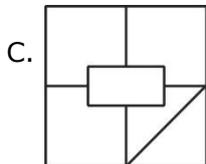
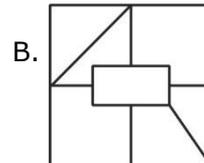
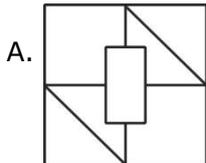
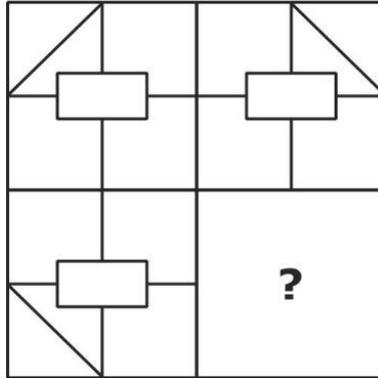






9. Select the shape that completes the pattern.



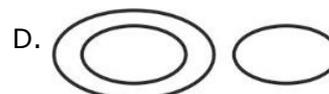
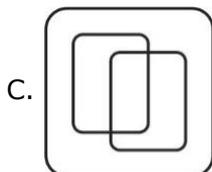
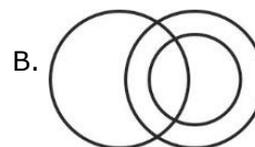
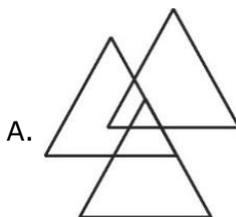
10. Five friends Ram, Priya, Raunak, Aditya and Shyam are sitting in a row. Reenak is to the right of Shyam and Priya is to the left of Shyam but to the right of Ram. Raunak is to the left of Aditya. Who is fourth from the left end?

- A. Priya
- B. Raunak
- C. Aditya
- D. Shyam

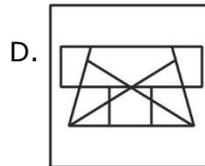
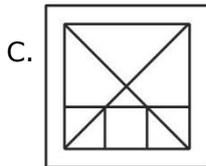
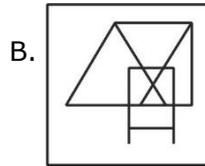
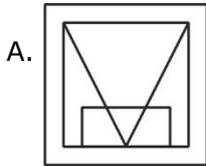
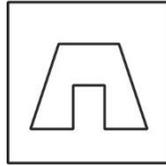
11. Four words are given out of which three are alike in some way while one is different. Select Odd.

- A. Kiwi
- B. Vulture
- C. Stork
- D. crow

12. Which of the following Venn diagrams represents the relationship between male, father, and brother?



**13.** In the given question, find the answer figure in which the question figure is embedded.



**14.** Find the wrong term in the series?

I, L, F, N, C, R

A. R

B. I

C. N

D. L

**15.** Choose the odd one from the given alternatives.

A. RN : PL

B. CF : AD

C. UZ : WS

D. MO : KM

**16.** In the question, select the related pair of words from the given alternatives.

Dullness : Exhaustion :: ?

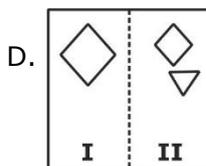
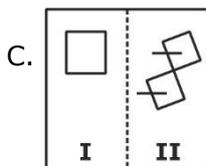
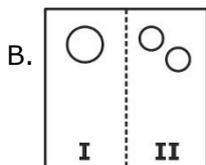
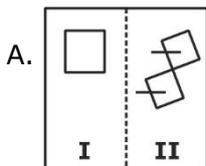
A. Rare : Excess

B. joyful : happy

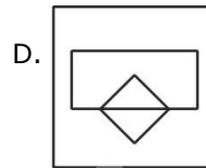
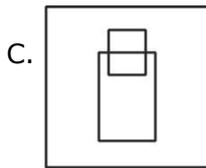
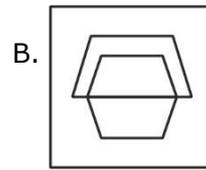
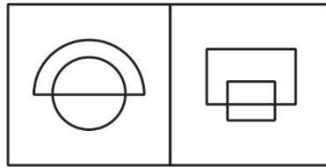
C. Generous : miserly

D. Quiet : Airy

**17.** Choose the odd figure pair which is different from the other figure pair.



18. Select the figure which has the same characteristics as the question figure.



19. Students are standing in a row in which Rohan is thirteenth from the left and Swaraj is ninth from the right. If there are four persons sitting between them. How many students are there in the row?

- A. 27
- B. 28
- C. 26
- D. 25

20. Select the related word from the given alternatives.

Hindu : Temple :: Sikhs:?

