

SSC Scientific Assistant (IMD 24-Nov-2017 (Computer Science))

QID : 1001 - Select the related word from the given alternatives.

Jaggery : Sweet :: Lemon : ?

Options:

- 1) Bitter
- 2) Sour
- 3) Yellow
- 4) Round

Correct Answer: Sour

QID : 1002 - Select the related letters from the given alternatives.

FGH : KJI :: UVW : ?

Options:

- 1) TVX
- 2) RTV
- 3) IGE
- 4) ZYX

Correct Answer: ZYX

QID : 1003 - Select the related number from the given alternatives.

0.005 : 0.0005 :: 1/50 : ?

Options:

- 1) 1/5
- 2) 1/20
- 3) 1/500
- 4) 1/5000

Correct Answer: 1/500

QID : 1004 - Select the odd word from the given alternatives.

Options:

- 1) Cub
- 2) Bull

- 3) Calf
- 4) Puppy

Correct Answer: Bull

QID : 1005 - Select the odd letters from the given alternatives.

Options:

- 1) FDB
- 2) RPN
- 3) XVT
- 4) HJL

Correct Answer: HJL

QID : 1006 - Select the odd number from the given alternatives.

Options:

- 1) 573
- 2) 209
- 3) 319
- 4) 253

Correct Answer: 573

QID : 1007 - A series is given, with one word missing. Choose the correct alternative from the given ones that will complete the series.

Tiaras, Sterile, Retrial, Distill, Draft, ?

Options:

- 1) Tidal
- 2) Tested
- 3) Sulfate
- 4) Filter

Correct Answer: Sulfate

QID : 1008 - A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

V, U, S, P, L ?

Options:

- 1) H
- 2) I
- 3) G
- 4) F

Correct Answer: G

QID : 1009 - A series is given, with one number missing. Choose the correct alternative from the given ones that will complete the series.

-3.65, -2.15, -0.65, ? , 2.35

Options:

- 1) 0.85
- 2) 0.75
- 3) 0.65
- 4) 0.55

Correct Answer: 0.85

QID : 1010 - Bhavya's birthday is on Friday 21st April. On what day of the week will be Zara's Birthday in the same year, if Zara was born on 1st September?

Options:

- 1) Friday
- 2) Monday
- 3) Wednesday
- 4) Tuesday

Correct Answer: Friday

QID : 1011 - The weights of 4 boxes are 40, 90, 50 and 90 kg.. Which of the following cannot be the total weight, in kg., of any combination of these boxes and in a combination a box can be used only once?

Options:

- 1) 270
- 2) 250
- 3) 180
- 4) 230

Correct Answer: 250

QID : 1012 - From the given words, select the word which cannot be formed using the letters of the given word.

FRUCTOSE

Options:

- 1) REACT
- 2) RECUT
- 3) FORCE
- 4) CREST

Correct Answer: REACT

QID : 1013 - If BLURTED is coded as YOFIGVW, then how will ZIG be coded as?

Options:

- 1) ART
- 2) PQE
- 3) UJM
- 4) GYP

Correct Answer: ART

QID : 1014 - In a certain code language, '+' represents 'x', '-' represents '+', 'x' represents '÷' and '÷' represents '-'. What is the answer to the following question?

$$5 + 4 \div 24 \times 8 = ?$$

Options:

- 1) 17
- 2) 67
- 3) 76
- 4) -8

Correct Answer: 17

QID : 1015 - If $10\#4=7$, $21\#3=12$ and $10\#2=6$, then what is the value of $20\#8=$?

Options:

- 1) 48

2) 14

3) 97

4) 37

Correct Answer: 14

QID : 1016 -

Select the missing number from the given responses.

दिए गए विकल्पों में से लुप्त संख्या चुनिए।

3	6	2	18
0	?	4	20
1	8	7	63

Options:

1) 14

2) 16

3) 24

4) 5

Correct Answer: 5

QID : 1017 - A truck travels 29 km North, then it turns West and travels 19 km, then it turns South and Travels 45 km, then it turns to its left and travels 19 km. Where is it now with reference to its starting position?

Options:

1) 74 km South

2) 16 km North

3) 16 km South

4) 74 km North

Correct Answer: 16 km South

QID : 1018 - In the question two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement

1 : No cars are trucks.

2 : All trucks are jeeps.

Conclusion

I : Some cars are jeeps.

II : No trucks are cars.

Options:

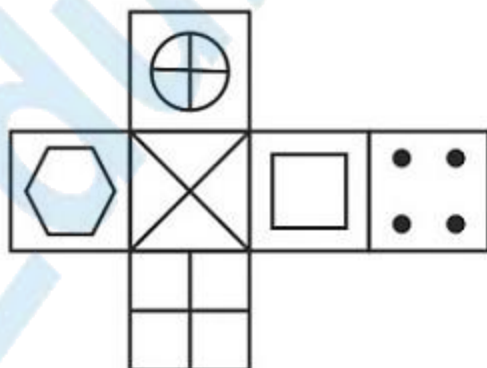
- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Both I and II follow
- 4) Neither I nor II follows

Correct Answer: Only conclusion II follows

QID : 1019 -

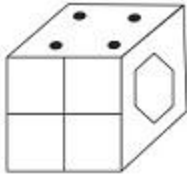
Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure?

निम्नलिखित उत्तर आकृति में से कौन सा घन दिए गए प्रश्न आकृति में से खुले घन से बनाया नहीं जा सकता?

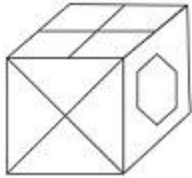


Options:

1)



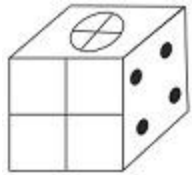
2)



3)



4)

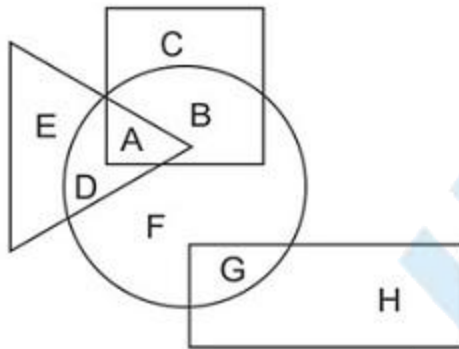


Correct Answer:

QID : 1020 -

In the following figure, square represents Surgeons, triangle represents Scientists, circle represents Swimmers and rectangle represents Women. Which set of letters represents Swimmers who are not Scientists?

निम्नलिखित आकृति में, वर्ग शल्यचिकित्सकों को दर्शाता है, त्रिभुज वैज्ञानिकों को दर्शाता है, वृत्त तैराकों को दर्शाता है और आयत महिलाओं को दर्शाता है। अक्षरों का कौन सा समूह तैराकों को दर्शाता है जो वैज्ञानिक नहीं हैं?



