

# EAD ONLINE CLASSES

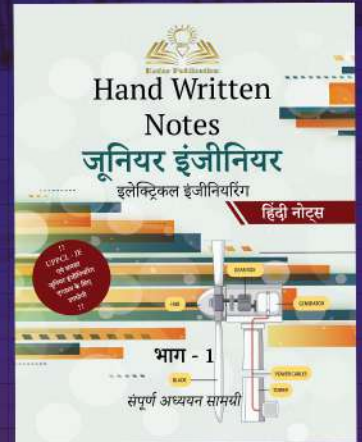
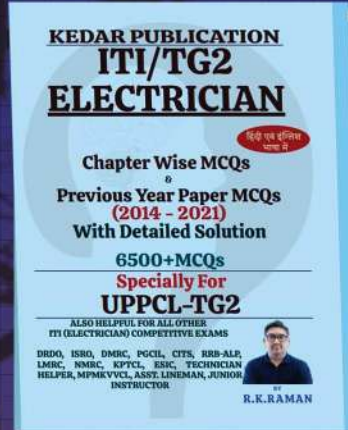
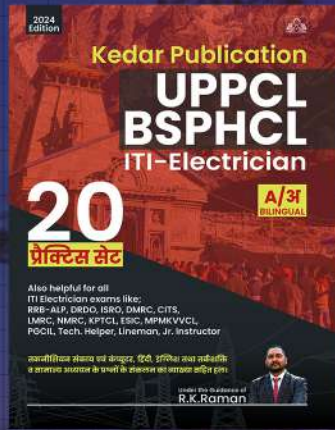
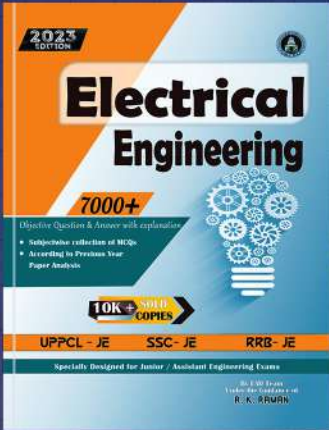
## Objective Book for

Electrical-JE

UPPCL BSPHCL

ITI-Electrician

JE Short Notes



Buy our Books at:-

eadbooks.in

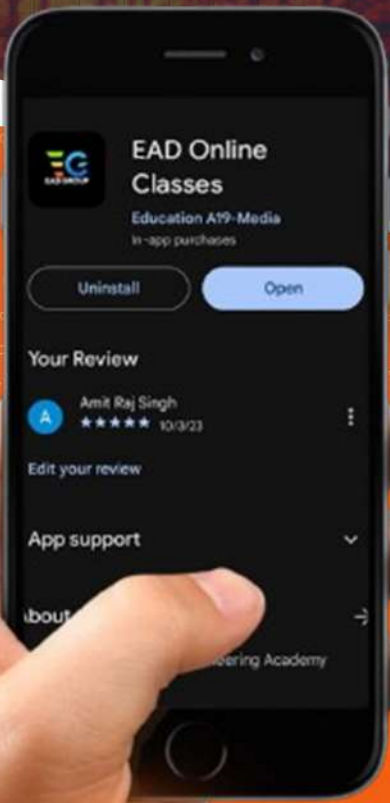
kedarpublication.com

Exam Targeted:-

UPPCL-JE, SSC-JE RRB-JE  
PGCIL-DT,DFCCIL-JE, ITI Etc.



**Raman sir**  
Electrical Engg. Expert



### LOCATION

**DEHRADUN CENTRE**

EAD Educational Group, Pithuwalan kalan, Dehradun (UK)

**PRAYAGRAJ CENTRE**

EAD Educational Group, Horizon public school, Pandey Tower, Om gayatari nagar, Near shiv chowraha, Salori Prayagraj (UP)

Contact us:-

**9389973136**

Download EAD Online Classes application on playstore

Exam Date: 05-Jan-2022

Exam Time: 12:30-14:30

Post Name: Vidyut Sahayak Junior Engineer -  
Electrical

## General Knowledge - General Knowledge

## Question No.1

Marks: 1.00

Bookmark 

Who was regarded as the Father of Communal Electorate?

- (A)  Lord Lansdowne  
(B)  Lord Curzon  
(C)  Lord Dufferin  
(D)  Lord Minto (Correct Answer)

## Question No.2

Marks: 1.00

Bookmark 

Which committee proposed for the separation of the Railway Budget from the Central Budget in 1921?

- (A)  S.P. Ganguly Committee  
(B)  Acworth Committee (Correct Answer)  
(C)  Bibek Debroy Committee  
(D)  Suresh Tendulkar Committee

## Question No.3

Marks: 1.00

Bookmark 

Where is the headquarters of the World Health Organisation located?

- (A)  Denmark  
(B)  Switzerland (Correct Answer)  
(C)  Sweden  
(D)  France

## Question No.4

Marks: 1.00

Bookmark 

To which type of microorganism does the Anthrax, that causes a fatal blood disease, belong to?

