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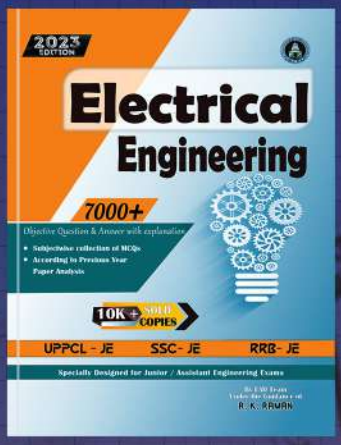

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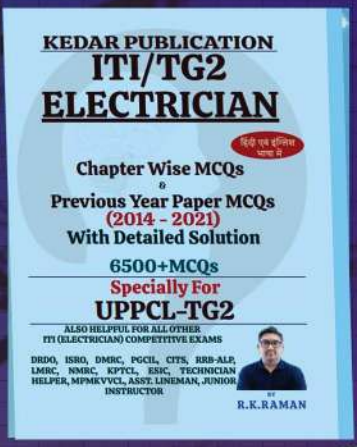

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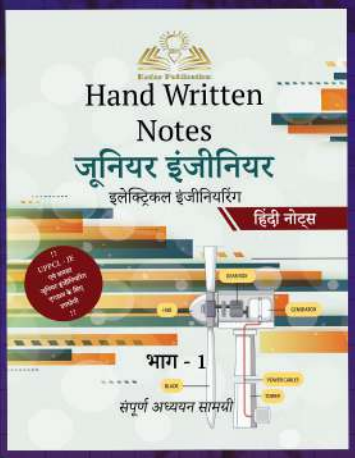

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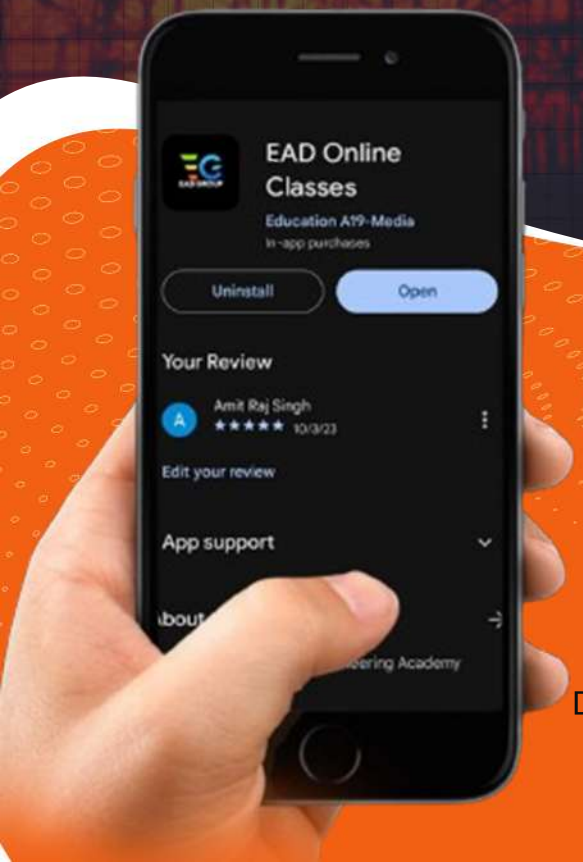

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Exam Date: **07-Jan-2022**
Exam Time: **12:30-14:30**
Post Name: **Vidyut Sahayak Junior Engineer - Electrical**

General Knowledge - General Knowledge

Question No.1 Marks: 1.00
Bookmark

Who described preamble as the "political horoscope of the constitution"?
(A) Dr. B. R. Ambedkar
(B) **K. M. Munshi (Correct Answer)**
(C) N. Madhava Rao
(D) Alladi Krishnaswami Ayyar

Question No.2 Marks: 1.00
Bookmark

Where is the headquarters of the International Monetary Fund located?
(A) Paris
(B) New York
(C) Geneva
(D) **Washington D C (Correct Answer)**

Question No.3 Marks: 1.00
Bookmark

In which year was the 'Planning Commission' set up?
(A) **1950 (Correct Answer)**
(B) 1960
(C) 1947
(D) 1955

Question No.4 Marks: 1.00
Bookmark

When was the Poona Pact signed between Gandhiji and Dr. BR Ambedkar?
(A) August, 1932
(B) July, 1932
(C) **September, 1932 (Correct Answer)**
(D) November, 1932

Question No.5 Marks: 1.00
Bookmark

Which of the following is called as the 'magna carta of local-self government' in India?
(A) Lord Mayo's Resolution (1870)
(B) **Lord Ripon's Resolution (1882) (Correct Answer)**
(C) Cantonments Act (1924)
(D) Mahalwari System 1822

Question No.6 Marks: 1.00
Bookmark

Which is the easternmost state of India?