Options:

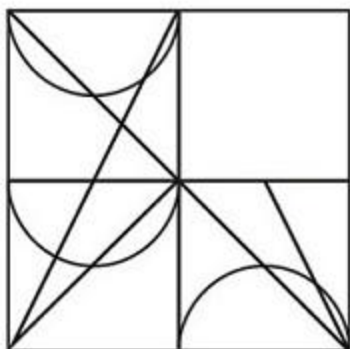
- 1) B,F,G
- 2) D,A,F
- 3) B,C
- 4) G,F

Correct Answer: B,F,G

QID : 1021 -

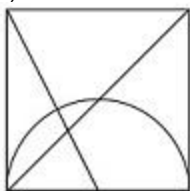
Which answer figure will complete the pattern in the question figure?

निम्नलिखित में से कौन-सी उत्तर आकृति प्रश्न आकृति के प्रतिरूप को पूरा करेगी?

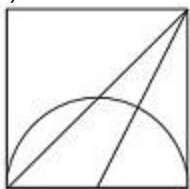


Options:

1)



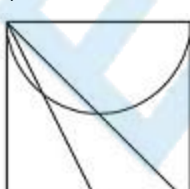
2)



3)



4)

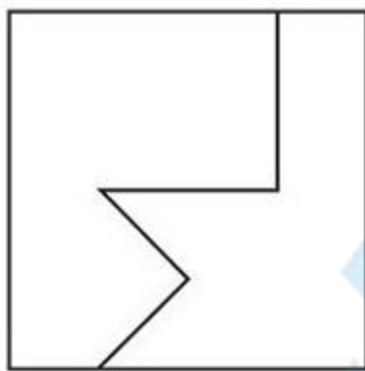


Correct Answer:

QID : 1022 -

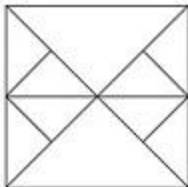
From the given answer figures, select the one in which the question figure is hidden/embedded.

दी गई उत्तर आकृतियों में से उस आकृति को चुनिए जिसमें प्रश्न आकृति निहित है।

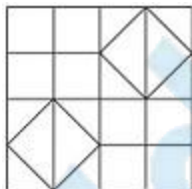


Options:

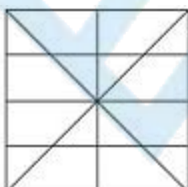
1)



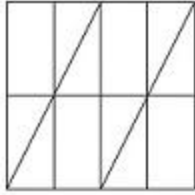
2)



3)



4)

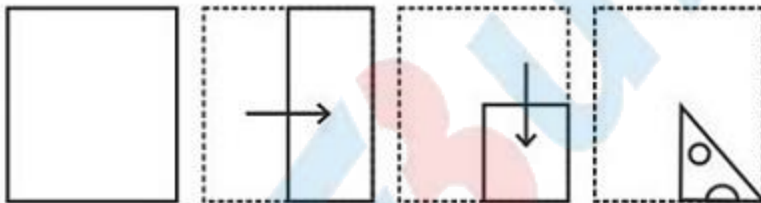


Correct Answer:

QID : 1023 -

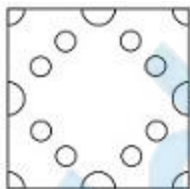
A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

प्रश्न आकृतियों में दिखाए अनुसार कागज को मोड़कर उसमें छेद करने तथा खोलने के बाद वह किस उत्तर आकृति जैसा दिखाई देगा?

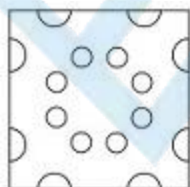


Options:

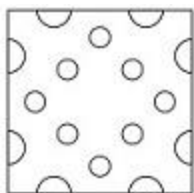
1)



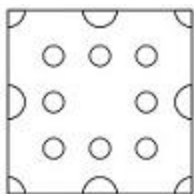
2)



3)



4)

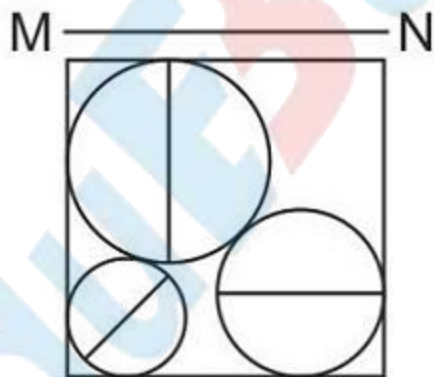


Correct Answer:

QID : 1024 -

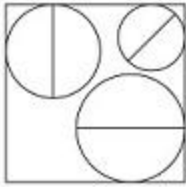
If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

यदि एक दर्पण को MN रेखा पर रखा जाए तो दी गई उत्तर आकृतियों में से कौन-सी आकृति प्रश्न आकृति का सही प्रतिबिम्ब होगी?

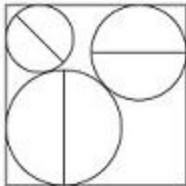


Options:

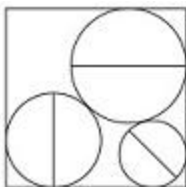
1)



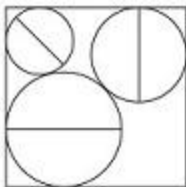
2)



3)



4)



Correct Answer:

QID : 1025 -

A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example 'K' can be represented by 21, 32 etc and 'Z' can be represented by 96, 79 etc. Similarly, you have to identify the set for the word 'SOFA'.

एक शब्द केवल एक संख्या-समूह द्वारा दर्शाया गया है, जैसा कि विकल्पों में से किसी एक में दिया गया है। विकल्पों में दिए गए संख्या-समूह अक्षरों के दो वर्गों द्वारा दर्शाए गए हैं, जैसा कि दिए गए दो आव्यूहों में है। आव्यूह-I के स्तम्भ और पंक्ति की संख्या 0 से 4 और आव्यूह-II की 5 से 9 है। इन आव्यूहों से एक अक्षर को पहले उसकी पंक्ति और बाद में स्तम्भ संख्या द्वारा दर्शाया जा सकता है। उदाहरण के लिए 'K' को 21, 32 आदि द्वारा दर्शाया जा सकता है तथा 'Z' को 96, 79 आदि द्वारा दर्शाया जा सकता है। इसी तरह से आपको प्रश्न में दिए शब्द 'SOFA' के लिए समूह को पहचानना है।

Matrix I आव्यूह - I					
	0	1	2	3	4
0	J	J	C	F	G
1	I	F	I	L	D
2	L	K	J	G	E
3	B	F	K	D	D
4	H	A	L	L	E

Matrix II आव्यूह - II					
	5	6	7	8	9
5	X	N	S	W	U
6	Q	V	P	Q	R
7	O	P	X	T	Z
8	X	W	V	Y	V
9	T	Z	N	X	W

Options:

- 1) 23,01,75,97
- 2) 23,42,68,67
- 3) 04,34,99,55

4) 57,75,11,41

Correct Answer: 57,75,11,41

QID : 1026 - What is the remainder when 3456 is divided by 39?

