm
4. 40 cm

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 81 Question Id : 3922669601 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Loudness is determined by the \_\_\_\_\_ of vibrations

1. Frequency
2. Time period
3. Amplitude
4. Reflection

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 82 Question Id : 3922669602 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Two travelling waves  $y_1 = A \sin [K(x - ct)]$  and  $y_2 = A \sin [K(x + ct)]$  are superimposed on string. The distance between adjacent nodes is

1.  $\frac{ct}{2\pi}$
2.  $\frac{ct}{\pi}$
3.  $\frac{\pi}{2K}$
4.  $\frac{\pi}{K}$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 83 Question Id : 3922669603 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A heavy rope is suspended from a rigid support. If a wave pulse is setup at the lower end, then

1. the pulse will travel with uniform speed
2. the pulse will travel with increasing speed
3. the pulse will travel with decreasing speed
4. the pulse cannot travel through rope

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 84 Question Id : 3922669604 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The ratio of the speed of sound in nitrogen gas  $\left(\gamma = \frac{7}{5} R\right)$  to that in helium gas  $\left(\gamma = \frac{5}{3} R\right)$ , at 300 K is

1.  $\sqrt{\frac{2}{7}}$
2.  $\sqrt{\frac{1}{7}}$
3.  $\frac{\sqrt{3}}{5}$
4.  $\frac{\sqrt{6}}{5}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 85 Question Id : 3922669605 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A steel wire of 150 cm long has a mass 5g. It is stretched with a tension of 1200 N. Then the velocity of transverse wave travelling along the string is

1.  $600 \text{ ms}^{-1}$
2.  $300 \text{ ms}^{-1}$
3.  $100 \text{ ms}^{-1}$
4.  $200 \text{ ms}^{-1}$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 86 Question Id : 3922669606 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

No medium is required for the transfer of heat by the process of

1. conduction
2. convection
3. Radiation
4. forced convection

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 87 Question Id : 3922669607 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The temperature of a steel rod is 330 K, Its temperature in °C is

1. 55°C
2. 57°C
3. 59°C
4. 53°C

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 88 Question Id : 3922669608 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the readings of a Celsius and a Fahrenheit thermometer when immersed in the water bath are in the ratio 1 : 4, then the temperature of water in Celsius scale is approximately

1. 14.5°C
2. 12.5°C
3. 11.5°C
4. 10.5°C

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 89 Question Id : 3922669609 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A hot body at temperature  $T_1$  is mixed with a cold body at temperature  $T_2$ . The fall in temperature of hot body is equal to rise in temperature of cold body. Then the resultant temperature is

1.  $2(T_1 + T_2)$
2.  $2(T_1 - T_2)$
3.  $\frac{(T_1 + T_2)}{2}$
4.  $\frac{(T_1 - T_2)}{2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 90 Question Id : 3922669610 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The amount of heat supplied to decrease the volume of an ice-water mixture by  $1 \text{ cm}^3$  without any change in temperature, is equal to ( $\rho_{ice} = 0.9\rho_{water}$ ,  $L_{ice} = 80 \text{ cal / gm}$ )

1. 360 cal
2. 500 cal
3. 720 cal
4. 200 cal

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 91 Question Id : 3922669611 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

When 0.400 kg of water at  $30^{\circ}\text{C}$  is mixed with 0.150 kg of water at  $25^{\circ}\text{C}$  contained in a calorimeter, the final temperature is found to be  $27^{\circ}\text{C}$ , then the water equivalent of the calorimeter is

1. 0.450 kg
2. 1 kg
3. 0.50 kg
4. 1.5 kg

Options :

1. ☒ 1
2. ☐ 2
3. ☐ 3
4. ☐ 4

Question Number : 92 Question Id : 3922669612 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A bimetallic strip consists of copper and steel strips. On heating the strip bends

1. with copper on concave side
2. with copper on convex side
3. with steel on convex side
4. does not expand

Options :

1. ☐ 1
2. ☒ 2
3. ☐ 3
4. ☐ 4

Question Number : 93 Question Id : 3922669613 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The angle of minimum deviation is equal to the angle of prism of an equilateral glass prism. The angle of incidence at which minimum will be obtained is

1.  $60^\circ$
2.  $30^\circ$
3.  $45^\circ$
4.  $90^\circ$

Options :

1.  1
2.  2
3.  3
4.  4

Question Number : 94 Question Id : 3922669614 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A real image is formed by a convex lens. Then it is put in contact with a concave lens and again a real image is formed. This image will

1. shift towards the lens system
2. shift away from the lens system
3. remain in its position
4. shift to infinity

Options :

1.  1
2.  2
3.  3
4.  4

Question Number : 95 Question Id : 3922669615 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The image of a small electric bulb fixed on the wall of a room is to be obtained on the opposite wall 3m away by means of a large convex lens. Then the maximum possible focal length of the lens required for the purpose is

