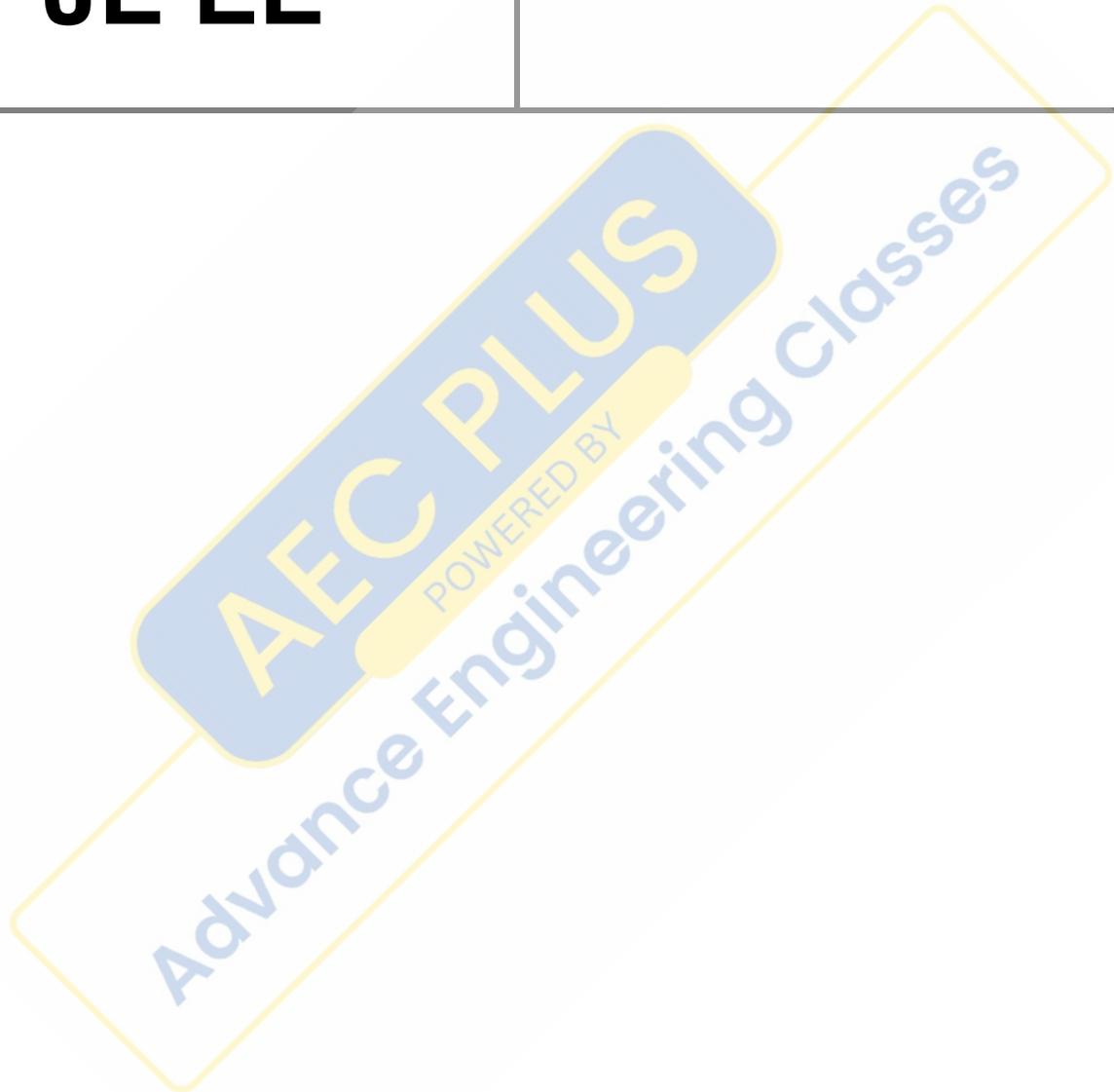


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Participant ID	
Participant Name	
Test Center Name	iON Digital Zone iDZ 1 Sector 62
Test Date	05/11/2019
Test Time	12:30 PM - 2:30 PM
Subject	JUNIOR ENGINEER ELECTRICAL

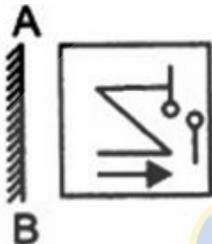
Section : Mental Ability

Q.1 Choose the odd one from the given alternatives.

- Ans
- 1. PRT
  - 2. SUV
  - 3. JLN
  - 4. TVX

Question ID : 54592778177

Q.2 Which of the following figure is exactly the mirror image of the question figure, when the mirror is held at AB?



Ans

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

Question ID : 54592778193

Q.3 Find out the next term.

JL22, OQ32, TV42, ?

- Ans
- 1. YZ51
  - 2. YB28
  - 3. YA52
  - 4. YZ52

Question ID : 54592778175

Q.4 Find the missing number from the given responses in the following question.

9	6	8
5	8	4
7	4	?
11	2	7

- Ans
- 1. 6
  - 2. 7
  - 3. 3
  - 4. 4

Question ID : 54592778187

Q.5 In the question below a statement followed by two courses of action numbered I and II is given. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) first pursuing.

Statement:

A huge fire broke out due to damage done to the gas pipeline While laying pipes for one of the utility companies.

Courses of action:

- I. All the licenses of the utility companies should immediately be suspended pending enquiry into the incidence.
- II. People residing in the area should be advised to stay indoors to avoid burn injuries.

- Ans
- 1. If neither Course of Action (I) nor (II) follows
  - 2. If either Course of Action (I) or (II) follows
  - 3. If only Course of Action (I) follows
  - 4. If only Course of Action (II) follows

Question ID : 54592778185

Q.6 Select the related letter group from the given alternatives.

YQ : VN :: KN : ?

- Ans
- 1. HL
  - 2. HK
  - 3. HJ
  - 4. GK

Question ID : 54592778180

Q.7 Which of the following interchanges of numbers would make the given equation correct?

$$8 \times 20 \div 3 + 9 - 5 = 38$$

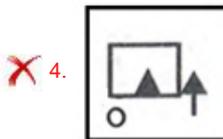
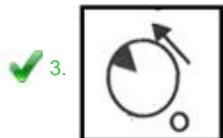
- Ans
- 1. 3, 5
  - 2. 8, 9
  - 3. 3, 9

✗ 4. 3, 8

Question ID : 54592778186

Q.8 Which figure does not belong to the group in the following question?

Ans



Question ID : 54592778191

Q.9 In a certain code PROGRESS is written as '3' and DEVELOPMENT is written as '16'. How is MANAGEMENT written in that code?

- Ans
- ✓ 1. 7
  - ✗ 2. 6
  - ✗ 3. 9
  - ✗ 4. 8

Question ID : 54592778181

Q.10 A lady plans to visit five Stores to buy her stuff. The shops are Reebok, Puma, Addidas, HRX and Nike which she visits exactly once. She decided:

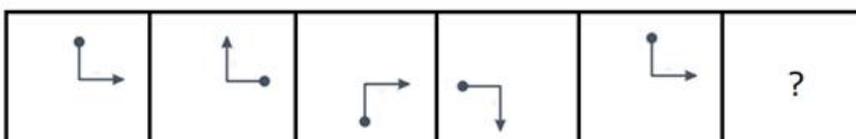
- (i) She must visit Reebok before Puma and Nike.
- (ii) She must visit Puma before HRX.
- (iii) The third shop she visited must be Addidas which is just after Puma.

Which is the Fourth store she visited?

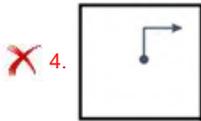
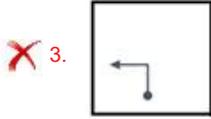
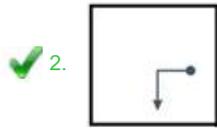
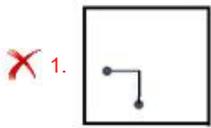
- Ans
- ✗ 1. Nike
  - ✗ 2. Puma
  - ✓ 3. HRX or Nike
  - ✗ 4. HRX

Question ID : 54592778182

Q.11 In this question given below which of the four option figures should come after the question figures, if the sequence were continued?



Ans



Question ID : 54592778189

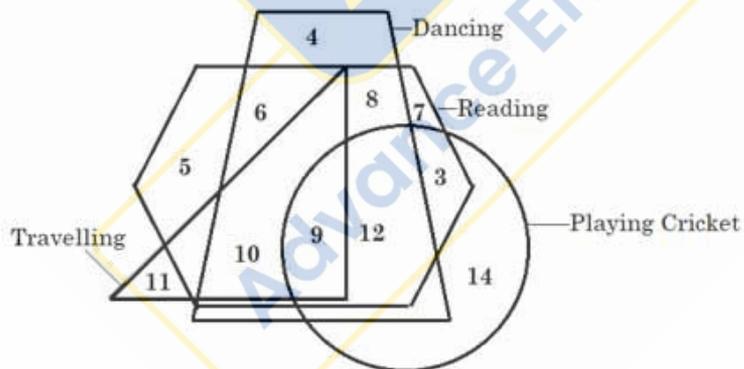
Q.12 Seven friends, P,Q, R, S T and U are sitting in a straight line facing north. Q sits fifth to the right of T. Q does not sit at any of extreme ends. Two people sit between U and R. S sits third to the left of V. S sits exactly in the middle. U is not an immediate neighbour of P.

How many people sit between R and V?

- Ans
- ✗ 1. One
  - ✗ 2. Three
  - ✓ 3. Four
  - ✗ 4. Two

Question ID : 54592778183

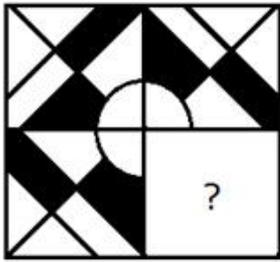
Q.13 According to the following venn diagram how many people's hobby is dancing and reading and travelling but not playing cricket?



- Ans
- ✗ 1. 9
  - ✗ 2. 11
  - ✓ 3. 10
  - ✗ 4. 12

Question ID : 54592778188

Q.14 Which of the following answer figure will complete the given figure?



Ans

1.



2.



3.

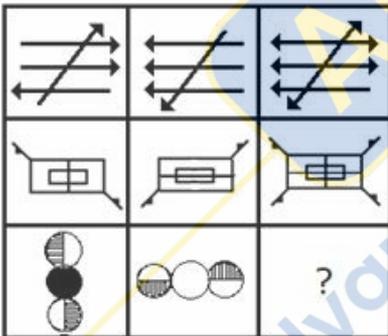


4.



Question ID : 54592778192

Q.15 Select a suitable figure from the four alternatives that would complete the figure matrix.



Ans

1.



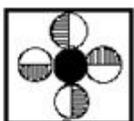
2.



3.



4.



Q.16 In question below is given a statement followed by two assumptions numbered I , II and III. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

Statement:

“Wanted a three bedroom flat in the court area for immediate possession”- an advertisement

Assumptions:

- I. Flats are available in court area.
- II. Some people will respond to the advertisement.
- III. It is a practice to give such an advertisement.

- Ans
- 1. None is implicit
  - 2. Only I and II are implicit
  - 3. Only II is implicit
  - 4. All are implicit

Q.17 Select the term that will come next in the following series.

FZ, IB,OF, XL, ?

- Ans
- 1. IT
  - 2. JT
  - 3. JU
  - 4. IS

Q.18 Four pair of words are given and three of them share a certain similarity. Choose the pair which is different from the other three.

- Ans
- 1. Right Livelihood Award : Environment
  - 2. Sahitya Akademy Awards : Writing
  - 3. Vyas Samman : English Literature
  - 4. R.D. Birla Award : Medical sciences

Q.19 Which of the following is the water image of the question figure?