- A. Mecca Madina
- B. Gurudwara
- C. Golden Temple
- D. Church

### General Awareness

1. Pandit Shiv Kumar Sharma is related to which musical instrument?
  - A. Sarangi
  - B. Tabla
  - C. Santoor
  - D. Flute
2. Pandavani is the folk music of which state?
  - A. Goa
  - B. Chhattisgarh
  - C. Uttar Pradesh
  - D. Bihar
3. Where is the headquarter of World Bank located?
  - A. Washington DC
  - B. Berlin
  - C. Geneva
  - D. New York
4. Who among the following established the kingdom named Hindavi Swaraja?
  - A. Bahadur Shah Zafar
  - B. Guru Tegh Bahadur
  - C. Chhatrapati Shivaji
  - D. Krishnadeva Raya
5. Parupalli Kashyap is associated with which of the following sports?
  - A. Archery
  - B. Badminton
  - C. Wrestling
  - D. Shooting

6. Which of the following vertebrates is not a reptile?  
A. Crocodile  
B. Lizard  
C. Penguin  
D. say
7. Which is the fastest stock exchange in the world?  
A. London Stock Exchange  
B. New York Stock Exchange  
C. Bombay Stock Exchange  
D. American Stock Exchange
8. Basel Convention is related to which of the following environmental hazards?  
A. Persistent organic pollutants  
B. Control of cross-border transfer of hazardous waste materials and disposal of these substances  
C. Prior Informed Consent Procedure for Certain Hazardous
9. In which of the following cities cotton textile industry is not present? Ans  
A. Aurangabad  
B. Gurugram  
C. Rajkot  
D. Hooghly
10. Which of the following sports will be added to Tokyo Olympics 2020 for the first time?  
A. Archery  
B. Table Tennis  
C. Fencing  
D. Skateboarding
11. Who is the present Secretary General of the United Nations?  
A. John Bolton  
B. Mike Pompeo  
C. Antonio Guterres  
D. Ban Ki Moon
12. Which of the following text deals with the history of kings of Kashmir?  
A. Rajatarangini  
B. Kitab-ul-Rehla  
C. Kitab-ul-hind  
D. Padmavat
13. Article 371A of the Indian Constitution deals with which of the following?  
A. Special provision with respect to the State of Nagaland  
B. Power of President to adapt laws  
C. Power of Parliament to amend the Constitution and the procedure therefor  
D. Provisional provision in relation to the State of Jammu and Kashmir
15. Which Sikh Guru gave the idea of Gurmukhi script?  
A. Guru Angad Dev  
B. Guru Amar Das  
C. Guru Ram Das  
D. Guru Nanak Dev
16. Which of the following diseases is not caused by bacteria?  
A. TB  
B. Polio  
C. Cholera  
D. Typhus
17. In which year Mother Teresa was awarded the Bharat Ratna Award?  
A. 1984  
B. 1986  
C. 1982  
D. 1980









### General English

1. Select the antonym of the given word.  
Defer  
A. Prepone  
B. Abstain  
C. Convict  
D. Postpone
2. Out of the four sentences given below, find the sentence which is grammatically correct.  
A. You, I and he are going to pluck the mango from his garden.  
B. He, you and I are going to pluck the mango from his garden.  
C. I, you and he are going to pluck the mango from his garden.  
D. You, he and I are going to pluck the mango from his garden.
3. Out of the four words given below, find the word which is not correctly spelt.  
A. Beginning  
B. Maintainance  
C. Intermission  
D. Mysterious
4. Select the synonym of the given word.  
Barren  
A. Unfruitful  
B. Luscious  
C. Productive  
D. Fertile
5. Select the most appropriate option to fill in the blank.  
In movies like this, a picture is worth thousand words, and less talk would have been welcome.  
A. the  
B. No article is required  
C. a  
D. an
6. Select the most appropriate option to substitute the underlined segment in the given sentence.  
If there is no need to substitute it, select option No substitution required.  
Ritika was a young mother with three small children when her husband had became the Warden.  
A. became  
B. was became  
C. No substitution required  
D. did became
7. Identify the incorrect sentence or sentences.  
a. MS was a child at heart.  
b. Never has she allowed fame to affect her.  
c. Her day started at 5:00 a.m. with pujas.  
d. Then began her practice session which would go till lunch time.  
A. a and d  
B. b and c  
C. a and b  
D. b and d