Options:

1) 24

2) 27

3) 29

4) 31

Correct Answer: 24

QID : 1027 - A can do a work in 4.5 days and B in 5.5 days. If they work on it together, then in how many days will they be able to do the work?

Options:

1) $99/40$

2) $9/4$

3) $90/44$

4) $44/9$

Correct Answer: $99/40$

QID : 1028 - Area of 4 walls of a cuboid is 816 sq cm, its length is 18 cm and height is 12 cm. What is its breadth (in cm)?

Options:

1) 14

2) 12

3) 16

4) 10

Correct Answer: 16

QID : 1029 - At 25% discount the selling price of an article is Rs 4800, what is the selling price (in Rs) if the discount is 38%?

Options:

1) 4968

2) 3968

3) 3698

4) 4698

Correct Answer: 3968

QID : 1030 - What is the fourth proportional to 415, 225 and 166?

Options:

1) 80

2) 70

3) 90

4) 60

Correct Answer: 90

QID : 1031 - What is the average of all numbers between 13 and 110 which are divisible by 11?

Options:

1) 63

2) 61

3) 60.5

4) 59

Correct Answer: 60.5

QID : 1032 - A trader had 1800 kgs of jowar. He sold a part of it at 15% profit and the rest at 7% profit, so that he made a total profit of 10%. How much jowar (in kg) did he sell at 15% profit?

Options:

1) 1125

2) 675

3) 775

4) 1025

Correct Answer: 675

QID : 1033 - 30% of $a = b$, then $b\%$ of 30 is the same as _____ of a .

Options:

1) 3%

2) 90%

3) 30%

4) 9%

Correct Answer: 9%

QID : 1034 - Excluding stoppages, the speed of a bus is 66 kmph and including stoppages, it is 55 kmph. For how many minutes does the bus stop per hour?

Options:

- 1) 15
- 2) 12
- 3) 18
- 4) 10

Correct Answer: 10

QID : 1035 - The simple and compound interest that can be earned in two years at the same rate is Rs 1,800 and Rs 1,881 respectively. What is the rate (percent per annum) of interest?

Options:

- 1) 10
- 2) 11
- 3) 9
- 4) 8

Correct Answer: 9

QID : 1036 - If $4x/3 + (1/6)(5/2 - 9x/2) = -5x/12$, then what is the value of x?

Options:

- 1) $5/12$
- 2) $-5/12$
- 3) $12/5$
- 4) $-12/5$

Correct Answer: $-5/12$

QID : 1037 - If $a^3 - b^3 = 56$ and $a - b = 2$, then what is the value of ab ?

Options:

- 1) 8
- 2) 12
- 3) 6
- 4) 9

Correct Answer: 8

QID : 1038 - 6 times a fraction is greater than its reciprocal by 1. What is the fraction?

Options:

- 1) $\frac{3}{2}$
- 2) $\frac{1}{2}$
- 3) $\frac{5}{2}$
- 4) $\frac{7}{2}$

Correct Answer: $\frac{1}{2}$

QID : 1039 - What is the sum of the first 12 terms of an arithmetic progression if the first term is 5 and last term is 38?

Options:

- 1) 73
- 2) 258
- 3) 107
- 4) 276

Correct Answer: 258

QID : 1040 - What is the reflection of the point $(-2, 3)$ in the line $x = -4$?

Options:

- 1) $(-2, -11)$
- 2) $(-6, 3)$
- 3) $(6, 3)$
- 4) $(-2, 11)$

Correct Answer: $(-6, 3)$

QID : 1041 - What are the co-ordinates of the centroid of a triangle, whose vertices are $A(1, -5)$, $B(3, 0)$ and $C(5, 2)$?

Options:

- 1) $(3, 1)$
- 2) $(-3, -1)$
- 3) $(-3, 1)$
- 4) $(3, -1)$

Correct Answer: $(3, -1)$

QID : 1042 - Slope of the line AB is $-\frac{3}{4}$. Co-ordinates of points A and B are $(x, -5)$ and $(2, 4)$ respectively. What is the value of x?

Options:

- 1) 14
- 2) 12
- 3) 10
- 4) 8

Correct Answer: 14

QID : 1043 - D and E are points on sides AB and AC of $\triangle ABC$. DE is parallel to BC. If $AD:DB = 1:2$, what is the ratio of area of $\triangle ADE$: area of quadrilateral BDEC?

Options:

- 1) 1 : 8
- 2) 1 : 9
- 3) 1 : 4
- 4) 1 : 3

Correct Answer: 1 : 8

QID : 1044 - What is the value of $3 \sin 30^\circ + \frac{1}{\sqrt{3}} \cos 30^\circ$.

Options:

- 1) $(1 + 3\sqrt{2})/\sqrt{3}$
- 2) 2
- 3) $(3 + 2\sqrt{2})/3\sqrt{2}$
- 4) $7/3$

Correct Answer: 2

QID : 1045 - $\triangle PQR$ is right angled at Q. If $m\angle R = 30^\circ$. What is the length of PR (in cm), if RQ = 12 cm?

Options:

- 1) $12\sqrt{3}$
- 2) $6\sqrt{3}$
- 3) $9\sqrt{3}$
- 4) $8\sqrt{3}$

Correct Answer: $8\sqrt{3}$

QID : 1046 - If $\sin \theta = 8/17$, then

$\sec \theta = ?$

Options:

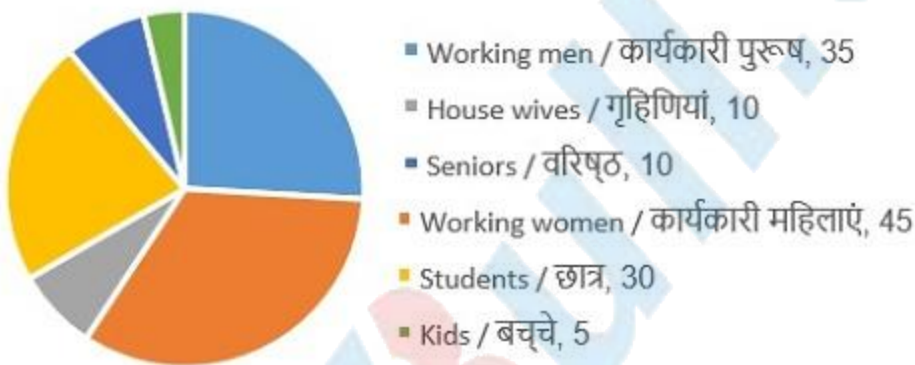
- 1) 17/8
- 2) 17/15
- 3) 8/15
- 4) 15/17

Correct Answer: 17/15

QID : 1047 -

The pie chart shows the number of annual members of a certain health club. Study the diagram and answer the following questions.