И V J F L W O P

- Ans
- 1. И N J Y E T M O B
  - 2. И N J Y E T M O B
  - 3. И N J B E T M O B
  - 4. И N J Y E T M O B

Q.20 Select the related word from the given alternatives.

Godavari : Nasik :: Rapti :?

- Ans
- 1. Varanasi
  - 2. Kanpur
  - 3. Lucknow
  - 4. Gorakhpur

Question ID : 54592778179

Section : General Awareness

Q.1 Which of the following physical quantity is responsible for opening the lid of a bottle?

- Ans
- 1. Velocity
  - 2. Acceleration
  - 3. Torque
  - 4. Pressure

Question ID : 54592778200

Q.2 Which of the following is traditional folk theatre form of Maharashtra?

- Ans
- 1. Jatra
  - 2. Tamaasha
  - 3. Krishnattam
  - 4. Yakshagaana

Question ID : 54592778195

Q.3 Who originally built the Meenakshi Temple at Madurai?

- Ans
- 1. Pulakeshin I
  - 2. Karikala Chola
  - 3. Kulashekarar Pandyan
  - 4. Mahendravarman I

Question ID : 54592778196

Q.4 With which of the following sport sheesh mahal tournament is associated?

- Ans
- 1. Boat racing
  - 2. Badminton
  - 3. Football
  - 4. Cricket

Question ID : 54592778214

Q.5 In which of the following field, 'Fields medal' is given?

- Ans
- 1. Physics
  - 2. Mathematics
  - 3. Architecture
  - 4. Peace mission

Question ID : 54592778208

Q.6 Srikanth Kidambi is associated with which of the following fields?

- Ans
- 1. Dance
  - 2. Science
  - 3. Music
  - 4. Sports

Question ID : 54592778207

Q.7 Which article of Indian Constitution defines the money bill?

- Ans
- 1. Article 114
  - 2. Article 112
  - 3. Article 116
  - 4. Article 110

Question ID : 54592778212

Q.8 Who among the following is not a citizen of India according to Indian Constitution?

- Ans
- 1. A person who has voluntarily acquired the citizenship of any foreign State
  - 2. A person either of whose parents was born in the territory of India
  - 3. A person who has been ordinarily resident in the territory of India for not less than five years immediately preceding such commencement
  - 4. A person who was born in the territory of India

Question ID : 54592778211

Q.9 Alvars were devotees of which Indian deity?

- Ans
- 1. Shakti
  - 2. Shiva
  - 3. Vishnu
  - 4. Brahma

Question ID : 54592778206

Q.10 Which of the following dam is not constructed on Chambal River?

- Ans
- 1. Indira Sagar Dam
  - 2. Gandhi Sagar Dam
  - 3. Jawahar Sagar Dam
  - 4. Rana Pratap Sagar Dam

Question ID : 54592778202

Q.11 What is the national sport of China?

- Ans
- 1. Cricket
  - 2. Table tennis
  - 3. Swimming
  - 4. Hockey

Question ID : 54592778213

Q.12 In acidic solution China rose indicator turns which of the following color?

- Ans
- 1. Orange

- 2. Green
- 3. Magenta (Dark Pink)
- 4. Colorless

Question ID : 54592778199

**Q.13 Under which dynasty Delhi became the capital of a Kingdom for the first time?**

- Ans
- 1. Tughluq Dynasty
  - 2. Chauhans
  - 3. Khalji Dynasty
  - 4. Tomara Rajput

Question ID : 54592778205

**Q.14 What kind of virus causes cancer?**

- Ans
- 1. Oncogenic virus
  - 2. Variola virus
  - 3. Rubella virus
  - 4. Rhino virus

Question ID : 54592778201

**Q.15 Who among the following is associated with widow remarriage?**

- Ans
- 1. Ishwarchandra Vidyasagar
  - 2. Jyotirao Phule
  - 3. E.V. Ramaswamy Naicker
  - 4. Shri Narayana Guru

Question ID : 54592778204

**Q.16 \_\_\_\_\_ are known as excludable goods.**

- Ans
- 1. Merit Goods
  - 2. Demerit Goods
  - 3. Public Goods
  - 4. Private Goods

Question ID : 54592778198

**Q.17 Who is the author of the book 'The Coalition Years' ?**

- Ans
- 1. Shashi Tharoor
  - 2. Satya Nadella
  - 3. Pranab Mukharjee
  - 4. Raghuram G Rajan

Question ID : 54592778209

**Q.18 Jawadi hills are part of which of the following?**

- Ans
- 1. Eastern Ghat
  - 2. Arunachal Himalayas
  - 3. Northwestern Himalayas
  - 4. Western Ghat

Question ID : 54592778203

Q.19 Who is the present governor of Maharashtra?

- Ans
- 1. Anandiben Patel
  - 2. C. Vidyasagar Rao
  - 3. Lalji Tandon
  - 4. Mridula Sinha

Question ID : 54592778210

Q.20 \_\_\_\_\_ is defined as the market price of the good (p) multiplied by the firm's output (q)

- Ans
- 1. Average revenue
  - 2. Total revenue
  - 3. Price Line
  - 4. Marginal revenue

Question ID : 54592778197

Section : Arithmetic Ability

Q.1 The respective ratio of the marks of three students A, B and C is 3 : 4 : 6. If average marks of A and B is 77. Find the marks of C.

- Ans
- 1. 132
  - 2. 125
  - 3. 88
  - 4. 102

Question ID : 54592778220

Q.2 A man's age is 125% of what it was 10 years ago, but  $83\frac{1}{3}\%$  of what it will be after 10 years. His present age is:

- Ans
- 1. 49 Years
  - 2. 51 Years
  - 3. 48 Years
  - 4. 50 Years

Question ID : 54592778222

Q.3 In what ratio should water be mixed with wine, that costs Rs. 60 per litre, so that the price of the resultant mixture is Rs.40 per litre?

- Ans
- 1. 2 : 3
  - 2. 3 : 4
  - 3. 1 : 2
  - 4. 4 : 5

Question ID : 54592778225

Q.4 A train covers a certain distance in 50 minutes, if it runs at a speed of 48 km/hr on an average. The speed at which the train must run so that time of journey becomes 40 minutes?

Ans

- 1. 10 km/hr
- 2. 40 km/hr
- 3. 60 km/hr
- 4. 20 km/hr

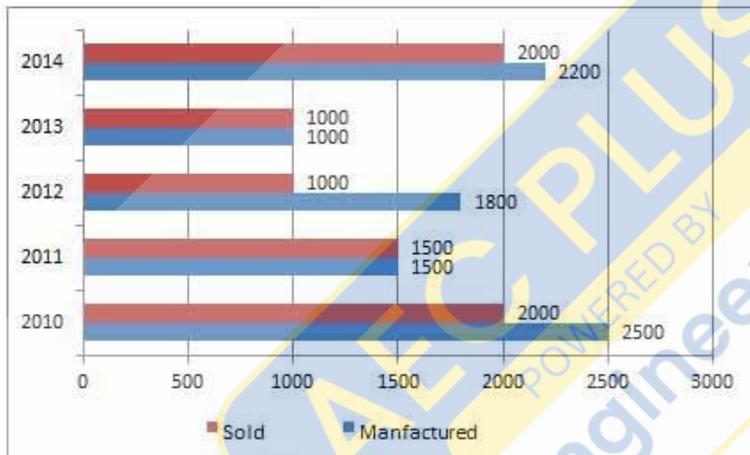
Question ID : 54592778228

**Q.5** The ratio of the speeds of a boat in still water and the speed of the river is 3 : 1. The boat takes 45 minutes for a round trip journey. Find the distance of the whole trip if the speed of the stream is 4 km/hr.

- Ans**
- 1. 4 km
  - 2. 16 km
  - 3. 8 km
  - 4. 12 km

Question ID : 54592778227

**Q.6** Given below is a bar graph showing the details of cars manufactured and sold by company "ABC Limited" for the period of 2010 to 2014. Study the graph carefully and answer the question.



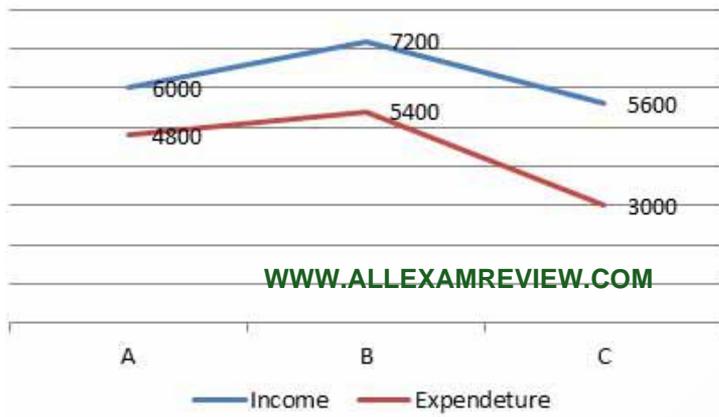
$$\text{Sale \%} = \frac{\text{No of cars sold}}{\text{No of cars manufactured}} \times 100$$

In which year sale percentage was least?

- Ans**
- 1. 2014
  - 2. 2012
  - 3. 2011
  - 4. 2010

Question ID : 54592778233

**Q.7** Study the following bar graph carefully to answer the given question. The graph shows the monthly income and expenditure of three persons A, B and C.



Note: Savings = Income – Expenditure

The difference between the savings of A and C is what percentage less than that of savings of B?

- Ans
- 1.  $16\frac{2}{9}\%$
  - 2.  $22\frac{2}{9}\%$
  - 3.  $33\frac{1}{3}\%$
  - 4. 25%

Question ID : 54592778234

Q.8 Simplify the following expression.

$$12624 + 15285 - 16234 + 90724 + 13381 = ?$$

- Ans
- 1. 116784
  - 2. 112564
  - 3. 115780
  - 4. 116850

Question ID : 54592778216

Q.9 If  $\frac{a}{b} = \frac{2}{3}$ , then the value of  $5a^3 - 2a^2b : 3ab^2 - b^3$  is :

- Ans
- 1. 32 : 29
  - 2. 16 : 27
  - 3. 27 : 16
  - 4. 34 : 19

Question ID : 54592778224

Q.10 Which of the following Fractions is the smallest?

$$\frac{13}{14}, \frac{14}{15}, \frac{15}{16}, \frac{16}{17}$$

- Ans
- 1.  $\frac{16}{17}$
  - 2.  $\frac{15}{16}$

3.  $\frac{14}{15}$

4.  $\frac{13}{14}$

Question ID : 54592778215

Q.11 If 40 percent of a number is 75 more than 20 percent of 1500, the value of the number is:

Ans  1. 912.5

2. 937.5

3. 952.5

4. 962.5

Question ID : 54592778221

Q.12 Monthly expenditures (in Rs.) of an average household on rent, food, clothing and other miscellaneous items are 1000, 1500, 350 and 750 respectively. If this information is presented with the help of a pie chart, then the angle for clothing is:

Ans  1.  $35^\circ$

2.  $60^\circ$

3.  $15^\circ$

4.  $45^\circ$

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Question ID : 54592778219

Q.13 15 men or 18 women can complete a piece of work in 45 days. If 5 men and 6 women work together then the work will be completed in:

Ans  1.  $53\frac{1}{2}$  days

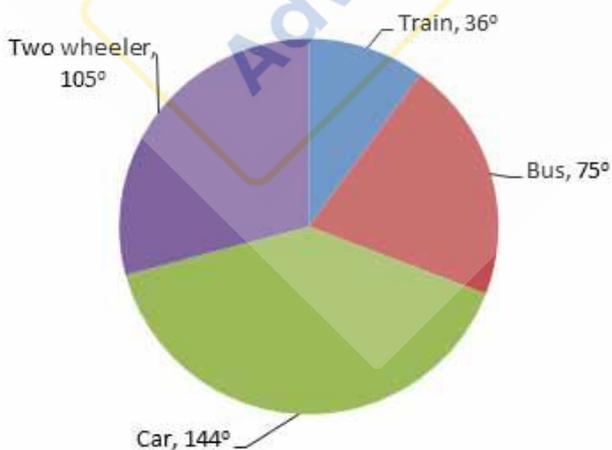
2. 75 days

3. 48 days

4.  $67\frac{1}{2}$  days

Question ID : 54592778230

Q.14 Following pie chart shows the modes of transport for 1000 students of a regional college of engineering in Delhi.