8. In the following question, there are six parts marked S1, S6, P, Q, R and S. The position of S1 and S6 are fixed. Some parts of the sentence have been jumbled up. Rearrange these parts and choose the proper sequence from the given options.
- S1. Meghan Markel, Prince Harry's fiancé, must have heaved a sigh of relief after she passed the annual Christmas launch at the Buckingham Palace with flying colours.
- P. She is said to have pulled a cracker with her future father-in-law, Prince Charles.
- Q. Dressed in a dress by Self Portrait, Markel, looking glamorous was nervous initially.
- R. She was introduced to all the members.
- S. It was her first major test as a member of the royal family.
9. Rearrange the following sentence in its correct order to form a meaningful sentence.
- She took them all upstairs and
- P - showed them their rooms, and took
- Q - because there was no other room left
- R - cousin Anna Jane in her own room
- A. PQR  
B. QRP  
C. QPR
6. The royal family was quite eager to meet her even as Harry looked visibly pleased and proud.
- A. SQRP  
B. PRQS  
C. PRSQ  
D. SQPR
10. Select the most appropriate option to fill in the blank.
- Farmers must demand full value for their stock and insist on payment the day.
- A. on  
B. by  
C. in  
D. at
11. Find the correctly spelt word.
- A. Perseverance  
B. Persevirence  
C. Persaverence  
D. Perseverence
12. Four alternatives are given for the Idiom/Phrase underlined. Choose the alternative which best expresses the meaning of Idiom/Phrase.
- Ross and Jane are so much **on the same wavelength** that they hardly ever get bored of each other's company.
- A. to be fond of each other  
B. to think alike and understand completely  
C. to be in out of tune with each other  
D. to have a genuine friendship interest



In the meantime, the film industry had made rapid strides in the South, where Tamil, Telugu and Kannada films were taking South India by storm. By the late 1940s, films were being made in various Indian languages with religion being the dominant theme.

- 16.** What is the signature of a typical Bollywood film?  
A. Actors  
B. Songs  
C. Acting  
D. Drama
- 17.** In which year did Harishchandra Sakharam Bhatwadekar make Indian  
A. 1896  
B. 1899  
C. 1930  
D. 1940
- 18.** In the mid-twentieth century, on which theme were most Indian films made?  
A. Religion  
B. Sports personalities  
C. Social Issues  
A. Only B and C  
B. All A, B and C  
C. Only A  
D. Only A and B
- 19.** What does the phrase 'sea change' imply in the above passage?  
A. Remarkable change  
B. Notable transformation  
C. Different  
A. Only A  
B. Only A and B  
C. All A, B and C  
D. Only B
- 20.** Why is it said that India's actors had found a voice?  
A. They could speak, They could cry and They could sing  
B. They could cry  
C. They could speak  
D. They could sing

### General Hindi

- 1.** निम्नलिखित में से पुल्लिंग शब्द का चयन कीजिए।  
A. अखबार  
B. दुकान  
C. सरकार  
D. दीवार
- 2.** 'गगनचुंबी' में कौन-सा समास है?  
A. द्वियु समास  
B. द्वन्द समास  
C. बहुव्रीहि समास  
D. तत्पुरुष समास

3. लोकोक्ति 'थोथा चना बाजे घना' का अर्थ है-
- A. तुम चालाक तो मैं भी चालाक  
B. मूर्ख व्यक्ति शेखी बघारता है  
C. औकात से बढ़कर सपने देखना  
D. होशियार ही फायदा लेता है
4. अशुद्ध वर्तनी वाले शब्द का चयन कीजिए।
- A. अन्दर  
B. नैतिक  
C. उधृत  
D. मार्गदर्शन
5. मुहावरा 'सब्जबाग दिखाना' का अर्थ है-
- A. चकित रह जाना  
B. भाग्योदय होना  
C. झूठी दिलासा  
D. कला का सुन्दर प्रदर्शन
6. 'भाषण' के लिए उपर्युक्त विशेषण क्या होगा?
- A. कड़कती  
B. तेजस्वी  
C. दैत्य  
D. ओजस्वी
7. इनमें से किस वाक्य की क्रिया विध्यर्थक है?
- A. आप कौन-सा कार्य करते है?  
B. माता-पिता की सेवा करो  
C. वह घर से निकलने ही वाला है।  
D. मेरा नाम अकरम खान है।
8. दिए गए वाक्य के लिए एक शब्द का चयन कीजिए।  
'पूरब और उत्तर के बीच की दिशा'
- A. ईष्ट  
B. ईशान  
C. ईप्सित  
D. इष्ट
9. वाक्य प्रकार का चयन कीजिए।  
'महाभारत महाग्रंथ किसके द्धारा रचा गया है?'
- A. भाववाच्य  
B. संयुक्त वाक्य  
C. कर्तृवाच्य  
D. कर्मवाच्य
10. जब परस्पर संबंध रखनेवाले दो शब्दों के बीच में पद, वाक्यांश या खंडवाक्य आकर उन्हें अलग-अलग कर दे तो उनके दोनों तरफ किस चिन्ह का प्रयोग किया जाता है?
- A. पूर्णविराम चिन्ह  
B. अल्पविराम चिन्ह  
C. योजक चिन्ह  
D. विस्मयादिबोधक चिन्ह

