NHPC Limited
(A Government of India Enterprise)
Mini-Ratna Category-I PSU
India's Premier Hydro Power Utility

Participant ID	
Participant Name	
Test Center Name	
Test Date	05/04/2022
Test Time :	9:00 AM - 12:00 PM
Subject	Junior Engineer (Electrical)

Section : **General Awareness**

Q.1 **Advancement of economically weaker sections of citizens comes under which amendment of the Constitution of India?**

Ans

✗ A. One Hundred and Twenty-Eighth Amendment

✗ B. One Hundred and Twenty-Fifth Amendment

✓ C. One Hundred and Twenty-Fourth Amendment

✗ D. One Hundred and Twenty-Sixth Amendment

Question ID : **1034359213**
Status : **Not Answered**
Chosen Option : **--**

Q.2 **Which of the following festivals of Mizoram is also known as 'Straw Festival'?**

Ans
- ✗ A. Chapchar Kut festival
- ✓ B. Pawl Kut festival
- ✗ C. Mim Kut festival
- ✗ D. Tah Kut festival

Question ID : **1034359190**
Status : **Not Answered**
Chosen Option : **--**

Q.3 **Which of the following instruments is NOT used in the Dappu dance performed by the tribes of Andhra Pradesh?**

Ans
- ✗ A. Tabla
- ✗ B. Harmonium
- ✗ C. Dappu
- ✓ D. Tanpura

Question ID : **1034359191**
Status : **Not Answered**
Chosen Option : **--**

Q.4 **Ankita Raina received Arjuna Award 2021. She is associated with:**

Ans
- ✗ A. badminton
- ✓ B. tennis
- ✗ C. shooting
- ✗ D. athletics

Question ID : **1034359206**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.5 The concept of minimum support price was introduced in India in:

Ans
- ✔ A. 1966
- ✘ B. 1964
- ✘ C. 1969
- ✘ D. 1968

Question ID : **1034359193**
Status : **Not Answered**
Chosen Option : **--**

Q.6 The battle that was fought between the Marathas and the Portuguese rulers of Vasai was known as:

Ans
- ✔ A. Battle of Bassein
- ✘ B. Battle of Kharda
- ✘ C. Battle of Attock
- ✘ D. Battle of Palkhed

Question ID : **1034359204**
Status : **Not Answered**
Chosen Option : **--**

Q.7 Pellagra is caused by the severe deficiency of _____.

Ans
- ✔ A. Vitamin B3
- ✘ B. Vitamin B1
- ✘ C. Vitamin B7
- ✘ D. Vitamin B2

Question ID : **1034359196**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.8 In which month is the book named 'How to Prevent the Next Pandemic' written by Bill Gates set to be published?

Ans
✗ A. In March 2022
✓ B. In May 2022
✗ C. In June 2022
✗ D. In April 2022

Question ID : **1034359207**
Status : **Not Answered**
Chosen Option : **--**

Q.9 Who among the following is the 18th chief economic advisor of India?

Ans
✓ A. V Anantha Nageswaran
✗ B. Arvind Subramanian
✗ C. Krishnamurthy Subramanian
✗ D. Raghuram Rajan

Question ID : **1034359208**
Status : **Not Answered**
Chosen Option : **--**

Q.10 The Union Budget of a year is referred to as the Annual Financial Statement according to _____ of the Constitution of India.

Ans
✗ A. Article 110
✗ B. Article 102
✓ C. Article 112
✗ D. Article 115

Question ID : **1034359194**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.11 _____ is a state that shares around 200 km to 260 km length of border with China.

Ans
- ✗ A. Arunachal Pradesh
- ✗ B. Sikkim
- ✓ C. Himachal Pradesh
- ✗ D. Uttarakhand

Question ID : **1034359198**
Status : **Answered**
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Q.12 According to Census 2001, which of the following districts of UP has the minimum SC population?

Ans
- ✗ A. Sitapur
- ✗ B. Sonbhadra
- ✗ C. Kaushambi
- ✓ D. Baghpat

Question ID : **1034359201**
Status : **Not Answered**
Chosen Option : **--**

Q.13 The Pacific Coast Foundation was founded in 1913 by Lal Hardayal. Who was its president?

Ans
- ✗ A. Madan Lal Dhingra
- ✗ B. Kartar Singh Sarabha
- ✗ C. Bhikaiji Cama
- ✓ D. Sohan Singh Bhakna

Question ID : **1034359203**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.14 **Article 21A of the Constitution of India came into effect on:**

Ans
- ✗ A. 1 May 2010
- ✗ B. 1 May 2011
- ✗ C. 1 April 2011
- ✓ D. 1 April 2010

Question ID : **1034359211**
Status : **Not Answered**
Chosen Option : **--**

Q.15 **Which of the following features of the Constitution of India has NOT been taken from Australia?**

Ans
- ✓ A. Directive Principles of State Policy
- ✗ B. Concept of Concurrent list
- ✗ C. Article 108 i.e., joint sitting of the two houses
- ✗ D. Freedom of trade and commerce

Question ID : **1034359212**
Status : **Not Answered**
Chosen Option : **--**

Q.16 **_____ is one of the 'open trading border posts' between India and China.**

Ans
- ✗ A. Bara-Lacha Pass
- ✓ B. Nathu La Pass
- ✗ C. Niti Pass
- ✗ D. Rohtang Pass

Question ID : **1034359200**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.17 Who among the following wicketkeeper-batsmen won the ESPN Cricinfo 'Test Batting Award' 2021?

Ans
✗ A. MS Dhoni
✓ B. Rishabh Pant
✗ C. KL Rahul
✗ D. Dinesh Karthik

Question ID : **1034359216**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.18 China PR won the AFC Women's Asian Cup India 2022 Football Tournament by defeating:

Ans
✓ A. South Korea
✗ B. Japan
✗ C. Australia
✗ D. Philippines

Question ID : **1034359217**
Status : **Not Answered**
Chosen Option : **--**

Q.19 Which of the following banks launched the programme 'Agri Infinity' in February 2022?

Ans
✗ A. HDFC Bank
✓ B. Yes Bank
✗ C. Bank Of Baroda
✗ D. SBI Bank

Question ID : **1034359192**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.20 In February 2022, the foundation of the world's third largest cricket stadium was laid by Sourav Ganguly. In which of the following states was this stadium established?

Ans
✗ A. Madhya Pradesh
✓ B. Rajasthan
✗ C. Karnataka
✗ D. Gujarat

Question ID : **1034359214**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.21 To which of the following communities does the group folk dance Chu-Faat belong?

Ans
✗ A. Naga
✗ B. Bhutia
✗ C. Mizo
✓ D. Lepcha

Question ID : **1034359188**
Status : **Not Answered**
Chosen Option : **--**

Q.22 Rafael Nadal won the Australian Open 2022 by defeating:

Ans
✗ A. Novak Djokovic
✓ B. Daniil Medvedev
✗ C. Alexander Zverev
✗ D. Roger Federer

Question ID : **1034359215**
Status : **Answered**
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BYJU'S EXAM PREP

Q.23 **Which of the following is the oxidation of sugar, a process used extensively in cooking for the resulting nutty flavor and brown colour?**

Ans
- ✗ A. Emulsification
- ✗ B. Putrefaction
- ✓ C. Caramelisation
- ✗ D. Denaturation

Question ID : **1034359195**
Status : **Not Answered**
Chosen Option : **--**

Q.24 **On 25 December 1737, the battle of Bhopal was fought between Mughal forces led by Nizam of Hyderabad and _____.**

Ans
- ✗ A. Vijayanagara Empire
- ✗ B. Kingdom of Mysore
- ✓ C. Maratha Empire
- ✗ D. Sikh Empire

Question ID : **1034359202**
Status : **Answered**
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Q.25 **Eukaryotic cells are significantly larger than prokaryotic cells. What is range of the size of the Eukaryotic cells??**

Ans
- ✗ A. 15–100 μm in diameter
- ✗ B. 10–110 μm in diameter
- ✗ C. 10–105 μm in diameter
- ✓ D. 10–100 μm in diameter

Question ID : **1034359197**
Status : **Not Answered**
Chosen Option : **--**

Q.26 In which of the following years was the Indus Waters Treaty signed after nine years of negotiations between India and Pakistan with the help of the World Bank?

Ans
- ✔ A. 1960
- ✘ B. 1962
- ✘ C. 1958
- ✘ D. 1963

Question ID : **1034359199**
Status : **Not Answered**
Chosen Option : **--**

Q.27 Which of the following institutions launched the beta version of 'Swarajability' – India's first AI-based job portal for persons with disability?