The number of students who come college by car is what percent of the number of students who come by train:

Ans  1. 150 percent

- 2. 25 percent
- 3. 200 percent
- 4. 400 percent

Question ID : 54592778232

**Q.15** What is the greatest number that will divide 580 and 679 and leave remainders 4 and 7 respectively.

- Ans
- 1. 16
  - 2. 8
  - 3. 32
  - 4. 96

Question ID : 54592778217

**Q.16** In how many years will a sum of Rs.1875 amount to Rs.2187 at 8 percent p.a. compound interest?

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

Question ID : 54592778226

**Q.17** A takes  $5\frac{1}{3}$  days and B takes  $8\frac{1}{3}$  days more than the time taken by A and B together to complete a work. In how many days will they finish the work together?

- Ans
- 1.  $3\frac{1}{3}$
  - 2.  $9\frac{2}{3}$
  - 3.  $6\frac{2}{3}$
  - 4.  $8\frac{2}{3}$

Question ID : 54592778229

**Q.18** Rakesh bought some chocolates at 10 for Rs.1.50 and an equal number at 20 paise each. He sold them at a rate of 20 for Rs. 4 and made a profit of Rs. 10. How many chocolates did he purchase?

- Ans
- 1. 100
  - 2. 400
  - 3. 300
  - 4. 200

Question ID : 54592778223

**Q.19** Nitesh purchased a new Mobile for 30 percent discount. Had Nitesh got no discount, Nitesh would have had to pay Rs. 3000 more. How much did Nitesh pay for the Mobile?

- Ans
- 1. Rs.7000
  - 2. Rs.8500
  - 3. Rs.8000
  - 4. Rs.7500

Q.20 Find the volume of a right circular cone formed by joining the edges of a sector of a circle of radius 4cm where the angle of the sector is  $90^\circ$ .

- Ans
- 1.  $\frac{2\sqrt{3}}{\pi} \text{ cm}^3$
  - 2.  $\frac{\pi\sqrt{5}}{\sqrt{3}} \text{ cm}^3$
  - 3.  $\frac{12\sqrt{3}}{\pi} \text{ cm}^3$
  - 4.  $\frac{2\sqrt{2}\pi}{3} \text{ cm}^3$

Section : General English

Q.1 Find out which part of the sentence has an error. If there is no error, mark your answer as 'No error'.

The table's wood (a) / is infested with mite and I (b) / am likely to dispose it of.(c) / No error(d).

- Ans
- 1. The table's wood
  - 2. No error
  - 3. is infested with mite and I
  - 4. am likely to dispose it of.

Q.2 Select the word which means the same as the group of words given.

Government by few or a small group of people.

- Ans
- 1. Oligarchy
  - 2. Bureaucracy
  - 3. Ochlocracy
  - 4. Aristocracy

Q.3 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.

We had been almost halfway there when the left rear tyre blew out.

- Ans
- 1. have been almost
  - 2. were going to be almost
  - 3. No substitution required
  - 4. were almost

Q.4 In the following question, there are six parts marked S1, S6, P, Q, R and S. The position of S1 and S6 is fixed. Some parts of the sentence have been jumbled up. Rearrange these parts and choose the proper sequence from the given options.

S1. Two partridges (quail-like birds) lived in a certain tree in the jungle. While one of them lived on the branches, the other lived inside a hole at the foot of the tree.

P. One day, one of them went away with some more partridges in search of food.  
Q. They became good friends, and they would spend long hours with each other telling each other stories and events of their lives.  
R. In this manner, the partridges spent their time in happiness.  
S. As was usual, when he did not return back even at sunset, the other partridge started worrying.

S6. He thought, "He has not done this ever. Why has the partridge not returned home today? Has been trapped by some hunter? Or maybe even killed? I cannot live without him. I am certain there is some reason why he has not returned even at nightfall."

- Ans
- 1. QRPS
  - 2. SPRQ
  - 3. SPQR
  - 4. QRSP

Question ID : 54592778242

Q.5 Identify the incorrect sentence or sentences.

- a. Tamil Nadu will be the most wired state from the perspective of e-learning.
- b. At the core of Rs 20 crore project is a Knowledge Data Centre at the Anna University.
- c. The K.D.C. will house information in digital format.
- d. It can be accessed by students through the state.

- Ans
- 1. Only a
  - 2. b and d
  - 3. a and c
  - 4. Only b

Question ID : 54592778235

Q.6 Select the most appropriate option to fill in the blank.

When light \_\_\_\_\_ through a spectroscope it breaks into bands of unique colours.

- Ans
- 1. passed
  - 2. passing
  - 3. passes
  - 4. pass

Question ID : 54592778239

Q.7 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.

The man spent a lot because he had so large amount of money.

- Ans
- 1. he had a large lot of money
  - 2. No substitution required
  - 3. he had a large amount of money
  - 4. he had a large number of money

Question ID : 54592778238

Q.8 Select the synonym of the given word.

Morose

- Ans
- 1. Delectable
  - 2. Meagre
  - 3. Gloomy
  - 4. Concealed

Q.9 Select the most appropriate option to fill in the blank.

You never know how much you rely on your friends \_\_\_\_\_ they are beyond your reach.

- Ans
- 1. still
  - 2. in case
  - 3. until
  - 4. unless

Question ID : 54592778240

Q.10 Select the meaning of the given idiom.

To the backbone:

- Ans
- 1. With flexibility
  - 2. Farthest point
  - 3. Thoroughly
  - 4. Physically

Question ID : 54592778248

Q.11 Select the meaning of the given idiom.

A bird's eye view:

- Ans
- 1. Lacking clarity
  - 2. A quick look
  - 3. A general view
  - 4. Unrealistic

Question ID : 54592778247

Q.12 Select the antonym of the given word.

Proximity

- Ans
- 1. Remoteness
  - 2. Expedite
  - 3. Pardon
  - 4. Adjacent

Question ID : 54592778243

Q.13 Out of the given four words only one is not spelt correctly. Find the word that is not correctly spelt.

- Ans
- 1. Judgement
  - 2. Laboratory
  - 3. Librality
  - 4. Knowledge

Question ID : 54592778246

Q.14 In each of the questions given below, rearrange the parts of the sentence in the correct order, and choose the correct option.

When botanists endeavoured by means of the microscope  
P - to see the cells multiplying and producing actual growth

Q - it was discovered that this phenomenon took place for the most part  
R - at night during the absence of light

- Ans
- 1. RPQ
  - 2. QRP
  - 3. RQP
  - 4. PQR

Question ID : 54592778241

Q.15 Find the correctly spelt word.

- Ans
- 1. Assecment
  - 2. Assessment
  - 3. Aessment
  - 4. Aessmente

Question ID : 54592778245

**Comprehension:**

Read the passage carefully and choose the best answer to each question out of the four alternatives.

The word 'routine' is not a very adored term. It has often been substituted for anything that is ordinary or mundane. Routines are regular procedures and practices that are almost performed as second nature. If you look up the net there are even sites which help to get out of routines and make life more exciting. If you're bored with routines they can offer help.

Reality is a bit different though. In reality routines form the backbone of our lives. Traffic rules are routine but imagine one fine day we said, dump those rules. You can imagine the chaos. Which shoe do you wear first? The left or the right? Check next time, you've probably been doing it all your life (wearing the left or right first) without the slightest thought to it. Most of us marvel at Army marches. We are amazed how their legs and arms move in such synchronised manner. To them, that's routine. For us, it's a wonder. They have been trained for it and they practice it every day. It is in that sense that Secularism is a routine. Being a backbone of our lives, secularism needs to be maintained and practiced. Soldiers don't fight big battles with their marching skills. Do they? At best that routine organises them for the battle. In much similar fashion secularism by itself does not win any battles. But many of our fraudulent politicians have been selling this product (in a fake form). Excessive secularism, which feeds the fire of people who like to present India as a country that does not respect its majority, is just as dangerous as religious fundamentalism". This is the outcome of fake secularism practiced by all the parties.

Secularism demands that people be seen as one nation under one roof. Politicians may act divisively but why should media morons act divisively? And when rapped for such illegitimate behaviour all that these fools can do is cry abuse.

Secularism is a routine practice and not an issue on which any election should have ever been contested but the sickulars and the corrupt media have brought it down to this level. I consider myself a secular person but except for the media discussions or election season it doesn't cross my mind even once. People brush their teeth and have a bath every day. It makes them feel good, clean and freshened up. But that doesn't guarantee them luck, job or food. Routine hygiene is a "maintenance" job for the body. Secularism is a maintenance job for a society. It need not get any premium. No one deserves to be rewarded for being secular; certainly not with a vote.

SubQuestion No : 16

Q.16 Out of the given options, which word can replace the word 'Moron' as used in the passage?

- Ans
- 1. Puppet
  - 2. Sickulars
  - 3. Fool
  - 4. Gloomy

Question ID : 54592778254

**Comprehension:**

Read the passage carefully and choose the best answer to each question out of the four alternatives.

The word 'routine' is not a very adored term. It has often been substituted for anything that is ordinary or mundane. Routines are regular procedures and practices that are almost performed as second nature. If you look up the net there are even sites which help to get out of routines and make life more exciting. If you're bored with routines they can offer help.

Reality is a bit different though. In reality routines form the backbone of our lives. Traffic rules are routine but imagine one fine day we said, dump those rules. You can imagine the chaos. Which shoe do you wear first? The left or the right? Check next time, you've probably been doing it all your life (wearing the left or right first) without the slightest thought to it. Most of us marvel at Army marches. We are amazed how their legs and arms move in such synchronised manner. To them, that's routine. For us, it's a wonder. They have been trained for it and they practice it every day. It is in that sense that Secularism is a routine. Being a backbone of our lives, secularism needs to be maintained and practiced. Soldiers don't fight big battles with their marching skills. Do they? At best that routine organises them for the battle. In much similar fashion secularism by itself does not win any battles. But many of our fraudulent politicians have been selling this product (in a fake form). Excessive secularism, which feeds the fire of people who like to present India as a country that does not respect its majority, is just as dangerous as religious fundamentalism". This is the outcome of fake secularism practiced by all the parties.

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#### SubQuestion No : 17

Q.17 In what sense secularism is a routine?

- Ans
- 1. Secularism is simply a notion that is a lip service to the nation.
  - 2. Secularism demands that people be seen as one nation under one roof.
  - 3. Secularism is a routine in a sense that it needs to be practiced and maintained.
  - 4. Secularism is a maintenance job for a society.

Question ID : 54592778252

#### Comprehension:

Read the passage carefully and choose the best answer to each question out of the four alternatives.

The word 'routine' is not a very adored term. It has often been substituted for anything that is ordinary or mundane. Routines are regular procedures and practices that are almost performed as second nature. If you look up the net there are even sites which help to get out of routines and make life more exciting. If you're bored with routines they can offer help.

Reality is a bit different though. In reality routines form the backbone of our lives. Traffic rules are routine but imagine one fine day we said, dump those rules. You can imagine the chaos. Which shoe do you wear first? The left or the right? Check next time, you've probably been doing it all your life (wearing the left or right first) without the slightest thought to it. Most of us marvel at Army marches. We are amazed how their legs and arms move in such synchronised manner. To them, that's routine. For us, it's a wonder. They have been trained for it and they practice it every day. It is in that sense that Secularism is a routine. Being a backbone of our lives, secularism needs to be maintained and practiced. Soldiers don't fight big battles with their marching skills. Do they? At best that routine organises them for the battle. In much similar fashion secularism by itself does not win any battles. But many of our fraudulent politicians have been selling this product (in a fake form). Excessive secularism, which feeds the fire of people who like to present India as a country that does not respect its majority, is just as dangerous as religious fundamentalism". This is the outcome of fake secularism practiced by all the parties.