11. किस वाक्य में विराम चिन्हों का सही प्रयोग नहीं किया गया है?
- A. फलतः इसका प्रयोग कम होता है।  
B. यह कविता अच्छी नहीं हैं।  
C. उन दिनों में आदर्श हाईस्कूल (अब इण्टर कॉलेज) में हिंदी अध्यापक था।  
D. आलोक घर, न जा सका: क्योंकि अस्वस्थ था!
12. शब्द-युग्म के सही अर्थ-भेद का चयन कीजिए।  
'नीरद-नीरज'
- A. मेधनेघा  
B. बादल-कमल  
C. दर्द-कमल  
D. कमल-बादल
13. 'जिज्ञासा' का पर्यायवाची शब्द है-
- A. जंग  
B. उदक  
C. कौतूहल  
D. संग्राम
14. वाक्य प्रकार का चयन कीजिए।  
'मैंने किरायेदार नहीं रखे, मुसीबत मोल ले ली।'
- A. सरल वाक्य  
B. संयुक्त वाक्य  
C. विधिवाचक वाक्य  
D. मिश्र वाक्य
15. 'उन्नयन' का विलोम शब्द है-
- A. प्रदान  
B. पलायन  
C. आदर्श  
D. समापन

**Comprehension (16-20):**

दिए गए गद्यांश का ध्यानपूर्वक अध्ययन कर प्रश्नों का उत्तर दीजिए।

उच्च न्यायालय राज्य के न्यायिक प्रशासन का एक प्रमुख होता है। देश में 21 उच्च न्यायालय हैं जिनमें से तीन के कार्यक्षेत्र एक राज्य से ज्यादा है। दिल्ली एकमात्र ऐसा केंद्र शासित प्रदेश है जिसके पास उच्च न्यायालय है। अन्य छह केंद्र शासित प्रदेश विभिन्न राज्यों के उच्च न्यायालयों के तहत आते हैं। प्रत्येक उच्च न्यायालय में एक मुख्य न्यायाधीश और कई न्यायाधीश होते हैं। उच्च न्यायालय के मुख्य न्यायाधीश की नियुक्ति देश के मुख्य न्यायाधीश और संबंधित राज्य के राज्यपाल की सलाह पर राष्ट्रपति द्वारा की जाती है। वे 62 वर्ष की उम्र तक अपने पद पर रहते हैं। न्यायाधीश बनने की अर्हता यह है कि उसे भारत का नागरिक होना चाहिए, देश में किसी न्यायिक पद पर दस वर्ष का अनुभव होना चाहिए या वह किसी उच्च न्यायालय या इस श्रेणी की दो अदालतों में इतने समय तक वकील के रूप में कार्य कर चुका हो।

प्रत्येक उच्च न्यायालय को मौलिक अधिकारों की रक्षा करने के लिए या किसी अन्य उद्देश्य से अपने कार्यक्षेत्र के अंतर्गत किसी व्यक्ति या किसी प्राधिकार या सरकार के लिए निर्देश, आदेश या रिट जारी करने का अधिकार है। यह रिट बंदी प्रत्यक्षीकरण, परमादेश, निषेध, अधिकार-पृच्छा और उत्प्रेषण के रूप में भी हो सकता है। कोई भी उच्च न्यायालय अपने इस अधिकार का उपयोग उस मामले या घटना में भी कर सकता है जो उसके कार्यक्षेत्र में घटित हुई हो, लेकिन उसमें संलिप्त व्यक्ति या सरकारी प्राधिकरण उस क्षेत्र के बाहर के हों। विभिन्न उच्च न्यायालयों में न्यायाधीशों और अतिरिक्त न्यायाधीशों की स्वीकृत संख्या 678 है। कुछ उच्च न्यायालयों का नाम भी परिवर्तित किया जा चुका है। असम उच्च न्यायालय का नाम वर्ष 1971 में बदलकर गुवाहाटी उच्च न्यायालय किया गया एवं वर्ष 1972 में मैसूर उच्च न्यायालय का नाम बदलकर कर्नाटक उच्च न्यायालय किया गया और पंजाब उच्च न्यायालय का नाम वर्ष 1966 में बदलकर पंजाब एवं हरियाणा उच्च न्यायालय किया गया था।