(A) ◯ **Arunachal Pradesh (Correct Answer)**
(B) ◯ Assam
(C) ◯ Nagaland
(D) ◯ Meghalaya

Question No.7 Marks: 1.00
Bookmark

Where is the headquarters of Asian Development Bank located?
(A) ◯ Vietnam
(B) ◯ Thailand
(C) ◯ **Philippines (Correct Answer)**
(D) ◯ Japan

Question No.8 Marks: 1.00
Bookmark

What is the expansion of GSM in communication technology?
(A) ◯ **Global System for Mobile Communication (Correct Answer)**
(B) ◯ Global System for Mobility
(C) ◯ Great System for Mobile Communication
(D) ◯ Great System for Mobile

Question No.9 Marks: 1.00
Bookmark

Who presided over the first session of the Indian National Congress in 1885?
(A) ◯ A.O. Hume
(B) ◯ P. Ananda Charlu
(C) ◯ **W.C. Bonnerjee (Correct Answer)**
(D) ◯ K.T. Telang

Question No.10 Marks: 1.00
Bookmark

What is Solder, an alloy of low melting point and used for welding electrical wires together made of?
(A) ◯ **Lead and Tin (Correct Answer)**
(B) ◯ Chromium and Manganese
(C) ◯ Copper and Tin
(D) ◯ Lead and Nickel

English Knowledge - English Knowledge

Question No.1 Marks: 1.00
Bookmark

Fill in the blanks with suitable Preposition from the given alternatives.
Study identifies autoimmune disease associated _____ testicular cancer.
(A) ◯ around
(B) ◯ for
(C) ◯ **with (Correct Answer)**
(D) ◯ over

Question No.2 Marks: 1.00
Bookmark

Choose the word which expresses nearly the **opposite** meaning of the given word " HARMONY ".
(A) ◯ Peace
◯

(B) Amity
(C) Concord
(D) **Clash (Correct Answer)**

Question No.3 Marks: 1.00
Bookmark

Fill in the blanks with suitable Article from the given alternatives.
_____ peanut butter has a low glycemic index, in contrast to some processed foods.

(A) an
(B) **No Article (Correct Answer)**
(C) the
(D) a

Question No.4 Marks: 1.00
Bookmark

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

(A) Instantly
(B) Be happy when a person leaves
(C) **Something that is hard or terrible to handle (Correct Answer)**
(D) A good idea or plan

Question No.5 Marks: 1.00
Bookmark

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

(A) Start
(B) Agreement
(C) Solution
(D) **Halt (Correct Answer)**

Question No.6 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'.
The face value **of fake currency in Indian rupees was** around Rs 87 crore, as per the preliminary estimate.

(A) of fake currency above Indian rupees were
(B) **The given sentence is correct (Correct Answer)**
(C) of fake currency in Indian rupees were
(D) of fake currency above Indian rupees was

Question No.7 Marks: 1.00
Bookmark

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

(A) Fix
(B) **Deception (Correct Answer)**
(C) Alteration
(D) Fact

Question No.8 Marks: 1.00

Bookmark

Choose the best option from the given alternatives which can be substituted for the given word/sentence.
One who makes an eloquent public speech

(A) Orator (Correct Answer)
(B) Sporadic
(C) Rhetoric
(D) Stopper

Question No.9 Marks: 1.00

Bookmark

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

(A) Brutel
(B) Coherant
(C) Desperate (Correct Answer)
(D) Dismandle

Question No.10 Marks: 1.00

Bookmark

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

(A) Assist (Correct Answer)
(B) Click
(C) Feeble
(D) Sort

Electrical Engineering - Electrical Engineering

Question No.1 Marks: 1.00

Bookmark

Bio ethanol is subjected to rectification to remove.....

(A) enzymes
(B) yeast
(C) impurities (Correct Answer)
(D) sugar

Question No.2 Marks: 1.00

Bookmark

In EHV lines, series capacitance compensation is used to

(A) Improve the stability of the system (Correct Answer)
(B) Improve the protection of the line
(C) Reduce the voltage profile
(D) Reduce the loading on the line

Question No.3 Marks: 1.00

Bookmark

The component which provides a signal to circuit breaker under the fault condition is

(A) Relay (Correct Answer)
(B) Fuse
(C) Isolator
(D) Current transformer

Question No.4 Marks: 1.00

Bookmark

Under normal unfaulted system operation, the resistive superconducting fault current limiter is in the …… state and has a …… resistance.

(A) superconducting, maximum

(B) non-superconducting, maximum

(C) **superconducting, zero (Correct Answer)**

(D) non-superconducting, zero

Question No.5 Marks: 1.00

Bookmark

Consider the following statements and select the correct answer:
Statement 1: SCADA refers to a system that collects data from various sensors at a factory, plant or in other remote locations and then sends this data to a central computer which then manages and controls the data.
Statement 2: A SCADA system will only monitor and never make changes to the operations.