Ans
- ✔ A. IIT Hyderabad
- ✘ B. IIT Madras
- ✘ C. IIT Kanpur
- ✘ D. IISc Bangalore

Question ID : **1034359209**
Status : **Not Answered**
Chosen Option : **--**

Q.28 The Lucknow Pact was signed between Muhammad Ali Jinnah and Bal Gangadhar Tilak in:

Ans
- ✘ A. 1915
- ✘ B. 1914
- ✘ C. 1917
- ✔ D. 1916

Question ID : **1034359205**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.29 **The 23rd state of the Indian Union, according to the Constitution of India, is:**

Ans
✗ A. Arunachal Pradesh
✓ B. Mizoram
✗ C. Goa
✗ D. Sikkim

Question ID : **1034359210**
Status : **Not Answered**
Chosen Option : **--**

Q.30 **Which of the following folk songs belongs to the Ahir Community of Bihar?**

Ans
✓ A. Birha
✗ B. Sohar
✗ C. Kajri
✗ D. Astajam

Question ID : **1034359189**
Status : **Not Answered**
Chosen Option : **--**

Section : **Reasoning**

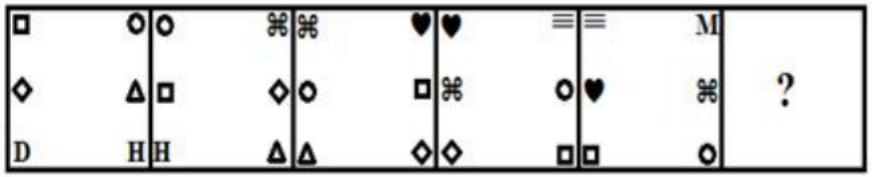
Q.1 **In a certain code language, 'ACUMEN' is written as 'QBPRFX'. How will 'CENSURE' be written in that language?**

Ans
✗ A. CURVKHZ
✓ B. HOXPQBF
✗ C. CORPKBZ
✗ D. HUXVQHF

Question ID : **1034359227**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.2 Select the figure from among the given options that can replace the question mark (?) in the following series.



Ans

✗ A.

✗ B.

✓ C.

✗ D.

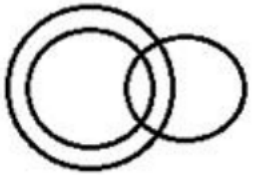
BYJU'S EXAM PREP

Question ID : **1034359244**
Status : **Not Answered**
Chosen Option : **--**

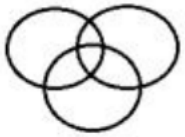
Q.3 **Select the Venn diagram that best illustrates the relationship between the following classes.**
Grandmother, Family, Grandfather

Ans

✗ A.

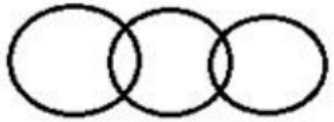


✗ B.



✓ C.

✗ D.



Question ID : **1034359239**
Status : **Answered**
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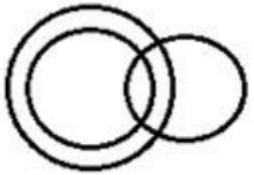
BYJU'S EXAM PREP

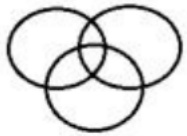
Q.4 **Select the Venn diagram that best illustrates the relationship between the following classes.**
Indians, Scientists, Musicians

Ans

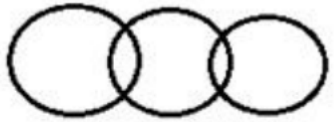
✗ A.



✓ B.



✗ C.



✗ D.

Question ID : **1034359240**
Status : **Answered**
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Q.5 **Identify the number that does NOT belong to the following series.**
13, 23, 47, 91, 183, 336

Ans

✗ A. 183

✗ B. 47

✗ C. 91

✓ D. 336

Question ID : **1034359236**
Status : **Not Answered**
Chosen Option : **--**

Q.6 **A drama teacher is selecting five students for a skit to be performed on the occasion of Independence Day celebrations at the school. For three roles, senior students are needed and the other two roles are to be given to junior students. Selection must be made from four senior school students K, L, M, N and three junior school students P, Q and R.**
i) L and P are siblings and cannot be in the same skit.
ii) P has to go with Q.
iii) R cannot go with K.
Which of the following groups can be selected for the skit?

Ans
✔ A. KPQMN
✘ B. KLPQM
✘ C. LRQMN
✘ D. KPRQN

Question ID : **1034359231**
Status : **Not Answered**
Chosen Option : **--**

Q.7 **Select the option that is related to the third term in the same way as the second term is related to the first term.**
TRACK : MFFYE :: GLOBE : ?

Ans
✘ A. GTDQR
✘ B. GTERS
✘ C. GDTRQ
✔ D. GETSR

Question ID : **1034359224**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.8 Ranjita was facing towards the east. She walked 35 m to reach the hospital. Turning to her left, she walked another 30 m and then turning right, she walked 40 m to reach the medical shop. Finally, she turned right and walked 30 m more to reach the bus stop. How far is she from her starting point?

Ans

✗ A. 90 m

✗ B. 85 m

✓ C. 75 m

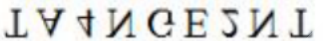
✗ D. 70 m

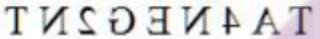
Question ID : **1034359241**
Status : **Not Answered**
Chosen Option : **--**

Q.9 Select the correct mirror image of the given combination when the mirror is placed at PQ as shown.

Ans

✓ A.

✗ B. 

✗ C. 

✗ D.

Question ID : **1034359247**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.10 **Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.**
Statements:
Some jails are ATMs.
Some ATMs are banks.
All banks are colleges.
Conclusions:
I. Some colleges are ATMs
II. Some banks are jails.
III. No bank is a jail.
IV. Some ATMs are jails.

Ans
✗ A. Only conclusions II and IV follow
✓ B. Both conclusions I and IV and either conclusion II or III follow
✗ C. Only conclusions II and III follow
✗ D. Only conclusions I and II follow

Question ID : **1034359234**
Status : **Not Answered**
Chosen Option : **--**

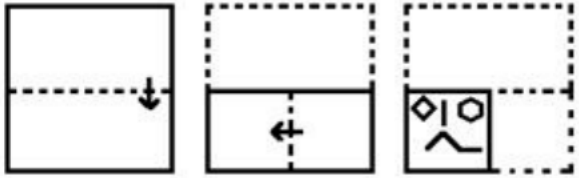
Q.11 **Four words have been given, out of which three are alike in some manner and one is different. Select the word that is different.**

Ans
✓ A. Prowl
✗ B. Roar
✗ C. Bark
✗ D. Grunt

Question ID : **1034359221**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.12 **The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded?**



Ans

✗ A.

✗ B.

✗ C.

✓ D.

BYJU'S EXAM PREP

Question ID : **1034359246**
Status : **Not Answered**
Chosen Option : **--**

Q.13 **In a certain code language, 'STUMBLE' is coded as '95', and 'NASTY' is coded as '55'. How will 'CLOUDY' be coded in that language?**

Ans

✗ A. 90

✓ B. 80

✗ C. 92

✗ D. 82

Question ID : **1034359228**
Status : **Not Answered**
Chosen Option : **--**

Q.14 **Select the option in which the words share the same relationship as that shared by the given pair of words.**
Kangaroo : Joey

Ans

✓ A. Deer : Fawn

✗ B. Calf : Elephant

✗ C. Cub : Tiger

✗ D. Piglet : Pig

Question ID : **1034359226**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.15 Chandan leaves his college and walks 18m towards the south to reach the public garden. Then he takes a left and walks 25 m to reach Dmart. Then he turns 90-degrees in the anti-clockwise direction and walks 18m to reach Coffee Club. From Coffee Club, he takes a left and walks 13 m to reach his home. What is the horizontal distance between Chandan's college and Coffee Club, and in which direction is Coffee Club from Chandan's college?

Ans

✔ A. 25 m, East

✘ B. 25 m, West

✘ C. 35 m, East

✘ D. 35 m, West

Question ID : **1034359243**
Status : **Not Answered**
Chosen Option : **--**

Q.16 Select the number from among the given options that can replace the question mark (?) in the following series.
13, 23, 26, 49, 52, ?

Ans

✘ A. 102

✘ B. 110

✔ C. 101

✘ D. 120

Question ID : **1034359235**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.17 **Select the correct option that indicates the arrangement of the given words in the order in which they appear in an English dictionary.**

1. Memorable
2. Marvellous
3. Milestone
4. Magnet
5. Mischievous

Ans

✗ A. 1, 4, 3, 2, 5

✗ B. 4, 1, 2, 5, 3

✗ C. 4, 2, 5, 1, 3

✓ D. 4, 2, 1, 3, 5

Question ID : **1034359220**
Status : **Not Answered**
Chosen Option : **--**

Q.18 **Four letter-clusters pairs have been given, out of which three are alike in some manner and one is different. Select the letter-cluster pair that is different.**

Ans

✗ A. TAPE : VWRA

✓ B. NEST : PAUO

✗ C. SILK : UENG

✗ D. PAGE : RWIA

Question ID : **1034359222**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.19 **Consider the given statement and decide which of the given assumptions is/are implicit in the statement.**

Statement:
Inculcate 'Help ever-Hurt never' in school going children at an early age.

Assumptions:
I. Any pain or wrong inflicted on another is but an affliction to oneself
II. Good habits should be inculcated from childhood to grow up and become better people.