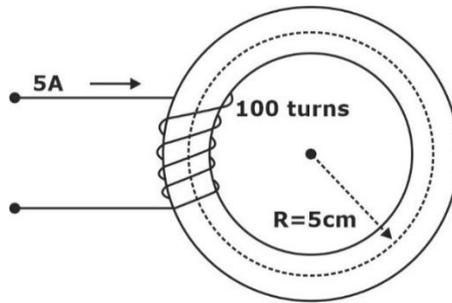
- 16.** उपरोक्त गद्यांश के अनुसार वर्ष 1972 में किस उच्च न्यायालय का नाम बदलकर कर्नाटक उच्च न्यायालय किया गया था?
- A. पंजाब उच्च न्यायालय  
B. हरियाणा उच्च न्यायालय  
C. असम उच्च न्यायालय  
D. मैसूर उच्च न्यायालय
- 17.** उपरोक्त गद्यांश के अनुसार देश में कितने उच्च न्यायालयों के कार्यक्षेत्र एक राज्य से ज्यादा है।
- A. पांच  
B. चार  
C. तीन  
D. दो
- 18.** उपरोक्त गद्यांश के अनुसार, राज्य के न्यायिक प्रशासन का प्रमुख कौन होता है?
- A. राज्यसभा  
B. राष्ट्रपति  
C. उच्च न्यायालय  
D. मुख्यमंत्री
- 19.** उपर्युक्त गद्यांश का उचित शीर्षक है-
- A. दिल्ली उच्च न्यायालय  
B. राज्यपाल  
C. राष्ट्रपति की शक्तियां  
D. उच्च न्यायालय एवं उसकी शक्तियां
- 20.** उपरोक्त गद्यांश के संदर्भ में कौन-सा कथन सही नहीं है?
- A. न्यायालयों में न्यायाधीशों और अतिरिक्त न्यायाधीशों की स्वीकृत संख्या 768 है।  
B. उच्च न्यायालय के मुख्य न्यायाधीश की नियुक्ति देश के मुख्य न्यायाधीश और संबंधित राज्य के राज्यपाल की सलाह पर राष्ट्रपति द्वारा की जाती है।  
C. न्यायाधीश बनने की अर्हता यह है कि उसे भारत का नागरिक एवं देश में किसी न्यायिक पद पर दस वर्ष का अनुभव होना चाहिए।  
D. दिल्ली एकमात्र ऐसा केंद्र शासित प्रदेश है जिसके पास उच्च न्यायालय है।

### Discipline-1

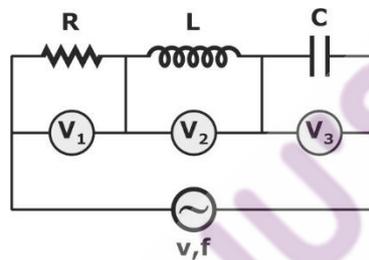
1. Three Fane, 5 kw, 400V, 5 Hz, 4 Frequency of Electric External Force (EMF) induced in the coil of a pole induction motor 25 Hz is. If the motor has 400 V, 50 Hz alternating current is supplied from the source, then what will be its speed of rotation?  
 A. 750 rpm  
 B. 1500 rpm  
 C. 1000 rpm  
 D. 1450 rpm
2. A tandem of 15  $\mu\text{F}$  is charged by 400 V and connected in parallel order with another system of 5  $\mu\text{F}$  which is charged by 200 V is charged by . What will be the common potential between them?  
 A. 250 V  
 B. 300 V  
 C. 200 V  
 D. 350 V
3. एक वायु-आंतरक सोलोनाइड में 100 घुमाव हैं और यह 1m लंबा हैं। यदि अनुप्रस्थ-काट का क्षेत्रफल  $100 \text{ cm}^2$  सीएम<sup>2</sup> है, तो इसका स्व-प्रेरकत्व ( $\mu\text{H}$ में) क्या होगा?  
 A. 400 n  
 B. 4 n  
 C. 40 n  
 D. 0.4 n
4. 1000 घुमावों वाली एक लौह-आंतरक कुंडली 50 A की विद्युत धारा को वहन करते समय आंतरक में  $500 \mu\text{Hb}$  का चुंबकीय अभिवाह उत्पन्न करती हैं। कुंडली का स्व-प्रेरकत्व क्या होगा?  
 A. 0.01 H  
 B. 0.1 H  
 C. 01 mH  
 D. 0.01 mH
5. An iron-cored coil has and inductance of 4H. If the reluctance of the flux path is 100 AT/wb, then the number of turns in the coil is:  
 A. 400  
 B. 200  
 C. 20  
 D. 40
6. Two charge particle A and B are allowed to fall from rest through the same potential difference. The mass of A is twice that of B, and the charge on particle B is 2 times of A. What is the ratio of the speeds of A. What is the ratio of the speeds of A and B?  
 A. 1 : 2  
 B. 1 : 4  
 C. 1 : 1  
 D. 1 : 3
7. 3 equal capacitor connected in series have a resultant capacitance of  $4\mu\text{F}$ . When these are put parallel and charge 400 V, the energy stored is:  
 A. 16J  
 B. 8 J  
 C. 4 J  
 D. 2 J
8. Two charges of  $+4 \mu\text{C}$  and  $-16 \text{ C}$  are kept apart from each other at a distance of 0.6m. At what distance should a third charge of  $6\mu\text{C}$  be placed from  $+4\mu\text{C}$  so that zero force is exerted on it?  
 A. 1.0 .4 m  
 B. 0.6 m  
 C. 1.2 m  
 D. 0.3 m



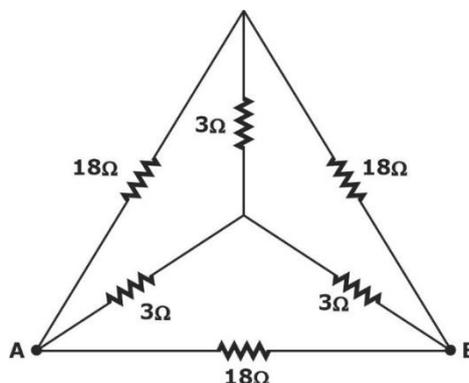
16. In the magnetic circuit shown below, what is the flux density produced if the relative permeability of the core material.