- (A)  Fungus  
(B)  Protozoa  
(C)  Virus  
(D)  Bacteria (Correct Answer)

## Question No.5

Marks: 1.00

Bookmark 

When did the '74th Constitutional Amendment' come into force?

- (A)  1st September 1998  
(B)  1st March 1995  
(C)  1st June 1993 (Correct Answer)  
(D)  1st June 1994

## Question No.6

Marks: 1.00

Bookmark 

Which one of the following is responsible for rainfall during winter in North-Western India?

- (A)  Tropical Cyclones  
(B)  Polar Easterlies  
(C)

- (C) **Western disturbances (Correct Answer)**  
(D)  Eastern Jet Stream

**Question No.7**

Marks: 1.00

Bookmark

Name the recent technology used in agriculture to silence the genes of viral pathogens.

- (A)  Genetic recombination  
(B)  Tissue culture  
(C)  **RNA interference (Correct Answer)**  
(D)  Polymerase chain reaction

**Question No.8**

Marks: 1.00

Bookmark

Where was the Khilafat Committee formed in March 1919?

- (A)  Calcutta  
(B)  **Bombay (Correct Answer)**  
(C)  Madras  
(D)  Lucknow

**Question No.9**

Marks: 1.00

Bookmark

Where was the Paramahansa Mandali founded in 1849?

- (A)  Awadh  
(B)  Bengal  
(C)  Lucknow  
(D)  **Bombay (Correct Answer)**

**Question No.10**

Marks: 1.00

Bookmark

What is the rank of India in 'Henley Passport Index (HPI) 2021'?

- (A)  80<sup>th</sup>  
(B)  **90<sup>th</sup> (Correct Answer)**  
(C)  70<sup>th</sup>  
(D)  60<sup>th</sup>

**English Knowledge - English Knowledge**

**Question No.1**

Marks: 1.00

Bookmark

Replace the underlined phrase grammatically and conceptually with the help of the given options. If the given sentence is correct then select the option 'The given sentence is correct'.

**Because it was such a bargain, Rekha couldn't** help but buy three of the low-priced pants.

- (A)  Because it was such a bargain, Rekha will be  
(B)  **The given sentence is correct (Correct Answer)**  
(C)  Because it was such an bargain, Rekha couldn't  
(D)  Because it were such a bargain, Rekha couldn't

**Question No.2**

Marks: 1.00

Bookmark

Choose the word which expresses nearly the **opposite** meaning of the given word " AESTHETIC ".

- (A)  Deal  
(B)  Calculated  
(C)  Coherence  
(D)  **Unattractive (Correct Answer)**

**Question No.3**

Marks: 1.00

Bookmark

Choose the best option from the given alternatives which can be substituted for the given word/sentence.

That which cannot be seen through

- (A)  **Opaque (Correct Answer)**
- (B)  Unique
- (C)  Transparent
- (D)  Cyclic

**Question No.4**

Marks: 1.00

Bookmark

From the given alternatives, choose the one that best expresses the meaning of the given idiom/phrase.

Turn out.

- (A)  **To arrive at an event (Correct Answer)**
- (B)  To accept a challenge
- (C)  To stay confident and positive
- (D)  To betray a partner

**Question No.5**

Marks: 1.00

Bookmark

Choose the word which best expresses the similar **meaning** of the given word "WRANGLE".

- (A)  Agreement
- (B)  Harmony
- (C)  Upgrade
- (D)  **Argument (Correct Answer)**

**Question No.6**

Marks: 1.00

Bookmark

Find the word which is correctly spelt from the given options.

- (A)  **Unanimity (Correct Answer)**
- (B)  Peculier
- (C)  Unmitigatad
- (D)  Reproache

**Question No.7**

Marks: 1.00

Bookmark

Choose the best option from the given alternatives which can be substituted for the given word/sentence.

One, who supervises in the examination hall

- (A)  **Invigilator (Correct Answer)**
- (B)  Shoal
- (C)  Epic
- (D)  Aspirant

**Question No.8**

Marks: 1.00

Bookmark

Fill in the blanks with suitable Preposition from the given alternatives.

We are going to deal \_\_\_\_\_ French language.

- (A)  on
- (B)  **with (Correct Answer)**
- (C)  about
- (D)  over

**Question No.9**

Marks: 1.00

Bookmark

Choose the word which expresses nearly the **opposite** meaning of the given word " BESET ".

- (A)  Invade
- (B)  Nudge
- (C)  Harass
- (D)  **Clarify (Correct Answer)**

**Question No.10**

Marks: 1.00

Bookmark 

Fill in the blanks with suitable Article from the given alternatives.  
I am going to write \_\_\_\_\_ letter for my friend.

- (A)  a (Correct Answer)  
(B)  No article  
(C)  an  
(D)  the

**Electrical Engineering - Electrical Engineering****Question No.1**

Marks: 1.00

Bookmark 

Which one of the following statements about fiber optic cable is CORRECT?