Ans

✗ A. Only assumption I is implicit

✓ B. Both assumptions I and II are implicit

✗ C. Only assumption II is implicit

✗ D. Either assumption I or II is implicit

Question ID : **1034359233**
Status : **Not Answered**
Chosen Option : **--**

Q.20 **Tarun is the son of Charan. Charan has only two children. Tarun is the brother of Ravali. Ravali is the daughter of Pranavi. Aditi is the granddaughter of Pranavi. Sundar is the father of Aditi. How is Sundar related to Tarun?**

Ans

✗ A. Brother

✗ B. Son

✓ C. Brother-in-law

✗ D. Son-in-law

Question ID : **1034359229**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.21 **Identify the letter-cluster that does NOT belong to the following series.**
KGSX, NJRV, QMQT, TPPQ, WSOP

Ans
- ✗ A. NJRV
- ✓ B. TPPQ
- ✗ C. QMQT
- ✗ D. WSOP

Question ID : **1034359219**
Status : **Not Answered**
Chosen Option : **--**

Q.22 **Mayank leaves his home and walks 27 m towards the north to reach the sports shop. Then he turns right and walks 37 m to reach the bakery. Then he turns right and walks 42 m. Then he turns left and walks 22 m. Finally, he turns left and walks 15 m to reach the stadium. In which direction and how far is he from the starting point?**

Ans
- ✗ A. East, 52 m
- ✗ B. West, 59 m
- ✗ C. West, 52 m
- ✓ D. East, 59 m

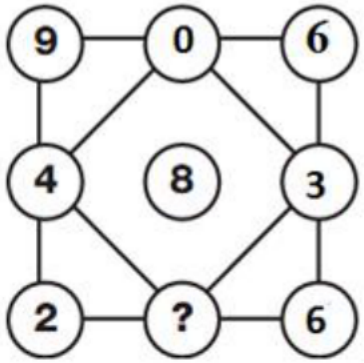
Question ID : **1034359242**
Status : **Not Answered**
Chosen Option : **--**

Q.23 **Select the option that is related to the third word in the same way as the second word is related to the first word.**
Afghanistan : Kabul :: Cuba : ?

Ans
- ✗ A. Bogota
- ✗ B. Santiago
- ✗ C. Harare
- ✓ D. Havana

Question ID : **1034359225**
Status : **Not Answered**
Chosen Option : **--**

Q.24 **Study the given pattern carefully and select the number from among the given options that can replace the question mark (?) in it.**



Ans

✗ A. 10

✗ B. 8

✓ C. 7

✗ D. 9

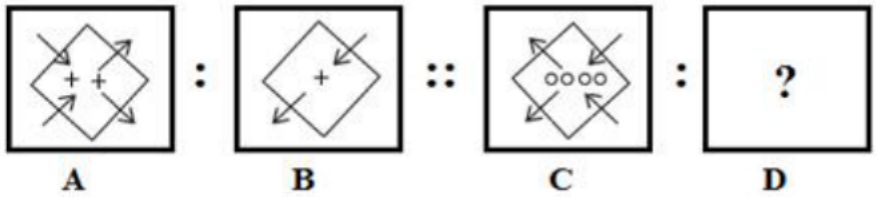
Question ID : **1034359238**

Status : **Not Answered**

Chosen Option : **--**

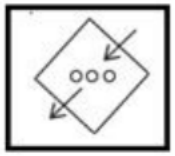
BYJU'S EXAM PREP

Q.25 Select the option that is related to figure C in the same way as figure B is related to figure A.

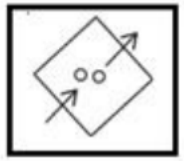


Ans

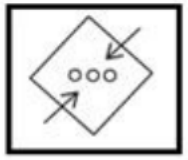
✗ A.



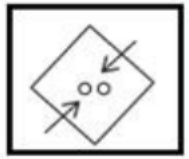
✓ B.



✗ C.



✗ D.



BYJU'S EXAM PREP

Question ID : **1034359245**
Status : **Not Answered**
Chosen Option : **--**

Q.26 **Select the word-pair in which the two words share a different relationship from that shared by the two words in the rest of the word-pairs.**

Ans
- ✔ A. Ring : Skating
- ✘ B. Course : Golf
- ✘ C. Field : Hockey
- ✘ D. Diamond : Baseball

Question ID : **1034359223**
Status : **Not Answered**
Chosen Option : **--**

Q.27 **Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.**
Statements:
All acids are bases.
All bases are carbohydrates.
Conclusions:
I. All acids are carbohydrates.
II. No acid is a carbohydrate.

Ans
- ✘ A. Both conclusions I and II follow
- ✘ B. Only conclusion II follows
- ✔ C. Only conclusion I follows
- ✘ D. Either conclusion I or II follows

Question ID : **1034359232**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.28 **Four number-triads have been given, out of which three are alike in some manner and one is different. Select the number-triad that is different.**

Ans
- ✔ A. (10, 77, 151)
- ✘ B. (8, 67, 131)
- ✘ C. (4, 35, 67)
- ✘ D. (5, 43, 83)

Question ID : **1034359237**
Status : **Not Answered**
Chosen Option : **--**

Q.29 **Eight Board of Directors B, M, N, D, P, C, R and E are sitting around a round table facing the centre at equal distance from each other, but not necessarily in the same order. D is to the immediate right of B and third to the left of P. M is the immediate neighbour of C but not of N. P is the immediate neighbour of E and second to the right of M. N is not the neighbour of B.**
Who is sitting diagonally opposite to M?

Ans
- ✘ A. E
- ✘ B. R
- ✔ C. N
- ✘ D. B

Question ID : **1034359230**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.30 **Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.**
BMG, EKJ, HIM, KGP, ?

Ans
✗ A. MET
✓ B. NES
✗ C. NFS
✗ D. MFT

Question ID : **1034359218**
Status : **Not Answered**
Chosen Option : **--**

Section : **General Engineering**

Q.1 **The frequency of the 7th harmonic for the fundamental frequency of 50Hz is:**

Ans
✗ A. 300 Hz
✗ B. 150 Hz
✓ C. 350 Hz
✗ D. 220 Hz

Question ID : **1034359261**
Status : **Answered**
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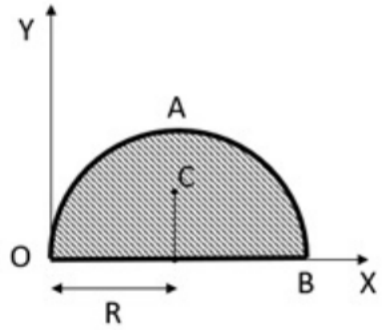
BYJU'S EXAM PREP

Q.2 **What will be the coordinates of the centroid (C) of the semi-circular lamina (OAB) shown in the figure? ['O' is the origin, 'R' is the Radius of semi-circular lamina]**



Ans

✔ A. $\left(R, \frac{4R}{3\pi}\right)$

✘ B. $\left(R, \frac{2R}{3\pi}\right)$

✘ C. $\left(\frac{R}{2}, \frac{3R}{2\pi}\right)$

✘ D. $\left(\frac{4R}{3\pi}, R\right)$

BYJU'S EXAM PREP

Question ID : **1034359268**
Status : **Not Answered**
Chosen Option : **--**

Q.3 **Which is the closed path in a circuit?**

Ans
- ✗ A. Node
- ✗ B. Junction
- ✗ C. Branch
- ✓ D. Loop

Question ID : **1034359259**
Status : **Answered**
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Q.4 **Which of the following is NOT a durability test conducted on building stones?**

Ans
- ✓ A. Mohs scale test
- ✗ B. Acid test
- ✗ C. Smith test
- ✗ D. Brard's test

Question ID : **1034359248**
Status : **Not Answered**
Chosen Option : **--**

Q.5 **Swinburne's test is applicable for:**

Ans
- ✗ A. varying flux machine
- ✓ B. constant flux machine
- ✗ C. constant loss machine
- ✗ D. lossless machine

Question ID : **1034359264**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.6 **According to IS 10500-2012, the maximum acceptable limit of fluoride in drinking water is:**

Ans
- ✗ A. 1.5 mg/l
- ✓ B. 1.0 mg/l
- ✗ C. 2.0 mg/l
- ✗ D. 0.5 mg/l

Question ID : **1034359255**
Status : **Not Answered**
Chosen Option : **--**

Q.7 **2 kg of liquid (system) having a specific heat of 2.5 kJ/kg-K is stirred in a well-insulated chamber causes the temperature to rise by 10°C. Which of the following is true for this process?**

Ans
- ✗ A. Heat transfer to the system is 50 kJ.
- ✗ B. Heat transfer from the system is 50 kJ.
- ✓ C. Work done on the system is 50 kJ.
- ✗ D. Work done by the system is 50 kJ.

Question ID : **1034359270**
Status : **Not Answered**
Chosen Option : **--**

Q.8 **In which method of valuation is net income from building calculated by deducting all the outgoings from gross rent?**

Ans
- ✗ A. Development method of valuation
- ✗ B. Valuation based on profit
- ✓ C. Rental method of valuation
- ✗ D. Valuation based on cost

Question ID : **1034359249**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.9 Steam turbine's output in the thermal power plant is required to do _____ work.