- A. 1T  
B. 3T  
C. 2T  
D. 4T
17. In the scenario shown below, the readings of the voltmeter are  $V_1 = 100\text{ V}$ ,  $V_2 = 50\text{ V}$ ,  $V_3 = 50\text{ V}$ . What would be the source voltage?



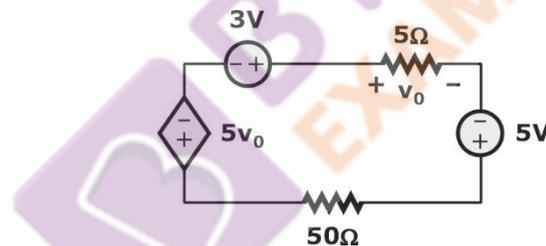
- A. 100 V  
B.  $100\sqrt{2}\text{V}$   
C.  $100\sqrt{2}\text{V}$   
D. 200 V
18. The  $10\ \Omega$  resistance and 2 H inductance earring coil is connected to a 50 V battery. What will be the energy stored in the coil?
- A. 25 J  
B. 50 J  
C. 75 J  
D. 100 J
19. Two alternating-current voltage sources  $v_1 = 50 \angle 45^\circ$  and  $v_2 = 50 \angle -45^\circ$  series order are connected in. What will be the resultant voltage?
- A.  $v_1 = 50\sqrt{2} \angle -45^\circ$   
B.  $v = 50\sqrt{2} \angle 45^\circ$   
C.  $v = 50\sqrt{2} \angle 0$   
D.  $v = 50 \angle 0$
20. For the network shown below, A and B What will be the resistance between the terminals?



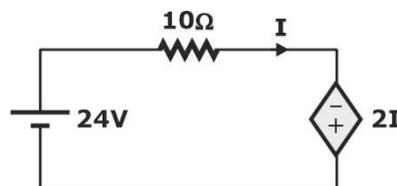
- A. 4  $\Omega$   
B. 6  $\Omega$   
C. 9  $\Omega$   
D. 3  $\Omega$



6. When a DC voltage of 60 V is applied to a solenoid, an electric current of 5 A flows through it. When the DC voltage is replaced by an alternating current voltage of angular frequency 400 rad/s, the current is reduced to 3A. What is the inductance of the solenoid?  
 A. 0.02 H  
 B. 0.4 H  
 C. 0.04 H  
 D. 0.2 H
7. In the circuit shown below, what will be the maximum current that can be transferred to R  
 A. 2W  
 B. 4W  
 C. 8W  
 D. 16W
8. What is the unit of active power?  
 A. Power Key  
 B. Of passion  
 C. of electric current  
 D. of energy
9. In an RLC series resonant circuit,  $R = 5 \Omega$ ,  $C = 100 \mu\text{F}$  and  $L$  is a variable. A voltage of 100 V is applied to a circuit at an angular frequency of 1000 rad/s.  $L$  changes such that the voltage in  $R$  becomes maximum. What will be the value of  $L$  required?  
 A. 0.01 H  
 B. 10 H  
 C. 0.1 H  
 D. 1H
10. The power factor of the below circuit is:  
 A. 0.5 lagging  
 B. zero lagging  
 C. zero leading  
 D. Unity
11. What will be the power absorbed by the voltage source in the circuit shown below?

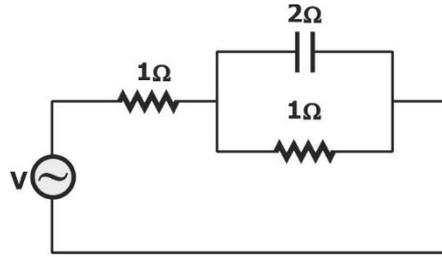


- A. 0.125 W  
 B. 0.25 W  
 C. 0.75 W  
 D. 0.5 W
12. In the circuit shown below, What is the power to be supplied by the current source, and the voltage source?

