Prepp

Practice, Learn and Achieve
Your Goal with Prepp

NVS Exam

PGT Physics Paper (2019)

Simplifying
Government Exams

SSC CHSL | IAS EXAM | RRB NTPC | NTSE | CDS
SSC CGL | CBSE UGC NET | IBPS PO | NDA
SBI PO | IBPS CLERK | AFCAT | SSC JE | CTET
CSIR UGC NET | CAPF | IBPS RRB

www.prepp.in

Navodaya Vidyalaya Samiti

(An Autonomous Body Under MHRD) Government of India

Roll No.	
Participant Name	
Test Center Name	
Test Date	
Test Time	
Subject	PGT PHYSICS

Section : **General (English & Hindi)**

Q.1 Select the most appropriate option to fill in the blank:

The natural beauty of the Indus Valley is beyond description but the river _____ is very muddy.

Ans

✔ 1. itself

✘ 2. herself

✘ 3. oneself

✘ 4. himself

Question ID : **7193992916**
Status : **Answered**
Chosen Option : **2**

Q.2 Select the correct passive form of the given sentence:

The new findings of the space scientists will improve existing models of solar systems.

Ans

✘ 1.
Existing models of space scientists will be improved by the new findings of the solar systems.

✘ 2.
Existing models of solar systems will improve the new findings of the space scientists.

✔ 3.
Existing models of solar systems will be improved by the new findings of the space scientists.

✘ 4.
Existing models of solar systems have been improved by the new findings of the space scientists.

Question ID : **7193992919**
Status : **Answered**
Chosen Option : **3**

Q.3 Select the INCORRECTLY spelt word:

Ans

✔ 1. Conscencious

✘ 2. Conspicuous

✘ 3. Cautious

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 4. Conscious

Question ID : **7193992926**
Status : **Answered**
Chosen Option : **2**

Q.4 Select the most appropriate ANTONYM of the given word:

INTEGRITY

Ans
✗ 1. Dependability
✗ 2. Truthfulness
✗ 3. Reliability
✓ 4. Dishonesty

Question ID : **7193992923**
Status : **Answered**
Chosen Option : **2**

Q.5 Select the most appropriate synonym of the given word:

FARCICAL

Ans
✗ 1. Persistent
✗ 2. Sarcastic
✓ 3. Absurd
✗ 4. Serious

Question ID : **7193992922**
Status : **Answered**
Chosen Option : **1**

Q.6 Select the option that expresses the given sentence in direct speech.

Father told his children that he didn't wish to see any of them and ordered them to go away and leave him alone for some time.

Father said to his children:

Ans
✗ 1.
"I am not wishing to see any of you. You may go away and leave me alone for some time."

✓ 2.
"I don't wish to see any of you. Go away and leave me alone for some time."

✗ 3.
"He didn't wish to see any of them. They should go away and leave him alone for some time."

✗ 4.
"I didn't wish to see any of you. Go away and leave him alone for some time."

Question ID : **7193992930**
Status : **Answered**
Chosen Option : **2**

Q.7

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Select the most appropriate option to fill in the blank:

The conductor of the bus swam towards the _____ child in an effort to save him.

Ans
✔ 1. drowning
✘ 2. sunk
✘ 3. drowned
✘ 4. sunken

Question ID : **7193992913**
Status : **Answered**
Chosen Option : **1**

Q.8 Select the most appropriate option to fill in the blank:

No country lets you enter it _____ you have proper documents.

Ans
✘ 1. if
✘ 2. because
✔ 3. unless
✘ 4. so that

Question ID : **7193992917**
Status : **Answered**
Chosen Option : **3**

Q.9 Select the option that expresses the given sentence in reported speech.

"I don't like the pattern of the dress you have made for me," Esha said to me.

Esha told me that:

Ans
✘ 1.
she didn't like the pattern of the dress you had made for me.
✘ 2. I don't like the pattern of the dress you have made for me.
✔ 3. she didn't like the pattern of the dress I had made for her.
✘ 4.
she didn't like the pattern of the dress you have made for her.

Question ID : **7193992929**
Status : **Answered**
Chosen Option : **3**

Q.10 Select the most appropriate option to fill in the blank:

This is one the _____ rooms in this hotel.

Ans
✔ 1. nicest
✘ 2. nice
✘ 3. more nice

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 4. nicer

Question ID : **7193992914**
Status : **Answered**
Chosen Option : **2**

Q.11 Select the correct passive form of the given sentence:

The landowners allowed the peasants only a few weeks to simply pack and leave the land.

Ans

✓ 1.
The peasants were allowed by the landowners only a few weeks to simply pack and leave the land.

✗ 2.
The peasants have been allowed by the landowners only a few weeks to simply pack and leave the land.

✗ 3.
Only a few weeks are being allowed by the landowners to the peasants to simply pack and leave the land.

✗ 4.
The landowners were allowed by the peasants only a few weeks to simply pack and leave the land.

Question ID : **7193992920**
Status : **Answered**
Chosen Option : **1**

Q.12 In the following sentence four words or phrases have been underlined. One of them is incorrect. Choose the INCORRECT word or phrase from the given options:

Once I saw five townsmen getting to hold of a peasant and tearing at him like a pack of dogs.

Ans

✓ 1. getting to hold

✗ 2. Once I saw

✗ 3. pack of dogs

✗ 4. tearing at him

Question ID : **7193992927**
Status : **Answered**
Chosen Option : **4**

Q.13 Select the most appropriate option to fill in the blank:

Tomorrow, definitely, I _____ this telephone to VSNL. It just doesn't work.

Ans

✗ 1. surrendered

✗ 2. surrender

✓ 3. will surrender

✗ 4. have surrendered

Question ID : **7193992912**
Status : **Answered**
Chosen Option : **3**

Q.14 Select the correctly spelt word:

Ans

✗ 1. Preferrable

✓ 2. Preferable

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 3. Priferable

✗ 4. Prefarable

Question ID : **7193992925**
Status : **Answered**
Chosen Option : **2**

Q.15 In the following sentence four words or phrases have been underlined. One of them is incorrect. Choose the INCORRECT word or phrase from the given options:

On Monday, six special trains meant to transport stranded labourers from Kerala to three eastern states was pressed into service.

Ans

✗ 1. On Monday

✗ 2. from Kerala

✗ 3. meant to transport

✓ 4. was pressed

Question ID : **7193992928**
Status : **Answered**
Chosen Option : **4**

Q.16 Select the option that is NOT an antonym of another word by way of adding the prefix 'un-'.

Ans

✗ 1. Unmeasured

✗ 2. Undecided

✗ 3. Unfamiliar

✓ 4. Underhand

Question ID : **7193992924**
Status : **Answered**
Chosen Option : **4**

Q.17 Select the most appropriate option to fill in the blank:

I gave my address to some friends in Croatia, _____ they decided to visit me when they came to Mumbai.

Ans

✗ 1. whereas

✗ 2. so that

✓ 3. in case

✗ 4. as though

Question ID : **7193992918**
Status : **Answered**
Chosen Option : **3**

Q.18 Select the most appropriate synonym of the given word:

OBLIGATORY

Ans

✗ 1. Flexible

✓ 2. Essential

✗ 3. Exclusive

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 4. Open

Question ID : **7193992921**
Status : **Answered**
Chosen Option : **3**

Q.19 Select the most appropriate option to fill in the blank:

Stones were in abundance in the valley. The Jews collected and carried _____ by ox cart to their establishment.

Ans
✗ 1. us
✓ 2. them
✗ 3. their
✗ 4. they

Question ID : **7193992915**
Status : **Answered**
Chosen Option : **2**

Q.20 Select the most appropriate option to fill in the blank:

Their house is under repair. They _____ with us nowadays.