पाई चार्ट एक निश्चित स्वास्थ्य क्लब के वार्षिक सदस्यों की संख्या दर्शाता है। इस आरेख का अध्ययन करें और निम्नलिखित प्रश्नों का उत्तर दें।



Which category of members are the second highest in the club?

Options:

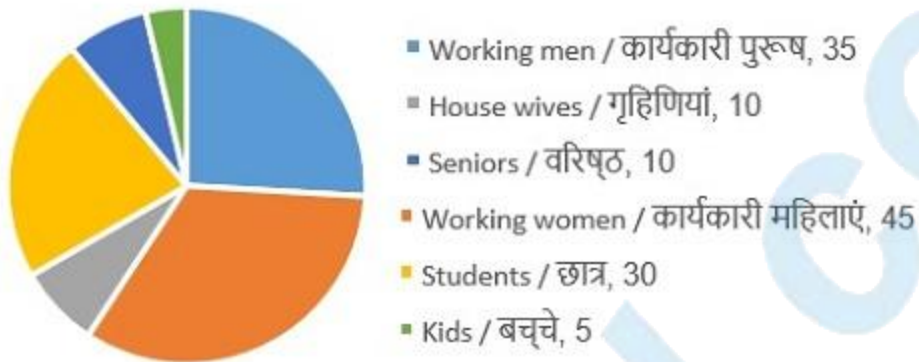
- 1) Working men
- 2) Working women
- 3) Seniors
- 4) Kids

Correct Answer: Working men

QID : 1048 -

The pie chart shows the number of annual members of a certain health club. Study the diagram and answer the following questions.

पाई चार्ट एक निश्चित स्वास्थ्य क्लब के वार्षिक सदस्यों की संख्या दर्शाता है। इस आरेख का अध्ययन करें और निम्नलिखित प्रश्नों का उत्तर दें।



What is the ratio of number of working women to total of House wives and kids?

Options:

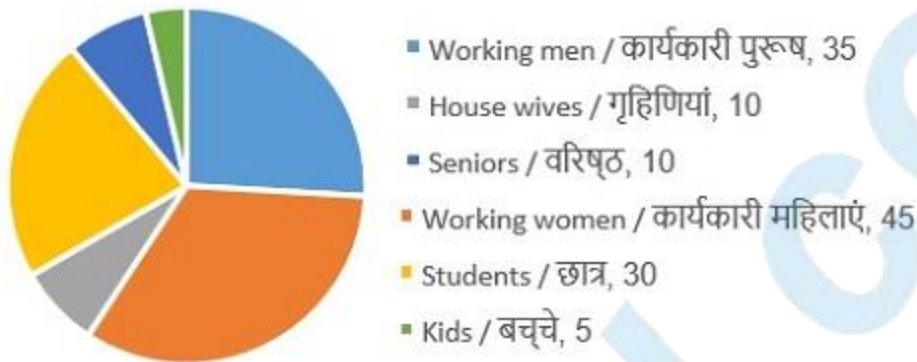
- 1) 1 : 3
- 2) 3 : 1
- 3) 9 : 2
- 4) 2 : 9

Correct Answer: 3 : 1

QID : 1049 -

The pie chart shows the number of annual members of a certain health club. Study the diagram and answer the following questions.

पाई चार्ट एक निश्चित स्वास्थ्य क्लब के वार्षिक सदस्यों की संख्या दर्शाता है। इस आरेख का अध्ययन करें और निम्नलिखित प्रश्नों का उत्तर दें।



What is the angular measure (in degrees) of the sector representing students?

Options:

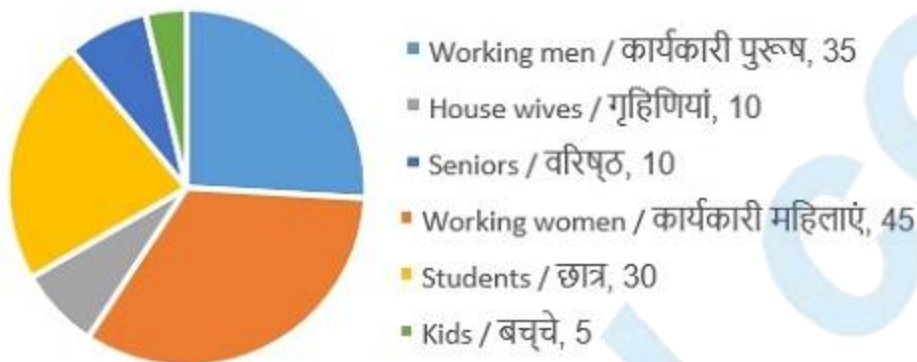
- 1) 30
- 2) 80
- 3) 60
- 4) 90

Correct Answer: 80

QID : 1050 -

The pie chart shows the number of annual members of a certain health club. Study the diagram and answer the following questions.

पाई चार्ट एक निश्चित स्वास्थ्य क्लब के वार्षिक सदस्यों की संख्या दर्शाता है। इस आरेख का अध्ययन करें और निम्नलिखित प्रश्नों का उत्तर दें।



If annual membership fees is Rs 12,000 for every one except for seniors and kids who get 60% rebate, how much (in Rs. Lakhs) did the club earn as annual membership fees?

Options:

- 1) 16.24
- 2) 15.12
- 3) 14.4
- 4) 14.8

Correct Answer: 15.12

QID : 1051 - In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

Adults and children (1)/ alike, got a chance to roll (2)/ on laughter and cry a little. (3)/ No Error (4)

Options:

- 1) 1
- 2) 2
- 3) 3
- 4) 4

Correct Answer: 3

QID : 1052 - In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

The parrot made a (1)/ last-ditch effort and (2)/ flew a few feet away. (3)/ No Error (4)

Options:

- 1) 1
- 2) 2
- 3) 3
- 4) 4

Correct Answer: 4

QID : 1053 - In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

I know of many tourists who come to Kerala _____ for the houseboats.

Options:

- 1) primary
- 2) primarily
- 3) primaries
- 4) prime

Correct Answer: primarily

QID : 1054 - In the following question, a sentence is given with a blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

His works are a _____ of his beliefs.

Options:

- 1) reflection
- 2) reflect
- 3) reflects
- 4) reflective

Correct Answer: reflection

QID : 1055 - In the following question, out of the four alternatives, select the word similar in meaning to the word given .Indemnity

Options:

- 1) Penalty
- 2) Forfeiture
- 3) Amercement
- 4) Restitution

Correct Answer: Restitution

QID : 1056 - In the following question, out of the four alternatives, select the word similar in meaning to the word given.