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SubQuestion No : 18

Q.18 According to the passage, what exactly is a routine?

- Ans
- 1. Routine is a boring term used for an act repeated over a period of time
  - 2. Routine is an everyday practice that puts people at ease since it provides a sense of consistency and repetition
  - 3. They are regular procedures and practices that are performed as second nature
  - 4. Routine is a safe haven for people who are averse to change

Question ID : 54592778251

**Comprehension:**

Read the passage carefully and choose the best answer to each question out of the four alternatives.

The word 'routine' is not a very adored term. It has often been substituted for anything that is ordinary or mundane. Routines are regular procedures and practices that are almost performed as second nature. If you look up the net there are even sites which help to get out of routines and make life more exciting. If you're bored with routines they can offer help.

Reality is a bit different though. In reality routines form the backbone of our lives. Traffic rules are routine but imagine one fine day we said, dump those rules. You can imagine the chaos. Which shoe do you wear first? The left or the right? Check next time, you've probably been doing it all your life (wearing the left or right first) without the slightest thought to it. Most of us marvel at Army marches. We are amazed how their legs and arms move in such synchronised manner. To them, that's routine. For us, it's a wonder. They have been trained for it and they practice it every day. It is in that sense that Secularism is a routine. Being a backbone of our lives, secularism needs to be maintained and practiced. Soldiers don't fight big battles with their marching skills. Do they? At best that routine organises them for the battle. In much similar fashion secularism by itself does not win any battles. But many of our fraudulent politicians have been selling this product (in a fake form). Excessive secularism, which feeds the fire of people who like to present India as a country that does not respect its majority, is just as dangerous as religious fundamentalism". This is the outcome of fake secularism practiced by all the parties.

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SubQuestion No : 19

Q.19 All except one is true according to the passage:

- Ans
- 1. Secularism is not a maintenance job for the society.
  - 2. Secularism is not an issue to form the basis of contesting an election.
  - 3. Secularism being a backbone of our life needs to be practiced and maintained.
  - 4. Absence of routine in our life will lead to chaos.

Question ID : 54592778255

**Comprehension:**

Read the passage carefully and choose the best answer to each question out of the four alternatives.

The word 'routine' is not a very adored term. It has often been substituted for anything that is ordinary or mundane. Routines are regular procedures and practices that are almost performed as second nature. If you look up the net there are even sites which help to get out of routines and make life more exciting. If you're bored with routines they can offer help.

Reality is a bit different though. In reality routines form the backbone of our lives. Traffic rules are routine but imagine one fine day we said, dump those rules. You can imagine the chaos. Which shoe do you wear first? The left or the right? Check next time, you've probably been doing it all your life (wearing the left or right first) without the slightest thought to it. Most of us marvel at Army marches. We are amazed how their legs and arms move in such synchronised manner. To them, that's routine. For us, it's a wonder. They have been trained for it and they practice it every day. It is in that sense that Secularism is a routine. Being a backbone of our lives, secularism needs to be maintained and practiced. Soldiers don't fight

big battles with their marching skills. Do they? At best that routine organises them for the battle. In much similar fashion secularism by itself does not win any battles. But many of our fraudulent politicians have been selling this product (in a fake form). Excessive secularism, which feeds the fire of people who like to present India as a country that does not respect its majority, is just as dangerous as religious fundamentalism". This is the outcome of fake secularism practiced by all the parties.

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SubQuestion No : 20

Q.20 What can be an appropriate title for the passage?

- Ans
- 1. Divisive Secularism
  - 2. Is secularism a reality?
  - 3. Fake Secularism
  - 4. A fool's secularism

Question ID : 54592778253

Section : General Hindi

Q.1 शब्द-युग्म के सही अर्थ-भेद का चयन कीजिए-

‘नाहर-नहर’

- Ans
- 1. लकीर- सिंह
  - 2. पानी की कुल्या- सिंह
  - 3. सिंह- पानी की कुल्या
  - 4. स्तर- पानी की नहर

Question ID : 54592778261

Q.2 क्रिया सामान्यतया वाक्य में \_\_\_\_\_ का कार्य करती है।

- Ans
- 1. विधेय
  - 2. अव्यय
  - 3. उद्देश्य
  - 4. समास

Question ID : 54592778257

Q.3 शुद्ध वर्तनी वाले शब्द का चयन कीजिए-

- Ans
- 1. निशेघ
  - 2. प्रायोजन
  - 3. स्ताव
  - 4. शिल्पि

Question ID : 54592778263

Q.4 दिए गए वाक्य के लिए एक शब्द का चयन कीजिए-

‘नवीन बनाने की क्रिया’

- Ans
- 1. आपादमस्तक
  - 2. आधुनिकीकरण
  - 3. आद्यांत
  - 4. नवीकरणीय

Question ID : 54592778262

Q.5 किस वाक्य में विराम चिन्हों का सही प्रयोग नहीं किया गया है?

- Ans
- 1. मैं यह नहीं जानता कि मैं क्या चाहता हूँ।
  - 2. घूसखोरी नौकरशाही की सबसे बड़ी देन है न।
  - 3. आपका नाम क्या है?
  - 4. आप सम्भवतः कोलकाता के निवासी है?

Question ID : 54592778270

Q.6 निम्नलिखित में से स्त्रीलिंग शब्द का चयन कीजिए-

- Ans
- 1. गजरा
  - 2. माला
  - 3. झूमर
  - 4. हार

Question ID : 54592778266

Q.7 लोकोक्ति 'ऊँट चढ़े पर कुत्ता काटे' का अर्थ है-

- Ans
- 1. भाग्य का खोटापन हर वक्त सताता है।
  - 2. कुपात्र को उत्तम वस्तु मिलना
  - 3. ऊँट पर कुत्ता चढ़ना
  - 4. अनाड़ी आदमी को बड़ों की नकल करके नुकसान उठाना

Question ID : 54592778269

Q.8 'कबूतर' का पर्यायवाची शब्द है-

- Ans
- 1. पारावात
  - 2. अकिंचन
  - 3. कोपल
  - 4. उलूक

Question ID : 54592778259

Q.9 'अधुनातन' का विलोम शब्द है-

- Ans
- 1. अशक्त
  - 2. आधुनिक
  - 3. अनधिकृत
  - 4. पुरातन

Question ID : 54592778260

Q.10 वाक्य प्रकार का चयन कीजिए-

'मुझे पुस्तक चाहिए थी, पर इस गाईड से भी काम चल जाएगा।'

- Ans
- 1. संयुक्त वाक्य

- 2. सरल वाक्य
- 3. मिश्र वाक्य
- 4. विधिवाचक वाक्य

Question ID : 54592778264

Q.11 यदि दो पदों के बीच किसी परसर्ग(कारक-चिन्ह) की उपस्थिति लगे, तो वहाँ किस चिन्ह का प्रयोग किया जाना चाहिए?

- Ans
- 1. योजक चिन्ह
  - 2. विवरण चिन्ह
  - 3. पूर्णविराम चिन्ह
  - 4. विस्मयादिबोधक चिन्ह

Question ID : 54592778268

Q.12 मुहावरा 'वारा न्यारा होना' का अर्थ है-

- Ans
- 1. व्याह होना
  - 2. लाभान्वित होना
  - 3. बहुत लज्जा होना
  - 4. दीवाला होना

Question ID : 54592778267

Q.13 निम्नलिखित में से कौन-सा तत्सम शब्द है?

- Ans
- 1. बहनोई
  - 2. बाजा
  - 3. बंध
  - 4. बोना

Question ID : 54592778256

Q.14 'कुपुत्र' में कौन-सा समास है?

- Ans
- 1. तत्पुरुष समास
  - 2. द्विगु समास
  - 3. द्वन्द्व समास
  - 4. कर्मधारय समास

Question ID : 54592778258

Q.15 वाक्य प्रकार का चयन कीजिए-

'बच्चों से दौड़ा नहीं जाता।'

- Ans
- 1. भाववाच्य
  - 2. कर्तृवाच्य
  - 3. संयुक्त वाक्य
  - 4. कर्मवाच्य

Question ID : 54592778265

#### Comprehension:

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

आर्थिक वृद्धि पर आयु का प्रभाव हमेशा ही बहस का विषय रहा है। युवा कामकाजी वर्ग में बढ़ती-किसी भी देश

की आर्थिक वृद्धि के लिए फायदेमंद होती है। संयुक्त राष्ट्र का अनुमान है कि अभी भारत की आबादी 1,342,763,001 है। भारत दुनिया का सबसे युवा देश हो जाएगा, जिसमें माध्य आयु 29 वर्ष होगी। इस समय भारत का 'जनांकिक लाभांश' अनुकूल है, जिसका अर्थ है कि उसके पास जो श्रम शक्ति है, वह उस पर आश्रित जनसंख्या की तुलना में अधिक है। इस अनुकूल या सकारात्मक जनांकिकी लाभांश को विभिन्न कौशलों का प्रशिक्षण देकर मानव संसाधन में बदला जा सकता है। इसी विचार के साथ प्रधानमंत्री नरेंद्र मोदी ने 2014 में 24 लाख युवाओं को प्रशिक्षित करने के लक्ष्य के साथ अलग से 'कौशल विकास मंत्रालय' का गठन किया और उसे 1,500 करोड़ रुपये की पूंजी दी गई। पहली बार किसी सरकार ने कौशल विकास मंत्रालय का गठन किया। 15 जुलाई, 2015 को मोदी जी ने पहले विश्व युवा कौशल दिवस पर स्किल इंडिया कार्यक्रम आरंभ किया। उन्होंने कहा, "आने वाले वर्षों में भारत दुनिया को श्रमशक्ति देने वाला सबसे बड़ा देश होगा।" पाना (स्पैनर) और पेंसिल पकड़ा हुआ हाथ कार्यक्रम का प्रतीक चिह्न है। यह कौशल के जरिये व्यक्ति के सशक्तिकरण को स्पष्ट रूप से दर्शाता है। कार्यक्रम का ध्येय वाक्य 'कौशल भारत, कुशल भारत' बताता है कि भारतीयों को कौशल प्रदान करने से राष्ट्र संपन्न बनेगा। कार्यक्रम को अंतरराष्ट्रीय स्तर पर सराहना मिली है; ब्रिटेन, जर्मनी, ऑस्ट्रेलिया, अमेरिका, कनाडा, सिंगापुर, यूरोपीय संघ, ईरान और बहरीन के साथ कौशल विकास के लिए विभिन्न सहमति पत्रों (एमओयू) पर हस्ताक्षर किए गए हैं। कार्यक्रम आरंभ होने के बाद से ही सरकार ने प्रयासों को दिशा देने के कई प्रयास किए हैं। 15 जुलाई 2015 को प्रधानमंत्री ने चार नई पहलों का उद्घाटन किया; राष्ट्रीय कौशल विकास अभियान, राष्ट्रीय कौशल विकास एवं उद्यमिता योजना 2015, प्रधानमंत्री कौशल विकास योजना (पीएमकेवीवाई) और कौशल ऋण योजना। इन पहलों का उद्देश्य 2022 तक 40 करोड़ लोगों को विभिन्न कौशलों का प्रशिक्षण प्रदान करना है। इनमें से पीएमकेवीवाई स्किल इंडिया कार्यक्रम की रीढ़ है। यह कौशल विकास एवं उद्यमिता मंत्रालय (एमएसडीई) की सबसे प्रमुख योजना है।

**SubQuestion No : 16**

**Q.16 उपर्युक्त गद्यांश के अनुसार मोदी जी ने पहले विश्व युवा कौशल दिवस पर स्किल इंडिया कार्यक्रम कब आरंभ किया था?**

- Ans
- 1. 25 जुलाई, 2015
  - 2. 15 जुलाई, 2017
  - 3. 15 जुलाई, 2015
  - 4. 15 अगस्त, 2015