- (A)  Fiber optic cables are completely affected by both electromagnetic interference and radio frequency interference  
(B)  The cost of high-speed fibre optic system is much lesser than those of equivalent copper based system.  
(C)  Fiber optic cables can provide complete galvanic isolation between both ends of the cable (Correct Answer)  
(D)  Fiber optic cables are extremely over weight and very large in diameter

**Question No.2**

Marks: 1.00

Bookmark 

A 440 V, three-phase, 50 Hz source is feeding a load of 250 kVA at 0.6 pf lagging. Find the kVAR to of the capacitor bank required to improve the pf to 0.85 lag.

- (A)  407 MVAR  
(B)  207 MVAR  
(C)  307 MVAR  
(D)  107 MVAR (Correct Answer)

**Question No.3**

Marks: 1.00

Bookmark 

According to IS802:1995, the intermediate towers with suspension string can be used on

- (A)  straight runs and upto 15° line deviation  
(B)  straight runs and upto 2° line deviation (Correct Answer)  
(C)  straight runs and upto 30° line deviation  
(D)  straight runs and upto 5° line deviation

**Question No.4**

Marks: 1.00

Bookmark 

Which one of the following statements is TRUE?

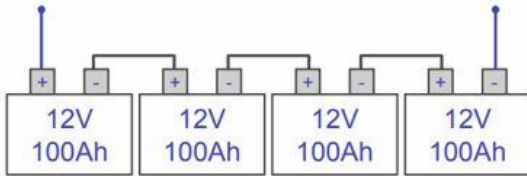
- (A)  The lightning arrester connected between the line and earth in a power system suppresses high frequency oscillations in the line  
(B)  The protection against direct lightning strokes and high voltage steep waves is provided by both the lightning arresters and ground wires (Correct Answer)  
(C)  Earthing screen provides protection against indirect lightning strokes  
(D)  The lightning arrester used for the protection of the direct lightning strock is located near the apparatus to be protected

**Question No.5**

Marks: 1.00

Bookmark

Consider the series connection of batteries as shown in Fig. The total energy storage is



- (A)  3600 Wh  
(B)  1200 Wh  
(C)  4800 Wh (Correct Answer)  
(D)  2400 Wh

Question No.6

Marks: 1.00

Bookmark

Power system protection is provided so that

- (A)  information is relayed  
(B)  damage subsequent of faults is mitigated (Correct Answer)  
(C)  faults are prevented  
(D)  economic operation of power system is achieved

Question No.7

Marks: 1.00

Bookmark

A photovoltaic panel has five modules connected in series, each module having an open-circuit voltage ( $V_{oc}$ ) of 12 V and short-circuit current ( $I_{sc}$ ) of 2A. What should be the voltage axis and current axis intercept of the IV characteristics of the photovoltaic panel?

- (A)  60 V, 10 A  
(B)  60 V, 2 A (Correct Answer)  
(C)  12 V, 10 A  
(D)  12 V, 2 A

Question No.8

Marks: 1.00

Bookmark

The size of Gas Insulated Substation (GIS) is significantly small compared to conventional substation because of

- (A)  High electronegative property of  $SF_6$  gas  
(B)  High dielectric property of  $SF_6$  gas  
(C)  High Insulation property of  $SF_6$  gas  
(D)  All of the above (Correct Answer)

Question No.9

Marks: 1.00

Bookmark

A wind turbing with 1 m long blade revolves at 450 rpm. How far does the tip of the blade travel in 1 hr?

- (A)  169.65 km (Correct Answer)  
(B)  339.25 km  
(C)  254.45 km  
(D)  84.85 km

Question No.10

Marks: 1.00

Bookmark

A current limiting reactor is installed in a power system to ..... the short-circuit current by adding a reactive-based impedance and thus ..... the voltage drop across their terminals during the fault.

- (A)  increase, increase  
(B)  decrease, increase (Correct Answer)  
(C)  increase, decrease  
(D)  decrease, decrease

Question No.11

Marks: 1.00

Bookmark 

What is the recommended width of right of way (ROW) for the transmission line of 220 kV?

- (A)  35 meters (Correct Answer)  
(B)  18 meters  
(C)  52 meters  
(D)  85 meters

**Question No.12**

Marks: 1.00

Bookmark 

A 25 kVA, 200/100 V three-phase transformer has a  $0.2 \Omega$  leakage reactance referred to the low voltage side. Calculate the per-unit leakage impedance referred to the high voltage side of the transformer. Use the transformer ratings as base values.

- (A)   $j2$  p.u.  
(B)   $j0.5$  p.u. (Correct Answer)  
(C)   $j0.125$  p.u.  
(D)   $j0.03125$  p.u.

**Question No.13**

Marks: 1.00

Bookmark 

According to the National Electrical Code® (NEC) Article 408, the individual overcurrent protection must be provided for a lighting and appliance branch-circuit panelboard of not more than ..... Set (s) of circuit breakers or fuses.

- (A)  one  
(B)  two (Correct Answer)  
(C)  three  
(D)  four

**Question No.14**

Marks: 1.00

Bookmark 

A 500 kVA transformer has an efficiency of 95% at full load and also at 60% of full load, both at unity power factor. Determine the efficiency of the transformer at 3/4th full load and unity power factor.