Compliance

Options:

- 1) Rebellion
- 2) Consent
- 3) Animosity
- 4) Altercation

Correct Answer: Consent

QID : 1057 - In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

Clutch

Options:

- 1) Abandon
- 2) Snatch
- 3) Embrace
- 4) Grapple

Correct Answer: Abandon

QID : 1058 - In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

Relieve

Options:

- 1) Abatement
- 2) Absolution
- 3) Continuation
- 4) Amnesty

Correct Answer: Continuation

QID : 1059 - In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom / phrase.

Blood, sweat and tears

Options:

- 1) A storm of mixed emotions
- 2) Extreme hard work; unstinting effort
- 3) The sacrifice of soldiers
- 4) Face defeat after great struggle

Correct Answer: Extreme hard work; unstinting effort

QID : 1060 - In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

To steal someone's thunder

Options:

- 1) To take credit for something which someone else did
- 2) To bring down a person who is acting smart
- 3) To rob someone of all his material wealth
- 4) To steal the peace of mind by constant nagging

Correct Answer: To take credit for something which someone else did

QID : 1061 - In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select "no improvement".

Plants can be (identifies) by their smell or texture.

Options:

- 1) identify
- 2) identifying
- 3) identified
- 4) No improvement

Correct Answer: identified

QID : 1062 - In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select "no improvement".

Ravi picked up the injured parrot and (rushing) to a nearby animal clinic.

Options:

- 1) rushed
- 2) rush
- 3) rushes
- 4) No improvement

Correct Answer: rushed

QID : 1063 - In the following question, out of the four alternatives, select the alternative which is the best substitute of the words / sentence.

Having or showing great knowledge or learning

Options:

- 1) Benighted
- 2) Erudite
- 3) Ignoramus
- 4) Lowbrow

Correct Answer: Erudite

QID : 1064 - In the following question, out of the four alternatives, select the alternative which is the best substitute of the words / sentence.

Having or showing a great desire to possess something belonging to someone else

Options:

- 1) Covetous
- 2) Charitable
- 3) Lavish
- 4) Prodigal

Correct Answer: Covetous

QID : 1065 - In the following question, four words are given out of which one word is correctly spelt.

Select the correctly spelt word.

Options:

- 1) vagabondes
- 2) vegabonds
- 3) vegabondes
- 4) vagabonds

Correct Answer: vagabonds

QID : 1066 - In the following question, four words are given out of which one word is correctly spelt. Select the correctly spelt word.

Options:

- 1) atrocious
- 2) atrocious
- 3) atrocious
- 4) atrocious

Correct Answer: atrocious

QID : 1067 - The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.

We speak so that

X-we may be understood; and

Y-such phrases express a truth, even if

Z-they are rather loose and inaccurate

Options:

- 1) ZYX
- 2) XYZ
- 3) ZXY
- 4) YZX

Correct Answer: XYZ

QID : 1068 - The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.

One racehorse of a

X-sedge species now springs out of the

Y-proverbial gate a full 26 days

Z-earlier than it did a decade ago

Options:

- 1) ZYX
- 2) XYZ
- 3) ZXY
- 4) YZX

Correct Answer: XYZ

QID : 1069 - In the following question, a sentence has been given in Active / Passive voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive / Active voice.

I will give you a present.

Options:

- 1) A present shall be given to you by me.
- 2) A present will be given to you by me.
- 3) You will have been giving a present by me.
- 4) You shall have been given a present by me.

Correct Answer: A present will be given to you by me.

QID : 1070 - In the following question, a sentence has been given in Direct / Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect / Direct speech.

The inspector said to the driver, "What is your problem?"

Options:

- 1) The inspector asked the driver what his problem is.
- 2) The inspector asks the driver what his problem was.
- 3) The inspector asked the driver what his problem was.
- 4) The inspector asks the driver what his problem is.

Correct Answer: The inspector asked the driver what his problem was.

QID : 1071 - In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

I took the road that _____ to the right and the gentle amble became a stiff climb. I _____ feel the muscles in my lower back protest. The game leg dragged. Suddenly, the hill dipped into yet another valley _____ paddy fields. I knew relief and triumph as I walked downhill, learning to not put my weight _____ my knees. I had climbed one hill without my back giving way. The next day, I _____ the distance.

I took the road that _____ to the right and the gentle

Options:

- 1) to veer
- 2) veering
- 3) veer
- 4) veered

Correct Answer: veered

QID : 1072 - In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

I took the road that _____ to the right and the gentle amble became a stiff climb. I _____ feel the muscles in my lower back protest. The game leg dragged. Suddenly, the hill dipped into yet another valley _____ paddy fields. I knew relief and triumph as I walked downhill, learning to not put my weight _____ my knees. I had climbed one hill without my back giving way. The next day, I _____ the distance.

I _____ feel the muscles in my lower back protest.

Options:

- 1) should
- 2) could
- 3) will
- 4) shall

Correct Answer: could

QID : 1073 - In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

I took the road that _____ to the right and the gentle amble became a stiff climb. I _____ feel the muscles in my lower back protest. The game leg dragged. Suddenly, the hill dipped into yet another valley _____ paddy fields. I knew relief and triumph as I walked downhill, learning to not put my weight _____ my knees. I had climbed one hill without my back giving way. The next day, I _____ the distance.

Suddenly, the hill dipped into yet another valley _____ paddy fields.

Options:

- 1) from
- 2) for
- 3) of
- 4) to

Correct Answer: of

QID : 1074 - In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

I took the road that _____ to the right and the gentle amble became a stiff climb. I _____ feel the muscles in my lower back protest. The game leg dragged. Suddenly, the hill dipped into yet another valley _____ paddy fields. I knew relief and triumph as I walked downhill, learning to not put my weight _____ my knees. I had climbed one hill without my back giving way. The next day, I _____ the distance.

learning to not put my weight _____ my knees.

Options:

- 1) in
- 2) at
- 3) to
- 4) on

Correct Answer: on

QID : 1075 - In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

I took the road that _____ to the right and the gentle amble became a stiff climb. I _____ feel the muscles in my lower back protest. The game leg dragged. Suddenly, the hill dipped into yet another valley _____ paddy fields. I knew relief and triumph as I walked downhill, learning to not put my weight _____ my knees. I had climbed one hill without my back giving way. The next day, I _____ the distance.

The next day, I _____ the distance.

Options:

- 1) to increase
- 2) increase
- 3) increased
- 4) increasing

Correct Answer: increased

QID : 1076 - Which of the following option is not correct?

Options:

- 1) Land – First factor of production
- 2) Labour – Third factor of production
- 3) Labour – Second factor of production
- 4) All options are correct

Correct Answer: Labour – Third factor of production

QID : 1077 - Which article of Indian Constitution states that the state shall not deny to any person equality before the law or the equal protection of law with in the territory of India?

Options:

- 1) Article 14
- 2) Article 19
- 3) Article 21
- 4) Article 256

Correct Answer: Article 14

QID : 1078 - Article 21A of Indian Constitution deals with which of the following?