(A) **Statement 1 is TRUE and Statement 2 is FALSE (Correct Answer)**

(B) Statement 1 is FALSE and Statement 2 is TRUE

(C) Both Statement 1 and Statement 2 are TRUE

(D) Both Statement 1 and Statement 2 are FALSE

Question No.6 Marks: 1.00

Bookmark

A relay is connected to a 400/5 ratio current transformer with circuit setting of 150%. Calculate the plug setting multiplier when circuit carries a fault current of 3000 A.

(A) 7

(B) **5 (Correct Answer)**

(C) 6

(D) 8

Question No.7 Marks: 1.00

Bookmark

Which is the minimum spacing between components and raceways in panel board if system voltage is 415V?

(A) 50 mm

(B) 75 mm

(C) **100 mm (Correct Answer)**

(D) 60 mm

Question No.8 Marks: 1.00

Bookmark

In a lead acid battery, fillers are provided to

(A) recover acid losses through vapours

(B) prevent flow of gases

(C) reduce tendency for polarisation

(D) **facilitate flow of gases (Correct Answer)**

Question No.9 Marks: 1.00

Bookmark

Which one of the following statements is INCORRECT?

(A) **Line Trap is parallel resonant circuit which offers low impedance at tuning frequency by connecting a tuning device in series with the main coil. (Correct Answer)**

(B) In carrier current pilot relaying scheme, low voltage and high frequency signal is transmitted on the same conductor of the transmission line.

(C) In carrier current protection the purpose of the wave-trap is for trapping high frequency waves entering into generators/ transformer unit.

(D) ○ A line trap in a long transmission line is used to confine the carrier signals in the line.

Question No.10 Marks: 1.00

Bookmark

Match the following:

Tower Types	Line deviation
(A) Type A	(i) 0° to 15°
(B) Type B	(ii) 0° to 2°
(C) Type C	(iii) 30° to 60°
(D) Type D	(iv) 15° to 30°

(A) ○ (A) – (i) ; (B) – (ii); (C) – (iv) and (D) – (iii)

(B) ○ **(A) – (ii) ; (B) – (i); (C) – (iv) and (D) – (iii) (Correct Answer)**

(C) ○ (A) – (ii) ; (B) – (iv); (C) – (iii) and (D) – (i)

(D) ○ (A) – (ii) ; (B) – (iii); (C) – (i) and (D) – (iv)

Question No.11 Marks: 1.00

Bookmark

Which component of a cell must be designed to prevent self discharge?

(A) ○ The current collectors

(B) ○ The negative electrode

(C) ○ The positive electrode

(D) ○ **The electrolyte (Correct Answer)**

Question No.12 Marks: 1.00

Bookmark

Which of these can be used as insulating live-line tools for electrical protection?

(A) ○ Hotsticks

(B) ○ Shotgun sticks

(C) ○ Switchsticks

(D) ○ **All of the above (Correct Answer)**

Question No.13 Marks: 1.00

Bookmark

Consider the following advantages with respect of HVDC transmission:
(i) Long distance transmission
(ii) Low cost of transmission above break even distance
(iii) Higher efficiency
Which of the above advantages are correct?

(A) ○ (i) and (iii)

(B) ○ (i) and (ii)

(C) ○ (ii) and (iii)

(D) ○ **(i), (ii) and (iii) (Correct Answer)**

Question No.14 Marks: 1.00

Bookmark

Calculate the maximum efficiency of a silicon based solar cell having short-circuit current density of J_{SC} = 44 mA/cm^2, open-circuit voltage V_{OC} = 750 mV and fill factor = 0.82. Assume that the irradiation at standard test conditions is 100 mW/cm^2.

(A) ◯ 33%
(B) ◯ **27% (Correct Answer)**
(C) ◯ 40%
(D) ◯ 62%

Question No.15 Marks: 1.00
Bookmark

The angle made in the horizontal plane between the horizontal line due south and the projection of the normal to the surface on the horizontal plane is

(A) ◯ Solar altitude angle
(B) ◯ **Surface azimuth angle (Correct Answer)**
(C) ◯ Zenith angle
(D) ◯ Hour angle

Question No.16 Marks: 1.00
Bookmark

The distributed type SCADA architecture is categorised as

(A) ◯ **Second generation (Correct Answer)**
(B) ◯ Fourth generation
(C) ◯ Third generation
(D) ◯ First generation

Question No.17 Marks: 1.00
Bookmark

According to IEEE C37.122, the tests included in high voltage gas insulted substation (GIS) routine tests are:
(i) Pressure tests on enclosures
(ii) Tightness tests
(iii) DC Voltage withstand tests

(A) ◯ **(i) and (ii) only (Correct Answer)**
(B) ◯ (i) and (iii) only
(C) ◯ (ii) and (iii) only
(D) ◯ All (i) , (ii) and (iii)