Ans
✗ 1. have lived
✓ 2. are living
✗ 3. were living
✗ 4. lived

Question ID : **7193992911**
Status : **Answered**
Chosen Option : **2**

Q.21 अब मैंने चलने की आज्ञा दीजिए। वाक्य का शुद्ध रूप है:

Ans
✗ 1. आज्ञा दीजिए अब मुझे चलने की।
✗ 2. चलने की अब मुझे आज्ञा दीजिए।
✗ 3. मुझे चलने की आज्ञा दीजिए अब।
✓ 4. अब मुझे चलने की आज्ञा दीजिए।

Question ID : **7193992942**
Status : **Answered**
Chosen Option : **4**

Q.22 'चमड़ी जाए पर दमड़ी न जाए' लोकोक्ति का अर्थ होगा:

Ans
✓ 1. अत्यधिक कंजूस होना
✗ 2. धन की हानि होना

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 3. आपस में फूट पड़ना

✗ 4. चोट लगना

Question ID : **7193992941**
Status : **Answered**
Chosen Option : **1**

Q.23 यमक अलंकार का उदाहरण है:

Ans

✗ 1. लगा दी किसने आकर आग।

✓ 2. कनक कनक ते सौ गुनी, मादकता अधिकाय।

✗ 3. यह काया है या शेष उसी की छाया।

✗ 4. सागर सा गंभीर हृदय हो।

Question ID : **7193992945**
Status : **Answered**
Chosen Option : **2**

Q.24 गेंहूँ का तत्सम रूप है:

Ans

✗ 1. आटा

✗ 2. फ़सल

✗ 3. अनाज

✓ 4. गोधूम

Question ID : **7193992932**
Status : **Answered**
Chosen Option : **4**

Q.25 विलोम शब्द का कौन सा युग्म सही है:

Ans

✗ 1. ज्ञान-विज्ञान

✓ 2. खरा-खोटा

✗ 3. शोक-शौक

✗ 4. पक्ष-पक्षधर

Question ID : **7193992937**
Status : **Answered**
Chosen Option : **2**

Q.26 स्त्रीलिंग पुल्लिंग का अशुद्ध युग्म है:

Ans

✗ 1. लाला - ललाइन

✓ 2. सेठ - सेठनी

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 3. संचालक - संचालिका

✗ 4. शिक्षक - शिक्षिका

Question ID : **7193992950**
Status : **Answered**
Chosen Option : **2**

Q.27 आज वह _____ में भाग ले रहा है। सही शब्द से रिक्त स्थान भरिए:

Ans

✗ 1. घोड़ा दौड़

✗ 2. घोड़े दौड़

✓ 3. घुड़दौड़

✗ 4. घुड़दौड़ी

Question ID : **7193992947**
Status : **Answered**
Chosen Option : **3**

Q.28 सोना का पर्याय है:

Ans

✗ 1. रजत

✗ 2. ताम्र

✗ 3. हीरक

✓ 4. स्वर्ण

Question ID : **7193992936**
Status : **Answered**
Chosen Option : **4**

Q.29 नृत्य का तद्भव रूप होगा:

Ans

✗ 1. नाचना

✗ 2. नाटक

✓ 3. नाच

✗ 4. नट

Question ID : **7193992933**
Status : **Answered**
Chosen Option : **3**

Q.30 निम्नलिखित में से एकवचन कौन सा है?

Ans

✗ 1. गुरुजन

✓ 2. बिटिया

✗ 3. पुड़ियाँ

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 4. अध्यापिकाएँ

Question ID : **7193992949**
Status : **Answered**
Chosen Option : **2**

Q.31 यात्री का पर्याय नहीं है:

Ans

✗ 1. राहगीर

✗ 2. मुसाफ़िर

✗ 3. राही

✓ 4. हमसफ़र

Question ID : **7193992935**
Status : **Answered**
Chosen Option : **4**

Q.32 'वैध' का विलोम होगा:

Ans

✗ 1. वैधानिक

✓ 2. अवैध

✗ 3. भद्र

✗ 4. सार्थक

Question ID : **7193992938**
Status : **Answered**
Chosen Option : **2**

Q.33 'बढ़ा चढ़ाकर बात करना' वाक्यांश के लिए उचित मुहावरा होगा:

Ans

✗ 1. चार चाँद लगाना

✓ 2. नमक मिर्च लगाना

✗ 3. ज़हर उगलना

✗ 4. नानी याद आना

Question ID : **7193992940**
Status : **Answered**
Chosen Option : **2**

Q.34 स्वेच्छा का संधि विच्छेद है:

Ans

✗ 1. स + इच्छा

✗ 2. स्वा + ईच्छा

✗ 3. स्व + ईच्छा

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✔ 4. स्व + इच्छा

Question ID : **7193992943**
Status : **Answered**
Chosen Option : **4**

Q.35 निम्नलिखित में से कौन सा तद्भव शब्द है:

Ans
✘ 1. नयन
✘ 2. पक्षी
✘ 3. पत्र
✔ 4. तीरथ

Question ID : **7193992934**
Status : **Answered**
Chosen Option : **4**

Q.36 कौन सा शब्द युग्म वचन कि दृष्टि से शुद्ध है:

Ans
✘ 1. सज्जनता - सज्जनों
✘ 2. रात - रात्री
✔ 3. शाखा - शाखाएँ
✘ 4. वर्षा - वर्षाओं

Question ID : **7193992948**
Status : **Answered**
Chosen Option : **1**

Q.37 लोक के लिए अर्पण का समस्तपद है:

Ans
✔ 1. लोकार्पण
✘ 2. लोक को अर्पण
✘ 3. लोक है अर्पण
✘ 4. लोकमय

Question ID : **7193992946**
Status : **Answered**
Chosen Option : **1**

Q.38 'गुड़ गोबर करना' मुहावरे का अर्थ होगा:

Ans
✘ 1. काम पर ध्यान न देना
✔ 2. बने बनाए काम को बिगाड़ना
✘ 3. काम बनाना
✘ 4. काम करते जाना

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193992939**
Status : **Answered**
Chosen Option : **2**

Q.39 घड़ी के लिए तत्सम शब्द होगा:

Ans
✔ 1. घटिका
✘ 2. घट
✘ 3. घड़ा
✘ 4. घटा

Question ID : **7193992931**
Status : **Answered**
Chosen Option : **1**

Q.40 शे + अन = शयन का संधि भेद है:

Ans
✘ 1. विसर्ग संधि
✘ 2. यण संधि
✘ 3. गुण संधि
✔ 4. अयादि संधि

Question ID : **7193992944**
Status : **Answered**
Chosen Option : **2**

Section : **General Awareness**

Q.1 Which of the following sportspersons was given Khel Ratna Award 2018?

Ans
✔ 1. Mirabai Chanu
✘ 2. M. C. Mary Kom
✘ 3. Tejaswini Savant
✘ 4. P. V. Sindhu

Question ID : **7193992962**
Status : **Answered**
Chosen Option : **4**

Q.2 Which Indian city is declared the first World Heritage City by UNESCO?

Ans
✔ 1. Ahmedabad
✘ 2. Delhi
✘ 3. Hyderabad
✘ 4. Banaras

Question ID : **7193992977**
Status : **Answered**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Chosen Option : **1**

Q.3 Which of the following Articles of the Constitution of India deals with ancillary powers of the Supreme Court?

Ans

✗ 1. Article 186
✗ 2. Article 85
✓ 3. Article 140
✗ 4. Article 63

Question ID : **7193992970**
Status : **Answered**
Chosen Option : **1**

Q.4 Which country has unveiled the world's first floating nuclear power station?

Ans

✓ 1. Russia
✗ 2. United States of America
✗ 3. Germany
✗ 4. United Kingdom

Question ID : **7193992958**
Status : **Answered**
Chosen Option : **1**

Q.5 Who penned the novel 'A Suitable Boy'?

Ans

✗ 1. Shashi Tharoor
✗ 2. Vikram Chandra
✗ 3. Amitav Ghosh
✓ 4. Vikram Seth

Question ID : **7193992980**
Status : **Answered**
Chosen Option : **2**

Q.6 Which former Indian diplomat has been elected to an Asia Pacific seat on the UN's Committee on Economic, Social and Cultural Rights (CESCR)?