- (A)  92.15%  
(B)  97.15%  
(C)  95.15% (Correct Answer)  
(D)  93.15%

**Question No.15**

Marks: 1.00

Bookmark 

The nearest kVAR compensation required for improving the power factor of a 500 kW load from 0.8 lag to unity power factor is

- (A)  250 kVAR  
(B)  750 kVAR  
(C)  500 kVAR  
(D)  375 kVAR (Correct Answer)

**Question No.16**

Marks: 1.00

Bookmark 

NFPA 70E provides guidance for which of the following?

- (A)  Electrical Safety in the Workplace (Correct Answer)  
(B)  PV Installation Best Practices  
(C)  Electrical System Design  
(D)  Roof Safety and Worker protection

**Question No.17**

Marks: 1.00

Bookmark 

Which of the following is the major component of bio-gas?

- (A)  CNG
- (B)  LPG
- (C)  **Methane (Correct Answer)**
- (D)  Hydrogen sulphide

**Question No.18**

Marks: 1.00

Bookmark

If the secondary burden of a current transformer is 25 VA and the secondary current is 5 A, then the impedance of the connected load is

- (A)  0.1  $\Omega$
- (B)  125  $\Omega$
- (C)  5  $\Omega$
- (D)  **1  $\Omega$  (Correct Answer)**

**Question No.19**

Marks: 1.00

Bookmark

The overhead line insulators should have ..... mechanical strength and ..... ratio of puncture strength to flashover.

- (A)  low, high
- (B)  high, low
- (C)  low, low
- (D)  **high, high (Correct Answer)**

**Question No.20**

Marks: 1.00

Bookmark

..... is a collection of computers, peripherals, and appropriate input / output systems that enable the operators to monitor and control the state of the power system.

- (A)  Communication System
- (B)  Human-Machine Interface
- (C)  **Master Station (Correct Answer)**
- (D)  Remote Terminal Units

**Question No.21**

Marks: 1.00

Bookmark

The magneto-optical current transformer (MOCT) measures the electric current by means of .....

- (A)  Peltier effect
- (B)  Piezoelectric effect
- (C)  **Faraday effect (Correct Answer)**
- (D)  Seebeck effect

**Question No.22**

Marks: 1.00

Bookmark

Most aircraft storage batteries are rated according to

- (A)  the maximum number of voltamperes (power) the battery can furnish to a load.
- (B)  battery voltage and volts per cell
- (C)  open-circuit voltage and closed-circuit voltage.
- (D)  **voltage and ampere-hour capacity. (Correct Answer)**

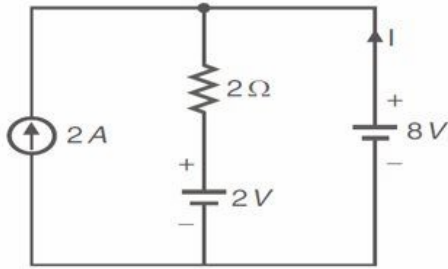
**Question No.23**

Marks: 1.00

Bookmark



Determine the value of current 'I', in the circuit shown in Fig.



- (A)  4A
- (B)  3A
- (C)  1A (Correct Answer)
- (D)  2A

**Question No.24**

Marks: 1.00

Bookmark

Lead-acid batteries are ..... and thus, considered as ..... batteries.

- (A)  rechargeable, secondary (Correct Answer)
- (B)  rechargeable, primary
- (C)  not rechargeable, secondary
- (D)  not rechargeable, primary

**Question No.25**

Marks: 1.00

Bookmark

National Electric Code (NEC) requires bending radius clearance for ..... to insure the installing electrician has adequate room to make their power connections.

- (A)  incoming power connection only
- (B)  outgoing power connection only
- (C)  both incoming and outgoing power connections (Correct Answer)
- (D)  None of the above

**Question No.26**

Marks: 1.00

Bookmark

Which of the following relays is provided as the primary protection of transmission lines?

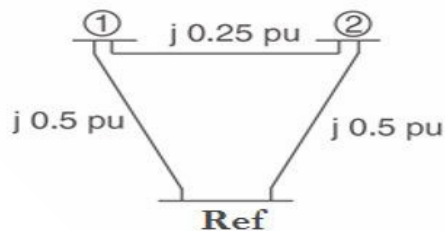
- (A)  Distance relay (Correct Answer)
- (B)  Overcurrent relay
- (C)  IDMT relay
- (D)  Buchholz relay

**Question No.27**

Marks: 1.00

Bookmark

A single line diagram of a power system is shown in Fig. The diagonal elements of the  $Z_{bus}$  matrix are



- (A)   $Z_{11} = j0.3$  pu and  $Z_{22} = j0.2$  pu
- (B)   $Z_{11} = j0.2$  pu and  $Z_{22} = j0.2$  pu
- (C)   $Z_{11} = j0.3$  pu and  $Z_{22} = j0.3$  pu (Correct Answer)
- (D)   $Z_{11} = j0.2$  pu and  $Z_{22} = j0.3$  pu

**Question No.28**

Marks: 1.00

Bookmark 

An energy meter, having meter constant of 1200 rev/kWh makes 10 revolutions in 20 seconds for a constant load.