Options:

- 1) Equality before law
- 2) Abolition of untouchability
- 3) Abolition of titles
- 4) Right to education

Correct Answer: Right to education

QID : 1079 - Which mughal emperor issued a ferman granting The East India Company the right to trade duty free?

Options:

- 1) Akbar
- 2) Humayun
- 3) Aurangzeb
- 4) Shah Jahan

Correct Answer: Aurangzeb

QID : 1080 - In which year Simon Commission came to India?

Options:

- 1) 1919
- 2) 1925
- 3) 1928
- 4) 1932

Correct Answer: 1928

QID : 1081 - Tolkappiyam in Sangam age is the greatest work of _____ literature.

Options:

- 1) Tamil
- 2) Telgu
- 3) Sanskrit
- 4) Kannad

Correct Answer: Tamil

QID : 1082 - The land mass of India has an area of how many million square km?

Options:

- 1) 2.48
- 2) 3.28
- 3) 15.24
- 4) 7.56

Correct Answer: 3.28

QID : 1083 - The Great Indian desert lies in which part of India?

Options:

- 1) Eastern
- 2) Southern
- 3) North-Eastern
- 4) North-Western

Correct Answer: North-Western

QID : 1084 - What is the name of the outermost range of the Himalayas?

Options:

- 1) Himadri
- 2) Shivaliks
- 3) Himachal
- 4) Sahyadri

Correct Answer: Shivaliks

QID : 1085 - Which range is bounded by the Central Highlands on the south and the Aravalis on the northwest?

Options:

- 1) Vindhya

- 2) Karakoram
- 3) Shevaroy
- 4) Satpura

Correct Answer: Vindhya

QID : 1086 - Which state in India is the largest producer of natural rubber?

Options:

- 1) Karnataka
- 2) Kerala
- 3) Andhra Pradesh
- 4) Arunachal Pradesh

Correct Answer: Kerala

QID : 1087 - Around the arrival of monsoon, the normal rainfall increases suddenly and continues constantly for several days. This is known as the _____ of the monsoon.

Options:

- 1) Closure
- 2) Hit
- 3) Burst
- 4) Peak

Correct Answer: Burst

QID : 1088 - What is the simple interest (in Rs) on a sum of Rs 7200 at the rate of 12% per annum for 3 years?

Options:

- 1) 2592
- 2) 2612
- 3) 2712
- 4) 2482

Correct Answer: 2592

QID : 1089 - Rough surfaces have _____.

Options:

- 1) high friction
- 2) very low friction

- 3) no friction
- 4) No option is correct

Correct Answer: high friction

QID : 1090 - If cells are kept in some solution and the net result is that the cell swells up, then the solution is _____.

Options:

- 1) hypertonic solution
- 2) isotonic solution
- 3) hypotonic solution
- 4) acidic solution

Correct Answer: hypotonic solution

QID : 1091 - The unique ability of carbon to form bonds with other atoms of carbon is called as _____.

Options:

- 1) Ionization
- 2) Catenation
- 3) Acidification
- 4) No option is correct

Correct Answer: Catenation

QID : 1092 - Under which programme the Union Government has announced to build 83,677 km of infrastructure projects?

Options:

- 1) Sagar Ratna Pariyojana
- 2) Bharat Mala Pariyojana
- 3) Amrit Dhara Pariyojana
- 4) Swarna Ratna Pariyojana

Correct Answer: Bharat Mala Pariyojana

QID : 1093 - United States Food and Drug Administration (FDA) has approved which test for detecting Zika virus in donated blood?

Options:

- 1) Roche test
- 2) Cobas test

3) Trioplex test

4) Elisa test

Correct Answer: Cobas test

QID : 1094 - Which state will host the 36th National Games of India?

Options:

1) Assam

2) Goa

3) Jharkhand

4) Kerala

Correct Answer: Goa

QID : 1095 - Which operation was launched by the Union Ministry of External Affairs on 14 September 2017 in Bangladesh to help Rohingya refugees?

Options:

1) Sahayata

2) Sadbhavana

3) Rahat

4) Insaniyat

Correct Answer: Insaniyat

QID : 1096 - Who has been awarded with the prestigious Jnanpith Award 2017?

Options:

1) Krishna Sobti

2) Namwar Singh

3) Gishwar Mishra

4) Harish Trivedi

Correct Answer: Krishna Sobti

QID : 1097 - The International Monetary Fund (IMF) in its October World Economic Outlook (WEO) has lowered India's economic growth forecast at _____ in 2017.

Options:

1) 0.071

2) 0.074

3) 0.067

4) 0.054

Correct Answer: 0.067

QID : 1098 - India and Italy have signed how many MoUs to boost important sectors including energy, trade and railways on 30th October, 2017?

Options:

- 1) 3
- 2) 5
- 3) 6
- 4) 9

Correct Answer: 6

QID : 1099 - Which is a campaign launched on sidelines of two day conference on "sustainable landscape and forest ecosystems : Theory of Practice" in New Delhi?

Options:

- 1) Forest Plus
- 2) Carbon Footprint
- 3) Forests are Life
- 4) Wood is Good

Correct Answer: Wood is Good

QID : 1100 - Who has been appointed as the new chairman of World Business Council for Sustainable Development?

Options:

- 1) Francois Hollande
- 2) Sunny Verghese
- 3) Matteo Renzi
- 4) Lewis Hamilton

Correct Answer: Sunny Verghese

QID : 1101 - Which of the following materials offers highest resistivity?

Options:

- 1) Tungsten
- 2) Germanium
- 3) Silicon
- 4) Ceramic

Correct Answer: Ceramic

QID : 1102 - Which of the following shows a form of energy stored in an insulator?

Options:

- 1) Electric charge
- 2) Mechanical energy
- 3) Magnetic field
- 4) Electrostatic field

Correct Answer: Magnetic field

QID : 1103 - Which of the following shows a form of energy stored in a capacitor?

Options:

- 1) Current Flow
- 2) Mechanical Energy
- 3) Magnetic Field
- 4) Electrostatic Field

Correct Answer: Electrostatic Field

QID : 1104 - Select the colour code for a carbon resistor with a value of $64,000 \pm 1\%$ Ohms.

Options:

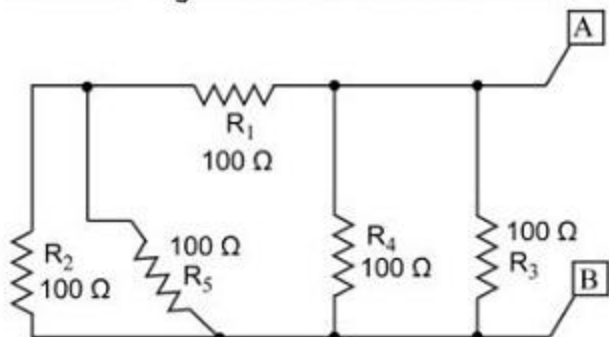
- 1) Blue-yellow-orange-brown
- 2) Red-brown-blue-yellow
- 3) Green-yellow-orange-red
- 4) Yellow-green-red-brown

Correct Answer: Blue-yellow-orange-brown

QID : 1105 -

Find the total resistance (in Ohms) of the following circuit.