1. 60 cm
2. 75 cm
3. 50 cm
4. 40 cm

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 96 Question Id : 3922669616 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A diverging lens of focal length 'F' is cut into two identical parts, each forming a Plano - concave lens. Then the focal length of each part is

1. F
2. 2F
3.  $\frac{F}{2}$
4. 4F

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 97 Question Id : 3922669617 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Two thin lenses of power  $+7D$  and  $-3D$  are in contact. The focal length of the combination is

1. 10 cm
2. 4 cm
3. 21 cm
4. 25 cm

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 98 Question Id : 3922669618 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A concave mirror has a focal length 20 cm. The distance between the two positions of the object for which the image size is double of the object size is

1. 20 cm
2. 40 cm
3. 30 cm
4. 60 cm

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 99 Question Id : 3922669619 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In a cell back emf is due to

1. magnetic effect of current
2. thermionic emission
3. the shape of the cell
4. electrolytic polarisation

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 100 Question Id : 3922669620 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A cell of internal resistance 'r' is connected across an external resistance nr. Then the ratio of the terminal voltage to the emf of the cell is

1.  $\frac{1}{n+1}$
2.  $\frac{n}{n+1}$
3.  $\frac{n+1}{n}$
4.  $\frac{n-1}{n}$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 101 Question Id : 3922669621 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If potential difference applied across a conductor is increased from  $V$  to  $2V$ , then the drift velocity ( $V_d$ ) of the electrons will become

1.  $V_d$
2.  $\frac{V_d}{2}$
3.  $2 V_d$
4.  $3 V_d$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 102 Question Id : 3922669622 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A student has two wires. By connecting them individually or combined, he can obtain resistances of  $3\Omega$ ,  $4\Omega$ ,  $12\Omega$  and  $16\Omega$ . Then the resistances of the two wires are

1.  $3\Omega$ ,  $4\Omega$
2.  $4\Omega$ ,  $12\Omega$
3.  $12\Omega$ ,  $16\Omega$
4.  $2\Omega$ ,  $16\Omega$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 103 Question Id : 3922669623 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The magnitude of magnetic force per unit length on a wire carrying a current of 8A and making an angle of  $30^\circ$  with the direction of a uniform magnetic field of 0.15T is

1.  $0.06 \text{ Nm}^{-1}$
2.  $6 \text{ Nm}^{-1}$
3.  $0.6 \text{ Nm}^{-1}$
4.  $60 \text{ Nm}^{-1}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 104 Question Id : 3922669624 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A negligibly small current is passed through a wire of length 15 m and uniform cross section  $6 \times 10^{-7} \text{ m}^2$  and its resistance is measured to be  $5 \Omega$ . Then the resistivity of the material at the temperature of the experiment is

1.  $2 \times 10^{-7} \Omega \text{m}$
2.  $1 \times 10^{-7} \Omega \text{m}$
3.  $3 \times 10^{-7} \Omega \text{m}$
4.  $1.5 \times 10^{-7} \Omega \text{m}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 105 Question Id : 3922669625 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A current ' $i$ ' passes through a wire of length ' $l$ ' radius ' $r$ ' and resistivity  $\rho$ . Then the rate of heat energy generated is

1.  $\frac{i^2 \rho l}{r}$
2.  $\frac{i^2 \rho l}{\pi r}$
3.  $\frac{i^2 \rho l}{\pi r^2}$
4.  $\frac{i \rho l}{r^2}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 106 Question Id : 3922669626 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Energy needed to establish a direct current ' $i$ ' in a coil of self inductance ' $L$ ' is

1.  $L = \frac{di}{dt}$
2.  $\frac{1}{2} Li^2$
3.  $\frac{1}{2} iL^2$
4. Zero

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 107 Question Id : 3922669627 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Two ions having equal masses but charges in the ratio 2 : 3 are projected perpendicular to a uniform magnetic field with speeds in the ratio 3 : 4. Then the ratio of radii of the circular paths along which the two ions move is

1. 3 : 2
2. 3 : 4
3. 8 : 9
4. 9 : 8

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 108 Question Id : 3922669628 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

An electron beam in a TV picture tube is accelerated through a region of transverse magnetic field  $B$  and follows a circular orbit of radius ' $r$ ', then magnetic field is

1.  $\sqrt{\frac{2mv}{er^2}}$
2.  $\sqrt{\frac{2mv}{r}}$
3.  $\sqrt{\frac{2mvr}{e}}$
4.  $\frac{2mv}{\sqrt{er}}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 109 Question Id : 3922669629 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A long straight wire carries a current of 35A. The magnitude of magnetic field B at a point 20 cm from the wire is

1.  $35 \times 10^{-5} T$
2.  $3.5 \times 10^{-5} T$
3.  $35 \times 10^5 T$
4.  $3.5 \times 10^5 T$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 110 Question Id : 3922669630 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A closely wound solenoid 80 cm long has 5 layers of winding of 400 turns each. The diameter of each solenoid is 1.8 cm and the current carried is 8A, then the magnitude of magnetic field B inside the solenoid near its centre is