Question No.18 Marks: 1.00
Bookmark

Which of the following examples of studies routinely conducted using PSCAD?
(i) Relay coordination
(ii) Insulation coordination of transformer
(iii) Sub-synchronous resonance studies
(iv) Impulse testing of transformer

(A) ◯ (i), (ii) and (iv)
(B) ◯ (ii), (iii) and (iv)
(C) ◯ (i) and (iv)
(D) ◯ **All (i), (ii), (iii) and (iv) (Correct Answer)**

Question No.19 Marks: 1.00
Bookmark

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A three phase power system has Z_{BUS} matrix

$$Z = \begin{bmatrix} j0.6 & j0.8 & j0.2 \\ j0.8 & j1.2 & j0.6 \\ j0.2 & j0.6 & j1 \end{bmatrix}$$

if an impedance j0.8 is connected between bus-2 and ground. The modified value of Z_{22} is

(A) ○ j2.4
(B) ○ j2
(C) ○ **j0.48 (Correct Answer)**
(D) ○ j0.24

Question No.20 Marks: 1.00
Bookmark

For the electric circuit shown in Fig., determine the voltage across the terminals b-f (V_{bf}).

(A) ○ V_{bf} =10 V
(B) ○ V_{bf} =18 V
(C) ○ V_{bf} =15 V
(D) ○ **V_{bf} =13 V (Correct Answer)**

Question No.21 Marks: 1.00
Bookmark

A buck converter has input voltage of 15 V and the required average output voltage is 6 V at R = 400 Ω and the peak to peak output ripple voltage is 20 mV. If it operates at 20 kHz and peak to peak ripple current of inductor is 0.75 A, determine the critical values of L and C.

(A) ○ 14 mH and 6.696 nF
(B) ○ 14 mH and 15.625 nF
(C) ○ **6 mH and 15.625 nF (Correct Answer)**
(D) ○ 6 mH and 6.696 nF

Question No.22 Marks: 1.00
Bookmark

Ferranti effect in long transmission lines is due to the effect of

(A) ○ Line resistance
(B) ○ Line inductance
(C) ○ **Line capacitance (Correct Answer)**

(D) ◯ None of the above

Question No.23 Marks: 1.00

Bookmark

Plate earthing is preferred to use at which of the following place:

(A) ◯ Railway station

(B) ◯ Computer circuit

(C) ◯ **Generating Station (Correct Answer)**

(D) ◯ Building

Question No.24 Marks: 1.00

Bookmark

What is the recommended width of right of way (ROW) for the transmission line of 110 kV?

(A) ◯ 7 3

(B) ◯ **22 m (Correct Answer)**

(C) ◯ 15 m

(D) ◯ 18 m

Question No.25 Marks: 1.00

Bookmark

Pockel effect occurs when ……

(A) ◯ electric field is zero

(B) ◯ **quadratic electro optic coefficient is smaller than linear electro optic coefficient (Correct Answer)**

(C) ◯ magnetic field is zero

(D) ◯ quadratic electro optic coefficient is larger than linear electro optic coefficient

Question No.26 Marks: 1.00

Bookmark

If the secondary burden of a current transformer is 30 VA and the secondary current is 5 A, then the impedance of the connected load is

(A) ◯ 2.6 Ω

(B) ◯ **1.2 Ω (Correct Answer)**

(C) ◯ 2.1 Ω

(D) ◯ 3.2 Ω

Question No.27 Marks: 1.00

Bookmark

Shunt reactors are connected in transmission lines to

(A) ◯ Generate requisite reactive power

(B) ◯ Limit the fault current

(C) ◯ Improve stability limit

(D) ◯ **Absorb the excess reactive power (Correct Answer)**

Question No.28 Marks: 1.00

Bookmark

A 6 V lead acid battery has an internal resistance of 0.01 Ω. How much current will flow when the battery is short circuited?

(A) ◯ **600 A (Correct Answer)**

(B) ◯ 1A

(C) ◯ 6A

(D) ◯ 100 A

Question No.29 Marks: 1.00

Bookmark

According to the Indian electricity rules, 1956, for high voltage lines above 11 kV and upto 33 kV, the horizontal clearance between the nearest conductor and any part of adjacent building shall, on the basis of maximum deflection due to wind pressure, be not less than ……

(A) **2 m (Correct Answer)**

(B) 1.2 m

(C) 3 m

(D) 3.2 m

Question No.30 Marks: 1.00

Bookmark

An energy meter having meter constant of 1500 revolutions/kWhr makes 50 revolutions in 60 seconds for a constant load. Determine the load in kW.