Ans
- ✗ A. electrical
- ✗ B. heat
- ✗ C. magnetic
- ✓ D. mechanical

Question ID : **1034359266**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.10 Self-induction is sometimes analogously called:

Ans
- ✗ A. mechanical inertia
- ✓ B. electromagnetic inertia
- ✗ C. kinetic energy
- ✗ D. potential energy

Question ID : **1034359260**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.11 Which of the following type of materials has the forbidden energy gap of approximately of 15 eV?

Ans
- ✗ A. Conductor
- ✗ B. Super conductor
- ✓ C. Insulator
- ✗ D. Semiconductor

Question ID : **1034359263**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.12 **Which of the following concrete grades has mix proportion 1 : 1.5 : 3 (cement : fine aggregate : coarse aggregate)?**

Ans
- ✗ A. M10
- ✗ B. M30
- ✓ C. M20
- ✗ D. M40

Question ID : **1034359257**
Status : **Not Answered**
Chosen Option : **--**

Q.13 **Two horizontal plates are placed 2 cm apart, the space between them being filled with oil of viscosity 1.6 N.s/m^2 The bottom plate is stationary. What is the shear stress in oil if the upper plate is moved with a velocity of 2 m/s?**

Ans
- ✓ A. 160 N/m^2
- ✗ B. 150 N/m^2
- ✗ C. 140 N/m^2
- ✗ D. 130 N/m^2

Question ID : **1034359252**
Status : **Not Answered**
Chosen Option : **--**

Q.14 **Which of the following is NOT true?**

Ans
- ✗ A. Kaplan turbine is a reaction turbine.
- ✓ B. Pelton wheel is an axial flow turbine.
- ✗ C. Kaplan turbine is an axial flow turbine.
- ✗ D. Pelton wheel is an impulsive turbine.

Question ID : **1034359276**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.15 As per IRC, the width of formation for major district road having two lanes on plain and rolling terrain is:

Ans
✗ A. 12 m
✓ B. 9 m
✗ C. 4.75 m
✗ D. 7.5 m

Question ID : **1034359254**
Status : **Not Answered**
Chosen Option : **--**

Q.16 For finding Thevenin equivalent circuit, the Circuit Current Sources have been replaced by:

Ans
✓ A. infinite resistance
✗ B. internal admittance
✗ C. finite resistance
✗ D. zero resistance

Question ID : **1034359258**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.17 A nozzle is to be designed to expand steam at the rate of 0.1 kg/s from 500 kPa, 210°C to 100 kPa. Steam velocity at the exit of the nozzle is found to be 700 m/s and the specific volume of the steam at the exit of the nozzle is found to be 1.4 m^3/kg. What will be the exit area of the nozzle?

Ans
✓ A. 2 cm^2
✗ B. 0.2 cm^2
✗ C. 20 cm^2
✗ D. 2 m^2

Question ID : **1034359274**
Status : **Not Answered**
Chosen Option : **--**

Q.18 **A rigid tank contains 0.05 m^3 of saturated water vapour at 370 kPa pressure. What will be the mass of vapour inside the tank?**
[Given; Specific volume of saturated vapor at pressure 370 kPa is 0.5 m^3/kg]

Ans
- ✗ A. 0.25 kg
- ✗ B. 0.025 kg
- ✗ C. 10 kg
- ✓ D. 0.1 kg

Question ID : **1034359269**
Status : **Not Answered**
Chosen Option : **--**

Q.19 **The irrigation method in which water is slowly and directly applied to the root zone of the plants, thereby minimising the losses by evaporation and percolation, is called:**

Ans
- ✗ A. flood irrigation
- ✓ B. trickle irrigation
- ✗ C. sprinkler irrigation
- ✗ D. furrow irrigation

Question ID : **1034359253**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.20 **What will be the heat input to a Carnot engine that operates between a source temperature of 900 K and a sink temperature of 300 K and produces 100 kJ of work?**

Ans
- ✓ A. 150 kJ
- ✗ B. 100 kJ
- ✗ C. 300 kJ
- ✗ D. 200 kJ

Question ID : **1034359271**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.21 **Which of the following is NOT p-type impurity?**

Ans

✗ A. Indium

✗ B. Boron

✗ C. Aluminium

✓ D. Arsenic

Question ID : **1034359267**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.22 **An ideal vapour compression refrigeration system works on the evaporator temperature of 0°C and condenser temperature of 40°C. The refrigeration effect is found to be 100 kJ/kg and specific work input to the compressor is found to be 50 kJ/kg. What will be the coefficient of performance of the refrigeration system?**

Ans

✗ A. 1

✓ B. 2

✗ C. 0.5

✗ D. 3

Question ID : **1034359272**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.23 The nominal diameter (φ) of rivet (in mm units) using Unwin's formula is given by which of the following options? Where t is the thickness of the steel plate (in mm unit)

Ans

✔ A. $\varphi = 6.01\sqrt{t}$

✘ B. $\varphi = 6.01\sqrt{2t}$

✘ C. $\varphi = 8\sqrt{t}$

✘ D. $\varphi = 6.01\sqrt{t^2}$

Question ID : **1034359256**
Status : **Not Answered**
Chosen Option : **--**

Q.24 Which of the following is correct for the ideal vapour-compression refrigeration cycle?

Ans

✘ A. On the pressure-enthalpy diagram, the throttling process is shown by the horizontal line.

✔ B. Specific enthalpy of the refrigerant remains constant during the throttling process.

✘ C. Specific enthalpy of the refrigerant increases during the throttling process.

✘ D. Specific enthalpy of the refrigerant decreases during the throttling process.

Question ID : **1034359273**
Status : **Not Answered**
Chosen Option : **--**

Q.25 Which of the following is correct?

Ans

✘ A. Dimension of 'dynamic viscosity' is given by $M\ L\ T^{-2}$

✘ B. 1.0 Poise = 10.0 N-s/m^2

✔ C. Dimension of 'dynamic viscosity' is given by $M\ L^{-1}\ T^{-1}$

✘ D. 1.0 stoke = 0.001 m^2/s

Question ID : **1034359275**
Status : **Not Answered**
Chosen Option : **--**

Q.26 In chain survey, building is an example for:

Ans

✔ A. obstacle to both chaining and ranging

✘ B. obstacle to chaining only

✘ C. obstacle to ranging only

✘ D. obstacle to levelling only

Question ID : **1034359250**
Status : **Not Answered**
Chosen Option : **--**

Q.27 Which of the following is NOT the merit of a coal-fired thermal station?

Ans

✘ A. Initial cost less

✘ B. Less space

✔ C. Atmospheric pollution is less

✘ D. Fuel (coal) is cheap

Question ID : **1034359265**
Status : **Answered**
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Q.28 Soils are classified into 18 groups in which soil classification system?

Ans

✘ A. Massachusetts Institute of Technology Soil Classification System

✘ B. AASHTO Soil Classification System

✔ C. Indian Standard Soil Classification System

✘ D. Unified Soil Classification System

Question ID : **1034359251**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.29 **What is the name of the steel which has the following characteristics?**

i) This steel is deoxidized sufficiently so that there is no evolution of gas during solidification and is free from casting defects (blowhole, pinhole, porosity etc.)
ii) This steel contains more than 0.25% carbon and is denoted by symbol 'K'

Ans
✔ A. Killed steel
✘ B. Cast iron
✘ C. Semi-killed steel
✘ D. Rimmed steel

Question ID : **1034359277**
Status : **Not Answered**
Chosen Option : **--**

Q.30 **For the sinusoidal alternating wave, the value of Form Factor is:**

Ans
✘ A. 1.15
✔ B. 1.11
✘ C. 2.11
✘ D. 1.01

Question ID : **1034359262**
Status : **Answered**
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Section : **Domain Knowledge**

Q.1 **Which of the following is INCORRECT for electric heating?**

Ans
✔ A. Overall efficiency is low.
✘ B. It is free from dirt.
✘ C. Maintenance cost is low.
✘ D. Accurate temperature control is possible.