1.  $2.5 \times 10^{-2} T$
2.  $3.5 \times 10^{-2} T$
3.  $1.5 \times 10^{-2} T$
4.  $25 \times 10^{-2} T$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 111 Question Id : 3922669631 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Which of the following species, do not show disproportionate reaction

1.  $\text{ClO}_3^-$
2.  $\text{ClO}^-$
3.  $\text{ClO}_4^-$
4.  $\text{ClO}_2^-$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 112 Question Id : 3922669632 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The value of  $K_c$  for the reaction  $2A \rightleftharpoons B + C$  is  $2 \times 10^{-3}$ . At a given time the composition of reaction mixture is  $[A] = [B] = [C] = 3 \times 10^{-4} \text{M}$ . In which direction the reaction will be proceed.

1. Forward direction
2. Reverse direction
3. Either forward direction or reverse direction
4. Neither forward direction nor backward direction

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 113 Question Id : 3922669633 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The chemical formula of “Calgon” is

1.  $Na_2[Na_4(PO_3)_6]$
2.  $Na_4[Na_2(PO_3)_6]$
3.  $Na_3[Na_3(PO_3)_6]$
4.  $Na[Na_5(PO_3)_6]$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 114 Question Id : 3922669634 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The following statement is incorrect

1. Buck minister fullerene contain twenty six membered rings and twelve five membered rings
2. Hybridisation of carbon in fullerene is  $Sp^3$
3. Organo silicon polymers are called silicones
4. ZSM – 5 is used to convert alcohols into gasoline

Options :

1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 115 Question Id : 3922669635 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A 100 watt bulb emits monochromatic light of wavelength 400 nm, the number of photons emitted per second by the bulb is

1.  $2 \times 10^{20}$
2.  $3 \times 10^{30}$
3.  $2 \times 10^{30}$
4.  $3 \times 10^{20}$

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 116 Question Id : 3922669636 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The following orbital is not double - dumble shape

1.  $d_{xy}$
2.  $d_{yz}$
3.  $d_{z^2}$
4.  $d_{x^2 - y^2}$

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 117 Question Id : 3922669637 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In which of the following reaction, Bond length decreases

1.  $N_2 \longrightarrow N_2^+$
2.  $O_2 \longrightarrow O_2^{2-}$
3.  $O_2 \longrightarrow O_2^-$
4.  $O_2 \longrightarrow O_2^+$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 118 Question Id : 3922669638 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Which of the following gases diffuses faster among  $N_2$ ,  $O_2$ ,  $CH_4$  and because

1.  $O_2$  , high molecular mass
2.  $N_2$  , high molecular mass
3.  $CH_4$  , high molecular mass
4.  $CH_4$  , low molecular mass

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 119 Question Id : 3922669639 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

$x\text{MnO}_4^- + y\text{SO}_2 + z\text{H}^+ \longrightarrow \text{Mn}^{+2} + \text{HSO}_4^-$ . In this redox reaction

$x, y, z$  are

1. 2, 5, 4
2. 5, 2, 4
3. 2, 5, 1
4. 5, 2, 1

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 120 Question Id : 3922669640 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The correct intensive properties set is

1. Enthalpy, density
2. Temperature, Internal energy
3. Pressure, density
4. Enthalpy, pressure

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 121 Question Id : 3922669641 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The correct IUPAC name of  $(\text{CH}_3)_2\text{C}(\text{C}_2\text{H}_5)_2$  is

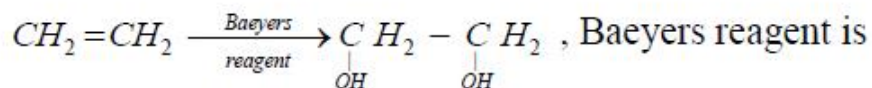
1. 2, 2 – diethyl propane
2. 2 – ethyl, 2 – Methyl Butane
3. 3, 3 – dimethyl pentane
4. heptane

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 122 Question Id : 3922669642 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0



1. NaOH + CaO
2. pd + BaSO<sub>4</sub>
3. Cold, dil. KMnO<sub>4</sub> solution
4. Cold, dil. K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> solution

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 123 Question Id : 3922669643 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Atoms of element 'B' forms hexagonal close packed (hcp) lattice and those of the element 'A' occupy 2/3<sup>rd</sup> of Tetrahedral voids. The formula of the compound formed by the elements A and B is

1. A<sub>2</sub> B
2. AB<sub>2</sub>
3. A<sub>3</sub>B<sub>4</sub>
4. A<sub>4</sub>B<sub>3</sub>

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 124 Question Id : 3922669644 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Saline solution contains

1. 0.9% (mass/volume) sodium chloride solution
2. 0.9% (mass/volume) Barium chloride solution
3. 9% (mass/volume) sodium chloride solution
4. 9% (mass/volume) Barium chloride solution