(A) 0.5 kW

(B) 0.35 kW

(C) 2.88 kW

(D) **2 kW (Correct Answer)**

Question No.31 Marks: 1.00

Bookmark

The minimum potential gradient on a single core cable is given by

$$\frac{V}{x \ln\left(\frac{R}{r}\right)}$$

where 'r' is the radius of the conductor, 'R' is the inner radius of the sheath and 'V' is the transmission system voltage. Here, 'x' is equal to

(A) x = 2R

(B) x = 2r

(C) **x = R (Correct Answer)**

(D) x = r

Question No.32 Marks: 1.00

Bookmark

A distance relay is said to be inherently directional if its characteristics on R – X diagram

(A) is a straight line passes through origin

(B) is a straight line off-set from the origin.

(C) is a circle that encloses the origin.

(D) **is a circle that passes through the origin. (Correct Answer)**

Question No.33 Marks: 1.00

Bookmark

The maximum voltage gradient at the ground level due to a charged cloud before lightning strikes, can be as high as

(A) **300 V/cm (Correct Answer)**

(B) 1 V/cm

(C) 30 V/cm

(D) ○ 100 V/cm

Question No.34 Marks: 1.00

Bookmark

Which one of the following statement is INCORRECT?

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

(B) ○ The power and control wirings run in separate race ways inorder to reduce the radio interference.

(C) ○ **Thermal overload relay protects from overload and short circuit in a panel board. (Correct Answer)**

(D) ○ Individual protection is not required when two 400-A panelboards can be connected to the same feeder if the feeder overcurrent device is rated or set at 400 A or less.

Question No.35 Marks: 1.00

Bookmark

Calculate the protection trip time of the inverse definite minimum time (IDMT) overcurrent relay, according to IEC 60255 protection curves. Assume very inverse curve type, relay pickup current = 2 kA, fault current = 10 kA and time-multiplier setting (TMS) = 1.

(A) ○ 4.281 s

(B) ○ 0.369 s

(C) ○ 6.75 s

(D) ○ **3.375 s (Correct Answer)**

Question No.36 Marks: 1.00

Bookmark

Consider the following statements and select the correct answer:
Statement 1: The self-discharge of lithium-ion battery is less than half compared to nickel-cadmium, making lithium-ion well suited for modern fuel gauge applications.
Statement 2: The energy density of lithium-ion battery is typically twice that of the standard nickel-cadmium cell.

(A) ○ Statement 1 is FALSE and Statement 2 is TRUE

(B) ○ Statement 1 is TRUE and Statement 2 is FALSE

(C) ○ **Both Statement 1 and Statement 2 are TRUE (Correct Answer)**

(D) ○ Both Statement 1 and Statement 2 are FALSE

Question No.37 Marks: 1.00

Bookmark

Which is the most beneficial index profile in single mode fibers?

(A) ○ **Graded index (Correct Answer)**

(B) ○ Step index

(C) ○ Step and graded index

(D) ○ None of the above

Question No.38 Marks: 1.00

Bookmark

A load is supplied by a 220 V, 50 Hz source. The active power P and the reactive power Q consumed by the load are such that 1 kW ≤ P ≤ 3 kW and 1 kVAR ≤ Q ≤ 3 kVAR. A capacitor connected across the load for power factor correction generates 1 kVAR reactive power. The worst case power factor after power factor correction is

(A) ○ **0.447 lag (Correct Answer)**

(B) ○ 0.6 lag

(C) ○ 0.316 lag

(D) ◯ 0.707 lag

Question No.39 Marks: 1.00

Bookmark

In Thyristor Switched Series Capacitor (TSSC), the capacitor (C) is connected in ……..

(A) ◯ series with both the transmission line and Thyristor Controlled Reactor (TCR)

(B) ◯ parallel with the transmission line and series with Thyristor Controlled Reactor (TCR)

(C) ◯ parallel with both the transmission line and Thyristor Controlled Reactor (TCR)

(D) ◯ **series with the transmission line and parallel with Thyristor Controlled Reactor (TCR) (Correct Answer)**

Question No.40 Marks: 1.00

Bookmark

A line operating at 50 Hz is 64% series compensated. The resonating frequency is

(A) ◯ 62.5 Hz

(B) ◯ **40 Hz (Correct Answer)**

(C) ◯ 32 Hz

(D) ◯ 78.12 Hz

Question No.41 Marks: 1.00

Bookmark

When the lead-acid battery is fully charged,

(A) ◯ both the positive plates and the negative plates are pure lead

(B) ◯ the positive plates are pure lead and the negative plates are pure lead peroxide

(C) ◯ **the positive plates are pure lead peroxide and the negative plates are pure lead (Correct Answer)**

(D) ◯ both the positive plates and the negative plates are pure lead peroxide

Question No.42 Marks: 1.00

Bookmark

The power of wind per unit area normal to the normal direction of wind is known as ……..

(A) ◯ solidity

(B) ◯ energy patter factor

(C) ◯ wind speed

(D) ◯ **power density (Correct Answer)**

Question No.43 Marks: 1.00

Bookmark

Cloud Services have a_____ relationship with their customers.