Ans

✓ 1. Preeti Saran
✗ 2. Lakshmi Puri
✗ 3. Shivshankar Menon
✗ 4. Vikas Swarup

Question ID : **7193992951**
Status : **Answered**
Chosen Option : **2**

Q.7 Where there is only one House of the Legislature of a state, it is known as:

Ans

✗ 1. The Council of States
✗ 2. The Legislative Council

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

3. The House of the People

4. The Legislative Assembly

Question ID : **7193992967**
Status : **Answered**
Chosen Option : **2**

Q.8 Name the novel that features India's national song 'Vande Mataram'?

Ans

1. Rajsimha
2. Anand Math
3. Durgeshnandini
4. Kapalkundala

Question ID : **7193992965**
Status : **Answered**
Chosen Option : **2**

Q.9 What is the name of the app launched by Union Ministry of Commerce and Industry for exporters and importers of the country?

Ans

1. Vyapar Vikas
2. Niryat Mitra
3. Aayat Mitra
4. Vyapar Mitra

Question ID : **7193992973**
Status : **Answered**
Chosen Option : **2**

Q.10 What is the amount of dividend paid by RBI to Indian Government for FY 2018?

Ans

1. ₹ 80,000 Crore
2. ₹ 50,000 Crore
3. ₹ 20,000 Crore
4. ₹ 10,000 Crore

Question ID : **7193992971**
Status : **Answered**
Chosen Option : **1**

Q.11 Which among the following is a base?

Ans

1. H_2SO_4
2. NaOH
3. HNO_3
4. HCl

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193992974**
Status : **Answered**
Chosen Option : **2**

Q.12 Name the Sultan of Delhi who shifted his capital from Delhi to Deogiri?

Ans

✗ 1. Alauddin Khilji

✗ 2. Ibrahim Lodhi

✓ 3. Muhammad Bin Tughlak

✗ 4. Qutbuddin Aibak

Question ID : **7193992964**
Status : **Answered**
Chosen Option : **4**

Q.13 A cell is enclosed by a thin outer layer called:

Ans

✓ 1. Cell membrane

✗ 2. Celluloid

✗ 3. Cell guard

✗ 4. Nucleus

Question ID : **7193992976**
Status : **Answered**
Chosen Option : **1**

Q.14 Which country has ventured into the Internet of Things (IoT) with the launch of a new satellite system named 'Marathon'?

Ans

✓ 1. Russia

✗ 2. United States of America

✗ 3. United Kingdom

✗ 4. China

Question ID : **7193992957**
Status : **Answered**
Chosen Option : **1**

Q.15 Which of the following countries has introduced a contribution-based social security scheme for formal sector workers in November 2018?

Ans

✓ 1. Nepal

✗ 2. Myanmar

✗ 3. Sri Lanka

✗ 4. Maldives

Question ID : **7193992956**
Status : **Answered**
Chosen Option : **3**

Q.16 Where is the Gahirmatha Marine Wildlife Sanctuary located?

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Ans
1. Kerala
2. Odisha
3. Goa
4. Maharashtra

Question ID : **7193992978**
Status : **Answered**
Chosen Option : **1**

Q.17 How many security and intelligence agencies have been authorised by the government to intercept, monitor and decrypt any information generated, transmitted, received or stored in any computer, as per government notification dated 20th December 2018?

Ans
1. 10
2. 8
3. 6
4. 12

Question ID : **7193992952**
Status : **Answered**
Chosen Option : **2**

Q.18 Which Nawab of Bengal was defeated by the British forces in the Battle of Plassey in 1757?

Ans
1. Siraj-ud-daula
2. Mir Jafar
3. Mir Qasim
4. Sarfaraz Khan

Question ID : **7193992963**
Status : **Answered**
Chosen Option : **3**

Q.19 Which military communication satellite was launched by the Indian Space Research Organization (ISRO) in December 2018?

Ans
1. GSAT-11
2. GSAT-17
3. GSAT-6A
4. GSAT-7A

Question ID : **7193992955**
Status : **Answered**
Chosen Option : **4**

Q.20 Which country's player has P. V. Sindhu defeated to win her maiden World Tour Finals title in December 2018?

Ans
1. China
2. South Korea
3. Japan
4. Indonesia

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193992960**
Status : **Answered**
Chosen Option : **3**

Q.21 Which of the following Indian women weightlifters won gold medal in the Commonwealth Games 2018?

Ans

✗ 1. Saraswati Rout

✓ 2. Punam Yadav

✗ 3. Purnima Pandey

✗ 4. Vandna Gupta

Question ID : **7193992959**
Status : **Answered**
Chosen Option : **2**

Q.22 Which of the following articles of the Constitution of India deals with the creation of Legislative Councils in States?

Ans

✗ 1. Article 223

✓ 2. Article 169

✗ 3. Article 233

✗ 4. Article 121

Question ID : **7193992968**
Status : **Answered**
Chosen Option : **4**

Q.23 Department of Industrial Policy and Promotion (DIPP), in partnership with energy companies, has launched the _____ Programme for startups in energy sector.

Ans

✗ 1. Collaborate to Innovate

✗ 2. Integrate to Excel

✗ 3. Collaborate to Excel

✓ 4. Integrate to Innovate

Question ID : **7193992972**
Status : **Answered**
Chosen Option : **1**

Q.24 The distance-time graph is steeper for _____ objects.

Ans

✗ 1. non-moving

✗ 2. slower

✓ 3. faster

✗ 4. oscillating

Question ID : **7193992975**
Status : **Answered**
Chosen Option : **1**

Q.25 Which of the following chief ministers has been conferred the Skoch Chief Minister of the Year Award for 2018?

Ans

✓ 1. Mamata Banerjee

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

2. Vijay Rupani

3. Nitish Kumar

4. Naveen Patnaik

Question ID : **7193992953**
Status : **Answered**
Chosen Option : **2**

Q.26 The total number of ministers, including the Chief Minister, in the Council of Ministers in a state cannot exceed _____ of the total number of members of _____.

Ans

1. 10 %; the Legislative Assembly of that state

2. 15 %; the Legislative Assembly of that state

3. 10 %; the Lok Sabha

4. 20 %; the Lok Sabha

Question ID : **7193992966**
Status : **Answered**
Chosen Option : **4**

Q.27 Which one of the following is the most populous city or urban agglomeration by population in India?

Ans

1. New Delhi

2. Mumbai

3. Chennai

4. Kolkata

Question ID : **7193992979**
Status : **Answered**
Chosen Option : **1**

Q.28 Which country won the FIFA Football World Cup 2018 held in Russia?

Ans

1. India

2. Croatia

3. France

4. Germany

Question ID : **7193992961**
Status : **Answered**
Chosen Option : **4**

Q.29 Who has been appointed as interim director of the Central Bureau of Investigation (CBI) in October 2018?

Ans

1. Rakesh Asthana

2. Dineswar Prasad

3. M. Nageswara Rao

4. Manish Sinha

Question ID : **7193992954**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Status : **Answered**
Chosen Option : **1**

Q.30 An Ordinance promulgated under Article 213 of the Constitution of India can be withdrawn by the:

Ans

✗ 1. Vice-President
✗ 2. Home Minister
✓ 3. Governor
✗ 4. Finance Minister

Question ID : **7193992969**
Status : **Answered**
Chosen Option : **3**

Section : **General Aptitude**

Q.1 In a code language, SUNSET is written as RTMRDS. How will CHALK be written as in that language?

Ans

✓ 1. BGZKJ
✗ 2. JKZJB
✗ 3. JKZGB
✗ 4. BJZKJ

Question ID : **7193992988**
Status : **Answered**
Chosen Option : **1**

Q.2 The total number of factors of $8 \times 18^4 \times (35)^8$ is:

Ans

✓ 1. 5832
✗ 2. 3584
✗ 3. 1792
✗ 4. 90

Question ID : **7193993001**
Status : **Answered**
Chosen Option : **4**

Q.3 The sum of the first 40 terms of $\frac{1}{4\times8} + \frac{1}{8\times12} + \frac{1}{12\times16} + ____$ is:

Ans

✗ 1. $\frac{5}{164}$
✗ 2. $\frac{39}{41}$
✗ 3. $\frac{39}{320}$
✓ 4. $\frac{5}{82}$

Question ID : **7193992997**
Status : **Answered**
Chosen Option : **3**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Q.4 Arrange the following words to form a meaningful sentence.