Options :

1. ✓ 1

2. ✗ 2

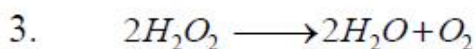
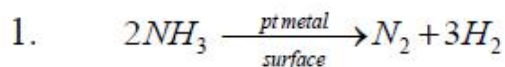
3. ✗ 3

4. ✗ 4

Question Number : 125 Question Id : 3922669645 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The following is not Zero order reaction



4. Photo chemical reactions

Options :

1. ✗ 1

2. ✗ 2

3. ✓ 3

4. ✗ 4

Question Number : 126 Question Id : 3922669646 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The standard emf of Daniel cell is 1.1v. The standard Gibbs energy for the cell reaction is (nearly)



1.  $-212.3 \text{ kJ mole}^{-1}$
2.  $-212.3 \text{ J mole}^{-1}$
3.  $-106.15 \text{ kJ mole}^{-1}$
4.  $-106.15 \text{ J mole}^{-1}$

Options :

1.  1
2.  2
3.  3
4.  4

Question Number : 127 Question Id : 3922669647 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The correct Enzymatic reaction among the following is

1.  $\text{Sucrose} \xrightarrow{\text{Zymase}} \text{Glucose} + \text{fructose}$
2.  $\text{Glucose} \xrightarrow{\text{Invertase}} \text{ethyl alcohol} + \text{CO}_2$
3.  $\text{Starch} \xrightarrow{\text{Zymase}} \text{Maltose}$
4.  $\text{Maltose} \xrightarrow{\text{Maltase}} \text{Glucose}$

Options :

1.  1
2.  2
3.  3
4.  4

Question Number : 128 Question Id : 3922669648 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“Zone refining method” is used for the purification of crude metal from the following

1. Nickel
2. Zirconium
3. Blister Copper
4. Germanium

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 129 Question Id : 3922669649 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The oxidation number of Iron in Brown ring complex  $[\text{Fe}(\text{H}_2\text{O})_5\text{NO}]^{+2}$  is

1. + 2
2. + 1
3. + 3
4. Zero

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 130 Question Id : 3922669650 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The oxidizing agent used in the estimation of carbon monoxide is

1.  $\text{I}_2\text{O}_4$
2.  $\text{I}_2\text{O}_5$
3.  $\text{I}_2\text{O}_7$
4.  $\text{I}_2\text{O}_3$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 131 Question Id : 3922669651 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The 'spin only' magnetic moment of  $Fe_{(aq)}^{+2}$  ion is

1.  $\sqrt{24}$
2.  $\sqrt{15}$
3.  $\sqrt{48}$
4.  $\sqrt{35}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 132 Question Id : 3922669652 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Match the following

| Polymer |          | Monomers |                                 |
|---------|----------|----------|---------------------------------|
| a)      | Buna – S | i)       | Phenol, formaldehyde            |
| b)      | Buna – N | ii)      | 1, 3 – Butadiene, Styrene       |
| c)      | Bakelite | iii)     | 1, 3 – Butadiene, acrylonitrile |
| d)      | Glyptal  | iv)      | Ethylene glycol, phthalic acid  |

1. a – iii, b – ii, c – iv, d – i
2. a – ii, b – iii, c – i, d – iv
3. a – iii, b – ii, c – i, d – iv
4. a – ii, b – iv, c – i, d – iii

Options :

1. ✖ 1

2. ✓ 2

3. ✗ 3

4. ✗ 4

Question Number : 133 Question Id : 3922669653 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Polypeptide hormone is

1. Estrogens
2. Endorphins
3. Epinephrine
4. Androgens

Options :

1. ✗ 1

2. ✓ 2

3. ✗ 3

4. ✗ 4

Question Number : 134 Question Id : 3922669654 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The artificial sweetening agent used to cold foods and soft drinks. The following which is unstable at cooking temperature is

1. Sucralose
2. Alitame
3. Aspartame
4. Saccharin

Options :

1. ✗ 1

2. ✗ 2

3. ✓ 3

4. ✗ 4

Question Number : 135 Question Id : 3922669655 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Aldehyde which does not participate in Cannizzaro reaction

1.  $\text{C}_6\text{H}_5\text{CHO}$
2.  $\text{HCHO}$
3.  $\text{C}_6\text{H}_5\text{CH}_2\text{CHO}$
4.  $\text{CCl}_3\text{CHO}$

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 136 Question Id : 3922669656 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The formula of aluminium sulphate is

1.  $\text{AlSO}_4$
2.  $\text{Al}_3(\text{SO}_4)_2$
3.  $\text{Al}_2(\text{SO}_4)_2$
4.  $\text{Al}_2(\text{SO}_4)_3$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 137 Question Id : 3922669657 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If K and L shells of an atom are full, then the total number of electrons in the atom is

1. 3
2. 5
3. 10
4. 18

Options :