Question ID : **1034359369**
Status : **Answered**
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BYJU'S EXAM PREP

Q.2 **In single phase induction motors, during blocked rotor test, the rotor is:**

Ans
- ✗ A. running at sub-synchronous speed
- ✗ B. running at super-synchronous speed
- ✗ C. running at synchronous speed
- ✓ D. at rest

Question ID : **1034359330**
Status : **Answered**
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Q.3 **Find the most economical value of the diameter of a single core cable to be used on a 50-kV, single phase system. The maximum permissible stress in the dielectric should not exceed $40\sqrt{2}$ kV/cm.**

Ans
- ✗ A. 3.5 cm
- ✓ B. 2.5 cm
- ✗ C. 3.0 cm
- ✗ D. 2.0 cm

Question ID : **1034359357**
Status : **Not Answered**
Chosen Option : **--**

Q.4 **If a power plant has no reserve capacity, then the plant capacity factor is equal to the _____.**

Ans
- ✗ A. demand factor
- ✗ B. diversity factor
- ✓ C. load factor
- ✗ D. plant use factor

Question ID : **1034359345**
Status : **Answered**
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BYJU'S EXAM PREP

Q.5 **In case of gold plating, the anode is of _____.**

Ans

✗ A. gold

✓ B. stainless steel

✗ C. copper

✗ D. nickel

Question ID : **1034359374**
Status : **Answered**
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Q.6 **The following symbol is used for:**

Ans

✗ A. Circuit breaker

✗ B. Plug

✓ C. Socket

✗ D. Isolator

Question ID : **1034359359**
Status : **Answered**
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Q.7 **The effective resistance of a 2200-V, 50-Hz, 440-kVA, 1-phase alternator is 0.5 Ω. On short circuit, a field current of 40 A gives a full load current of 200 A. The open circuit EMF for the same field excitation is 1200 V. Find the synchronous impedance.**

Ans

✓ A. 6.0 Ω

✗ B. 13 Ω

✗ C. 12 Ω

✗ D. 6.5 Ω

Question ID : **1034359340**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.8 **Which of the following is NOT a valid advantage of hybrid stepper motors?**

Ans

✗ A. High efficiency at low speeds

✗ B. Greater torque per unit volume

✗ C. Small step length

✓ D. Low inertia and weight

Question ID : **1034359333**
Status : **Answered**
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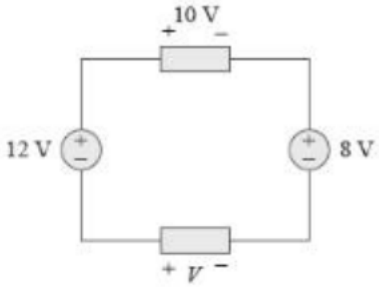
Q.9 **Find the voltage 'V' in the following circuit.**



Ans

✗ A. 14 V

✓ B. 6 V

✗ C. 10 V

✗ D. 30 V

Question ID : **1034359288**
Status : **Answered**
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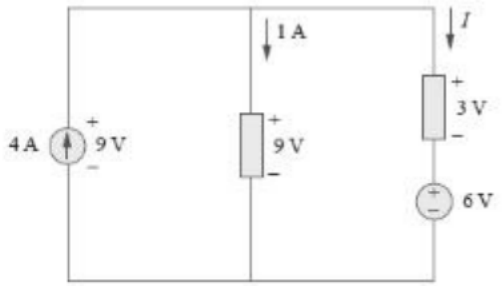
BYJU'S EXAM PREP

Q.10 Find the current 'I' in the following circuit.



Ans

✗ A. 1 A

✓ B. 3 A

✗ C. 2 A

✗ D. 5 A

Question ID : **1034359284**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.11 Which of the following is NOT a valid advantage of fluorescent lamps?

Ans

✗ A. High luminous efficiency

✗ B. Long life

✗ C. Low running cost

✓ D. No stroboscopic effect

Question ID : **1034359368**
Status : **Answered**
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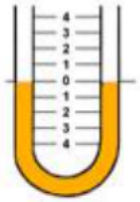
BYJU'S EXAM PREP

Q.12 **Identify the measuring instrument shown below.**



Ans

✔ A. Manometer

✘ B. Venturimeter

✘ C. Thermometer

✘ D. Rotameter

Question ID : **1034359384**
Status : **Not Answered**
Chosen Option : **--**

Q.13 **Which segments of a seven-segment LED should be lighted on to display the digit '1'?**

Ans

✘ A. Segments C and D

✔ B. Segments B and C

✘ C. Segments E and F

✘ D. Segments A and B

Question ID : **1034359378**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.14 **With reference to testing of DC machines, state TRUE/FALSE for following statements.**

.

1. The most economical method of finding no-load losses of a large DC shunt motor is Swinburne's test. .

2. Retardation test on a DC shunt motor is used for finding stray losses.

Ans

✔ A. 1 - TRUE, 2 - TRUE

✘ B. 1 - FALSE, 2 - FALSE

✘ C. 1 - FALSE, 2 - TRUE

✘ D. 1 - TRUE, 2 - FALSE

Question ID : **1034359327**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.15 **A good heating element should have a _____ specific resistance and a _____ temperature coefficient of resistance.**

Ans

✘ A. low; low

✔ B. high; low

✘ C. low; high

✘ D. high; high

Question ID : **1034359370**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.16 **In which type of lighting is the light distribution in upward and downward directions approximately the same?**

Ans

✘ A. Direct lighting

✘ B. Indirect lighting

✔ C. General diffusing lighting

✘ D. Semi-direct lighting

Question ID : **1034359364**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.17 **With reference to the delta-delta connection of a 3-phase transformer, state TRUE/FALSE for following statements.**
1. It is satisfactory for both balanced and unbalanced loading.
2. Third harmonic does not appear in the output voltage wave.

Ans
✗ A. 1 - TRUE, 2 - FALSE
✗ B. 1 - FALSE, 2 - FALSE
✓ C. 1 - TRUE, 2 - TRUE
✗ D. 1 - FALSE, 2 - TRUE

Question ID : **1034359325**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.18 **Which of the following is a hard magnetic material?**

Ans
✗ A. Nickel-iron alloy
✗ B. Iron-silicon alloy
✗ C. Iron
✓ D. Ferrite

Question ID : **1034359295**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.19 **Which of the following is NOT a correct voltage level for primary transmissions?**

Ans
✓ A. 11 kV
✗ B. 220 kV
✗ C. 66 kV
✗ D. 132 kV

Question ID : **1034359347**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.20 **In hydroelectric power plants, _____ are open or closed conduits which carry water to the turbines.**

Ans
- ✗ A. surge tanks
- ✗ B. spillways
- ✓ C. penstocks
- ✗ D. dams

Question ID : **1034359344**
Status : **Answered**
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Q.21 **For a single stage transistor amplifier, the collector load R_c = 2 kΩ and the input resistance R_i = 1 kΩ. If the current gain is 50, calculate the voltage gain of the amplifier.**

Ans
- ✓ A. 100
- ✗ B. 150
- ✗ C. 50
- ✗ D. 200

Question ID : **1034359382**
Status : **Not Answered**
Chosen Option : **--**

Q.22 **Arrange the following materials in ascending order with reference to the resistance offered to electrical current?**
Glass, Silver, Germanium

Ans
- ✗ A. Silver, Glass, Germanium
- ✗ B. Germanium, Glass, Silver
- ✓ C. Silver, Germanium, Glass
- ✗ D. Glass, Germanium, Silver

Question ID : **1034359278**
Status : **Answered**
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BYJU'S EXAM PREP

Q.23 What value of a series resistor is required to limit the current through an LED to 20 mA with a forward voltage drop of 2.0 V, when connected to a 10-V supply?

Ans
✗ A. 600 Ω
✗ B. 200 Ω
✗ C. 800 Ω
✓ D. 400 Ω

Question ID : **1034359381**
Status : **Answered**
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Q.24 A conductor of length 0.5 m moves in a uniform magnetic field of density 1.5 T at a velocity of 60 m/s. Calculate the induced voltage in the conductor when the direction of motion is inclined at an angle of 30° with the direction of the field.

Ans
✗ A. 16.5 V
✗ B. 39 V
✓ C. 22.5 V
✗ D. 45 V

Question ID : **1034359301**
Status : **Not Answered**
Chosen Option : **--**

Q.25 Transform the following sinusoid form into phasor form:
i(t) = 10 cos (50t - 30°)

Ans
✗ A. $\mathrm{I} = 10 \angle 30^\circ \ \mathrm{A}$
✗ B. $\mathrm{I} = 10 \angle -20^\circ \ \mathrm{A}$
✓ C. $\mathrm{I} = 10 \angle -30^\circ \ \mathrm{A}$
✗ D. $\mathrm{I} = 10 \angle -50^\circ \ \mathrm{A}$

Question ID : **1034359304**
Status : **Not Answered**
Chosen Option : **--**

Q.26 If the measurement indicates a vacuum of 150 Torr, what will be the absolute pressure?

Ans

✔ A. 610 Torr

✘ B. 150 Torr

✘ C. 910 Torr

✘ D. 760 Torr

Question ID : **1034359386**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.27 Up to a voltage of _____, Potential Transformers (PTs) are usually of dry type.

Ans

✘ A. 15000 V

✔ B. 5000 V

✘ C. 1000 V

✘ D. 2000 V

Question ID : **1034359317**
Status : **Answered**
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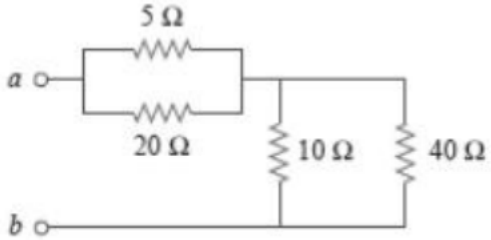
BYJU'S EXAM PREP

Q.28 Find the value of R_{eq} in the following network.