Taj Mahal	at	A	quick	look
5	1	3	2	4

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

Question ID : **7193992991**
Status : **Answered**
Chosen Option : **3**

Q.5 संख्या 538x25 में, 'x' को निम्नलिखित में से किस अंक के साथ बदलने पर पूरी संख्या 15 द्वारा विभाज्य होगी?

Ans
1. 5
2. 4
3. 1
4. 7

Question ID : **7193993003**
Status : **Answered**
Chosen Option : **3**

Q.6 The value of $0.\bar{6} + 0.4\bar{9} + 0.4\overline{32}$ is equal to:

Ans
1. $1.4\overline{89}$
2. $1.6\overline{03}$
3. $1.5\overline{89}$
4. $1.5\overline{98}$

Question ID : **7193993000**
Status : **Answered**
Chosen Option : **3**

Q.7 If $\sqrt{52 - 30\sqrt{3}} = a + b\sqrt{3}$, then (a + b) is equal to:

Ans
1. 4
2. -4
3. -2
4. 2

Question ID : **7193992999**
Status : **Answered**
Chosen Option : **1**

Q.8

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

A person covers first 100 km with a speed of 60 km/h and next 150 km with a speed of 45 km/h. What is his average speed for the whole journey (in km/h)?

Ans
1. 52.5
2. 53.5
3. 52.8
4. 50

Question ID : **7193993009**
Status : **Answered**
Chosen Option : **4**

Q.9 एक व्यक्ति अपने सामान का विक्रय मूल्य, क्रय मूल्य से 25% अधिक कीमत पर चिह्नित करता है। वह अपने सामान का 40% हिस्सा अंकित मूल्य पर, सामान का 35% हिस्सा 12% की छूट पर और बाकी हिस्सा 16% की छूट पर बेचता है। उसे कुल कितने प्रतिशत लाभ प्राप्त हुआ है?

Ans
1. 15.25%
2. 15.75%
3. 14.75%
4. 16.25%

Question ID : **7193993007**
Status : **Answered**
Chosen Option : **1**

Q.10 If 1 January 2018 was a Monday, then what day was it on 1 January 2019?

Ans
1. Wednesday
2. Sunday
3. Tuesday
4. Monday

Question ID : **7193992990**
Status : **Answered**
Chosen Option : **3**

Q.11 Select the option that is related to the third term in the same way as the second term is related to the first term.

Horse : Jockey :: Car : ?

Ans
1. Brake
2. Steering
3. Chauffeur
4. Mechanic

Question ID : **7193992982**
Status : **Answered**
Chosen Option : **1**

Q.12 The unit's digit in the result of $(41)^{20} + (23)^{41} - 27^{18}$ is:

Ans
1. 3

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

2. 4

3. 5

4. 9

Question ID : **7193992998**
Status : **Answered**
Chosen Option : **3**

Q.13 If a : b = 4 : 5 and c : b = 2 : 3, then what is the value of a : b : c?

Ans

1. 12 : 5 : 10

2. 8 : 10 : 15

3. 12 : 15 : 10

4. 15 : 10 : 8

Question ID : **7193993004**
Status : **Answered**
Chosen Option : **3**

Q.14 Select the option that is related to the third term in the same way as the second term is related to the first term.

Reading : Knowledge :: Work : ?

Ans

1. Engagement

2. Experience

3. Employment

4. Experiment

Question ID : **7193992983**
Status : **Answered**
Chosen Option : **2**

Q.15 What is the sum of digits of the least number that should be subtracted from 839648 to make it a perfect square?

Ans

1. 12

2. 15

3. 14

4. 16

Question ID : **7193992996**
Status : **Answered**
Chosen Option : **4**

Q.16 किसी कार्य को करने में A की दक्षता B की दक्षता से 30% कम है। दोनों एक साथ काम करने पर वे 20 दिनों में किसी कार्य का एक निश्चित भाग पूरा कर सकते हैं। A अकेले उस काम का 70% भाग कुल कितने दिनों में पूरा करेगा?

Ans

1. 34

2. 35

3. 36

4. 32

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193993010**
Status : **Answered**
Chosen Option : **2**

Q.17 Two vessels A and B contain spirit and water in the ratio 3 : 4 and 5 : 8 respectively. Their contents are mixed in the ratio 7 : 13. In 200 ml of this solution, how much water should be mixed to get a solution containing spirit and water in the ratio 4 : 9?

Ans

✗ 1. 56 ml
✓ 2. 60 ml
✗ 3. 49 ml
✗ 4. 42 ml

Question ID : **7193993008**
Status : **Answered**
Chosen Option : **1**

Q.18 Ram's mother is also my sister's mother. How is Ram related to me?

Ans

✓ 1. Brother
✗ 2. Uncle
✗ 3. Cousin
✗ 4. Sister

Question ID : **7193992992**
Status : **Answered**
Chosen Option : **1**

Q.19 निम्नलिखित में से उस विकल्प का चयन करें जो तीसरे पद से ठीक उसी प्रकार संबंधित है, जिस प्रकार दूसरा पद पहले पद से संबंधित है।

मानव : नाक :: मछली : ?

Ans

✗ 1. फिन
✓ 2. गलफड़ा
✗ 3. फेफड़े
✗ 4. स्केल्स

Question ID : **7193992981**
Status : **Answered**
Chosen Option : **2**

Q.20 Arrange the following words in the order in which they appear in an English dictionary.

Funny	Fantastic	Fictitious	Frivolous	Fickle
5	1	3	2	4

Ans

✗ 1. 1, 3, 4, 2, 5
✗ 2. 1, 5, 2, 4, 3
✗ 3. 1, 2, 4, 3, 5
✓ 4. 1, 4, 3, 2, 5

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193992984**
Status : **Answered**
Chosen Option : **4**

Q.21 Select the option that will replace the question mark (?) in the following series.

21, 32, 43, ? , 65 ,76

Ans

✗ 1. 66
✓ 2. 54
✗ 3. 50
✗ 4. 62

Question ID : **7193992985**
Status : **Answered**
Chosen Option : **2**

Q.22 Arjun is facing towards the south. From there, he walks 15 m towards the east, then 20 m towards the north, then 15 m towards the east and then 20 m towards the north to reach point B. What is the shortest distance between his starting point and point B?

Ans

✓ 1. 50 m
✗ 2. 70 m
✗ 3. 25 m
✗ 4. 60 m

Question ID : **7193992993**
Status : **Answered**
Chosen Option : **1**

Q.23 The HCF of two numbers is 18 and their product is 13608. If both are three-digit numbers, what is the sum of their reciprocals?

Ans

✗ 1. $\frac{15}{756}$
✗ 2. $\frac{15}{378}$
✓ 3. $\frac{13}{756}$
✗ 4. $\frac{13}{378}$

Question ID : **7193993002**
Status : **Answered**
Chosen Option : **1**

Q.24 A sum of ₹ 16,600 is invested at the rate of 10 % per annum, interest being compounded half yearly, for 15 months. What is the percentage increase in the sum at the end of 15 months, correct to one decimal place?

Ans

✗ 1. 12.6 %
✓ 2. 13 %
✗ 3. 12.8 %
✗ 4. 13.2 %

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193993005**
Status : **Answered**
Chosen Option : **1**

Q.25 In a code language, SUN is written as NUS. How will MAT be written as in that language?

Ans
✗ 1. MAT
✗ 2. TUM
✓ 3. TAM
✗ 4. MUT

Question ID : **7193992987**
Status : **Answered**
Chosen Option : **3**

Q.26 Five friends, Avanti, Vishakha, Kiran, Deena and Hansika, are sitting around a circular table facing the centre. Vishakha is sitting second to the right of Deena. Avanti is sitting third to the left of Kiran, who is not sitting immediately next to Hansika. Who is sitting to the immediate right of Deena?

Ans
✗ 1. Avanti
✗ 2. Hansika
✗ 3. Vishakha
✓ 4. Kiran

Question ID : **7193992994**
Status : **Answered**
Chosen Option : **1**

Q.27 If '+' means 'multiplication', '–' means 'division', '*' means 'addition' and '/' means 'subtraction', then what will be the value of the following expression?