1. ✖ 1

2. ✖ 2

3. ✔ 3

4. ✖ 4

Question Number : 138 Question Id : 3922669658 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose the correct statement

- a. Clemmensen reduction - The carbonyl group of aldehydes and ketones is reduced to  $\text{CH}_2$  group on treatment with hydrazine, sodium or potassium hydroxide in ethylene glycol
- b. Wolf-Kishner reduction – The carbonyl group of aldehydes and ketones are reduced to  $\text{CH}_2$  group on treatment with Zinc amalgam and Conc. HCl
- 1. a - correct, b - incorrect
- 2. a - incorrect, b - correct
- 3. a and b both correct
- 4. a and b both incorrect

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 139 Question Id : 3922669659 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Which of the following will show “Tyndall effect”

- 1. Salt solution
- 2. Milk
- 3. Copper sulphate solutions
- 4. Sucrose solution

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 140 Question Id : 3922669660 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

If the Bromine atom is available in the form of two isotopes  $^{79}_{35}\text{Br}$  (49.7%) and  $^{81}_{35}\text{Br}$  (50.3%), the average atomic mass of Bromine atom is

1. 79
2. 80
3. 81
4. 82

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 141 Question Id : 3922669661 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Study the following statements about ozone

- a) It is essential for breathing of living organisms
- b) It is used to disinfect water
- c) It absorbs ultraviolet rays
- d) Its proportion in air is about 3%

Which of these statements are correct?

1. a, b, c
2. b, c
3. a, d
4. a, b, c, d

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 142 Question Id : 3922669662 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose the incorrect statement regarding 'Ellingham Diagram'

1. This is graphical representation of Gibbs energy
2. This helps us in predicting the feasibility of thermal reduction of an ore.
3. Gibbs energy of the reaction must be positive
4. This doesn't say about kinetics of the reduction process.

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 143 Question Id : 3922669663 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Match the substances given in column 'A' with their uses given in column 'B'

| Column – A   | Column - B       |
|--------------|------------------|
| i) Aluminium | a) Thermometers  |
| ii) Carbon   | b) Electric wire |
| iii) Copper  | c) Wrapping food |
| iv) Mercury  | d) fuel          |

1. i – c, ii – d, iii – b, iv – a
2. i – d, ii – c, iii – b, iv – a
3. i – a, ii – b, iii – c, iv – d
4. i – c, ii – a, iii – d, iv – b

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 144 Question Id : 3922669664 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose the correct statement

- a. Histamine stimulates the secretion of pepsin and hydrochloric acid in the stomach.
  - b. The drug cimetidine was designed to prevent the interaction of histamine with receptors in the stomach wall
  - c. Histamine is a potent vasodilator that contracts smooth muscles in the bronchi
1. a, b
  2. a, c
  3. a, b, c
  4. b, c

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 145 Question Id : 3922669665 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The following hydrocarbon which can show isomerism is

1.  $C_2H_4$
2.  $C_2H_6$
3.  $C_3H_8$
4.  $C_4H_{10}$

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 146 Question Id : 3922669666 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Select the incorrect statement of the following

1.  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$  has triclinic crystal structure
2.  $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$  has monoclinic crystal structure
3.  $\text{K}_2\text{SO}_4$  has ortho rhombic crystal structure
4. Quartz has cubic crystal structure

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 147 Question Id : 3922669667 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The Boyle Temperature for  $\text{CO}_2$ , assuming that the gas obeys Vanderwaals equation,  $a = 4.59 \text{ (atm lit}^2 \text{ mole}^{-2})$  and  $b = 0.0427 \text{ lit mole}^{-1}$  is

1.  $1026^\circ \text{ K}$
2.  $10.26^\circ \text{ K}$
3.  $1.026^\circ \text{ K}$
4.  $102.6^\circ \text{ K}$

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 148 Question Id : 3922669668 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The order of stability of the conformational isomers is

1. S – Trans > Skew > Eclipsed > S – cis
2. S – cis > Skew > Eclipsed > S – Trans.
3. S – Trans > Eclipsed > Skew > S – cis
4. S – cis > Eclipsed > Skew > S – Trans

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 149 Question Id : 3922669669 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Select the correct statement about hydrides of Boron

1. The total no of bonds in  $B_4H_{10}$  is 12
2. The total no of bonds in  $B_5H_9$  is 12
3. The number of 2c – 2e bonds in  $B_4H_{10}$  is 8
4. The number of 2c – 2e bonds in  $B_5H_9$  is 8

Options :

1. ✗ 1
2. ✓ 2
3. ✗ 3
4. ✗ 4

Question Number : 150 Question Id : 3922669670 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

An acid solution of 0.005M has a pH of 5. The percentage ionization of this acid is

1. 0.2%
2. 20%
3. 2%
4. 0.02%

Options :