निम्न परिपथ में कुल प्रतिरोध (ओम में) की गणना करें।



Options:

- 1) 22.5
- 2) 27.5
- 3) 32.5
- 4) 37.5

Correct Answer: 37.5

QID : 1106 - Which of the following component gives smooth DC output?

Options:

- 1) Clamper
- 2) Regulator
- 3) Clipper
- 4) Rectifier

Correct Answer: Regulator

QID : 1107 - Which of the following is a bilateral electric device?

Options:

- 1) Resistor
- 2) Diode
- 3) LED
- 4) BJT

Correct Answer: Resistor

QID : 1108 - What is the output of a half wave rectifier (in V) when it is supplied with a voltage which has peak value of 12.5 V?

Options:

- 1) 2
- 2) 4
- 3) 6
- 4) 8

Correct Answer: 4

QID : 1109 - Which of the following diodes is also known as hot carrier diode?

Options:

- 1) PN Diode
- 2) LED
- 3) Schottky Diode
- 4) Varactor Diode

Correct Answer: Schottky Diode

QID : 1110 -

Select the diode which can be represented by the following figure.

डायोड का चयन करें जिसे निम्नलिखित आकृति के द्वारा दर्शाया जा सकता है:



Options:

- 1) PN Diode
- 2) LED
- 3) Schottky Diode
- 4) Varactor Diode

Correct Answer: Schottky Diode

QID : 1111 - Which of the following quantities is boosted by this circuit when a BJT is connected in a circuit in common base configuration?

Options:

- 1) Power
- 2) Input Resistance
- 3) Output Resistance

4) current gain

Correct Answer: Power

QID : 1112 - Which of the following can be used in the fabrication of p-type semiconductor?

Options:

- 1) Aluminium
- 2) Arsenic
- 3) Antimony
- 4) Bismuth

Correct Answer: Aluminium

QID : 1113 - Which of the following are the functions of a transistor?

Options:

- 1) Switching device and fixed resistor
- 2) Tuning device and rectifier
- 3) Variable resistor and switching device
- 4) Rectifier and fixed resistor

Correct Answer: Variable resistor and switching device

QID : 1114 - Which of the following voltages has the highest positive value in PNP transistor circuit?

Options:

- 1) Ground
- 2) V_c
- 3) V_{BE}
- 4) V_0

Correct Answer: Ground

QID : 1115 - What is the minimum number of CMOS required for constructing a two input NOR logic gate?

Options:

- 1) 1
- 2) 2
- 3) 3
- 4) 4

Correct Answer: 4

QID : 1116 - Which of the following is NOT a type of classes of power amplifier?

Options:

- 1) A
- 2) C
- 3) D
- 4) M

Correct Answer: M

QID : 1117 - What is the value of voltage gain in emitter follower transistor configuration?

Options:

- 1) 0
- 2) 0.318
- 3) 1
- 4) 1.5

Correct Answer: 1

QID : 1118 - What is the typical range of output frequency of a relaxation oscillator?

Options:

- 1) 20 Hz to 20 kHz
- 2) 0 Hz to 200 Hz
- 3) 0 Hz to 20 MHz
- 4) 20 Hz to 20 GHz

Correct Answer: 0 Hz to 20 MHz

QID : 1119 - Which of the following factor does NOT affect the stability of an oscillator?

Options:

- 1) Circuit components
- 2) Phase
- 3) Input voltage
- 4) Stray capacitance

Correct Answer: Phase

QID : 1120 - What is the ratio of change in output current and change in input voltage in a JFET is known as?

Options:

- 1) Admittance
- 2) Gain
- 3) Resistivity

4) Transconductance

Correct Answer: Transconductance

QID : 1121 - Which of the following has the equal root mean square voltage and peak voltage?

Options:

- 1) Saw tooth wave
- 2) Sinusoidal wave
- 3) Square wave
- 4) Triangular wave

Correct Answer: Square wave

QID : 1122 - If a resistive load is supplied by a source in which the voltage and the current both have frequency of 110 Hz, the frequency of instantaneous power is _____.

Options:

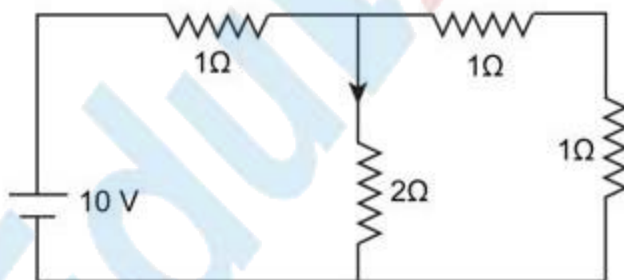
- 1) 50 Hz
- 2) 55 Hz
- 3) 110 Hz
- 4) 220 Hz

Correct Answer: 220 Hz

QID : 1123 -

Determine the current through 2 Ohms resistance in following circuit.

निम्नलिखित सर्किट में 2 ओम प्रतिरोध के माध्यम से विद्युत धारा का मान ज्ञात करें:



Options:

- 1) 2 A
- 2) 2.5 A
- 3) 3 A

4) 3.5 A

Correct Answer: 2.5 A

QID : 1124 - The Norton theorem reduces a circuit to which of the following circuits?

Options:

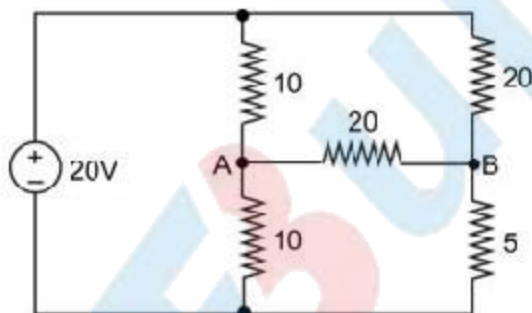
- 1) A current source only
- 2) A current source with an impedance in parallel
- 3) A current source with an impedance in series
- 4) A voltage source only

Correct Answer: A current source with an impedance in parallel

QID : 1125 -

Calculate the Thevenin's equivalent voltage (in V) between the A and B when all the resistances are in Ohms.

टाइमिनल A और B के बीच थेवोनेन के समकक्ष वोल्टेज की गणना करें (वोल्ट में) जब सभी प्रतिरोध ओम में हैं।



Options:

- 1) 1.5
- 2) 3
- 3) 4.5
- 4) 6

Correct Answer: 6

QID : 1126 - What is the amount of charge stored (in C) in a capacitor having capacitance of 0.008 F and a voltage of 16 V applied across it?