190 – 19 + 6 * 8 / 3

Ans
✗ 1. 380
✓ 2. 65
✗ 3. 155
✗ 4. 472

Question ID : **7193992989**
Status : **Answered**
Chosen Option : **2**

Q.28 The average of 19 numbers is 72. The average of the first 10 numbers is 65 and the average of the last 10 numbers is 74.

If the 10^{th} number is excluded, what is the average of the remaining numbers, correct to one decimal place?

Ans
✗ 1. 75.3
✗ 2. 74.6
✗ 3. 75.1
✓ 4. 74.8

Question ID : **7193993006**
Status : **Answered**
Chosen Option : **1**

Q.29

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Study the following sequence carefully and select the number that will correctly replace the question mark (?) in it.

628 : 16 , 593 : 17 , 495 : 18 , 315 : ?

Ans
1. 29
2. 09
3. 10
4. 15

Question ID : **7193992986**
Status : **Answered**
Chosen Option : **1**

Q.30 Sakshi is the wife of Nilesh. Ravi is the only grandson of Saroj, who is the wife of Dinesh and Mother-in-law of Sakshi.
How is Nilesh related to Dinesh?

Ans
1. Son
2. Nephew
3. Son-in-law
4. Grandson

Question ID : **7193992995**
Status : **Answered**
Chosen Option : **1**

Section : **Teaching Aptitude**

Q.1 भारत सरकार की निम्न में से कौन सी योजना का उद्देश्य मदरसों की गुणवत्ता में उस सीमा तक सुधार लाना है जिससे वहां के बच्चे औपचारिक शिक्षा के विषयों में राष्ट्रीय शिक्षा प्रणाली के मानकों के अनुरूप शिक्षा प्राप्त कर सकें?

Ans
1. NIOS
2. SPQEM
3. IDMI
4. NAS

Question ID : **7193993016**
Status : **Answered**
Chosen Option : **1**

Q.2 Anoopa uttered the first word at the age of 11 months and began to play alone with her doll at the age of 2 years. These schedules of development are called:

Ans
1. stepwise development
2. milestones of development
3. learning phases
4. growth phases

Question ID : **7193993011**
Status : **Answered**
Chosen Option : **4**

Q.3 Mary is a seventh grade teacher. She has a unique ability to sense the feelings and experiences of her students and fully appreciates them as if they are her feelings. What is the correct term that can be used to describe Mary's personality?

Ans
1. Reflective

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 2. High acceptance

✓ 3. Empathetic

✗ 4. Genuine

Question ID : **7193993030**
Status : **Answered**
Chosen Option : **3**

Q.4 The processing of cognition influenced by stored knowledge brought through senses is called:

Ans

✗ 1. lateral processing

✗ 2. sideways processing

✓ 3. top-down processing

✗ 4. bottom-down processing

Question ID : **7193993014**
Status : **Answered**
Chosen Option : **3**

Q.5 Which of the following is NOT a factor affecting social development?

Ans

✗ 1. Imitation and identification

✗ 2. Socio-economic status

✓ 3. Evolutionary impact

✗ 4. School experiences

Question ID : **7193993013**
Status : **Answered**
Chosen Option : **3**

Q.6 Which of the following should be an objective of teaching social science at secondary level?

Ans

✗ 1.
To develop in the children skills of observation, identification and classification

✗ 2.
To develop in the children an understanding about the earth as the habitat of humankind and other forms of life

✗ 3.
To sensitise the children to social issues and develop in them a respect for difference and diversity

✓ 4.
To enable children to critically examine social and economic issues and challenges like poverty, child labour, destitution, illiteracy and various other dimensions of inequality

Question ID : **7193993026**
Status : **Answered**
Chosen Option : **3**

Q.7 Teaching about the currency used by the Cholas by showing a coin of that time kept in a museum in the real time is an example of _____ teaching.

Ans

✗ 1. Diorama

✓ 2. Realia

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 3. working model

✗ 4. sectional model

Question ID : **7193993028**
Status : **Answered**
Chosen Option : **2**

Q.8 Which of the following instruments is used to measure attention span?

Ans

✓ 1. Tachistoscope

✗ 2. Kinetoscope

✗ 3. Stereoscope

✗ 4. Stroboscope

Question ID : **7193993019**
Status : **Answered**
Chosen Option : **1**

Q.9 A student trying to solve a mathematical problem to get 'A' grade in his assignment is an example of _____. Identify the type of attention as described by psychologist Ross.

Ans

✗ 1. non-volitional attention

✗ 2. focused attention

✗ 3. involuntary attention

✓ 4. volitional attention

Question ID : **7193993018**
Status : **Answered**
Chosen Option : **1**

Q.10 When the function of a language is to cause or prevent actions, it is called the _____ function of a language.

Ans

✓ 1. directive

✗ 2. expressive

✗ 3. explorative

✗ 4. informative

Question ID : **7193993020**
Status : **Answered**
Chosen Option : **3**

Q.11 Which of the following is the first law or primary law of learning as per Thorndike?

Ans

✗ 1. Law of Multiple Response

✗ 2. Law of Exercise

✗ 3. Law of Effect

✓ 4. Law of Readiness

Question ID : **7193993017**
Status : **Answered**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Chosen Option : **2**

Q.12 Who quoted the following on education?

"Education which will offer the tools whereby one can live for the divine, for the country, for oneself and for others and this must be the ideal of every school which calls itself national."

Ans

✗ 1. Rabindranath Tagore

✓ 2. Sri Aurobindo

✗ 3. Swami Vivekananda

✗ 4. Mahatma Gandhi

Question ID : **7193993015**
Status : **Answered**
Chosen Option : **3**

Q.13 Anil, a 4-year-old, looks at two jars meant to be filled with candies. One is a tall, thin jar and the other one is a short, wide jar. Equal number of candies are filled in each of these jars. Anil infers that the tall, thin jar has more candies than the short, wide one. Which of the following aspects has Anil NOT acquired as per Piaget?

Ans

✗ 1. Social concept

✗ 2. Memory

✗ 3. Imagination

✓ 4. Concept of conservation

Question ID : **7193993012**
Status : **Answered**
Chosen Option : **4**

Q.14 While teaching science to students, knowledge about cognitive tasks, including appropriate contextual and conditional knowledge, falls under _____.

Ans

✗ 1. conceptual knowledge

✓ 2. metacognitive knowledge

✗ 3. factual knowledge

✗ 4. procedural knowledge

Question ID : **7193993027**
Status : **Answered**
Chosen Option : **1**

Q.15 The first step in the acquisition of a language is through:

Ans

✗ 1. writing

✓ 2. listening

✗ 3. speaking

✗ 4. reading

Question ID : **7193993022**
Status : **Answered**
Chosen Option : **2**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Q.16 Which of the following is a NOT a characteristic of a usable hypothesis?

Ans
1. It should be closest to things observable.
2. It should be capable of being tested.
3. It should have conceptual clearness.
4. It has to be lengthy with high vocabulary usage.

Question ID : **7193993029**
Status : **Answered**
Chosen Option : **4**

Q.17 Identify the model of inclusive education in which a student is included during regular education classroom instruction to provide the student appropriate interaction with non-disabled peers. The student is given shortened assignments.

Ans
1. Pull-out (resource) model
2. Self-contained model
3. Social mainstreaming model
4. Non-academic model

Question ID : **7193993025**
Status : **Answered**
Chosen Option : **3**

Q.18 Which of the following attributes of educational objectives of teaching science falls under the psychomotor domain?