The load is

- (A)  6 kW
- (B)  0.66 kW
- (C)  0.16 kW
- (D)  **1.5 kW (Correct Answer)**

**Question No.29**

Marks: 1.00

Bookmark 

In..... topology, all the nodes including the master form a closed loop, and the messages are transmitted from node to node in one direction.

- (A)  bus
- (B)  star
- (C)  **ring (Correct Answer)**
- (D)  mesh

**Question No.30**

Marks: 1.00

Bookmark 

Pick out the correct statement.

- (A)  The electrostatic stress in underground cables is minimum at the surface of the conductor and maximum at the surface of the sheath.
- (B)  The electrostatic stress in underground cables is same at the surface of the conductor and the surface of the sheath.
- (C)  The electrostatic stress in underground cables is zero at the surface of the conductor as well as on the surface of the sheath.
- (D)  **The electrostatic stress in underground cables is maximum at the surface of the conductor and minimum at the surface of the sheath. (Correct Answer)**

**Question No.31**

Marks: 1.00

Bookmark 

The configuration of a transmission line tower depends on the

- (A)  length of the insulator assembly
- (B)  minimum clearances to be maintained between conductors and between conductor and tower
- (C)  minimum clearance of the lower conductor above the ground level
- (D)  **All of the above (Correct Answer)**

**Question No.32**

Marks: 1.00

Bookmark 

What is the effect of increase in solar irradiance level on solar PV cell open circuit voltage and short circuit current?

- (A)  **Both the open circuit voltage and short circuit current increase (Correct Answer)**
- (B)  the open circuit voltage increases and short circuit current decrease
- (C)  the open circuit voltage decreases and short circuit current increase
- (D)  Both the open circuit voltage and short circuit current decrease

**Question No.33**

Marks: 1.00

Bookmark 

The line trap in Power Line Carrier Communication comprised of a ..... resonant circuit with ..... impedance tuned to the power line carrier frequency.

- (A)  parallel, low
- (B)  series, high
- (C)  **parallel, high (Correct Answer)**
- (D)  series, low

**Question No.34**Marks:  
1.00Bookmark

Consider the power system network shown in Figure. Generator reactance and terminal voltages are given as:  $X_d' = 0.2$  p.u and  $V_t = 1.0$  p.u. Transformer reactance is  $0.1$  p.u. Infinite bus voltage is  $1.0$  p.u. Generator is feeding  $1.0$  p.u power to the infinite bus. Calculate the maximum steady-state power limit that can be transferred when the system is healthy.



- (A)  2.09 pu (Correct Answer)  
 (B)  5.29 pu  
 (C)  3.49 pu  
 (D)  5.69 pu

**Question No.35**

Marks: 1.00

Bookmark

The aims of commissioning tests of the protection scheme are to:

- (A)  ensure that the equipment is neither faulty nor damaged during transit or installation  
 (B)  ensure that all installation work has been carried out correctly  
 (C)  prove the correct functioning of the protection system as a whole  
 (D)  all of the above (Correct Answer)

**Question No.36**

Marks: 1.00

Bookmark

Capacitors of the capacitor bank are connected in parallel to achieve ..... capacitance values or in series to achieve ..... capacitance values.

- (A)  lower, higher  
 (B)  higher, lower (Correct Answer)  
 (C)  lower, infinite  
 (D)  zero, infinite

**Question No.37**

Marks: 1.00

Bookmark

..... is the technology used to distribute service requests to resources.

- (A)  Load forecasting  
 (B)  Load performing  
 (C)  Load balancing (Correct Answer)  
 (D)  Load scheduling

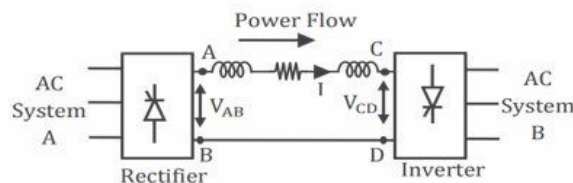
**Question No.38**

Marks:

1.00

Bookmark

Power is transferred from system A to system B by an HVDC link as shown in the fig. If the voltages  $V_{AB}$  and  $V_{CD}$  are as indicated in the fig., and  $I > 0$ , then



- (A)   $V_{AB} > 0, V_{CD} < 0$   
 (B)   $V_{AB} > 0, V_{CD} > 0, V_{AB} > V_{CD}$  (Correct Answer)  
 (C)

$$V_{AB} < 0, V_{CD} < 0, V_{AB} > V_{CD}$$

(D)   $V_{AB} > 0, V_{CD} > 0, V_{AB} < V_{CD}$

**Question No.39**

Marks: 1.00

Bookmark

Ferranti effect is the phenomenon where the sending end voltage is ..... the receiving end voltage, when a long transmission line is operating under ..... conditions.