Question ID : 54592778274

**Comprehension:**

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

आर्थिक वृद्धि पर आयु का प्रभाव हमेशा ही बहस का विषय रहा है। युवा कामकाजी वर्ग में बढ़ोतरी किसी भी देश की आर्थिक वृद्धि के लिए फायदेमंद होती है। संयुक्त राष्ट्र का अनुमान है कि अभी भारत की आबादी 1,342,763,001 है। भारत दुनिया का सबसे युवा देश हो जाएगा, जिसमें माध्य आयु 29 वर्ष होगी। इस समय भारत का 'जनांकिक लाभांश' अनुकूल है, जिसका अर्थ है कि उसके पास जो श्रम शक्ति है, वह उस पर आश्रित जनसंख्या की तुलना में अधिक है। इस अनुकूल या सकारात्मक जनांकिकी लाभांश को विभिन्न कौशलों का प्रशिक्षण देकर मानव संसाधन में बदला जा सकता है। इसी विचार के साथ प्रधानमंत्री नरेंद्र मोदी ने 2014 में 24 लाख युवाओं को प्रशिक्षित करने के लक्ष्य के साथ अलग से 'कौशल विकास मंत्रालय' का गठन किया और उसे 1,500 करोड़ रुपये की पूंजी दी गई। पहली बार किसी सरकार ने कौशल विकास मंत्रालय का गठन किया। 15 जुलाई, 2015 को मोदी जी ने पहले विश्व युवा कौशल दिवस पर स्किल इंडिया कार्यक्रम आरंभ किया। उन्होंने कहा, "आने वाले वर्षों में भारत दुनिया को श्रमशक्ति देने वाला सबसे बड़ा देश होगा।" पाना (स्पैनर) और पेंसिल पकड़ा हुआ हाथ कार्यक्रम का प्रतीक चिह्न है। यह कौशल के जरिये व्यक्ति के सशक्तिकरण को स्पष्ट रूप से दर्शाता है। कार्यक्रम का ध्येय वाक्य 'कौशल भारत, कुशल भारत' बताता है कि भारतीयों को कौशल प्रदान करने से राष्ट्र संपन्न बनेगा। कार्यक्रम को अंतरराष्ट्रीय स्तर पर सराहना मिली है; ब्रिटेन, जर्मनी, ऑस्ट्रेलिया, अमेरिका, कनाडा, सिंगापुर, यूरोपीय संघ, ईरान और बहरीन के साथ कौशल विकास के लिए विभिन्न सहमति पत्रों (एमओयू) पर हस्ताक्षर किए गए हैं। कार्यक्रम आरंभ होने के बाद से ही सरकार ने प्रयासों को दिशा देने के कई प्रयास किए हैं। 15 जुलाई 2015 को प्रधानमंत्री ने चार नई पहलों का उद्घाटन किया; राष्ट्रीय कौशल विकास अभियान, राष्ट्रीय कौशल विकास एवं उद्यमिता योजना 2015, प्रधानमंत्री कौशल विकास योजना (पीएमकेवीवाई) और कौशल ऋण योजना। इन पहलों का उद्देश्य 2022 तक 40 करोड़ लोगों को विभिन्न कौशलों का प्रशिक्षण प्रदान करना है। इनमें से पीएमकेवीवाई स्किल इंडिया कार्यक्रम की रीढ़ है। यह कौशल विकास एवं उद्यमिता मंत्रालय (एमएसडीई) की सबसे प्रमुख योजना है।

**SubQuestion No : 17**

**Q.17 उपरोक्त गद्यांश के अनुसार 'कौशल विकास मंत्रालय' का गठन कर, उसे कितनी पूंजी दी गई थी?**

- Ans
- 1. 150 करोड़ रुपये
  - 2. 2015 करोड़ रुपये
  - 3. 2500 करोड़ रुपये
  - 4. 1,500 करोड़ रुपये

Question ID : 54592778276

**Comprehension:**

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

आर्थिक वृद्धि पर आयु का प्रभाव हमेशा ही बहस का विषय रहा है। युवा कामकाजी वर्ग में बढ़ोतरी किसी भी देश की आर्थिक वृद्धि के लिए फायदेमंद होती है। संयुक्त राष्ट्र का अनुमान है कि अभी भारत की आबादी 1,342,763,001 है। भारत दुनिया का सबसे युवा देश हो जाएगा, जिसमें माध्य आयु 29 वर्ष होगी। इस समय भारत का 'जनांकिक लाभांश' अनुकूल है, जिसका अर्थ है कि उसके पास जो श्रम शक्ति है, वह उस पर आश्रित जनसंख्या की तुलना में अधिक है। इस अनुकूल या सकारात्मक जनांकिकी लाभांश को विभिन्न कौशलों का प्रशिक्षण देकर मानव संसाधन में बदला जा सकता है। इसी विचार के साथ प्रधानमंत्री नरेंद्र मोदी ने 2014 में 24 लाख युवाओं को प्रशिक्षित करने के लक्ष्य के साथ अलग से 'कौशल विकास मंत्रालय' का गठन किया और उसे 1,500 करोड़ रुपये की पूंजी दी गई। पहली बार किसी सरकार ने कौशल विकास मंत्रालय का गठन किया। 15 जुलाई, 2015 को मोदी जी ने पहले विश्व युवा कौशल दिवस पर स्किल इंडिया कार्यक्रम आरंभ किया। उन्होंने कहा, "आने वाले वर्षों में भारत दुनिया को श्रमशक्ति देने वाला सबसे बड़ा देश होगा।" पाना (स्पेनर) और पेंसिल पकड़ा हुआ हाथ कार्यक्रम का प्रतीक चिह्न है। यह कौशल के जरिये व्यक्ति के सशक्तिकरण को स्पष्ट रूप से दर्शाता है। कार्यक्रम का ध्येय वाक्य 'कौशल भारत, कुशल भारत' बताता है कि भारतीयों को कौशल प्रदान करने से राष्ट्र संपन्न बनेगा। कार्यक्रम को अंतरराष्ट्रीय स्तर पर सराहना मिली है; ब्रिटेन, जर्मनी, ऑस्ट्रेलिया, अमेरिका, कनाडा, सिंगापुर, यूरोपीय संघ, ईरान और बहरीन के साथ कौशल विकास के लिए विभिन्न सहमति पत्रों (एमओयू) पर हस्ताक्षर किए गए हैं। कार्यक्रम आरंभ होने के बाद से ही सरकार ने प्रयासों को दिशा देने के कई प्रयास किए हैं। 15 जुलाई 2015 को प्रधानमंत्री ने चार नई पहलों का उद्घाटन किया; राष्ट्रीय कौशल विकास अभियान, राष्ट्रीय कौशल विकास एवं उद्यमिता योजना 2015, प्रधानमंत्री कौशल विकास योजना (पीएमकेवीवाई) और कौशल ऋण योजना। इन पहलों का उद्देश्य 2022 तक 40 करोड़ लोगों को विभिन्न कौशलों का प्रशिक्षण प्रदान करना है। इनमें से पीएमकेवीवाई स्किल इंडिया कार्यक्रम की रीढ़ है। यह कौशल विकास एवं उद्यमिता मंत्रालय (एमएसडीई) की सबसे प्रमुख योजना है।

**SubQuestion No : 18**

**Q.18 निम्नलिखित में से किस पहल का उद्घाटन 15 जुलाई 2015 को प्रधानमंत्री ने नहीं किया था?**

- Ans**
- 1. राष्ट्रीय कौशल विकास अभियान
  - 2. कौशल ऋण योजना
  - 3. प्रधानमंत्री कौशल विकास योजना (पीएमकेवीवाई)
  - 4. आयुष्मान भारत योजना

Question ID : 54592778275

**Comprehension:**

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

आर्थिक वृद्धि पर आयु का प्रभाव हमेशा ही बहस का विषय रहा है। युवा कामकाजी वर्ग में बढ़ोतरी किसी भी देश की आर्थिक वृद्धि के लिए फायदेमंद होती है। संयुक्त राष्ट्र का अनुमान है कि अभी भारत की आबादी 1,342,763,001 है। भारत दुनिया का सबसे युवा देश हो जाएगा, जिसमें माध्य आयु 29 वर्ष होगी। इस समय भारत का 'जनांकिक लाभांश' अनुकूल है, जिसका अर्थ है कि उसके पास जो श्रम शक्ति है, वह उस पर आश्रित जनसंख्या की तुलना में अधिक है। इस अनुकूल या सकारात्मक जनांकिकी लाभांश को विभिन्न कौशलों का प्रशिक्षण देकर मानव संसाधन में बदला जा सकता है। इसी विचार के साथ प्रधानमंत्री नरेंद्र मोदी ने 2014 में 24 लाख युवाओं को प्रशिक्षित करने के लक्ष्य के साथ अलग से 'कौशल विकास मंत्रालय' का गठन किया और उसे 1,500 करोड़ रुपये की पूंजी दी गई। पहली बार किसी सरकार ने कौशल विकास मंत्रालय का गठन किया। 15 जुलाई, 2015 को मोदी जी ने पहले विश्व युवा कौशल दिवस पर स्किल इंडिया कार्यक्रम आरंभ किया। उन्होंने कहा, "आने वाले वर्षों में भारत दुनिया को श्रमशक्ति देने वाला सबसे बड़ा देश होगा।" पाना (स्पेनर) और पेंसिल पकड़ा हुआ हाथ कार्यक्रम का प्रतीक चिह्न है। यह कौशल के जरिये व्यक्ति के सशक्तिकरण को स्पष्ट रूप से दर्शाता है। कार्यक्रम का ध्येय वाक्य 'कौशल भारत, कुशल भारत' बताता है कि भारतीयों को कौशल प्रदान करने से राष्ट्र संपन्न बनेगा। कार्यक्रम को अंतरराष्ट्रीय स्तर पर सराहना मिली है; ब्रिटेन, जर्मनी, ऑस्ट्रेलिया, अमेरिका, कनाडा, सिंगापुर, यूरोपीय संघ, ईरान और बहरीन के साथ कौशल विकास के लिए विभिन्न सहमति पत्रों (एमओयू) पर हस्ताक्षर किए गए हैं। कार्यक्रम आरंभ होने के बाद से ही सरकार ने प्रयासों को दिशा देने के कई प्रयास किए हैं। 15 जुलाई 2015 को प्रधानमंत्री ने चार नई पहलों का उद्घाटन किया; राष्ट्रीय कौशल विकास अभियान, राष्ट्रीय कौशल विकास एवं उद्यमिता योजना 2015, प्रधानमंत्री कौशल विकास योजना (पीएमकेवीवाई) और कौशल ऋण योजना। इन पहलों का उद्देश्य 2022 तक 40 करोड़ लोगों को विभिन्न कौशलों का प्रशिक्षण प्रदान करना है। इनमें से पीएमकेवीवाई स्किल इंडिया कार्यक्रम की रीढ़ है। यह कौशल विकास एवं उद्यमिता मंत्रालय (एमएसडीई) की सबसे प्रमुख योजना है।

**SubQuestion No : 19**

**Q.19 उपरोक्त गद्यांश के अनुसार 15 जुलाई 2015 को प्रधानमंत्री ने कितनी नई पहलों का उद्घाटन किया था?**

- Ans**
- 1. तीन
  - 2. आठ
  - 3. चार
  - 4. दस

Question ID : 54592778275

### Comprehension:

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

आर्थिक वृद्धि पर आयु का प्रभाव हमेशा ही बहस का विषय रहा है। युवा कामकाजी वर्ग में बढ़ोतरी किसी भी देश की आर्थिक वृद्धि के लिए फायदेमंद होती है। संयुक्त राष्ट्र का अनुमान है कि अभी भारत की आबादी 1,342,763,001 है। भारत दुनिया का सबसे युवा देश हो जाएगा, जिसमें माध्य आयु 29 वर्ष होगी। इस समय भारत का 'जनांकिक लाभांश' अनुकूल है, जिसका अर्थ है कि उसके पास जो श्रम शक्ति है, वह उस पर आश्रित जनसंख्या की तुलना में अधिक है। इस अनुकूल या सकारात्मक जनांकिकी लाभांश को विभिन्न कौशलों का प्रशिक्षण देकर मानव संसाधन में बदला जा सकता है।