(A) ◯ Many-to-one

(B) ◯ **One-to-many (Correct Answer)**

(C) ◯ One-to-one

(D) ◯ Many-to-many

Question No.44 Marks: 1.00

Bookmark

The term "CHAP" stands for _____, that periodically re-authenticates the user during an online session.

(A) ◯ Challenge Hardware Authentication Protocols

(B) ◯ Circuit Hardware Authentication Protocols

(C) ◯ **Challenge Handshake Authentication Protocols (Correct Answer)**

(D) ○ Circuit Handshake Authentication Protocols

Question No.45 Marks: 1.00

Bookmark

Which one of the following statements is incorrect?

(A) ○ Steady state stability of the power system is improved by using the double circuit line instead of single circuit line.

(B) ○ **The transfer of power between two stations is maximum when the phase angle displacement between the voltages of the two stations is zero. (Correct Answer)**

(C) ○ The steady state stability limit is greater than the transient stability limit.

(D) ○ The stability of the power system is affected by the generator reactance.

Question No.46 Marks: 1.00

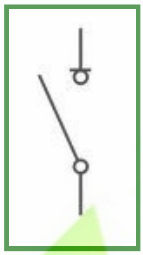
Bookmark

The IEC standard symbol to represent the on-load isolator (switch- disconnector) is

(A) ○

(B) ○

(C) ○



(Correct Answer)

(D) ○

Question No.47 Marks: 1.00

Bookmark

The per unit impedance of a synchronous machine is 0.36 pu. If the base voltage is increased by 1.2 times, then new per unit value will be

(A) ○ **0.25 pu (Correct Answer)**

(B) ○ 0.52 pu

(C) ○ 0.3 pu

(D) ○ 0.43 pu

Question No.48 Marks: 1.00

Bookmark

A fully charged 20 Ah cell will be able to deliver 20 A ("1C") for 1 h before the cell is

completely discharged. If the cell is discharged at a 10C rate, it will be completely discharged in

(A) ◯ about 24 minutes

(B) ◯ about 12 minutes

(C) ◯ about 3 minutes

(D) ◯ **about 6 minutes (Correct Answer)**

Question No.49 Marks: 1.00

Bookmark

When the secondary winding of the current transformer is open-circuited with the primary winding energized

(A) ◯ when the large magnetizing force is taken off it leaves a large value of residual magnetism

(B) ◯ the whole of the primary current produces large value of flux in the core (limited to only saturation) thereby producing a large voltage in the secondary winding

(C) ◯ the large voltage may act as safety hazard for the operators and may even rupture the insulation

(D) ◯ **all of the above (Correct Answer)**

Question No.50 Marks: 1.00

Bookmark

What is the numerical aperture of the fibre if the angle of acceptance is 15 degree?

(A) ◯ 0.423

(B) ◯ 0.174

(C) ◯ **0.259 (Correct Answer)**

(D) ◯ 0.342

Question No.51 Marks: 1.00

Bookmark

Which of the following transformers cannot be operated with their secondary open circuited?

(A) ◯ Potential transformer

(B) ◯ **Current transformer (Correct Answer)**

(C) ◯ Pulse transformer

(D) ◯ All of the above

Question No.52 Marks: 1.00

Bookmark

Select the CORRECT statement.

(A) ◯ **The Darrieus wind turbine is not a self-starting turbine and the starting torque is very low. (Correct Answer)**

(B) ◯ The Darrieus wind turbine is always a self-starting turbine and the starting torque is very high.

(C) ◯ The Darrieus wind turbine is a horizontal axis wind turbine in which the axis of rotation is horizontal with respect to the ground.

(D) ◯ Darrieus turbine supported entirely by gearbox attached to the top

Question No.53 Marks: 1.00

Bookmark

Differential relays are used for protection of equipment against

(A) ◯ **Internal faults (Correct Answer)**

(B) ◯ Overcurrent

(C) ◯ Reverse power

(D) ◯ Reverse current

Question No.54 Marks: 1.00

Bookmark

Which one of the following statements is correct?

(A) Reactance relay is a voltage restrained overcurrent relay.

(B) **Mho relay is a voltage restrained directional relay. (Correct Answer)**

(C) Mho relay is a direction restrained overvoltage relay.

(D) Reactance relay is a direction restrained overvoltage relay.

Question No.55 Marks: 1.00

Bookmark

Which of the following is the second generation FACTS device?

(A) Thyristor Switched Series Capacitor

(B) **Static Synchronous Series Compensator (Correct Answer)**

(C) Thyristor Controlled Series Capacitor

(D) Static VAR Compensator

Question No.56 Marks: 1.00

Bookmark

As per Indian Electricity rules 1956, the minimum permissible ground clearance for 132 kV transmission line is

(A) 5.2 m

(B) **6.1 m (Correct Answer)**

(C) 8.8 m

(D) 7.2 m

Question No.57 Marks: 1.00

Bookmark

Consider the following statements and choose the correct answer:
Statement 1: The earthing switch shall close only when the isolator is open.
Statement 2: The isolators of the bus coupler shall operate only when the bus coupler is closed.