Ans

✔ A. 12 Ω

✘ B. 4 Ω

✘ C. 20 Ω

✘ D. 24 Ω

Question ID : **1034359293**
Status : **Answered**
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Q.29 Find the time period and angular frequency of the following signal:

$v(t) = 12 \cos(50\pi t + 10°)$

Ans

✘ A. $T = 20$ ms; $\omega = 25\pi$ rad/sec

✘ B. $T = 20$ ms; $\omega = 50\pi$ rad/sec

✘ C. $T = 40$ ms; $\omega = 25\pi$ rad/sec

✔ D. $T = 40$ ms; $\omega = 50\pi$ rad/sec

Question ID : **1034359305**
Status : **Not Answered**
Chosen Option : **--**

Q.30 **Which of the following tests is also known as 'phantom loading'?**

Ans

✔ A. Indirect loading test

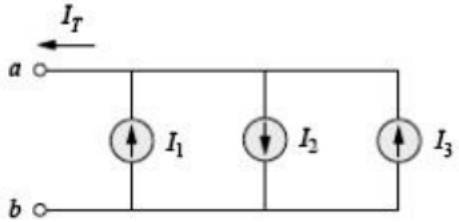
✗ B. No load test

✗ C. Short circuit test

✗ D. Direct loading test

Question ID : **1034359322**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.31 **In the following circuit, if I_1 = 10 A, I_2 = 15 A and I_3 = 20 A, find the total current I_T.**



Ans

✗ A. 25 A

✗ B. 5 A

✔ C. 15 A

✗ D. 45 A

Question ID : **1034359286**
Status : **Answered**
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BYJU'S EXAM PREP

Q.32 Which of the following is an example of a non-Newtonian fluid?

Ans

✗ A. Petrol

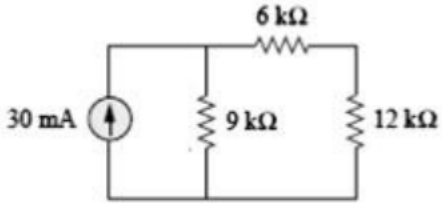
✗ B. Kerosene

✓ C. Peanut butter

✗ D. Water

Question ID : **1034359387**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.33 Find the voltage drop across the 6-kΩ resistor in the following network.



Ans

✗ A. 90 V

✓ B. 60 V

✗ C. 120 V

✗ D. 30 V

Question ID : **1034359290**
Status : **Answered**
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BYJU'S EXAM PREP

Q.34 In steam power plants, the _____ is a part of the ash handling system.

Ans

✗ A. ball mill

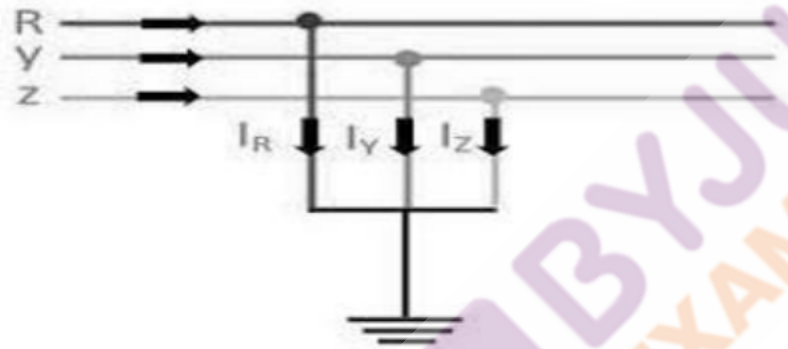
✗ B. economiser

✗ C. boiler

✓ D. electrostatic precipitator

Question ID : **1034359342**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.35 Which fault is indicated by following diagram?



Ans

✓ A. Symmetrical fault

✗ B. LG fault

✗ C. LLG fault

✗ D. LL fault

Question ID : **1034359352**
Status : **Answered**
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BYJU'S EXAM PREP

Q.36 **A three-phase motor draws 5.6 kW power when subjected to an apparent power of 7000 VA. Find the reactive power.**

Ans

✗ A. 6.3 kVAr

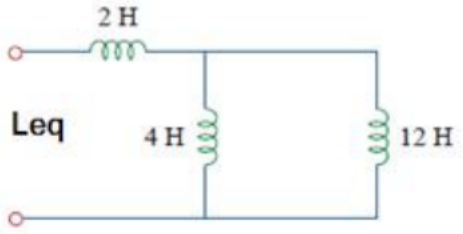
✓ B. 4.2 kVAr

✗ C. 2.8 kVAr

✗ D. 1.4 kVAr

Question ID : **1034359308**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.37 **Find the value of L_{eq} in the following circuit.**



Ans

✓ A. 5 H

✗ B. 18 H

✗ C. 12 H

✗ D. 4 H

Question ID : **1034359285**
Status : **Answered**
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BYJU'S EXAM PREP

Q.38 A series RLC circuit has R = 50 Ω, X_C = 90 Ω and X_L = 30 Ω. The impedance of the circuit is:

Ans

✔ A. $50 - j\,60\ \Omega$

✘ B. $-50 - j\,60\ \Omega$

✘ C. $-50 + j\,60\ \Omega$

✘ D. $50 + j\,60\ \Omega$

Question ID : **1034359306**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.39 **In cadmium copper conductors, addition of 1% to 2% cadmium to copper increases the tensile strength by approximately _____.**

Ans

✘ A. 25%

✘ B. 95%

✔ C. 50%

✘ D. 75%

Question ID : **1034359353**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.40 **In which of the following is the heating obtained with the help of eddy current?**

Ans

✔ A. Induction heating

✘ B. Resistance heating

✘ C. Bombardment heating

✘ D. Dielectric heating

Question ID : **1034359372**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.41 A ring-shaped core with a cross-sectional area of 400 mm^2 carries a total flux of 10 mWb. Find the flux density.

Ans

✗ A. 0.025 T

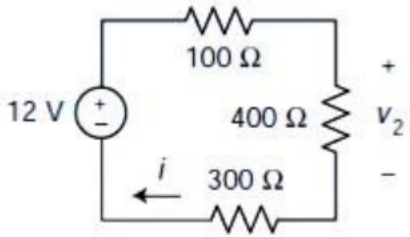
✗ B. 2.5 T

✗ C. 0.25 T

✓ D. 25 T

Question ID : **1034359296**
Status : **Not Answered**
Chosen Option : **--**

Q.42 Find V_2 in the following circuit.



Ans

✓ A. 6 V

✗ B. 8 V

✗ C. 4 V

✗ D. 10 V

Question ID : **1034359291**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.43 The peak point voltage and the valley point voltage are characteristics of a _____.

Ans
✗ A. Zener diode

✓ B. Tunnel diode

✗ C. Varactor diode

✗ D. Schottky diode

Question ID : **1034359379**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.44 Which of the following is an application of arc lamps?

Ans
✗ A. Lighting of garden fountains

✓ B. Flash cameras

✗ C. Lighting of car parks

✗ D. Lighting of playing fields

Question ID : **1034359367**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.45 With reference to synchronous motors, state TRUE/FALSE for following statements.
1. A synchronous compensator is a synchronous motor running without a mechanical load.
2. For the same output and voltage rating, a synchronous motor is costlier than an induction motor.

Ans
✗ A. 1 - TRUE, 2 - FALSE

✓ B. 1 - TRUE, 2 - TRUE

✗ C. 1 - FALSE, 2 - TRUE

✗ D. 1 - FALSE, 2 - FALSE

Question ID : **1034359341**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.46 A half-wave voltage doubler consists of _____ diode(s).

Ans
- ✗ A. one
- ✓ B. two
- ✗ C. three
- ✗ D. four

Question ID : **1034359376**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.47 Which of the following flowmeters works on the principle of Bernoulli's theorem?

Ans
- ✗ A. Ultrasonic flowmeter
- ✓ B. Orifice meter
- ✗ C. Lobed impeller flowmeter
- ✗ D. Electromagnetic flowmeter

Question ID : **1034359385**
Status : **Not Answered**
Chosen Option : **--**

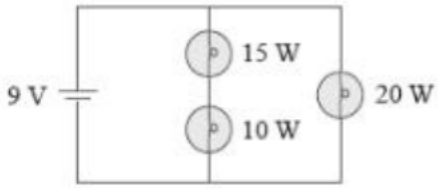
Q.48 A 1-phase transformer has 400 primary and 1000 secondary turns. If the primary is connected to a 50-Hz supply at 500 V, determine the voltage induced in the secondary winding.

Ans
- ✗ A. 400 V
- ✓ B. 1250 V
- ✗ C. 1400 V
- ✗ D. 1000 V

Question ID : **1034359321**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.49 **In following circuit, find the total current supplied by the battery.**



Ans

✔ A. 5 A

✘ B. 3 A

✘ C. 2.5 A

✘ D. 2 A

Question ID : **1034359289**
Status : **Answered**
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Q.50 **The ratio of the operating capacity to the available capacity of an Open-Delta connection is _____**

Ans

✘ A. 0.667

✘ B. 0.134

✔ C. 0.866

✘ D. 0.577

Question ID : **1034359326**
Status : **Answered**
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BYJU'S EXAM PREP

Q.51 _____ is a semiconductor device with a P-N junction that converts light into electrical current.

Ans

✗ A. Light emitting diode

✗ B. Zener diode

✓ C. Photodiode

✗ D. Tunnel diode

Question ID : **1034359375**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.52 Two coils having self-inductances of 16 H and 4 H are coupled in such a way that the mutual inductance is 4 H. Find the coefficient of coupling.

Ans

✗ A. 0.25

✓ B. 0.50

✗ C. 1.00

✗ D. 0.75

Question ID : **1034359300**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.53 In a DC machine, the _____ serves as a return path for the pole flux.