इसी विचार के साथ प्रधानमंत्री नरेंद्र मोदी ने 2014 में 24 लाख युवाओं को प्रशिक्षित करने के लक्ष्य के साथ अलग से 'कौशल विकास मंत्रालय' का गठन किया और उसे 1,500 करोड़ रुपये की पूंजी दी गई। पहली बार किसी सरकार ने कौशल विकास मंत्रालय का गठन किया। 15 जुलाई, 2015 को मोदी जी ने पहले विश्व युवा कौशल दिवस पर स्किल इंडिया कार्यक्रम आरंभ किया। उन्होंने कहा, "आने वाले वर्षों में भारत दुनिया को श्रमशक्ति देने वाला सबसे बड़ा देश होगा।" पाना (स्पैनर) और पेंसिल पकड़ा हुआ हाथ कार्यक्रम का प्रतीक चिह्न है। यह कौशल के जरिये व्यक्ति के सशक्तिकरण को स्पष्ट रूप से दर्शाता है। कार्यक्रम का ध्येय वाक्य 'कौशल भारत, कुशल भारत' बताता है कि भारतीयों को कौशल प्रदान करने से राष्ट्र संपन्न बनेगा। कार्यक्रम को अंतरराष्ट्रीय स्तर पर सराहना मिली है; ब्रिटेन, जर्मनी, ऑस्ट्रेलिया, अमेरिका, कनाडा, सिंगापुर, यूरोपीय संघ, ईरान और बहरीन के साथ कौशल विकास के लिए विभिन्न सहमति पत्रों (एमओयू) पर हस्ताक्षर किए गए हैं। कार्यक्रम आरंभ होने के बाद से ही सरकार ने प्रयासों को दिशा देने के कई प्रयास किए हैं। 15 जुलाई 2015 को प्रधानमंत्री ने चार नई पहलों का उद्घाटन किया; राष्ट्रीय कौशल विकास अभियान, राष्ट्रीय कौशल विकास एवं उद्यमिता योजना 2015, प्रधानमंत्री कौशल विकास योजना (पीएमकेवीवाई) और कौशल ऋण योजना। इन पहलों का उद्देश्य 2022 तक 40 करोड़ लोगों को विभिन्न कौशलों का प्रशिक्षण प्रदान करना है। इनमें से पीएमकेवीवाई स्किल इंडिया कार्यक्रम की रीढ़ है। यह कौशल विकास एवं उद्यमिता मंत्रालय (एमएसडीई) की सबसे प्रमुख योजना है।

### SubQuestion No : 20

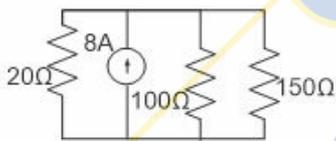
Q.20 उपरोक्त गद्यांश के अनुसार प्रधानमंत्री नरेंद्र मोदी ने 2014 में 24 लाख युवाओं को प्रशिक्षित करने के लक्ष्य के साथ किस मंत्रालय का गठन किया था?

- Ans
- 1. श्रमशक्ति मंत्रालय
  - 2. कौशल विकास मंत्रालय
  - 3. उद्यमिता मंत्रालय
  - 4. सशक्तिकरण मंत्रालय

Question ID : 54592778272

### Section : Discipline1

Q.1 In the circuit shown below the voltage across  $100 \Omega$  resistance is:



- Ans
- 1. 50 V
  - 2. 100 V
  - 3. 60 V
  - 4. 120 V

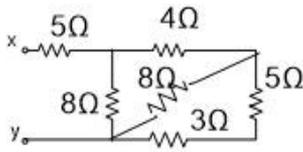
Question ID : 54592778286

Q.2 Current in A in an inductor is given by  $10 + 10t$  where  $t$  is the time in seconds. If the self-induced emf in the coil is 20 mV, then its self-inductance is:

- Ans
- 1. 10 mH
  - 2. 1 mH
  - 3. 2 mH
  - 4. 20 mH

Question ID : 54592778292

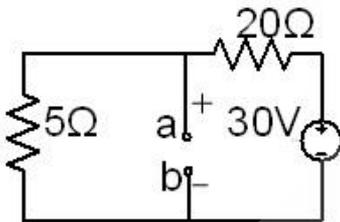
Q.3 Equivalent resistance of the circuit shown below between X and Y:



- Ans
- 1. 6 Ω
  - 2. 9 Ω
  - 3. 18 Ω
  - 4. 12 Ω

Question ID : 54592778283

Q.4 Equivalent resistance seen between the terminals a and b for the circuit shown below is:



- Ans
- 1. 20 Ω
  - 2. 4 Ω
  - 3. 25 Ω
  - 4. 5 Ω

Question ID : 54592778288

Q.5 Reciprocal of reluctance is:

- Ans
- 1. Hysteresis
  - 2. Permeability
  - 3. Susceptibility
  - 4. Permeance

Question ID : 54592778289

Q.6 An average voltage of 40 V is induced in a 1000 turn coil due to a change in flux which occurs in 0.5 seconds. The total flux change in webers is:

- Ans
- 1. 0.02
  - 2. 0.05
  - 3. 0.01
  - 4. 0.04

Question ID : 54592778290

Q.7 Two filament lamps rated 200 W/200 V and 50 W/200 V are connected in series across a 200 V, 50 Hz, ac supply. Then, the total power supplied by the source is:

- Ans
- 1. 160 W
  - 2. 80 W
  - 3. 20 W
  - 4. 40 W

Q.8 A battery having an open circuit voltage of 2 V has a terminal voltage of 1 V when supplying a current of 5 A. Its internal resistance is:

- Ans
- 1. 0.6  $\Omega$
  - 2. 0.4  $\Omega$
  - 3. 0.2  $\Omega$
  - 4. 0.1  $\Omega$

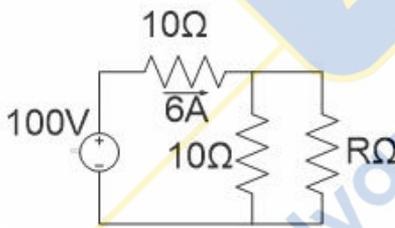
Q.9 An iron cored choke coil has an equivalent resistance of 4  $\Omega$ . It draws 10A from a single phase ac source of voltage 200 V, 50 Hz. Then, power consumed by the coil and its power factor respectively are:

- Ans
- 1. 200 W, 0.2 lag
  - 2. 400 W, 0.2 lag
  - 3. 200 W, 0.2 lead
  - 4. 400 W, 0.2 lead

Q.10 Mutual inductance between two closely coupled coils is 2 H. Now, if the number of turns in one coil is reduced by 50 percent and those of the other coil is doubled then, new value of mutual inductance is:

- Ans
- 1. 2 H
  - 2. 8 H
  - 3. 1 H
  - 4. 4 H

Q.11 In the circuit below, the value of resistance R is:



- Ans
- 1. 20  $\Omega$
  - 2. 30  $\Omega$
  - 3. 10  $\Omega$
  - 4. 40  $\Omega$

Q.12 A conductor 0.2 m long is carrying a current of 20 A at right angles to a magnetic field of 0.5 Tesla. What will be force on the conductor if the current is increased by 50 percent?

- Ans
- 1. 1 N
  - 2. 4 N
  - 3. 6 N
  - 4. 3 N

Q.13 When applied with a unidirectional voltage, an inductor behaves virtually like a:

- Ans
- 1. Depends on the magnitude of voltage applied
  - 2. Short circuit
  - 3. Depends on the polarity of voltage applied
  - 4. open circuit

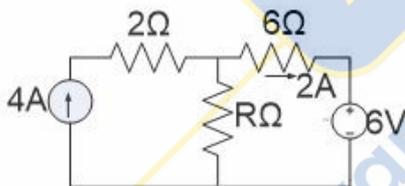
Q.14 A non-ideal current source of 25 mA is supplying a resistive load of 5 k $\Omega$ . If the actual current flowing through the load is 20 mA, then the internal resistance of the source is:

- Ans
- 1. 1 k $\Omega$
  - 2. 10 k $\Omega$
  - 3. 5 k $\Omega$
  - 4. 20 k $\Omega$

Q.15 Three resistances are connected in parallel. Total circuit current is 6A. Individual conductance of each parallel circuit are  $G^1 = 1S$ ,  $G^2=3S$  and  $G^3=2S$ . Then, current through  $G^3$  is:

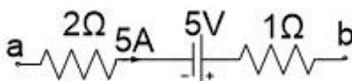
- Ans
- 1. 4 A
  - 2. 1 A
  - 3. 6 A
  - 4. 2 A

Q.16 In the circuit shown below, the current drawn by the 6  $\Omega$  resistor is 2A. then the value of resistance R is:



- Ans
- 1. 9  $\Omega$
  - 2. 18  $\Omega$
  - 3. 3  $\Omega$
  - 4. 6  $\Omega$

Q.17 Find  $V_a - V_b$  in the following part of a closed circuit where  $V_a$  and  $V_b$  are the potentials at a and b.



- Ans
- 1. 10 V
  - 2. 15 V
  - 3. 5 V

4. 20 V

Question ID : 54592778287

Q.18 Certain number of resistors having equal resistances offers an equivalent resistance of  $1\ \Omega$  when connected in parallel and  $100\ \Omega$  if they are connected in series. Then, the number of resistors and the resistance of each are \_\_\_\_\_.

- Ans
- 1. 20,  $10\ \Omega$
  - 2. 5,  $20\ \Omega$
  - 3. 20,  $5\ \Omega$
  - 4. 10,  $10\ \Omega$

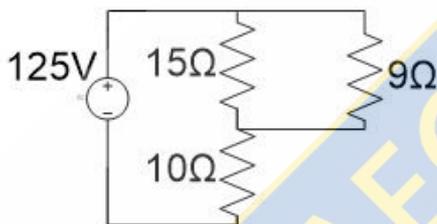
Question ID : 54592778278

Q.19 RMS value of a half wave rectified symmetrical square wave current of 2 A is:

- Ans
- 1. 2 A
  - 2. 1 A
  - 3.  $2\sqrt{2}$
  - 4.  $\sqrt{2}$

Question ID : 54592778296

Q.20 In the circuit below, the voltage across  $9\ \Omega$  resistor is:



- Ans
- 1. 54 V
  - 2. 50 V
  - 3. 75 V
  - 4. 45 V

Question ID : 54592778281

Section : Discipline2

Q.1 In a synchronous generator supplying power at rated voltage with zero power factor lagging, the effect of armature reaction ampere turns is:

- Ans
- 1. Demagnetising
  - 2. Cross magnetising
  - 3. Magnetising
  - 4. Magnetizing and cross magnetising

Question ID : 54592778314

Q.2 Field system of an alternator is usually excited from:

- Ans
- 1. Single phase ac voltage
  - 2. Square wave voltage
  - 3. Three phase ac voltage

4. Dc voltage

Question ID : 54592778311

Q.3 Scott connected transformers can convert (a) three phase to two phase (b) two phase to three phase (c) two phase to four phase (d) three phase to four phase. From the above options correct answer is:

- Ans
- 1. a and c
  - 2. b and c
  - 3. b and d
  - 4. a and b

Question ID : 54592778306

Q.4 Torque developed by a motor while running at 1000 rpm is 106 N-m and the shaft torque available is 100 N-m. then the iron and mechanical losses in watts are:

- Ans
- 1. 300  $\pi$
  - 2. 50  $\pi$
  - 3. 200  $\pi$
  - 4. 100  $\pi$

Question ID : 54592778307

Q.5 In a low power factor wattmeter compensating coil is connected:

- Ans
- 1. In series with the current coil
  - 2. In series with the pressure coil
  - 3. In parallel with the pressure coil
  - 4. In parallel with the current coil

Question ID : 54592778300

Q.6 Loss of charge method is used for the measurement of:

- Ans
- 1. High inductance
  - 2. Low resistance
  - 3. Low inductance
  - 4. High resistance

Question ID : 54592778301

Q.7 During plugging of a three-phase induction motor:

- Ans
- 1. Rotor circuit is opened
  - 2. Phase sequence of the stator voltage is reversed
  - 3. One phase of stator is short circuited
  - 4. Dc source is connected to stator

Question ID : 54592778310

Q.8 A transformer is supplying a unity power factor load. Power factor on primary side will be:

- Ans
- 1. About 0.95 lag
  - 2. unity
  - 3. About 0.95 lead

4. zero

Question ID : 54592778305

Q.9 A dc shunt generator has a critical field resistance of  $400 \Omega$  at 1200 rpm. Now if the speed of the generator is increased to 1800 rpm what is the change in the critical resistance?