- (A)  **lesser than, no-load (Correct Answer)**  
(B)  equal to, no-load  
(C)  greater than, no-load  
(D)  lesser than, full-load

**Question No.40**

Marks: 1.00

Bookmark

The main objective of series compensation is to

- (A)  **reduce the voltage drop over long distance (Correct Answer)**  
(B)  reduce the fault currents  
(C)  improve the power factor  
(D)  all of the above

**Question No.41**

Marks: 1.00

Bookmark

Voltage transformers are designed to have ..... leakage reactance and ..... magnetizing current.

- (A)  high, high  
(B)  low, high  
(C)  **low, low (Correct Answer)**  
(D)  high, low

**Question No.42**

Marks: 1.00

Bookmark

The algorithm preferred for estimation of fault current in a numerical relay to achieve the best accuracy is

- (A)  3-Sample Algorithm  
(B)  Half-cycle Fourier Algorithm  
(C)  **Full-cycle Fourier Algorithm (Correct Answer)**  
(D)  None of the above

**Question No.43**

Marks: 1.00

Bookmark

..... are added in the earth pit for improving conductivity of the soil.

- (A)  **Salt and charcoal (Correct Answer)**  
(B)  Graphite and Silver  
(C)  Graphite and magnesium  
(D)  Aluminum and Iron

**Question No.44**

Marks: 1.00

Bookmark

Shunt connected, fixed or mechanically switched capacitors are applied to \_\_\_\_\_

- (A)  maintain voltage levels under light load conditions  
(B)  **maintain voltage levels under heavy load conditions (Correct Answer)**  
(C)  maintain voltage levels under no load conditions  
(D)  maintain voltage levels under any load conditions

**Question No.45**

Marks: 1.00

Bookmark

The fiber-optic cables available for installation in high-voltage lines are:

- (i) Encased within the ground wire.
  - (ii) Wrapped around the phase conductor or the ground wire.
  - (iii) Contained in an all dielectric self supporting cable.
- (A)  (i) and (ii) are correct
- (B)  (ii) and (iii) are correct
- (C)  (i) and (iii) are correct
- (D)  **All (i), (ii) and (iii) are correct (Correct Answer)**

**Question No.46**

Marks: 1.00

Bookmark

Consider the following statements and choose the correct option.

**Statement 1:** The isolator switch is always used to open the electrical circuit in the no-load condition.

**Statement 2:** The isolators used in the transmission lines are capable of breaking the charging current.

- (A)  Statement 1 is TRUE and Statement 2 is FALSE
- (B)  **Both Statement 1 and Statement 2 are TRUE (Correct Answer)**
- (C)  Statement 1 is FALSE and Statement 2 is TRUE
- (D)  Both Statement 1 and Statement 2 are FALSE

**Question No.47**

Marks: 1.00

Bookmark

A battery with a capacity of 1800 mAh is to be used in a device that draws 120 mA continuously. Ignoring possible loss in capacity as a result of load current magnitude, how long should the battery be able to deliver power?

- (A)  10 hours
- (B)  **15 hours (Correct Answer)**
- (C)  20 hours
- (D)  5 hours

**Question No.48**

Marks: 1.00

Bookmark

Which of the following statements is true?

- (A)  An alkaline manganese battery is used in torches and is classified as hazardous
- (B)  **A lithium battery is used in watches and is not rechargeable (Correct Answer)**
- (C)  A nickel-cadmium battery is not rechargeable and is classified as hazardous
- (D)  A zinc-carbon battery is rechargeable and is not classified as hazardous

**Question No.49**

Marks: 1.00

Bookmark

In comparison to Air insulated substation Gas Insulated Substation (GIS) are more advantageous due to

- (A)  **Compactness, Reliability, low Corona & low EMC (Correct Answer)**
- (B)  Lower cost, Reliability, more Corona & high EMC
- (C)  Lower cost, more space, no Corona & low EMC
- (D)  Compactness, No maintenance, issues with Corona & high EMC

**Question No.50**

Marks: 1.00

Bookmark

According to IE-1957, the minimum clearance between two 132 kV electrical lines crossing each other is about .....

- (A)  5.4 meter
- (B)  1 meter
- (C)  **3 meter (Correct Answer)**
- (D)  4.5 meter

**Question No.51**

Marks: 1.00

Bookmark

A purely reactive compensator cannot maintain both constant ..... and ..... at the same time.

- (A)  Current, unity power factor

- (B)  Voltage, unity power factor (Correct Answer)
- (C)  Voltage, current
- (D)  Current, 0.8 power factor

**Question No.52**

Marks: 1.00

Bookmark

Which of the following can be considered as the elements of cyber security?

- (A)  Application Security
- (B)  Operational Security
- (C)  Network Security
- (D)  All of the above (Correct Answer)

**Question No.53**

Marks: 1.00

Bookmark

Which one of the following statements is TRUE?