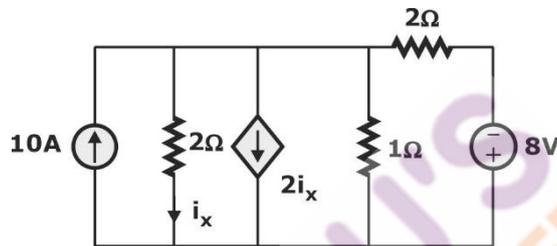


- A. 3A, 90 W  
 B. 3A, 18 W  
 C. 3A, 54 W  
 D. 3A, 72 W
13. If the impedance of each phase of a balanced star-connected load is  $(3 + j2)\Omega$ , what will be the impedance of the equilateral triangle-connected (delta-connected) load?  
 A.  $(3 + j2)\Omega$   
 B.  $(3 + j6)\Omega$   
 C.  $(3 + j6)\Omega$   
 D.  $(2 + j3)\Omega$

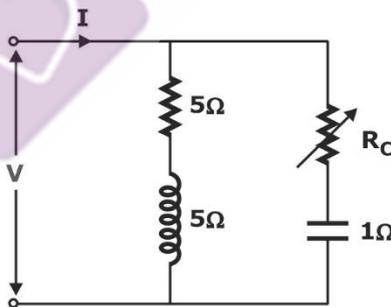
14. What should be the inductance in series with the circuit shown below so that the constant current is  $V$  with the voltage in a frame whose angular frequency is  $100 \text{ rad/s}$ ?



- A. 8 mH  
B. 12 mH  
C. 16 mH  
D. 4 mH
15. In the circuit shown below, what will be the voltage across the dependent source (voltage source)?



- A.  $2/3 \text{ V}$   
B. 2V  
C.  $3/2 \text{ V}$   
D. 4V
16. A coil of quality factor 20 is connected in series with a capacitor at an ac source of 100 V. At resonance, the voltage across the capacitor will be
- A. 100 V  
B. 1000 V  
C. 500 V  
D. 2000 V
17. For what value of  $R_c$  will you be in phase?

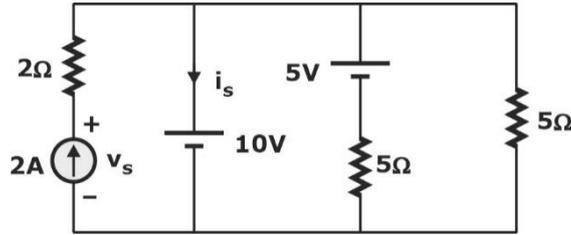


- A.  $12 \Omega$   
B.  $6 \Omega$   
C.  $3 \Omega$   
D.  $9 \Omega$
18. The electric current flowing through a coil of inductance 2 H is decreasing at the rate of 4 A/s. What will be the induced electric current in the coil?
- A. 8V  
B. -8V  
C. -4V  
D. 4V



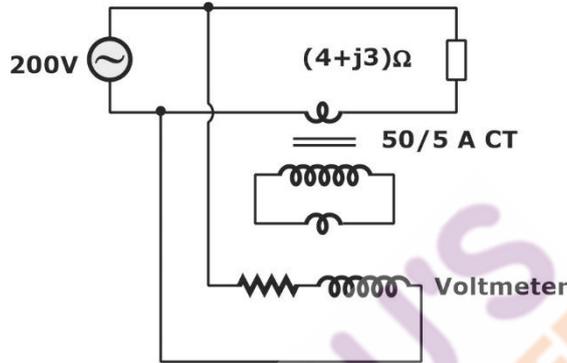


11. In the circuit shown below, what will be the values of  $V_s$  and  $i_s$  respectively?



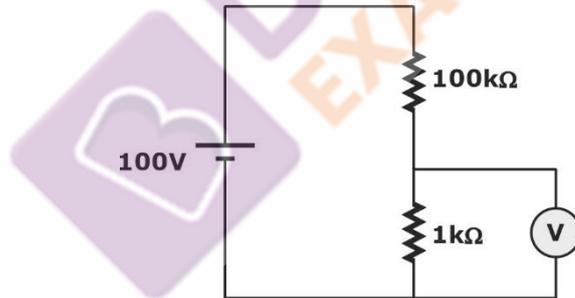
- A. 14V, -1A
- B. -14V, -1V
- C. 14V, 1 A
- D. -14 V, 1A

12. In the circuit shown below, what will be the wattmeter reading?



- A. 640 W
- B. 320 W
- C. 800 W
- D. 400 W

13. If the limit of the voltmeter is 2 V and its capacitance is  $1 \text{ k} \Omega \text{ V}$ , then what will be the reading of the voltmeter in the circuit?



- A. 0.33 V
- B. 0.66 V
- C. 0.99 V
- D. 0.44 V

14. The relay use for feeder protection is

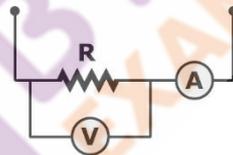
- A. Buchhloz relay
- B. Under voltage relay
- C. Thermal relay
- D. Translay relay

15. When 110 V is applied to the LV variable with an open HV variable, then in an open circuit, 11 KVA converts to  $1100 / 110 \text{ V}$  to 100 W Inputs the power of. If 1100 V is applied to the HV enclosure with an open LV enclosure, then what will be the electric input?