(A) Both Statement 1 and Statement 2 are FALSE

(B) Statement 1 is FALSE and Statement 2 is TRUE

(C) **Statement 1 is TRUE and Statement 2 is FALSE (Correct Answer)**

(D) Both Statement 1 and Statement 2 are TRUE

Question No.58 Marks: 1.00

Bookmark

A 50 kVA single-phase transformer has 1000 turns on the primary and 200 turns on the secondary winding. The primary is connected to 5000 V, 50 Hz supply. Find the maximum flux in the core. Neglect leakage drops and no-load primary current.

(A) **22.5 mWb (Correct Answer)**

(B) 17.5 mWb

(C) 25.5 mWb

(D) 12.5 mWb

Question No.59 Marks: 1.00

Bookmark

An insulator string consists of three units, each having a safe working voltage of 15 kV. The ratio of self capacitance to shunt capacitance of each unit is 8 : 1. Find the string efficiency.

(A) 74.26%

(B) **84.26% (Correct Answer)**

(C) 64.26%

(D) 54.26%

Question No.60 Marks: 1.00

Bookmark

Six lead-acid cells each having an emf of 2 V and internal resistance 0.05 Ω are connected in series. How much current will be delivered by the combination to a load resistance of 3.7 Ω?

(A) 1A

(B) 7A

(C) **3A (Correct Answer)**

(D) 5A

Computer Knowledge - Computer Knowledge

Question No.1 Marks: 1.00

Bookmark

_____ provide an interface to the services made available by an operating system.

(A) Function calls

(B) Alert calls

(C) **System calls (Correct Answer)**

(D) Error calls

Question No.2 Marks: 1.00

Bookmark

The first IBM Personal computer named Acron was using which among the following operating systems?

(A) WINDOWS

(B) **MS DOS (Correct Answer)**

(C) UNIX

(D) LINUX

Question No.3 Marks: 1.00

Bookmark

_____ allows you to create standard calculations, formatting, and charts very quickly

(A) Quick chart tool

(B) **Quick analysis tool (Correct Answer)**

(C) Formula trace tool

(D) Formula audit tool

Question No.4 Marks: 1.00

Bookmark

_____ is a simplest transport protocol in data link layer, which uses a single bit to encode the sequence number.

(A) Serial Line Interface Protocol

(B) Synchronous Data Link Protocol

(C) **Alternating Bit Protocol (Correct Answer)**

(D) Point-to-Point Protocol

Question No.5 Marks: 1.00

Bookmark

AIML is a XML based markup language used in creation of Chatbot, AIML Stands for _____ .

(A) Advanced Internet Markup Language

(B) Advanced Interchange Markup Language

(C) Artificial Identification Markup Language

(D) ◯ **Artificial Intelligence Markup Language (Correct Answer)**

Question No.6 Marks: 1.00

Bookmark

_____ programming language was developed by team of programmers at IBM led by John Backus in 1954.

(A) ◯ GUI

(B) ◯ BASIC

(C) ◯ **FORTRON (Correct Answer)**

(D) ◯ COBOL

Question No.7 Marks: 1.00

Bookmark

_____ is a blue arrow that shows the relationships between cells used in formulas in Excel.

(A) ◯ Number tracer

(B) ◯ **Cell tracer (Correct Answer)**

(C) ◯ Relationship tracker

(D) ◯ Formula tracker

Question No.8 Marks: 1.00

Bookmark

To load a process into memory if there is more than one free block which placement algorithm is used to allocate the first smallest sufficient partition among the free available partition?

(A) ◯ Last fit

(B) ◯ **Best fit (Correct Answer)**

(C) ◯ First fit

(D) ◯ Worst fit

Question No.9 Marks: 1.00

Bookmark

Which of the following options is not an option in Freeze Panes?

(A) ◯ Unfreeze Panes

(B) ◯ Freeze First Column

(C) ◯ Freeze Top Row

(D) ◯ **Freeze First Row (Correct Answer)**

Question No.10 Marks: 1.00

Bookmark

_____ cabling needs to be used if your network standards version is 802.3j .

(A) ◯ Tick coaxial

(B) ◯ Light coaxial

(C) ◯ **Fiber optic (Correct Answer)**

(D) ◯ Twisted pair

Gujarati Language and Grammar - Gujarati Language and Grammar

Question No.1 Marks: 1.00

Bookmark

જોડણી અથવા અનુસ્વારની રીતે વાક્યની શુદ્ધતા ચકાસો.

1. વર્તણૂક સારી હોય તો લોકો માન આપે.
2. મેળામા ઘણા બાળકો આવ્યા હતા.