Ans
1. Receiving
2. Responding
3. Articulation
4. Valuing

Question ID : **7193993023**
Status : **Answered**
Chosen Option : **3**

Q.19 किसी भाषा की उप-व्यवस्था जो वाक्यांशों और वाक्यों को बनाने के लिए शब्द क्रम और शब्द संयोजनों के नियमों से संबंधित है, _____ रूप में जाना जाता है।

Ans
1. शब्दार्थ विज्ञान
2. वाक्य-विन्यास
3. स्वर-विज्ञान
4. शब्द संरचना

Question ID : **7193993021**
Status : **Answered**
Chosen Option : **4**

Q.20 मौजूदा लिंग भेद और मुद्दों को समझने और उन्हें रणनीतियों व कार्यों में शामिल करने की क्षमता को _____ कहा जाता है।

Ans
1. लैंगिक संवेदनशीलता

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 2. लैंगिक निष्पक्षता

✗ 3. लैंगिक जानकारी

✗ 4. लैंगिक समानता

Question ID : **7193993024**
Status : **Answered**
Chosen Option : **1**

Section : **Concerned Subject Knowledge**

Q.1 The induced e.m.f in a conductor is:

Ans

✓ 1. directly proportion to the rate of change of flux

✗ 2.
It is not inversely or directly proportion to the rate of change of flux.

✗ 3.
directly proportional to the total flux associated with the conductor

✗ 4. inversely proportion to the rate of change of flux

Question ID : **7193993072**
Status : **Answered**
Chosen Option : **1**

Q.2 A body at 15000 K emits maximum energy at a wavelength of 20000 Å. If the sun emits maximum energy at a wavelength of 5500 Å, what would be the temperature of the sun?

Ans

✓ 1. 5454 K

✗ 2. 4000 K

✗ 3. 3500 K

✗ 4. 8000 K

Question ID : **7193993081**
Status : **Answered**
Chosen Option : **2**

Q.3 If point charge q is placed at the centre of a cube, what is the flux linked with each face of the cube?

Ans

✗ 1. $q/8\varepsilon_0$

✗ 2. $q/3\varepsilon_0$

✗ 3. q/ε_0

✓ 4. $q/6\varepsilon_0$

Question ID : **7193993055**
Status : **Answered**
Chosen Option : **4**

Q.4 The output of a NOR gate is HIGH if _____.

Ans

✓ 1. all inputs are low

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 2. any input is low

✗ 3. any input is high

✗ 4. all inputs are high

Question ID : **7193993087**
Status : **Answered**
Chosen Option : **1**

Q.5 If a magnetic needle is kept in a non-uniform magnetic field, it experiences:

Ans

✗ 1. a force but not a torque

✗ 2. neither a force nor a torque

✓ 3. a force and torque

✗ 4. a torque but not a force

Question ID : **7193993063**
Status : **Answered**
Chosen Option : **3**

Q.6 In a dielectric, the polarization is:

Ans

✗ 1. an exponential function of the applied electric field

✗ 2. not a linear, square or an exponential function of the applied electric field

✗ 3. a square function of the applied electric field

✓ 4. a linear function of the applied electric field

Question ID : **7193993056**
Status : **Answered**
Chosen Option : **4**

Q.7 The prefix 'pico' is equivalent to:

Ans

✓ 1. 10^{-12}

✗ 2. 10^{-10}

✗ 3. 10^{-14}

✗ 4. 10^{-15}

Question ID : **7193993031**
Status : **Answered**
Chosen Option : **1**

Q.8 A body of mass 3 kg, moving along a straight line, splits into two parts of mases 1 kg and 2 kg due to an internal explosion which generates a kinetic energy E. If after the explosion, the two parts move along the same line as before with a relative speed of $\sqrt{30}\text{ms}^{-1}$, then E is equal to:

Ans

✓ 1. 10 J

✗ 2. 20 J

✗ 3. 15 J

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 4. 5 J

Question ID : **7193993039**
Status : **Answered**
Chosen Option : **2**

Q.9 A step-up transformer with an 1 : 8 turn ratio has 60 Hz, 120 V across the primary. The load in the secondary is 10^4 Ohm. The current in the secondary is:

Ans
✗ 1. 12 mA
✗ 2. 1.2 A
✗ 3. 0.96 A
✓ 4. 96 mA

Question ID : **7193993070**
Status : **Answered**
Chosen Option : **4**

Q.10 Two soap bubbles P and Q, both spherical, having diameters 6 cm and d cm, coalesce. Thus, they have one portion as a common surface of radius of curvature 12 cm. Find the value of d.

Ans
✗ 1. 10
✓ 2. 8
✗ 3. 11
✗ 4. 9

Question ID : **7193993050**
Status : **Answered**
Chosen Option : **2**

Q.11 Electrons can be accelerated to very high energies by means of:

Ans
✓ 1. cetatron
✗ 2. cyclotron
✗ 3. synchrotron
✗ 4. metatron

Question ID : **7193993064**
Status : **Answered**
Chosen Option : **2**

Q.12 In a game of tug of war, at a particular stage, team A pulls team B with a force F and team B pulls team A with a force F. The tension in the rope is:

Ans
✓ 1. F
✗ 2. 2F
✗ 3. $\sqrt{2}$F
✗ 4. 0

Question ID : **7193993036**
Status : **Answered**
Chosen Option : **2**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Q.13 As force is to torque, mass is to:

Ans

✗ 1. rotational K.E.

✗ 2. radius of gyration

✗ 3. angular momentum

✓ 4. moment of inertia

Question ID : **7193993044**
Status : **Answered**
Chosen Option : **2**

Q.14 AB is the arc of a circle of radius R whose centre is at O, where it subtends an angle 60°. M is the midpoint of the arc AB. The centre of mass of the arc lies at a point C on OM such that OC is equal to:

Ans

✗ 1. $\frac{3R}{2\pi}$

✓ 2. $\frac{3R}{\pi}$

✗ 3. $\frac{2R}{3\pi}$

✗ 4. $\frac{2R}{\pi}$

Question ID : **7193993042**
Status : **Answered**
Chosen Option : **4**

Q.15 On increasing the temperature of a wire, its resistance will:

Ans

✗ 1. decrease with rise in temperature

✓ 2. increase with rise in temperature

✗ 3. none of the other options

✗ 4. will remain same

Question ID : **7193993061**
Status : **Answered**
Chosen Option : **1**

Q.16 The term 'low speed' and 'high speed', as applied to logic circuits, refer to the _____.

Ans

✓ 1. propagation delay time

✗ 2. fall time

✗ 3. rise time

✗ 4. clock speed

Question ID : **7193993088**
Status : **Answered**
Chosen Option : **1**

Q.17 The isotopes of same element have:

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Ans
✔ 1. same number of proton but unequal number of neutrons
✘ 2. same number of proton and neutrons
✘ 3. unequal number of proton and neutrons
✘ 4. same number of neutrons but unequal number of protons

Question ID : **7193993089**
Status : **Answered**
Chosen Option : **1**

Q.18 Three statements are given below based on Newton's Universal Law of Gravitation:

(p) The force between two mases is directly proportional to the product of the masses.
(q) The force between two mases is inversely proportional to the square of the distance between them.
(r) The acceleration with which an apple falls towards the earth is the same as that with which the moon falls towards the earth, assuming they are at the same distance from the earth.

Identify which among these is/are correct?

Ans
✘ 1. Only (q)
✔ 2. (p),(q) and (r)
✘ 3. (p),(q) but not (r)
✘ 4. Only (p)

Question ID : **7193993046**
Status : **Answered**
Chosen Option : **2**

Q.19 In Young's double slit experiment, the slits are separated by 0.28 mm and the screen is placed 1.4 m away. The distance between the fourth bright fringe and the central bright fringe is measured to be 1.2 cm. Calculate wavelength of light used in this experiment.

Ans
✘ 1. 350 nm
✘ 2. 700 nm
✔ 3. 600 nm
✘ 4. 500 nm

Question ID : **7193993078**
Status : **Answered**
Chosen Option : **3**

Q.20 The phase difference (ϕ) and path difference (δ) are related as:

Ans
✘ 1. $\phi = (\lambda/2\pi)\,\delta$
✘ 2. $\phi = (\pi/2\lambda)\,\delta$
✘ 3. $\phi = (2\lambda/\pi)\,\delta$
✔ 4. $\phi = (2\pi/\lambda)\,\delta$

Question ID : **7193993077**
Status : **Answered**
Chosen Option : **4**

Q.21 In a series LR circuit, if the maximum current and the maximum voltage across an inductor of inductance 3 mH are 2 A and 6 V respectively, then the time constant of the circuit is:

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Ans
1. 0.6 ms
2. 0.5 ms
3. 2 ms
4. 1 ms

Question ID : **7193993068**
Status : **Answered**
Chosen Option : **4**

Q.22 Optical fibre works on the principle of:

Ans
1. interference
2. total internal reflection
3. refraction
4. double refraction

Question ID : **7193993080**
Status : **Answered**
Chosen Option : **2**

Q.23 An air-cored solenoid has 300 turns, its length is 25 cm and its cross section is 3 cm^2 . Calculate its self-inductance.