- Ans
- 1. Increases to  $900 \Omega$
  - 2. Remains the same
  - 3. Increases to  $600 \Omega$
  - 4. Decreases to  $267 \Omega$

Question ID : 54592778309

Q.10 A three phase star connected alternator develops an rms voltage of  $V_1$  per phase at the fundamental frequency. It also generates a third harmonic component whose rms value is  $V_3$ . What is the line voltage of the alternator?

- Ans
- 1.  $\sqrt{3(V_1^2 + V_3^2)}$
  - 2.  $\sqrt{V_1^2 + V_3^2}$
  - 3.  $\frac{\sqrt{V_1^2 + V_3^2}}{\sqrt{3}}$
  - 4.  $\sqrt{2(V_1^2 + V_3^2)}$

Question ID : 54592778313

Q.11 In hydro-electric plants the type of alternator used is:

- Ans
- 1. Turbo generator
  - 2. Non salient pole
  - 3. Salient pole
  - 4. Steam turbine generator

Question ID : 54592778312

Q.12 A current transformer has a phase error of +5 degree. The phase angle between the primary and secondary current is:

- Ans
- 1. 5 degree
  - 2. 95 degree
  - 3. 175 degree
  - 4. 85 degree

Question ID : 54592778302

Q.13 Ferranti effect on long overhead lines is experienced when:

- Ans
- 1. Power factor is unity
  - 2. Line is lightly loaded
  - 3. Line is heavily loaded
  - 4. Line is fully loaded

Question ID : 54592778316

Q.14 A 400 V three phase 50 Hz balanced source is supplying power to a balanced three phase load. Line current flowing through the load is 5A at a power factor angle of 30 degrees lagging. Reading of two wattmeters used to measure the load power are:

- Ans
- 1. 1000 W, 2000 W
  - 2. 2000 W, 4000 W
  - 3. 2000 W, 3000 W
  - 4. 1000 W, 3000 W

Question ID : 54592778304

Q.15 An industrial consumer has a load pattern of 2000 kW at 0.8 lagging for 12 hours and 1000 kW at unity power factor for 12 hours. Its load factor is

- Ans
- 1. 0.6
  - 2. 0.8
  - 3. 0.5
  - 4. 0.75

Question ID : 54592778315

Q.16 Current flowing in a circuit is  $i = (18 + 10\sin\omega t + 7\sin 2\omega t)$ . A moving iron ammeter is connected in the circuit to measure this current. The reading of the meter will be approximately:

- Ans
- 1. 28 A
  - 2. 35 A
  - 3. 18 A
  - 4. 20 A

Question ID : 54592778303

Q.17 Moving coil permanent magnet instrument can be used for the measurement of:

- Ans
- 1. AC and DC
  - 2. DC only
  - 3. AC only
  - 4. Half wave rectified DC

Question ID : 54592778299

Q.18 Form factor of sinusoidal ac signal is:

- Ans
- 1. 1.11
  - 2. 0.11
  - 3. 2.11
  - 4. 3.11

Question ID : 54592778298

Q.19 Voltage applied to a load is  $100\sqrt{2}\sin 500t$ . Current through the load is  $10\sqrt{2}\sin(500t + \pi/3)$ . The power consumed by the load is:

- Ans
- 1. 500 W
  - 2. 200 W
  - 3. 1000 W
  - 4. 2000 W

**Q.20** A three-phase induction motor is running at 5 percent slip with certain load. If at this load the power input to the rotor is 2000 W, then the mechanical power developed by the motor is:

- Ans
- 1. 2000 W
  - 2. 2100 W
  - 3. 1700 W
  - 4. 1900 W

Section : Discipline3

**Q.1** In a particular circuit, a coil having a self- inductance of 2 H is required to carry a current of 4 A. A capacitor rated for 400 V is used across the coil in order to prevent sparking during breaking of the circuit. The value of capacitor needed is:

- Ans
- 1. 120  $\mu\text{F}$
  - 2. 100  $\mu\text{F}$
  - 3. 400  $\mu\text{F}$
  - 4. 200  $\mu\text{F}$

**Q.2** Unit of reluctance is:

- Ans
- 1. Henry
  - 2. weber
  - 3. Weber/m<sup>2</sup>
  - 4. (Henry)<sup>-1</sup>

**Q.3** In a transmission system if V is the transmission voltage, weight of copper needed is proportional to \_\_\_\_\_.

- Ans
- 1. V
  - 2.  $1/V^2$
  - 3.  $V^2$
  - 4.  $1/V$

**Q.4** Cost of power generation will be low if:

- Ans
- 1. Load factor is low and diversity factor is high
  - 2. Load factor is high and diversity factors is low
  - 3. Load factor and diversity factor are low
  - 4. Load factor and diversity factor are high

**Q.5** Energy produced in a power station is 1440 MWh per day. What is the maximum demand of the station if its load factor is 0.5?

- Ans
- 1. 120 MW
  - 2. 280 MW

- 3. 60 MW
- 4. 140 MW

Question ID : 54592778332

**Q.6** Sag of the conductors of a transmission line is 2m when the span is 200m. Now if the height of the supporting tower is increased by 25 percent sag will \_\_\_\_.

- Ans
- 1. Increase by 25 percent
  - 2. Reduce by 25 percent
  - 3. Reduce by 12.5 percent
  - 4. Remains unchanged

Question ID : 54592778320

**Q.7** In dielectric heating current flows through \_\_\_\_.

- Ans
- 1. Ionic discharge between dielectric medium and metallic conductor.
  - 2. Metallic conductor
  - 3. air
  - 4. dielectric

Question ID : 54592778324

**Q.8** A motor has to be selected for following load cycle. Load uniformly rising from zero to 100 hp in 10 minutes after which it is constant at 100 hp for the next 10 minutes, followed by no load period of 30 minutes. Suitable size of continuous rated motor is:

- Ans
- 1. 100 hp
  - 2. 25 hp
  - 3. 50 hp
  - 4. 200 hp

Question ID : 54592778325

**Q.9** Gain of a buffer amplifier is:

- Ans
- 1. Dependent on the circuit parameters
  - 2. unity
  - 3. infinity
  - 4. zero

Question ID : 54592778328

**Q.10** The most economical method of electric braking is:

- Ans
- 1. dynamic braking with separate excitation
  - 2. dynamic braking with self -excitation
  - 3. Plugging
  - 4. Regenerative braking

Question ID : 54592778327

**Q.11** Voltage of a bus can be controlled by controlling the \_\_\_\_.

- Ans
- 1. Apparent power of the bus
  - 2. Active power of the bus
  - 3. Reactive power of the bus

4. Apparent power and phase angle

Question ID : 54592778331

Q.12 The transistor configuration that is most commonly used as a switching device is:

- Ans
- 1. Common base
  - 2. Common emitter
  - 3. Common collector
  - 4. Common emitter shorted

Question ID : 54592778329

Q.13 A three phase 4 wire system is commonly used for \_\_\_\_\_.

- Ans
- 1. Primary distribution
  - 2. Primary transmission
  - 3. Secondary distribution
  - 4. Secondary transmission

Question ID : 54592778321

Q.14 An elevator drive is required to operate \_\_\_\_\_.

- Ans
- 1. Three quadrants
  - 2. Two quadrants
  - 3. All four quadrants
  - 4. One quadrant only

Question ID : 54592778326

Q.15 Bundled conductors are mainly used in HV transmission line to \_\_\_\_\_.

- Ans
- 1. Reduce sag
  - 2. Increase the mechanical strength of line
  - 3. Reduce transmission line loss
  - 4. Reduce corona

Question ID : 54592778317

Q.16 A lamp takes 5 A at 250 V and emits 8000 lumens. Its MSCP is:

- Ans
- 1.  $2000 \pi$
  - 2.  $1400 \pi$
  - 3.  $2000 / \pi$
  - 4.  $1250 \pi$

Question ID : 54592778323

Q.17 Surge impedance loading of a lossless 400 kV three phase 50 Hz overhead line of average surge impedance of  $400 \Omega$  is:

- Ans
- 1. 200 MW
  - 2. 400 MW
  - 3. 1600 MW
  - 4. 100 MW

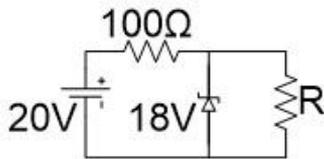
Question ID : 54592778319

Q.18 If  $L_1$  is the total inductance when two mutually coupled coils are connected in series such that mutual inductance is aiding the self-inductance and  $L_2$  is the total inductance when connected in series opposition, then mutual inductance between them is given by:

- Ans
- 1.  $(L_1 - L_2)/2$
  - 2.  $(L_1 + L_2)/2$
  - 3.  $(L_1 + L_2)/4$
  - 4.  $(L_1 - L_2)/4$

Question ID : 54592778335

Q.19 In the circuit shown below 18 V zener diode has zero zener resistance and a knee current of 2 mA. The minimum value of R so that voltage across it does not fall below 18 V is:



- Ans
- 1. 1000  $\Omega$
  - 2. 500  $\Omega$
  - 3. 9000  $\Omega$
  - 4. 2000  $\Omega$

Question ID : 54592778330

Q.20 Bulk power transmission over long HVDC lines is preferred because of:

- Ans
- 1. No harmonics
  - 2. Low cost HVDC terminals
  - 3. Simple protection
  - 4. Minimum line power loss

Question ID : 54592778318

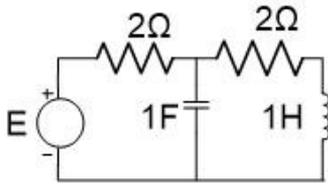
Section : Discipline4

Q.1 What is the energy stored in 1 second in an inductor while carrying a current  $i = 20 + 10t$  where  $t$  is the time in seconds if the electro motive force induced in the coil due to self-induction is 40 mV?