- A. 10000 W
- B. 1000 W
- C. 100 W
- D. 10 W



3. The armature response and leakage reactance Nirbat (Droff) of a Nucleic generator can be determined by
- A. By ZPF test only  
B. By testing OC and SC  
C. By testing OC and ZPF  
D. By testing O C only
4. An induction motor with a 6-pole 50 Hz with a rotational resistance of  $0.2 \Omega$  has a maximum torque of 10N-m at 1200 rpm generates. What will be the torque reactance and the slip difference between synchronous and non-synchronous motion, respectively, on the computed torque?
- A.  $2 \Omega$  and 0.1 pu  
B.  $1 \Omega$  and 0.1 pu  
C.  $2 \Omega$  and 0.2 pu  
D.  $1 \Omega$  and 0.2 pu
5. The difference (step) between synchronous and non-synchronous speed of a three-phase induction motor s is operating at full load. During operation, if the SEZ sequence of the supply is reversed, what will be the slip between the known synchronous and non-synchronous motions immediately after the inversion?
- A.  $2 - s$   
B.  $1 + s$   
C.  $1 - s$   
D.  $s$
6. प्रतिरोध की माप के लिए प्रयोग किए जाने वाले परिपथ (नीचे दर्शाया गया है) में, अमीटर और वोल्टमीटर के पाठ्यांक 2A और 200 V हैं। अमीटर और वोल्टमीटर प्रतिरोध क्रमश 0.1 $\Omega$  और 2000  $\Omega$  हैं। प्रतिरोध के परिकल्पित मान (वोल्टमीटर पाठ्यांक/अमीटर पाठ्यांक) में कितनी त्रुटि है?



- A. 5%  
B. 9%  
C. 10 %  
D. 15 %
7. A 10 kVA, a single-phase electromagnetism of 200 V produces a voltage of 200 \V in the absence of LOND with a turbulence of 5 A. When the ends of the armature are short-circuited, the prescribed armature electric current flows with a disturbance of A. What will be its per gkai impedance with a base joltage of 200 V and its local kVA of 20?
- A. 1.6  
B. 0.4  
C. 0.8  
D. 0.2
8. When a wattmeter is connected to the electric-current coil along the electric-current path R and the potential coil is connected between the electric-current path R and the neutral side of the balanced three-phase supply, the result is 10. kW indicates. The line voltage is 400 V along the phase sequence RYB. The electric current drawn by the current path is 54 A. If the electric current coil is continuously energized in the current R, the voltage coil B and Y are connected to the coils, then what will be the new value of the wattmeter?
- A. 13 kW  
B. 0  
C. -13 kW  
D. 20 kW







11. What is produced by the adulteration of silicon with arsenic?  
A. of type n semiconductor  
B. of resistor  
C. of the carrier  
D. p type of semiconductor
12. How is the capacitance of fixed capacitors determined?  
A. kVAR  
B. kVA  
C. kW  
D. kWh
13. How does the illumination of the same source at different points on the kinetic surface change with the rays of light inclined at an angle to the vertical axis?  
A.  $1/\cos\phi$   
B.  $\cos^3\theta$   
C.  $\cos^2\theta$   
D.  $\cos\theta$
14. The arrangement is supplied with a voltage of 1000V, and gives a capacitance of 9 pF with an electro-discharge component of 0.05. What will be the frequency of the supply (in MHz) to produce the required thermal effect equivalent to the power loss of 900 W?  
A.  $100/\pi$   
B.  $2000/\pi$   
C.  $2000\pi$   
D.  $1000\pi$
15. The current-path (line) voltage of a 2-wire dip-current system is increased from 100 V to 200 V. If the same amount of power is transmitted over the same distance with the same power loss, what will be the percentage saving in copper?  
A. 150%  
B. 50%  
C. 125%  
D. 75%
16. A 50 Hz 6 , 1000 MVA, 44 kV synchronous generator is supplying a full load on the rear power component of 0.8. An electrical fault causes its output to drop by 50%. So, what will be the accelerating moment force (in MN-m) of the generator immediately after the electric fault, disregarding the loss and considering that the primary driving force driving it has a constant constant?  
A.  $6\pi$   
B.  $24/\pi$   
C.  $12/\pi$   
D.  $2/\pi$
17. Which of the following colors has a wavelength between blue and yellow?  
A. Violet  
B. red  
C. green  
D. Orange
18. When a train is moving with a speed of 2 in 100 against a track resistance of 40 N / T one, how much electric power is available to reinvest the source by to be?  
A. 640 W  
B. 1280 W  
C. 320 W  
D. 2560 W
19. The resistance produced by air to the movement of the vehicle with N speed is proportional to  
A.  $N^3$   
B.  $1/N$   
C. N  
D.  $N^2$
20. What does the area under the load curve represent?  
A. Average load  
B. of maximum demand  
C. Of energy consumed  
D. of power consumed

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