1. ✓ 1

2. ✗ 2

3. ✗ 3

4. ✗ 4

Question Number : 151 Question Id : 3922669671 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Ammonium salts give brown precipitate with Nessler's reagent. The chemical name of Brown ppt is

1. Millons base of Iodide

2. Tollens reagent

3. Schiffs reagent

4. Fehling solution

Options :

1. ✓ 1

2. ✗ 2

3. ✗ 3

4. ✗ 4

Question Number : 152 Question Id : 3922669672 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The maximum efficiency of a steam engine operating between  $100^{\circ}\text{C}$  and  $25^{\circ}\text{C}$  is

1. 20%

2. 25%

3. 30%

4. 35%

Options :

1. ✓ 1

2. ✗ 2

3. ✗ 3

4. ✗ 4

Question Number : 153 Question Id : 3922669673 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The element needed by the body in small amount but acts as a poison in large amount, the element is

1. Pb
2. Hg
3. Cu
4. As

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 154 Question Id : 3922669674 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Proteins contain

1. only  $\alpha$  - amino acids
2. only  $\beta$  - amino acids
3. both  $\alpha$  - and  $\beta$  - amino acids in equal proportion
4.  $\alpha$  ,  $\beta$  and  $\gamma$  amino acids

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 155 Question Id : 3922669675 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Isomeric Carbohydrates which differ in configuration on  $C_1$  are called

1. Enantiomers
2. Isomers
3. Epimers
4. Anomers

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 156 Question Id : 3922669676 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Pyrrole is aromatic because it has

1. Five membered ring
2. Conjugated double bonds
3. Aromatic sextet
4. Non – planar molecule

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 157 Question Id : 3922669677 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The light emitted by a glow worm is an example of

1. Fluorescence
2. Phosphorescence
3. Chemiluminescence
4. Chlorosis

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 158 Question Id : 3922669678 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Half change time of reaction was found to be 50 minutes.

When the concentration to start with was halved, the  $t_{1/2}$  becomes 100 minutes. The order of reaction is

1. One
2. Zero
3. Two
4. Three

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 159 Question Id : 3922669679 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A substance which gives colouration with neutral ferric chloride is

1. Only alcohol
2. Only phenol
3. Only enol
4. Phenol and enol

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 160 Question Id : 3922669680 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Keto - enol tautomerism is observed in

1.  $C_6H_5-\overset{\overset{O}{\parallel}}{C}-H$
2.  $C_6H_5-\overset{\overset{O}{\parallel}}{C}-CH_3$
3.  $C_6H_5-\overset{\overset{O}{\parallel}}{C}-\overset{\overset{O}{\parallel}}{C}-C_6H_5$
4.  $C_6H_5-\overset{\overset{O}{\parallel}}{C}-C_6H_5$

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

## Section 5

|                                       |           |
|---------------------------------------|-----------|
| Section Id :                          | 392266306 |
| Section Number :                      | 5         |
| Section type :                        | Online    |
| Mandatory or Optional :               | Mandatory |
| Number of Questions :                 | 40        |
| Number of Questions to be attempted : | 40        |
| Section Marks :                       | 20        |
| Maximum Instruction Time :            | 0         |
| Sub-Section Number :                  | 1         |
| Sub-Section Id :                      | 392266316 |
| Question Shuffling Allowed :          | Yes       |

Question Number : 161 Question Id : 3922669681 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“An accumulated and systematized learning in general uses restricted to natural phenomena is called Science” given by

1. D.S. Kothari
2. Columbia Encyclopedia
3. Fredric Fitzpatrick
4. Arrhenius

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 162 Question Id : 3922669682 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

“Most of the scientific knowledge is given in the form of generalization, laws, Hypothesis”. In this statement, what is the example for generalization.

1. Boyle’s law
2. Electricity statement
3. Magnets attracts iron metal
4. Laws of pendulum

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 163 Question Id : 3922669683 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In science, a “Fact” (a) should be highly reliable and valid (b) can be proved by direct observation (c) can be proved anywhere and at any time. This statement is said by

1. James B. Conant
2. Carl Pearson
3. Cohen, Nagel
4. Henry Poincare

Options :

1. ✔ 1
2. ✖ 2
3. ✖ 3
4. ✖ 4

Question Number : 164 Question Id : 3922669684 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Scientist who Checked and verified Heliocentric theory of Copernicus?

1. Galileo
2. John Dalton
3. Aristotle
4. Edmund Halley

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 165 Question Id : 3922669685 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In which language Abul Fazal, a scholar of Akbar kingdom translated a book of Indian Scholar Bhaskara II in to another language twice

1. English
2. Urdu
3. Parsi
4. Greek

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 166 Question Id : 3922669686 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the scientist who invented electrical dynamo and generator.

1. Benjamin Franklin
2. Volta
3. Michael Faraday
4. John Dalton

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 167 Question Id : 3922669687 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

In which Structure of science, we come across facts, concepts, generalization, theories and laws.