Ans

✗ A. pole shoe

✓ B. yoke

✗ C. pigtail

✗ D. pole face

Question ID : **1034359318**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.54 When two identical sinusoidal voltages with zero-degree phase difference are applied on X and Y plates of a CRO, the Lissajous figure obtained will be a/an _____.

Ans
✗ A. straight line with negative slope
✓ B. straight line with positive slope
✗ C. circle
✗ D. ellipse

Question ID : **1034359311**
Status : **Not Answered**
Chosen Option : **--**

Q.55 Which of the following is a non-fusion welding?

Ans
✗ A. Inert gas welding
✗ B. Carbon arc welding
✓ C. Forge welding
✗ D. Submerged arc welding

Question ID : **1034359373**
Status : **Not Answered**
Chosen Option : **--**

Q.56 With reference to DC motors, state TRUE/FALSE for following statements.
1.The difference between armature torque and shaft torque is known as lost torque.
2. Increase in flux would decrease the torque.

Ans
✗ A. 1 - FALSE, 2 - FALSE
✗ B. 1 - TRUE, 2 - TRUE
✗ C. 1 - FALSE, 2 - TRUE
✓ D. 1 - TRUE, 2 - FALSE

Question ID : **1034359328**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.57 **Which of the following is NOT a characteristic of shaded pole single phase motors?**

Ans
- ✗ A. Low efficiency
- ✗ B. Low starting torque
- ✗ C. Low overload capacity
- ✓ D. High overload capacity

Question ID : **1034359332**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.58 **A three-phase induction motor has 8 poles, and it runs on a supply frequency of 60 Hz. Find the speed of the rotating magnetic field.**

Ans
- ✗ A. 1200 rpm
- ✗ B. 1500 rpm
- ✗ C. 600 rpm
- ✓ D. 900 rpm

Question ID : **1034359324**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.59 **The temperature coefficient of resistance is _____ for silicon and _____ for copper.**

Ans
- ✗ A. positive; positive
- ✓ B. negative; positive
- ✗ C. positive; negative
- ✗ D. negative; negative

Question ID : **1034359280**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.60 **Which of the following bridges is used for the measurement of incremental inductance?**

Ans

✗ A. Schering bridge

✗ B. De-Sauty bridge

✗ C. Kelvin's bridge

✓ D. Owen bridge

Question ID : **1034359314**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.61 **A dielectric material is allowed to accumulate the charge through a 2.5-A current. How much time will it require to accumulate a charge of 40 C?**

Ans

✓ A. 16 seconds

✗ B. 60 seconds

✗ C. 30 seconds

✗ D. 100 seconds

Question ID : **1034359282**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.62 **The unit of reluctivity is:**

Ans

✗ A. Wb

✗ B. AT

✗ C. Henry/Metre

✓ D. Metre/Henry

Question ID : **1034359294**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.63 **The current plug settings usually range from 10% to 70% in steps of _____ for earth leakage relays.**

Ans

✗ A. 20%

✗ B. 15%

✓ C. 10%

✗ D. 5%

Question ID : **1034359358**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.64 **For parallel circuits, _____ is the quantity analogous to reactance in series circuits.**

Ans

✗ A. inductance

✗ B. impedance

✓ C. susceptance

✗ D. capacitance

Question ID : **1034359307**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.65 **In induction motors, the synchronous speed is:**

Ans

✓ A. directly proportional to the frequency

✗ B. inversely proportional to the frequency

✗ C. directly proportional to the square-root of the frequency

✗ D. inversely proportional to the square-root of the frequency

Question ID : **1034359320**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.66 What is the recommended level of illumination in control rooms of power houses?

Ans
- ✗ A. 1500 lux
- ✗ B. 150 lux
- ✓ C. 300 lux
- ✗ D. 700 lux

Question ID : **1034359365**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.67 In an underground system, the volume of the conductor material required in 2-wire DC system with midpoint earthed is _____ that for a 2-wire DC system.

Ans
- ✗ A. thrice
- ✗ B. twice
- ✓ C. the same as
- ✗ D. four times

Question ID : **1034359349**
Status : **Not Answered**
Chosen Option : **--**

Q.68 Which of the following bridges is a mutual inductance bridge?

Ans
- ✗ A. Owen bridge
- ✗ B. De-Sauty bridge
- ✗ C. Maxwell Wien bridge
- ✓ D. Heaviside-Campbell Bridge

Question ID : **1034359315**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.69 State TRUE/FALSE for following statements.
1. In blocked rate tariff, the price per unit in the first block is lowest.
2. In uniform rate tariff, the price charged per unit is constant.

Ans
✔ A. 1 - FALSE, 2 - TRUE
✘ B. 1 - TRUE, 2 - TRUE
✘ C. 1 - TRUE, 2 - FALSE
✘ D. 1 - FALSE, 2 - FALSE

Question ID : **1034359350**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.70 Which of the following instruments is NOT used for fluid flow measurements?

Ans
✘ A. Hot wire anemometer
✘ B. Orifice meter
✔ C. Pyrometer
✘ D. Pitot tube

Question ID : **1034359383**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.71 Which of the following is NOT a characteristic of Permanent Split Capacitor (PSC) motors?

Ans
✘ A. High efficiency
✘ B. High pullout torque
✘ C. High power factor
✔ D. High starting torque

Question ID : **1034359331**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.72 In case of indirect arc furnaces, the power factor is approximately _____.

Ans

✔ A. 0.85 lagging

✘ B. 0.65 lagging

✘ C. 0.95 lagging

✘ D. 0.75 lagging

Question ID : **1034359371**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.73 State TRUE/FALSE for following statements.
1. In a delta-delta system, the line voltage and phase voltage are equal.
2. When a Y-connected load is supplied by voltages in abc phase sequence, the line voltages lag the corresponding phase voltages by 30°.

Ans

✘ A. 1 - FALSE, 2 - TRUE

✘ B. 1 - FALSE, 2 - FALSE

✘ C. 1 - TRUE, 2 - TRUE

✔ D. 1 - TRUE, 2 - FALSE

Question ID : **1034359309**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.74 In a single phase circuit, the apparent power is 250 VA and the reactive power is 150 VAr. Find the active power.

Ans

✔ A. 200 W

✘ B. 300 W

✘ C. 400 W

✘ D. 100 W

Question ID : **1034359313**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.75 **The maximum demand on a power station is 200 MW. If the annual load factor is 50%, calculate the total energy generated in a year.**

Ans

✔ A. 876×10^6 kWh

✘ B. 438×10^5 kWh

✘ C. 876×10^5 kWh

✘ D. 438×10^6 kWh

Question ID : **1034359346**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.76 **In a magnetic circuit, the magnetic coil has 10 turns and the reluctance of the magnetic path is 250 AT/Wb. Find the value of self-inductance.**

Ans

✘ A. 0.04 H

✘ B. 2.5 H

✔ C. 0.4 H

✘ D. 0.25 H

Question ID : **1034359298**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.77 **The following symbol is used for:**

Ans

✔ A. Impedance

✘ B. Inductance

✘ C. Capacitance

✘ D. Resistance

Question ID : **1034359360**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.78 **A typical squirrel cage induction motor will have _____ starting torque with _____ starting current, when started direct-on-line.**

Ans
- ✗ A. 200%; 300%
- ✗ B. 600%; 130%
- ✗ C. 300%; 200%
- ✓ D. 130%; 600%

Question ID : **1034359366**
Status : **Not Answered**
Chosen Option : **--**

Q.79 **_____ is the most commonly used material for insulators of overhead lines.**

Ans
- ✗ A. Glass
- ✓ B. Porcelain
- ✗ C. Steatite
- ✗ D. Quartz

Question ID : **1034359348**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.80 **The following two tariffs are offered:**
(i) ₹100 plus 15 paise per unit
(ii) A flat rate of 40 paise per unit
At what consumption is the first tariff economical?

Ans
- ✗ A. Above 100 units
- ✗ B. Above 200 units
- ✓ C. Above 400 units
- ✗ D. Above 300 units

Question ID : **1034359356**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.81 A sinusoidal current is expressed as $i(t) = 75 \sin 50\pi t$. Find the frequency.

Ans

✔ A. 25 Hz

✘ B. 5 Hz

✘ C. 50 Hz

✘ D. 10 Hz

Question ID : **1034359302**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.82 In cleat wiring, cleats are fixed at regular intervals not exceeding _____.

Ans

✘ A. 0.2 m

✔ B. 0.6 m

✘ C. 0.1 m

✘ D. 1.0 m

Question ID : **1034359361**
Status : **Not Answered**
Chosen Option : **--**

Q.83 In a cumulative compound DC generator, if the terminal voltage at full load is greater than that at no load, it is called _____.