Ans
1. 0.1357 mH
2. 800 mH
3. 300 H
4. 1357 mH

Question ID : **7193993073**
Status : **Answered**
Chosen Option : **4**

Q.24 In compound microscope, the focal length of objective and eye-lenses are 1.2 cm and 3 cm respectively. If the object is put 1.25 cm away from the objective lens and the final image is formed at infinity, the magnifying power of the microscope is:

Ans
1. 250
2. 200
3. 400
4. 150

Question ID : **7193993076**
Status : **Answered**
Chosen Option : **1**

Q.25 Under the influence of a variable force, given by $F = Ax^4 + Bx^2$ (A and B are constants), acting at an angle 60° with the x-axis, a particle undergoes a displacement from (1,0) to (6,0). Here F is in newtons and the co-ordinates are in metres. Find the work done by the force in joules.

Ans
1. (777.5)A + (71.67)B
2. (1555)A + (35.83)B
3. (777.5)A + (35.83)B
4. (1555)A + (71.67)B

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193993037**
Status : **Answered**
Chosen Option : **4**

Q.26 A body is projected up a rough inclined plane of height h and inclination θ . If the velocity of projection is u, which makes the body just reach the top, then the coefficient of friction is:

Ans

✔ 1. $\left(\frac{u^2}{2gh}-1\right)\tan\theta$

✘ 2. $\left(\frac{u^2}{2gh}-1\right)\sin\theta$

✘ 3. $\left(\frac{u^2}{2gh}-1\right)\cot\theta$

✘ 4. $\left(\frac{u^2}{2gh}-1\right)\cos\theta$

Question ID : **7193993048**
Status : **Answered**
Chosen Option : **1**

Q.27 When a ray of light enters a glass slab from air:

Ans

✘ 1. its wavelength increases

✘ 2. its frequency increases

✔ 3. its wavelength decreases

✘ 4. neither wavelength nor frequency changes

Question ID : **7193993074**
Status : **Answered**
Chosen Option : **3**

Q.28 The energy stored in a capacitor of capacity c when the potential difference between the plate is v is given by:

Ans

✘ 1. $1/2v^2/c$

✘ 2. $\frac{1}{2}$ cv

✔ 3. $\frac{1}{2}cv^2$

✘ 4. $1/2c^2/v$

Question ID : **7193993058**
Status : **Answered**
Chosen Option : **3**

Q.29 An LED has a maximum drop of 1.5 V. If the supply voltage is 10 V and $R_s = 470\Omega$, then maximum value of LED current will be:

Ans

✘ 1. 20 mA

✘ 2. 16 mA

✔ 3. 18.1 mA

✘ 4. 17.5 mA

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193993083**
Status : **Answered**
Chosen Option : **1**

Q.30 The dimension of $\left(\frac{\text{Planck's constant}}{\text{Angular momentum}}\right)$ is same as that of :

Ans

✗ 1. energy

✗ 2. wavelength

✗ 3. frequency

✓ 4. angle

Question ID : **7193993032**
Status : **Answered**
Chosen Option : **4**

Q.31 If a certain transistor has $I_c = 15\ mA$ and $I_B = 167\ \mu A$, then βdc is:

Ans

✗ 1. 167

✗ 2. 0.011

✗ 3. 15

✓ 4. 90

Question ID : **7193993086**
Status : **Answered**
Chosen Option : **2**

Q.32 The radioactive disintegration constant λ of radium is 1.13×10^{-9} per sec. How much time a given sample would take to reduce $1/10^{th}$ of its original value?

Ans

✗ 1. 80.4 years

✗ 2. 30 years

✗ 3. 50 years

✓ 4. 64.5 years

Question ID : **7193993090**
Status : **Answered**
Chosen Option : **2**

Q.33 Two non-null vectors $\vec{a}$ and $\vec{b}$ are such that, $|\vec{a}+\vec{b}| = |\vec{a}-\vec{b}|$

The angle between $\vec{a}$ and $\vec{b}$ is:

Ans

✗ 1. 120°

✓ 2. 90°

✗ 3. 60°

✗ 4. 30°

Question ID : **7193993034**
Status : **Answered**
Chosen Option : **1**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Q.34 An astronomical telescope is focused on a distant star. If the distance between the objective lens and the eye piece is 2.5 m and the power of eye piece is 4D:

Ans

✗ 1. the magnifying power of an telescope is 90

✓ 2. the power of the objective lens is 0.44D

✗ 3. the focal length of the objective is 75 cm

✗ 4. the magnifying power is 10

Question ID : **7193993079**
Status : **Answered**
Chosen Option : **1**

Q.35 A sphere of radius 60 cm is charged to a potential difference of 1500 volt. Calculate charge on the sphere.

Ans

✓ 1. 1×10^{-7} C

✗ 2. 3×10^{-7} C

✗ 3. 1×10^{-5} C

✗ 4. 5×10^{-7} C

Question ID : **7193993057**
Status : **Answered**
Chosen Option : **1**

Q.36 A man running with a uniform velocity u on a straight road sees a bus just starting when it is at a distance x from him. If the acceleration of the bus is f, then what is the maximum possible value of x that would enable the man to catch the bus?

Ans

✗ 1. There is no upper limit

✗ 2. $\frac{u^2}{4f}$

✗ 3. $\frac{u^2}{f}$

✓ 4. $\frac{u^2}{2f}$

Question ID : **7193993033**
Status : **Answered**
Chosen Option : **1**

Q.37 A metallic wire has been stretched under the application of a load so that the longitudinal stress is s_1 and longitudinal strain is s_2. The elastic potential energy of the system per unit volume is:

Ans

✗ 1. $\frac{1}{2}\frac{s_1}{s_2}$

✓ 2. $\frac{1}{2}s_1 s_2$

✗ 3. $s_1 s_2$

✗ 4. $\frac{1}{2}s_1 s_2^2$

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193993049**
Status : **Answered**
Chosen Option : **2**

Q.38 What is the state of an ideal diode in the region of non-conduction?

Ans

✗ 1. Undefined

✗ 2. A short circuit

✗ 3. Unpredictable

✓ 4. An open circuit

Question ID : **7193993084**
Status : **Answered**
Chosen Option : **4**

Q.39 Two resistances, when connected in series, have a resistance of 20 Ω, and when connected in parallel, have a resistance of 4.8 Ω. Find the value of each resistance.

Ans

✗ 1. $R_1 = 10\,\Omega, R_2 = 5\,\Omega$

✓ 2. $R_1 = 12\,\Omega, R_2 = 8\,\Omega$

✗ 3. $R_1 = 4\,\Omega, R_2 = 8\,\Omega$

✗ 4. $R_1 = 5\Omega, R_2 = 12\,\Omega$

Question ID : **7193993060**
Status : **Answered**
Chosen Option : **2**

Q.40 Two Carnot engines operate in series. The first engine receives heat at 852 °C and rejects to a reservoir at t °C. The second engine receives this heat and rejects it to a reservoir at 47 °C. It is observed that the efficiencies of the engines are equal. Find the value of t.

Ans

✓ 1. 327

✗ 2. 354

✗ 3. 225

✗ 4. 281

Question ID : **7193993052**
Status : **Answered**
Chosen Option : **1**

Q.41 Permanent dipole moment consists of which of the following angular momentum?

Ans

✓ 1.
Nuclear spin angular momentum, Orbital angular momentum of electron and Electron spin angular momentum

✗ 2. Electron spin angular momentum

✗ 3. Orbital angular momentum of electron

✗ 4. Nuclear spin angular momentum

Question ID : **7193993066**
Status : **Answered**
Chosen Option : **1**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Q.42 Each diode in a centre-tapped full-wave rectifier is _____ biased and conducts for _____ of the input cycle.