- (A)  Numerical protective system require significantly more panel space than the space required by electromechanical/static systems that provide similar functions.
- (B)  Numerical relays have the ability to perform self-monitoring and self-testing functions, which were not available in electromechanical/static relays. (Correct Answer)
- (C)  Numerical relays place significantly more burden on instrument transformers than the burden placed by electromechanical/static relays.
- (D)  The cost per function of numerical relays is higher compared to the cost of their electromechanical and static counterparts.

**Question No.54**

Marks: 1.00

Bookmark

The rate of change of wind speed with height is called

- (A)  wind rose
- (B)  wind run
- (C)  wind regime
- (D)  wind shear (Correct Answer)

**Question No.55**

Marks: 1.00

Bookmark

In a single phase 'm' level diode-clamped multilevel inverter, the number of DC-link capacitors needed is

- (A)  m-1 (Correct Answer)
- (B)  m+1
- (C)  m
- (D)  2(m-1)

**Question No.56**

Marks: 1.00

Bookmark

Which of the following statement(s) is/are TRUE?

- (i) Lead-acid batteries must be stored in a bunded, cool, well-ventilated area
- (ii) Lead-acid batteries must be stored Away from ignition sources

- (A)  (i) only
- (B)  (ii) only
- (C)  Both (i) and (ii) (Correct Answer)
- (D)  None of the above

**Question No.57**

Marks: 1.00

Bookmark

MATLAB Simulink is useful to simulate and analyze \_\_\_\_\_

- (A)  Linear Systems
- (B)  Non Linear Systems
- (C)  dynamic system configured in continuous time, sampled time or mixture of both
- (D)  All of the above (Correct Answer)

**Question No.58**

Marks: 1.00

Bookmark 

A 3-phase star/delta connected transformer of 220/11000 line volts is provided with Merz-Price circulating-current protection. The protective transformers on 220 V side have a current ratio 600/5. What should be the CT ratio on 11000 V side? Assume that the line current on 220 V side is 600 A.

- (A)   $12 : 5\sqrt{3}$  (Correct Answer)
- (B)   $5 : \frac{12}{\sqrt{3}}$
- (C)   $5 : 12\sqrt{3}$
- (D)   $12 : 5$

**Question No.59**

Marks: 1.00

Bookmark 

Battery charging rooms should be well ventilated because the charging process produces

- (A)  highly combustible oxygen
- (B)  corrosive gases
- (C)  highly poisonous gas
- (D)  explosive gases (Correct Answer)

**Question No.60**

Marks: 1.00

Bookmark 

The current transformers (CTs) are used to extend the range of .....

- (A)  AC ammeters only (Correct Answer)
- (B)  DC ammeters only
- (C)  both AC and DC ammeters
- (D)  both AC and DC voltmeters

**Computer Knowledge - Computer Knowledge****Question No.1**

Marks: 1.00

Bookmark 

\_\_\_\_\_ used a TCP protocol weakness combined with a common computer-trust arrangement to gain privileged login access to several computers at UCSD.

- (A)  Code-Execution Intrusion
- (B)  The stack buffer overflow
- (C)  Christmas Day attack (Correct Answer)
- (D)  Morris Worm

**Question No.2**

Marks: 1.00

Bookmark 

\_\_\_\_\_ is a type of kernel in which user services and kernel services are implemented under same address space.

- (A)  Exokernels
- (B)  Master kernel
- (C)  Conmonkernels
- (D)  Monolithic Kernel (Correct Answer)

**Question No.3**

Marks: 1.00

Bookmark 

\_\_\_\_\_ type of chart lets you show trends over time like months, year and days in Excel.

- (A)  Map chart
- (B)  Pie chart
- (C)  Line chart (Correct Answer)

(D)  Hierarchy chart

**Question No.4**

Marks: 1.00

Bookmark

Who refined the binary number system, which is the foundation of nearly all digital electronic, solid-state, discrete logic computers,

- (A)  Christoph Bernhard Francke
- (B)  Robert Merrihew
- (C)  Roman Kohellor
- (D)  **Gottfried Wilhelm Leibniz (Correct Answer)**

**Question No.5**

Marks: 1.00

Bookmark

Use the \_\_\_\_\_ function to create a reference to a range that is a specified number of rows and columns away from a cell or range of cells.

- (A)  MATCH
- (B)  HLOOKUP
- (C)  **OFFSET (Correct Answer)**
- (D)  VLOOKUP

**Question No.6**

Marks: 1.00

Bookmark

\_\_\_\_\_ is a small network that is set up separately from a company's private LAN and the Internet.

- (A)  Radical Network
- (B)  Dialup Network
- (C)  **Perimeter Network (Correct Answer)**
- (D)  Trunch Network

**Question No.7**

Marks: 1.00

Bookmark

\_\_\_\_\_ are stored in memory and never written to disk, and remains active as long the process is active.

- (A)  **Non-persistent cookies (Correct Answer)**
- (B)  Persistent cookies
- (C)  Log file
- (D)  Data file

**Question No.8**

Marks: 1.00

Bookmark

The core component of an Operating system, which converts user commands into machine language is \_\_\_\_\_.