Ans

✔ A. over compounded

✘ B. flat compounded

✘ C. critically compounded

✘ D. under compounded

Question ID : **1034359319**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.84 **A 100-W electric heater has a resistance of 4 Ω. What will be the maximum permissible current?**

Ans
- ✗ A. 10 A
- ✗ B. 15 A
- ✗ C. 25 A
- ✓ D. 5 A

Question ID : **1034359279**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.85 **The phenomenon of oscillation of the rotor about its equilibrium position is called _____.**

Ans
- ✗ A. single phasing
- ✗ B. plugging
- ✓ C. hunting
- ✗ D. phase locking

Question ID : **1034359339**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

Q.86 **With reference to the power cable insulation, which of the following synthetic rubber like insulating materials is a thermosetting compound?**

Ans
- ✓ A. XLPE – Cross-Linked Poly Ethylene
- ✗ B. EPR – Ethylene Propylene Rubber
- ✗ C. HEPR – Hard Ethylene Propylene Rubber
- ✗ D. PE – Polyethylene

Question ID : **1034359363**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

BYJU'S EXAM PREP

Q.87 **Which of the following motors gives translational motion instead of rotational motion?**

Ans
- ✗ A. Three-phase induction motor
- ✗ B. Synchronous motor
- ✓ C. Linear induction motor
- ✗ D. DC shunt motor

Question ID : **1034359329**
Status : **Answered**
WWW.ALLEXAMREVIEW.COM

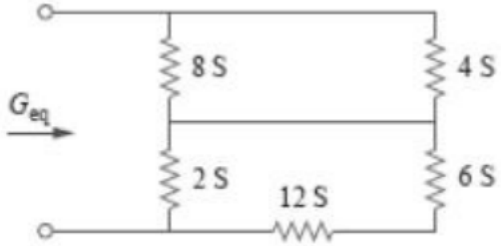
Q.88 **The voltage and current being applied to a load are sinusoidal waveforms whose amplitudes are 50 V and 10 A, respectively. The phase angle between them is 30°. Find the reactive power of the load.**

Ans
- ✓ A. 125 VAr
- ✗ B. 500 VAr
- ✗ C. 250 VAr
- ✗ D. 216 VAr

Question ID : **1034359312**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.89 Find G_{eq} in the following network.



Ans

✗ A. 6 S

✓ B. 4 S

✗ C. 8 S

✗ D. 10 S

Question ID : **1034359292**
Status : **Answered**
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Q.90 In a 1-phase alternator, the synchronous impedance is 0.25 Ω and the armature resistance is 0.1 Ω. Find the synchronous reactance.

Ans

✗ A. 0.26 Ω

✗ B. 0.25 Ω

✓ C. 0.23 Ω

✗ D. 0.24 Ω

Question ID : **1034359336**
Status : **Answered**
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Q.91 **A moving-coil voltmeter has the coil with 100 turns and is 4 cm long and 3 cm wide. If it carries 25 mA of current and the flux density in the air gap is 0.06 Wb/m^2, find the deflecting torque.**

Ans

✗ A. 9×10^{-5} N-m

✓ B. 18×10^{-5} N-m

✗ C. 9×10^{-6} N-m

✗ D. 18×10^{-6} N-m

Question ID : **1034359316**
Status : **Not Answered**
Chosen Option : **--**

Q.92 **Ten capacitors are connected in series. If all the ten capacitors are of the same value and the equivalent capacitance is 10 μF, find the capacitance of each capacitor.**

Ans

✓ A. 100 μF

✗ B. 10 μF

✗ C. 50 μF

✗ D. 20 μF

Question ID : **1034359283**
Status : **Answered**
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Q.93 **In an alternator, for which type of load will the armature reaction be distortional?**

Ans

✗ A. Power factor = 0.5

✗ B. Zero power factor lagging

✓ C. Unity power factor

✗ D. Zero power factor leading

Question ID : **1034359335**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.94 The maximum possible value of mutual inductance between two coils having self-inductances of 16 H and 25 H is:

Ans
✗ A. 9 H
✗ B. 41 H
✓ C. 20 H
✗ D. 10 H

Question ID : **1034359299**
Status : **Not Answered**
Chosen Option : **--**

Q.95 In vulcanised Indian Rubber (VIR)-type insulating material, the sulphur content is _____.

Ans
✓ A. 3% to 5%
✗ B. 0.1% to 0.5%
✗ C. 10% to 15%
✗ D. 0.7% to 1.5%

Question ID : **1034359351**
Status : **Not Answered**
Chosen Option : **--**

Q.96 A steel ring with a 15-cm^2 cross-sectional area is wound uniformly with 1000 turns of wire carrying a current of 500 mA. Find the MMF.

Ans
✗ A. 75 AT
✗ B. 50 AT
✗ C. 750 AT
✓ D. 500 AT

Question ID : **1034359297**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.97 **An electric bulb consumes 720 kJ of energy in 5 hours. Find the power rating of the bulb.**

Ans
- ✗ A. 15 W
- ✗ B. 60 W
- ✗ C. 100 W
- ✓ D. 40 W

Question ID : **1034359281**
Status : **Not Answered**
Chosen Option : **--**

Q.98 **What will be the output frequency of a 6-pole alternator running at a speed of 1200 rpm?**

Ans
- ✗ A. 50 Hz
- ✓ B. 60 Hz
- ✗ C. 25 Hz
- ✗ D. 30 Hz

Question ID : **1034359334**
Status : **Answered**
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Q.99 **For a common emitter connection of BJT, find the value of β if α = 0.995.**

Ans
- ✓ A. 199
- ✗ B. 19
- ✗ C. 9
- ✗ D. 99

Question ID : **1034359380**
Status : **Not Answered**
Chosen Option : **--**

Q.100 For a full-wave bridge rectifier, the supply voltage v(t) = 100 sin ωt. Find the PIV of the diode.

Ans

✔ A. 100 V

✘ B. 200 V

✘ C. 50 V

✘ D. 141 V

Question ID : **1034359377**
Status : **Not Answered**
Chosen Option : **--**

Q.101 For a 3-phase induction motor, the synchronous speed is 3000 rpm. Find the actual rotor speed if the slip is 3%.

Ans

✘ A. 2970 rpm

✔ B. 2910 rpm

✘ C. 2730 rpm

✘ D. 2820 rpm

Question ID : **1034359323**
Status : **Answered**
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Q.102 Which of the following is NOT a characteristic of hydroelectric power plants?

Ans

✘ A. Robust construction and longer life

✘ B. No fuel required

✘ C. No smoke or ash production

✔ D. Very high maintenance cost

Question ID : **1034359343**
Status : **Answered**
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Q.103 For synchronous motors, inverted V-curves are the plots of power factor versus _____.

Ans

✗ A. output frequency

✗ B. armature current

✓ C. field current

✗ D. supply voltage

Question ID : **1034359338**
Status : **Answered**
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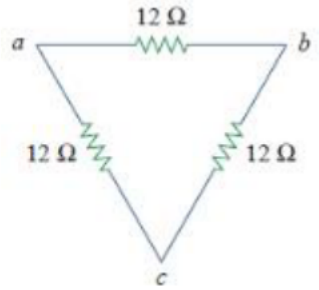
Q.104 Transform the following circuit into star network.



Ans

✗ A. $R_1 = R_2 = R_3 = 12\ \Omega$

✗ B. $R_1 = R_2 = R_3 = 18\ \Omega$

✗ C. $R_1 = R_2 = R_3 = 36\ \Omega$

✓ D. $R_1 = R_2 = R_3 = 4\ \Omega$

Question ID : **1034359287**
Status : **Not Answered**
Chosen Option : **--**

BYJU'S EXAM PREP

Q.105 Which of the following expenses is NOT covered under overhead charges?

Ans

✗ A. Office rent

✓ B. Loss due to flood

✗ C. Rate of lighting and heating

✗ D. Depreciation of office equipment

Question ID : **1034359362**
Status : **Not Answered**
Chosen Option : **--**

Q.106 In CRO, _____ is NOT a part of the vertical deflection system.

Ans

✓ A. time base generator

✗ B. main amplifier

✗ C. preamplifier

✗ D. delay line

Question ID : **1034359310**
Status : **Not Answered**
Chosen Option : **--**

Q.107 Which of the following is NOT a valid advantage of static capacitors being used for power factor improvement?

Ans

✗ A. Less maintenance

✓ B. Long service life – more than 15 years

✗ C. Low losses

✗ D. No rotating parts

Question ID : **1034359355**
Status : **Answered**
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Q.108 For a synchronous motor, the AC electrical power input to stator is the algebraic sum of the gross mechanical power developed in armature and the _____.

Ans
- ✗ A. friction losses
- ✗ B. iron losses
- ✗ C. excitation losses
- ✓ D. armature copper losses

Question ID : **1034359337**
Status : **Answered**
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Q.109 The peak amplitude of a sinusoidal voltage is 120 V. Find the peak-to-peak voltage.

Ans
- ✓ A. 240 V
- ✗ B. 120 V
- ✗ C. 170 V
- ✗ D. 340 V

Question ID : **1034359303**
Status : **Answered**
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Q.110 A generating station has an installed capacity of 50 MW and delivers 250×10^6 units per annum. If the annual fixed charges are ₹160 per kW installed capacity and running charges are 4 paise per kWh, find the cost per unit generated.

Ans
- ✓ A. 7.2 paise
- ✗ B. 7.4 paise
- ✗ C. 7.6 paise
- ✗ D. 7.8 paise

Question ID : **1034359354**
Status : **Not Answered**
Chosen Option : **--**

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