- Ans
- 1. 1.8J
  - 2. 0.45J
  - 3. 0.9J
  - 4. 1.2J

Question ID : 54592778339

Q.2 Power dissipated in the circuit given is 9 W. Value of E will be:



- Ans
- 1. 2V
  - 2. 4V
  - 3. 6V
  - 4. 8V

Question ID : 54592778342

Q.3 A three-phase delta connected symmetrical load consumes 3000 W of power from a balanced supply. If the same load is connected in star to the same supply then power consumption will be:

- Ans
- 1.  $3000/\sqrt{3}$
  - 2.  $3000/\sqrt{2}$
  - 3. 3000W
  - 4. 1000W

Question ID : 54592778349

Q.4 A RLC series circuit has a resistance of 1 kΩ. Its half power frequencies are 10 and 90 kHz. Quality factor of the circuit is:

- Ans
- 1. 43469
  - 2. 43532
  - 3. 43593
  - 4. 43467

Question ID : 54592778348

Q.5 A current of  $i = -6 + 8\sqrt{2}\sin(\omega t + 30)$  is passed through a center zero PMMC meter and a moving iron meter. The two meters will read:

- Ans
- 1. 6 A, 10 A
  - 2. -6 A, 8 A
  - 3. -6 A, 10 A
  - 4. 6 A, 8 A

Question ID : 54592778354

Q.6 The circuit shown is used to measure the power consumed by the load. Resistance of the current and potential coils of the wattmeter are 0.02 Ω and 1000 Ω respectively. With this circuit measured power compared to load power will be:

- Ans
- 1. 2 percent less
  - 2. 4 percent more
  - 3. 4 percent less
  - 4. 2 percent more

Question ID : 54592778356

Q.7 When a unit impulse voltage is applied to an inductor of 4 H, energy supplied by the source is:

- Ans
- 1. 8 J

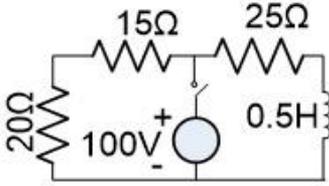
2. 2 J

3. 4 J

4. 1 J

Question ID : 54592778346

Q.8 In the circuit shown the switch is opened at  $t = 0$  after having been closed for a long time. Current through the resistor for  $t > 0$  is given by:



Ans  1.  $4e^{-50t}$

2.  $5e^{-50t}$

3.  $4e^{-120t}$

4.  $3e^{-120t}$

Question ID : 54592778347

Q.9 If all the sequence voltages at the fault point in a power system are equal, then the fault is a \_\_\_\_\_.

Ans  1. Line to ground fault

2. Three phase fault

3. Double line to ground fault

4. Line to line fault

Question ID : 54592778353

Q.10 Relative permeability is less than 1.0 in case of:

Ans  1. Dia-magnet material

2. Non-ferrous material

3. Ferro-magnet material

4. ferrites

Question ID : 54592778338

Q.11 What will the zero-sequence current when line to ground fault occurs and the current in faulted phase is 300 A?

Ans  1. 100 A

2. 300 A

3. 50 A

4. 150 A

Question ID : 54592778351

Q.12 Two coils having self- inductance of 10 mH and 15 mH give an effective inductance of 20 mH when connected in series opposition. What will be the effective inductance if they are connected in series aiding?

Ans  1. 80 mH

2. 30 mH

3. 60 mH

4. 40 mH

Question ID : 54592778341

Q.13 For a fully transposed transmission line \_\_\_\_\_.

- Ans  1. Negative and zero sequence impedances are equal.  
 2. Positive and zero sequence impedances are equal  
 3. Positive, negative and zero sequence impedances are equal.  
 4. Positive and negative sequence impedances are equal.

Question ID : 54592778350

Q.14 A long wire carrying a certain current produces a magnetic field of 0.8 Tesla at a distance 0.5 cm. Then magnetic field at a distance of 1 cm is:

- Ans  1. 0.16 Tesla  
 2. 0.2 Tesla  
 3. 0.8 Tesla  
 4. 0.4 Tesla

Question ID : 54592778337

Q.15 For a fixed receiving end and sending end voltages in a transmission system, locus of constant power is a \_\_\_\_\_.

- Ans  1. Straight line  
 2. ellipse  
 3. circle  
 4. parabola

Question ID : 54592778352

Q.16 A 200 V single phase ac source is connected to a load with an impedance of magnitude  $10 \Omega$  and phase angle  $+60$  degrees. A capacitor is connected across the load and supplies 1000 Var. The real power supplied by the source is:

- Ans  1. 2000 W  
 2. 4000 W  
 3. 1000 W  
 4. 3000 W

Question ID : 54592778345

Q.17 A two terminal network is connected to a resistive load whose resistance is equal to Norton resistance of the network. What will be the load current if Norton current is  $I_n$ ?

- Ans  1.  $2I_n/3$   
 2.  $I_n/2$   
 3.  $2I_n$   
 4.  $I_n$

Question ID : 54592778343

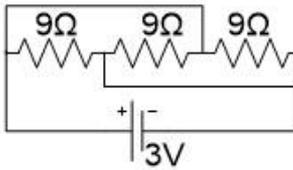
Q.18 Energy stored in an iron cored coil is 500 Joules when carrying a certain current and at that current its copper loss is 1000 W. Time constant of the coil in seconds is:

- Ans  1. 4  
 2. 2  
 3. 1

4.0.5

Question ID : 54592778340

Q.19 In the circuit shown below power delivered by the source is:



- Ans
- 1. 12 W
  - 2. 6 W
  - 3. 3 W
  - 4. 9 W

Question ID : 54592778344

Q.20 A shunt resistance of  $50\ \Omega$  is required for extending the range of an ammeter from 100 to  $500\ \mu\text{A}$ . the value of internal resistance of the ammeter is:

- Ans
- 1.  $400\ \Omega$
  - 2.  $200\ \Omega$
  - 3.  $800\ \Omega$
  - 4.  $100\ \Omega$

Question ID : 54592778355

Section : Discipline5

Q.1 A  $720\ \text{kVA}$ ,  $240\sqrt{3}\ \text{V}$ , star connected synchronous machine generates rated open circuit voltage at a field current of 20 A. A field current of 10 A produces rated armature current under short circuit condition. Per unit saturated synchronous reactance is:

- Ans
- 1. 2
  - 2. 0.5
  - 3. 0.4
  - 4. 1.5

Question ID : 54592778366

Q.2 A heater operated from a 250 V, 50 Hz single phase supply consumes 2.5 kWh in one hour. If it is now connected to a square wave generator of 400V peak to peak voltage and frequency 150 Hz the power dissipated by the heater will be:

- Ans
- 1. 1.6 kW
  - 2. 2.8 kW
  - 3. 3.2 kW
  - 4. 6.4 kW

Question ID : 54592778357

Q.3 The locked rotor current in a three-phase star connected 15 kW, 4 pole, 250 V, 50 Hz induction motor at rated conditions is 50 A. Neglecting losses what will be the locked current when motor is connected to 240 V, 60 Hz supply is:

- Ans
- 1. 48 A
  - 2. 52 A

3. 40 A

4. 50 A

Question ID : 54592778361

Q.4 For a transmission line with resistance R and reactance X and negligible capacitance generalized constant A is:

Ans  1. 1

2.  $R - jX$

3.  $R + jX$

4. 0

Question ID : 54592778370

Q.5 A dc potentiometer is designed to measure up-to about 2 V with a slide wire of 1600m. Standard cell of emf 1.2 V balances at 1200mm. a test cell is seen to balance at 1400mm. the emf of the test cell is

Ans  1. 1.1 V

2. 1.2 V

3. 1.7 V

4. 1.4 V

Question ID : 54592778358

Q.6 An amplifier circuit has a voltage gain of 500. If the output voltage is 5 V, then the input voltage is:

Ans  1. 1/2500 V

2. 2500 V

3. 100 mV

4. 10 mV

Question ID : 54592778374

Q.7 In a three-phase induction motor regenerative braking occurs when:

Ans  1. Load is lowered by a hoisting machine

2. Motor speed falls due to overload.

3. Load is raised by a hoisting machine

4. Number of poles is reduced in a pole changing machine

Question ID : 54592778362

Q.8 A three-phase slip ring induction motor develops full load torque at a slip of 0.04 when the slip rings are short circuited. If the rotor resistance is increased 3 times by inserting external resistance in the rotor circuit, then the slip will be:

Ans  1. 0.04

2. 0.01

3. 0.12

4. 0.06

Question ID : 54592778360

Q.9 For heating non conducting materials following heating method can be used:

Ans  1. Induction heating

2. Dielectric heating

- 3. Resistance heating
- 4. Electric arc heating

Question ID : 54592778365

Q.10 In a center tap full wave rectifier, if the peak voltage applied between the center tap and one of the secondary 200 V, then the reverse biased diode is applied with a maximum voltage of:

- Ans
- 1. 200 V
  - 2. 100 V
  - 3.  $200\sqrt{2}$  V
  - 4. 400 V

Question ID : 54592778375

Q.11 The dc base bias voltage of a npn transistor made of silicon is 10V and input base resistor is 100 k $\Omega$ . then the value of base current into the transistor

- Ans
- 1. 9.3  $\mu$ A
  - 2. 0.93  $\mu$ A
  - 3. 930  $\mu$ A
  - 4. 93  $\mu$ A

Question ID : 54592778373

Q.12 A 10 kVA, 400/200 V single phase transformer with resistance 4 percent and reactance 6 percent supplies a current of 50 A a resistive load. Voltage across the load is:

- Ans
- 1. 190 V
  - 2. 188 V
  - 3. 192 V
  - 4. 194 V

Question ID : 54592778363

Q.13 A 150 kW, 1200 rpm,  $240\sqrt{3}$  V, three phase delta connected synchronous motor has synchronous reactance of 1  $\Omega$  per phase. if the excitation voltage is fixed at 400 V per phase, power output at a torque angle of 30 degrees is:

- Ans
- 1. 75 kW
  - 2. 25 kW
  - 3. 87 kW
  - 4. 50 kW

Question ID : 54592778372

Q.14 Two insulator discs of identical capacitance value C makes up a string for 2.2 kV, 50 Hz single phase overhead line insulating system. If the pin to earth capacitance is also C, then string efficiency is:

- Ans
- 1. 75 percent
  - 2. 50 percent
  - 3. 80 percent
  - 4. 90 percent

Question ID : 54592778369

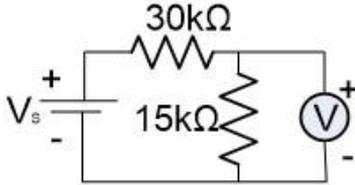
Q.15 A power system has two synchronous generators whose governor turbine characteristics are given by  $P_1 = 50(50 - f)$  and  $P_2 = 100(52 - f)$ , where f is the system

frequency. When the total load supplied is 1000 MW, what is the system frequency if the operation is lossless.

- Ans
- 1. 58 Hz
  - 2. 44.66 Hz
  - 3. 52.4 Hz
  - 4. 48 Hz

Question ID : 54592778376

Q.16 A voltmeter connected across 15 kΩ resistor reads 10 V in the circuit given. Voltmeter is rated at 500 Ω/volt and has a full- scale reading of 20 V. The supply voltage is:



- Ans
- 1. 60 V
  - 2. 45 V
  - 3. 30 V
  - 4. 90 V

Question ID : 54592778359

Q.17 The inductance of a single phase two wire power transmission line per km gets doubled when the \_\_\_\_.

- Ans
- 1. Distance between the wires is increased four- fold
  - 2. Distance between the wires is increased as the square of the original distance.
  - 3. Distance between the wires is doubled
  - 4. Radius of the wire is doubled

Question ID : 54592778368

Q.18 A generating station has an installed capacity of 400 MW. Plan capacity factor is 0.6 and annual load factor is 0.8. capital cost is Rs  $10^{10}$  and annual running charges are Rs  $10^9$ . What is the cost per unit generated if the annual interest and depreciation is 20 percent?

- Ans
- 1. 42 paise
  - 2. 242 paise
  - 3. 14.2 paise
  - 4. 142 paise

Question ID : 54592778367

Q.19 In order to minimize the inrush current in a single-phase transformer, the supply switch should be closed at the instant when:

- Ans
- 1. supply voltage is  $\frac{1}{2}$  times the maximum voltage
  - 2. supply voltage is  $\frac{1}{\sqrt{2}}$  times the maximum voltage
  - 3. supply voltage is maximum
  - 4. supply voltage is zero

Question ID : 54592778364

Q.20 A light source having an intensity of 400 candle power is fitted with a reflector so that it directs 70 percent of its light along a beam having a divergence angle of 5 degrees. Total flux emitted along the beam is:

- Ans
- 1.  $1600 / \pi$
  - 2.  $1120 \pi$
  - 3.  $1600 \pi$
  - 4.  $1120 / \pi$

Question ID : 54592778371