(A) ◯ વાક્ય 1 અને વાક્ય 2 બંને સાચાં છે

(B) ◯ **વાક્ય 1 સાચું છે અને વાક્ય 2 ખોટું છે (Correct Answer)**

(C) ◯ વાક્ય 1 અને વાક્ય 2 બંને ખોટાં છે

(D) ◯ વાક્ય 1 ખોટું અને વાક્ય 2 સાચું છે

Question No.2 Marks: 1.00

Bookmark ☐

"દાંતિયા કરવાં" રૂઢિપ્રયોગનો વાક્યમાં પ્રયોગ કરો.

(A) ◯ બે છોકરાઓ એકબીજાની બોલી બોલીને દાંતિયા કરે છે.

(B) ◯ **માએ એકની એક વાત સતત પૂછતાં પુત્ર દાંતિયા કરવા લાગ્યો. (Correct Answer)**

(C) ◯ રૂડી ટુચકો સાંભળીને ખૂબ દાંતિયા કરવા લાગી

(D) ◯ સવારે ઊઠીને દાંતિયા કરવાથી મોં સાફ થાય છે.

Question No.3 Marks: 1.00

Bookmark ☐

તણખા' (ભાગ 1થી 4)ના લેખક કોણ છે?

(A) ◯ ઉમાશંકર જોષી

(B) ◯ **ધૂમકેતુ (Correct Answer)**

(C) ◯ ઇશ્વર પેટલીકર

(D) ◯ ચંદ્રકાંત બક્ષી

Question No.4 Marks: 1.00

Bookmark ☐

આપેલા વિકલ્પોમાં કયું વિરોધી જોડકું સાચું છે?

(A) ◯ વિષ X ગરલ

(B) ◯ રૌદ્ર X કઠોર

(C) ◯ સુધા X પીયૂષ

(D) ◯ **સ્નિગ્ધ X બરછટ (Correct Answer)**

Question No.5 Marks: 1.00

Bookmark ☐

નીચેના વાક્યમાં ક્યાં ભૂલ છે તે શોધો.

ખાનામાં કાગળ, પેન અને પેન્સિલ મૂકી છે.

(A) ◯ પેન્સિલ

(B) ◯ ખાનામાં

(C) ◯ કાગળ, પેન

(D) ◯ **મૂકી છે (Correct Answer)**

Question No.6 Marks: 1.00

Bookmark ☐

નીચેના વાક્યોના પ્રકાર ઓળખો.

1. મારાથી વાર્તા લખાશે.
2. બીનાથી હવે લખાયું.

(A) ◯ વાક્ય 1 ભાવે અને વાક્ય 2 કર્મણિ છે

(B) ◯ વાક્ય 1 અને વાક્ય 2 બંને કર્મણિ છે

(C) ◯ **વાક્ય 1 કર્મણિ અને વાક્ય 2 ભાવે છે (Correct Answer)**

(D) ◯ વાક્ય 1 અને વાક્ય 2 બંને ભાવે છે

Question No.7 Marks: 1.00

Bookmark ☐

આપેલા વાક્યોમાંથી પ્રેરક વાક્ય કયું છે?

(A) ◯

તેણે મહેમાનોનો પરિચય આપ્યો

(B) ◯ તેણે સિક્કો ખિસ્સામાં મૂક્યો

(C) ◯ પ્રકાશે જવાબ રજૂ કર્યો

(D) ◯ **પિતાએ થેલી ઘરમાં મૂકાવી (Correct Answer)**

Question No.8 Marks: 1.00

Bookmark

"ગાય" માટે કયા બે સમાનાર્થી શબ્દો સાચા છે?

(A) ◯ **સુરભિ, ગવરી (Correct Answer)**

(B) ◯ ક્ષીરિણી ,ખિરની

(C) ◯ વૈજયંતી, વૃંદા

(D) ◯ હિતાક્ષી, સુભાગી

Question No.9 Marks: 1.00

Bookmark

નીચેના વાક્યો ઓળખાવો.

1. આ કામ કેવી રીતે કરવાનું?
2. મારાથી આ નહિ થાય.

(A) ◯ વાક્ય 1 પ્રશ્નાર્થ અને વાક્ય 2 વિધિ વાક્ય છે

(B) ◯ **વાક્ય 1 પ્રશ્નાર્થ અને વાક્ય 2 નિષેધ વાક્ય છે (Correct Answer)**

(C) ◯ વાક્ય 1 પ્રશ્નાર્થ અને વાક્ય 2 આજ્ઞાર્થ વાક્ય છે

(D) ◯ વાક્ય 1 પ્રશ્નાર્થ અને વાક્ય 2 ઉદ્ગાર છે

Question No.10 Marks: 1.00

Bookmark

આપેલા વિકલ્પોમાંથી દ્વિરુક્ત શબ્દો શોધો.

(A) ◯ ડબડબ

(B) ◯ ઘણણણ

(C) ◯ **દોડાદોડી (Correct Answer)**

(D) ◯ ઝરમર ઝરમર

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