1. Syntactic structure
2. Process structure
3. Substantive structure
4. Science structure

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 168 Question Id : 3922669688 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

The famous king Alexander built a great town and Museum after his name in the century

1. B.C. 300-400
2. B.C. 400-500
3. B.C. 500-600
4. B.C. 600-700

**Options :**

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

**Question Number : 169 Question Id : 3922669689 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

One of the following is the example for “Declarative Hypothesis”

1. Can water be boiled of any temperature?
2. Boiling temperature of water has no relation with pressure
3. Boiling temperature and pressure have relationship
4. At the top of hills, water may boil at low temperature

**Options :**

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

**Question Number : 170 Question Id : 3922669690 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

If students adopt “science process skills” while observing the nature, in doing experiments, outsidess activities and in science club programmes,” they develop this value

1. Moral value
2. Disciplinary value
3. Inspirational value
4. Cultural value

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 171 Question Id : 3922669691 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Sir C.V. Raman was awarded “Bharatha Ratna” award by the Govt. of India in the year

1. 1952
2. 1954
3. 1956
4. 1958

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 172 Question Id : 3922669692 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

To know, how far the students achieved instructional objectives, the useful thing is

1. Goals
2. Instructional objectives
3. Specification
4. Aim

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 173 Question Id : 3922669693 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Students after completing the experiment clearly stated their observation 1) orally 2) written form 3) in graphs. This ability of students is called as

1. Classification
2. Measuring
3. Interning
4. Communication skill

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 174 Question Id : 3922669694 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

One student taken two spring balances of same range, and verified 'Newton, third law'. He recorded observation in a tabular form. To which Objective does it belong?

1. Knowledge
2. Understanding
3. Application
4. Skill

**Options :**

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

**Question Number : 175 Question Id : 3922669695 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

A student after learning in the class arranged required apparatus in correct order and completed his experiment satisfactorily. Which skill is achieved by the student after this activity?

1. Observation skill
2. Reporting skill
3. Manipulative skill
4. Drawing skill

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 176 Question Id : 3922669696 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Lecture method is better suited to teach one of the following topics.

1. Teaching Atomic structure topic using charts and models
2. Finding the focal length of a convex lens
3. Preparing "SO<sub>2</sub>" gas
4. Verification of laws of Pendulum

Options :

1. ✓ 1
2. ✗ 2
3. ✗ 3
4. ✗ 4

Question Number : 177 Question Id : 3922669697 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

A student after burning sulphur in a gas collecting jar, sulphur combined with oxygen and sulphur-di-oxide is formed. He represented this change in chemical equation form as  $S + O_2 \rightarrow SO_2$ . The objective he achieved is

1. Knowledge
2. Skills
3. Understanding
4. Application

Options :

1. ✗ 1
2. ✗ 2
3. ✓ 3
4. ✗ 4

Question Number : 178 Question Id : 3922669698 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The educationist, who brought much publicity about Project method in Russia

1. Ballard
2. J.A. Stevenson
3. Kilpatrick
4. H.E. Armstrong

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 179 Question Id : 3922669699 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

When a teacher wants to teach the lesson on “formation of images by a concave mirror and their characteristics,” the method should be followed is

1. Lecture method
2. Lecture Demonstration method
3. Problem method
4. Historical method

**Options :**

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

**Question Number : 180 Question Id : 3922669700 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

The first step of scientific method of teaching is

1. Defining the problem
2. Collection of data
3. Identifying the problem
4. Making hypothesis and conducting experiment

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 181 Question Id : 3922669701 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Micro teaching is meant for

1. The teachers
2. The students
3. The students of teachers training colleges
4. The officials of Education department

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 182 Question Id : 3922669702 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The method which makes effective use of existing best talented science teachers and available resources, are used for teaching large number of students is called as

1. Project method
2. Micro teaching
3. Team teaching
4. Programmed teaching

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 183 Question Id : 3922669703 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Branching Programming was developed by

1. B.F. Skinner
2. G. Holland
3. Norman A Crowder
4. F. Gilbert

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 184 Question Id : 3922669704 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

An example for “Intellectual resources” is

1. Human beings, Animals, trees, zoos, Hospitals
2. Tanks, canals, rivers, hills, earthquakes
3. Engineers, Lawyers, Scientists, technical persons, profession of colleges
4. Factories, Industries, Laboratories, Museum.