Ans

✗ 1. forward, 90°

✗ 2. reverse , 90°

✓ 3. forward, 180°

✗ 4. reverse, 180°

Question ID : **7193993085**
Status : **Answered**
Chosen Option : **3**

Q.43 A ball of mass "m" is projected from the origin of co-ordinates with a velocity "u" making an angle θ with the horizontal. At the point (α, β) on the plane of the trajectory of the particle, the total mechanical energy of the ball will be:

Ans

✗ 1. $\frac{1}{2}mu^2\sin^2\theta\frac{\alpha}{\beta}$

✗ 2. $\frac{1}{2}mu^2\cos^2\theta\frac{\alpha}{\beta}$

✓ 3. $\frac{1}{2}mu^2$

✗ 4. $\frac{1}{2}mu^2\cos^2\theta$

Question ID : **7193993038**
Status : **Answered**
Chosen Option : **3**

Q.44 The quantities B, H and I are related as:

Ans

✗ 1. $B = \mu_0 I + \chi h$

✓ 2. $B = \mu_0 (H + I)$

✗ 3. $B = \mu_0 (H + I\chi)$

✗ 4. $B = \mu_0 H + I$

Question ID : **7193993067**
Status : **Answered**
Chosen Option : **1**

Q.45 A charged particle q moving with a velocity $\vec{v}$ in a magnetic field $\vec{B}$ experiences a force given by $\vec{F} = q(\vec{v} \times \vec{B})$. What is the work done by the force during a displacement $\vec{\Delta r}$ of the charged particle?

Ans

✗ 1. $qvB\Delta r$

✗ 2. $qvr\Delta B$

✓ 3. Zero

✗ 4. $q\Delta vBr$

Question ID : **7193993035**
Status : **Answered**
Chosen Option : **3**

Q.46

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Two masses 2 kg and 1 kg, which are moving along the same straight line, collide and form one single body. If a force applied to stop the masses individually before collision would bring them to rest in distances 1 m and 2 m respectively, find the distances in which the combined body would come to rest by the application of the same stopping force.

Ans
1. 1.5 m
2. 2.67 m
3. 1.75 m
4. 2.5 m

Question ID : **7193993043**
Status : **Answered**
Chosen Option : **4**

Q.47 Two similar wires vibrate in unison with a frequency 400Hz. If the tension in one of the strings increased by x% and the two wires vibrate simultaneously, then four beats are produced per second. Find the value of x.

Ans
1. 4
2. 3
3. 2.5
4. 2

Question ID : **7193993054**
Status : **Answered**
Chosen Option : **4**

Q.48 The diamagnetic susceptibility of a diamagnetic material is:

Ans
1. small and positive
2. large and negative
3. small and negative
4. large and positive

Question ID : **7193993065**
Status : **Answered**
Chosen Option : **3**

Q.49 If the ratio of intensities of two waves that produce interference pattern is 16 : 1, then the ratio of maximum and minimum intensities in the pattern is:

Ans
1. 9 : 25
2. 4 : 1
3. 1 : 4
4. 25 : 9

Question ID : **7193993075**
Status : **Answered**
Chosen Option : **4**

Q.50 Boron rods in nuclear reactors are used to:

Ans
1. absorb excess neutrons
2. absorb α-particles

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

✗ 3. speed up the reaction

✗ 4. slow down the reaction

Question ID : **7193993082**
Status : **Answered**
Chosen Option : **1**

Q.51 Which one among the following is a conservative force field?

Ans

✗ 1. Friction

✗ 2. Air resistance

✗ 3.
Force experienced by a current carrying conductor placed in a magnetic field

✓ 4. Gravitational force between the sun and a planet

Question ID : **7193993041**
Status : **Answered**
Chosen Option : **3**

Q.52 How many electrons flow per second through an electric bulb rated for 220 V, 40 watts? The charge on the electron is 1.6×10^{-19} C.

Ans

✗ 1. 2.536×10^{18}

✗ 2. 1.136×10^{16}

✗ 3. 3.336×10^{17}

✓ 4. 1.136×10^{18}

Question ID : **7193993059**
Status : **Answered**
Chosen Option : **4**

Q.53 A wire of cross-sectional area 10^{-6} m^2 is stretched between two rigid supports so that it is under a tension of 20 N. The distance between the supports is 1 m and the room temperature is 30 °C. If the temperature gets reduced to 20 °C, find the final tension. It is given that the coefficient of linear expansion and Young's Modulus of the material of the wire are $1.5 \times 10^{-5} K^{-1}$ and $2.0 \times 10^{11} Nm^{-2}$ respectively.

Ans

✗ 1. 60 N

✗ 2. 45 N

✓ 3. 50 N

✗ 4. 40 N

Question ID : **7193993051**
Status : **Answered**
Chosen Option : **1**

Q.54 The power factor in a series LCR circuit at resonance is:

Ans

✓ 1. 1

✗ 2. $1/\sqrt{2}$

✗ 3. zero

✗ 4. infinite

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Question ID : **7193993069**
Status : **Answered**
Chosen Option : **1**

Q.55 A chord is inclined at an angle θ with the vertical diameter of a vertical circle. The time of fall along this chord is:

Ans

✗ 1. proportional to $\tan\theta$

✓ 2. independent of θ

✗ 3. proportional to $\sqrt{\cos\theta}$

✗ 4. proportional to $\sqrt{\tan\theta}$

Question ID : **7193993047**
Status : **Answered**
Chosen Option : **1**

Q.56 The equation of a plane progressive harmonic wave is $y = 4\sin\frac{2\pi}{5}(3t - x)$, where x and y are in cm and t is in seconds. At a particular instant, what is the phase difference between two points which are 2.5 cm apart on the x-axis?

Ans

✗ 1. Nil

✓ 2. π

✗ 3. $\frac{3\pi}{2}$

✗ 4. $\frac{\pi}{2}$

Question ID : **7193993053**
Status : **Answered**
Chosen Option : **4**

Q.57 A rigid body capable of rolling with slipping does so down a smooth inclined plane of inclination θ and length s. The square of the velocity attained by the body at the foot of the plane is $(1.2)gs\sin\theta$. Identify the rigid body.

Ans

✗ 1. Solid cylinder

✗ 2. Hollow cylinder

✓ 3. Spherical shell

✗ 4. Solid sphere

Question ID : **7193993045**
Status : **Answered**
Chosen Option : **1**

Q.58 Calculate the flux density at the centre of the coil if there are 100 turns wound on a 25 cm long solenoid carrying a current of 3 A.

Ans

✗ 1. $3.508 \times 10^{-3}\ \text{Wb/m}^2$

✓ 2. $1.508 \times 10^{-3}\ \text{Wb/m}^2$

✗ 3. $1.508 \times 10^{-5}\ \text{Wb/m}^2$

✗ 4. $5.508 \times 10^{-4}\ \text{Wb/m}^2$

Question ID : **7193993071**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Status : **Answered**
Chosen Option : **2**

Q.59 A ball of mass 0.2 kg falls from a height 10 m on a horizontal plane and rebounds. Find the loss of K.E. due to the impact if the coefficient of restitution is 0.5. (Take $g = 10ms^{-2}$)

Ans

✗ 1. 10 J

✗ 2. 16 J

✓ 3. 15 J

✗ 4. 8 J

Question ID : **7193993040**
Status : **Answered**
Chosen Option : **3**

Q.60 Electrolysis is not applicable in the process of:

Ans

✗ 1. purification of metal

✓ 2. photography

✗ 3. electrotyping

✗ 4. electroplating

Question ID : **7193993062**
Status : **Answered**
Chosen Option : **2**

Latest Sarkari Jobs, Govt Exam Results, Vacancies and updates on one click
Know More

Prepp

Latest Sarkari jobs, Govt Exam alerts, Results and Vacancies

- Latest News and Notification
- Exam Paper Analysis
- Topic-wise weightage
- Previous Year Papers with Answer Key
- Preparation Strategy & Subject-wise Books

To know more **Click Here**

www.prepp.in