- (A)  Utilities
- (B)  **Kernel (Correct Answer)**
- (C)  API
- (D)  GUI

**Question No.9**

Marks: 1.00

Bookmark

In computing, the MSB is the bit which has the largest value in a multi-bit binary number, MSB stands for \_\_\_\_\_.

- (A)  Maximum Significant Bit
- (B)  **Most Significant Bit (Correct Answer)**
- (C)  Master Serial Bit
- (D)  Multiple Serial Bit

**Question No.10**

Marks: 1.00

Bookmark

Any two cell locations separated by a colon are known as a \_\_\_\_\_ in Excel.

- (A)  Cell Format



- (B)  Cell Styles  
(C)  Cell Range (Correct Answer)  
(D)  Cell Address

Gujarati Language and Grammar - Gujarati Language and Grammar

Question No.1

Marks: 1.00

Bookmark

"પરિધાન" શબ્દનો સમાનાર્થી શબ્દ પસંદ કરો.

- (A)  પ્રધાન  
(B)  ઉપહાર  
(C)  વસ્ત્ર (Correct Answer)  
(D)  અંતર્ધ્યાન

Question No.2

Marks: 1.00

Bookmark

"વૈયક્તિક" નો વિરુદ્ધાર્થી શબ્દ જણાવો.

- (A)  સામુદાયિક (Correct Answer)  
(B)  અંગત  
(C)  પોતાનું  
(D)  વ્યક્તિગત

Question No.3

Marks: 1.00

Bookmark

સંયુક્ત વાક્યમાં સંયોજકો તરીકે શું આવે છે?

- (A)  જેમ...તેમ  
(B)  અને, અથવા (Correct Answer)  
(C)  જો...તો,  
(D)  જ્યારે...ત્યારે

Question No.4

Marks: 1.00

Bookmark

આપેલા દ્વિરુક્ત શબ્દો પ્રમાણે યોગ્ય વિકલ્પ પસંદ કરો.

આવકજાવક: \_\_\_\_\_.

- (A)  ધમાધમ  
(B)  ધનાધન  
(C)  લેણદેણ (Correct Answer)  
(D)  વાહવાહ

Question No.5

Marks: 1.00

Bookmark

વિકલ્પોમાં આપેલા વાક્યોમાંથી કર્તરિ રચના જણાવો.

- (A)  તે કોઈનાથી રોકાયો નહિ  
(B)  મારાથી હવે ચલાશે  
(C)  શિક્ષકે વિદ્યાર્થીને ઠપકો આપ્યો (Correct Answer)  
(D)  મનોજને ઇનામ મળ્યું

Question No.6

Marks: 1.00

Bookmark

"ગુજરાતી દલિતવાર્તાઓ" કૃતિના લેખક કોણ છે?

- (A)  જોસેફ મેકવાન  
(B)  રઘુવીર ચૌધરી  
(C)  હરિશ મંગલમ્ (Correct Answer)  
(D)

(D) ચંદુ મહેરિયા

**Question No.7**

Marks: 1.00

Bookmark

"ઓહા ખૂબ ભયાનક અકસ્માત હતો!..." આ કયા પ્રકારનું વાક્ય છે?

- (A)  નિષેધ વાક્ય  
(B)  સાદુ વાક્ય  
(C)  ઉદગાર વાક્ય (Correct Answer)  
(D)  પ્રશ્નાર્થ વાક્ય

**Question No.8**

Marks: 1.00

Bookmark

નીચેના વાક્યો જોડણીના સંદર્ભમાં સાચા છે કે ખોટા તે પસંદ કરો.

1. તે પૂજાવીધી કરીને પછી કામ શરૂ કરે છે.  
2. નીતા પાસે અધિકારીએ રેલવે ટિકિટ માંગી.  
(A)  વાક્ય 1 ખોટું છે અને વાક્ય 2 સાચું છે. (Correct Answer)  
(B)  વાક્ય 1 અને વાક્ય 2 બંને ખોટાં છે.  
(C)  વાક્ય 1 અને વાક્ય 2 બંને સાચાં છે.  
(D)  વાક્ય 1 સાચું છે અને વાક્ય 2 ખોટું છે.

**Question No.9**

Marks: 1.00

Bookmark

આપેલા વિકલ્પોમાંથી શુદ્ધ વાક્ય શોધો.

- (A)  દરેક માણસોનો સત્કાર કરવો જોઈએ  
(B)  બધા વિદ્યાર્થી ગણવેશમાં છે.  
(C)  પરેશ તેના ઘર માંથી બહાર નિકળ્યો  
(D)  બધા ભક્તોને પ્રસાદ મળશે (Correct Answer)

**Question No.10**

Marks: 1.00

Bookmark

નીચેના વાક્યમાં રહેલા રૂઢિપ્રયોગનો અર્થ સ્પષ્ટ કરો.  
ગિરિજાપ્રસાદને લાલચમાં ગોળના પાણીએ નહાવાનો વારો આવ્યો.

- (A)  છેતરાવું (Correct Answer)  
(B)  ઓળઘોળ થવું  
(C)  લાભ થવો  
(D)  લાલચ થવી