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 185 Question Id : 3922669705 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

A good lesson plan should possess the following qualities

- (i) All the term, concepts, principles, facts, should be arranged in an order
- (ii) Useful learning experiences and methods about the topic should be mentioned
- (iii) Different concepts which are presented need to be inter related properly
- (iv) Assignments given to the students are up to the levels; and intervals of the students

- 1. i, ii
- 2. i, iii
- 3. iii, iv
- 4. i, ii, iii and iv

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✖ 3
- 4. ✔ 4

Question Number : 186 Question Id : 3922669706 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The Non Govt. voluntary organization, which developed most “efficient stove and smokeless stove” for the use in rural population

- 1. Delhi Science Form
- 2. Jana Vigjana Vedika
- 3. Kerala Sastra Sahithya Parishad
- 4. Ekalavya Science Teaching Project

Options :

- 1. ✖ 1
- 2. ✖ 2
- 3. ✔ 3
- 4. ✖ 4

Question Number : 187 Question Id : 3922669707 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The first Industrial and Technological museum” Birla Industrial and technological museum” has established at

1. Bombay
2. Delhi
3. Calcutta
4. Hyderabad

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 188 Question Id : 3922669708 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In high schools, which type of electric batteries are required to conduct experiments like ‘ohm’ law

1. 6 volts DC
2. 12 volts DC
3. 18 volts DC
4. 230 volts AC

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 189 Question Id : 3922669709 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Identify the company which is preparing unit wise science kits for students

1. Dayanora
2. Nelco
3. Philips
4. Dynam

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 190 Question Id : 3922669710 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The chief Patron of the Science club of a School is

1. Dist. Collector
2. Science Teacher
3. Headmaster
4. District Educational Officer

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 191 Question Id : 3922669711 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

In the laboratory, acid spill on body, then that part is to be washed with water, then which of the following is used to wash the part again?

1. Lemon juice
2. Acetic Acid
3. Sodium bi carbonate
4. Spirit

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 192 Question Id : 3922669712 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose correct matching regarding Historical method approaches in teaching Physical Science

- |                                                     |                          |
|-----------------------------------------------------|--------------------------|
| i. Experiences of scientists                        | a. Biographical approach |
| ii. Life history of scientists                      | b. Social approach       |
| iii. Developmental process of scientific inventions | c. Anecdotal approach    |
| iv. Relation between inventions and daily life      | d. Evaluation approach   |

1. i-c, ii-d, iii-a, iv-b
2. i-c, ii-a, iii-d, iv-b
3. i-b, ii-a, iii-c, iv-d
4. i-b, ii-c, iii-a, iv-d

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 193 Question Id : 3922669713 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The example for “Direct experience” among the following is

1. Explaining “solar family” using charts
2. Showing “Blast Furnace’ model of steel Industry
3. Conducting “sublimation experiments” before students in laboratory
4. Observing a lesson in “Television”

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 194 Question Id : 3922669714 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The Board which is used to display the collected paper cuttings of ‘Science related theme’ from different Magazines

1. Black board
2. Bulletin board
3. Flannel board
4. Peg board

Options :

1. ✖ 1
2. ✔ 2
3. ✖ 3
4. ✖ 4

Question Number : 195 Question Id : 3922669715 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

Choose the correct answer regarding Micro Teaching

1. Micro Teaching Phases - 3; Micro Teaching Steps - 3
2. Micro Teaching Phases - 9; Micro Teaching Steps - 3
3. Micro Teaching Phases - 9; Micro Teaching Steps - 9
4. Micro Teaching Phases - 3; Micro Teaching Steps - 9

Options :

1. ✖ 1
2. ✖ 2
3. ✖ 3
4. ✔ 4

Question Number : 196 Question Id : 3922669716 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

This organization is giving advises to the cabinet ministers of India about formulating policies related to “Science and technology”

1. Council of Scientific and Industrial Research
2. Bhabha Atomic Research Centre
3. Department of Science and Technology
4. Indian space research organization

Options :

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

Question Number : 197 Question Id : 3922669717 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Correct Marks : 0.5 Wrong Marks : 0

The Central Govt. organization which is looking after the Atomic reactors for India and their maintenance

1. CSIR
2. ISRO
3. BARC
4. NGRI

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 198 Question Id : 3922669718 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Identify limitations of Bloom's classification

- a. No scope for explaining process
  - b. Optimum priority has not given for mental processes while writing educational objectives.
  - c. No specific devices for achieving objectives of effective domain
  - d. Specifications are not useful to select Teaching method
1. a, b, d
  2. b, c, d
  3. a, b, c
  4. a, c, d

**Options :**

1. ✖ 1
2. ✖ 2
3. ✔ 3
4. ✖ 4

**Question Number : 199 Question Id : 3922669719 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

“Analogy type question” is

1. Rajahmundry is located on the banking Godavari
2. Where is Kutub Minar located?
3. Electrical resistance : Ohm : : \_\_\_\_\_ Decibel
4. Where is Taj Mahal Located?

**Options :**

1. ✖ 1
2. ✖ 2

3. ✓ 3

4. ✗ 4

**Question Number : 200 Question Id : 3922669720 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**

**Correct Marks : 0.5 Wrong Marks : 0**

Formative test paper in the school is prepared by

1. Officials of Education Dept
2. District Common Exam Board
3. Teacher who teaches the subject
4. Head Master of the school

**Options :**

1. ✗ 1

2. ✗ 2

3. ✓ 3

4. ✗ 4