Options:

- 1) 0.0005

2) 0.008

3) 0.64

4) 0.128

Correct Answer: 0.128

QID : 1127 - What is the approximate value of capacitance (in Farad) of earth if (radius = 6,400 km)?

Options:

1) 0.0000007

2) 0.000007

3) 0.00007

4) 0.0007

Correct Answer: 0.0007

QID : 1128 - What is the power dissipation (in W) in an ideal inductor having an inductance of 0.2 H?

Options:

1) -0.04

2) -0.2

3) 0

4) 0.04

Correct Answer: 0

QID : 1129 - Calculate the peak value of the source voltage (in V) if the root-mean square voltage across the resistor and inductor in a series RL circuit is 13 V and 12 V, respectively.

Options:

1) 1

2) 17.68

3) 25

4) 35.35

Correct Answer: 35.35

QID : 1130 - Calculate the admittance (in Siemens) of a series RC circuit having resistance of 15 Ohms and capacitance of 0.1 mF which is supplied by a source having frequency of 50 Hz.

Options:

1) 0.03

2) 0.3

3) 3

4) 30

Correct Answer: 0.3

QID : 1131 - Calculate the power factor of a series RL circuit having the conductance of 30 Siemens and the susceptance of 40 Siemens.

Options:

- 1) 0.2
- 2) 0.4
- 3) 0.6
- 4) 0.8

Correct Answer: 0.6

QID : 1132 - Which of the following is TRUE in case of the admittance of a circuit?

Options:

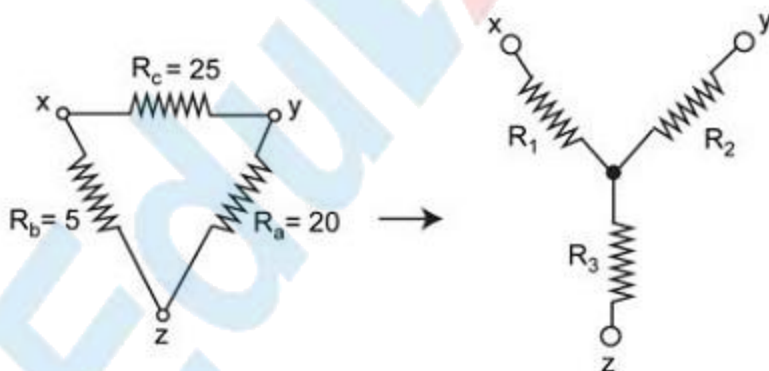
- 1) It is the measure of flow of current which is allowed by the circuit.
- 2) It is the measure of voltage supplied to the circuit.
- 3) It is the measure of the resistance offered by the circuit.
- 4) It is the measure of the power dissipated in the circuit.

Correct Answer: It is the measure of flow of current which is allowed by the circuit.

QID : 1133 -

In the following circuit, calculate the value of resistance R_3 (in Ohms) in the star circuit if the equivalent delta circuit has resistance values in ohms.

निम्न स्टार सर्किट में प्रतिरोध R_3 के मान (ओम में) की गणना करें यदि सममूल्य डेल्टा सर्किट में प्रतिरोध मान ओम में है।



Options:

- 1) 1

2) 2

3) 3

4) 4

Correct Answer: 2

QID : 1134 - What is the quality factor of a series RLC circuit having resistance, capacitance and inductance of 10 ohms, 90 mH and 0.1 mF, respectively?

Options:

1) 0.3

2) 0.9

3) 3

4) 9

Correct Answer: 3

QID : 1135 - Calculate the resonant frequency (in radians/sec) of a series RLC circuit having resistance of 15 Ohms, inductance of 25 mH and capacitance of 0.25 mF.

Options:

1) 0.4

2) 4

3) 40

4) 400

Correct Answer: 400

QID : 1136 - Calculate the bandwidth (in Hz) of a series RLC circuit having resistance of 50 Ohms and inductance of 25 mH.

Options:

1) 159.155

2) 318.31

3) 636.62

4) 1273.24

Correct Answer: 318.31

QID : 1137 - A star connected network consumes 1.8 kW at 0.5 lagging power factor when connected to a 230 V, 50 Hz source. Calculate the per phase impedance (in Ohms) of the star network.

Options:

- 1) 2.8
- 2) 3.6
- 3) 7.4
- 4) 14.7

Correct Answer: 14.7

QID : 1138 - A delta connected load has phase current of 5 A and has equal phase impedance of $(12 + j 5)$ Ohms. Calculate the value of line voltage (in Volts) supplying a delta connected load.

Options:

- 1) 112.58
- 2) 200
- 3) 220
- 4) 225.16

Correct Answer: 112.58

QID : 1139 - If a star network has three equal resistances of 80 Ohms, calculate the equivalent delta network resistance (in Ohms) in each phase.

Options:

- 1) 26.67
- 2) 80
- 3) 160
- 4) 240

Correct Answer: 240

QID : 1140 - Which of the following values must be same for a balanced three phase circuit?

- I. Impedance
- II. Resistance
- III. Reactance
- IV. Power factor

Options:

- 1) Only (I)
- 2) Only (II)
- 3) Only (III) and (IV)

4) (I), (II), (III) and (IV)

Correct Answer: (I), (II), (III) and (IV)

QID : 1141 - Which of the following Boolean expression expresses the logic condition 'If $A = 1$ and $B = 0$ or $A = 0$ and $B = 1$, only then the output $Y = 0$ '?

Options:

1)

$$Y = AB + BA$$

2)

$$Y = A\bar{B} + B\bar{A}$$

3)

$$Y = AB + \bar{A}\bar{B}$$

4)

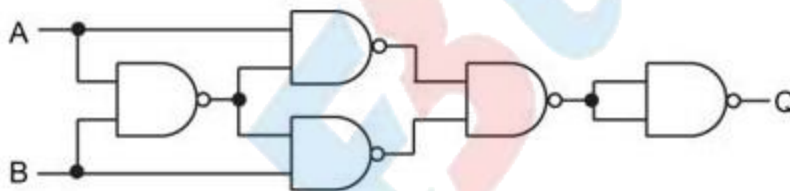
$$Y = \overline{AB + BA}$$

Correct Answer:

QID : 1142 -

The given circuit can be reduced to which of the following gate?

दिए गए सर्किट को निम्न में से किस गेट तक छोटा किया जा सकता है?



Options:

1) AND

2) NAND

3) NOR

4) XNOR

Correct Answer: XNOR

QID : 1143 - What is the number of possibilities of low output from a 3-input OR gate?

Options:

- 1) 1
- 2) 2
- 3) 4
- 4) 7

Correct Answer: 1

QID : 1144 - What is the number of possibilities of low output from a 3 - input AND gate?

Options:

- 1) 1
- 2) 2
- 3) 4
- 4) 7

Correct Answer: 7

QID : 1145 -

The Boolean expression $Y = A\bar{B} + \bar{A}B$ represents which logic gate?

बूलियन समीकरण $Y = A\bar{B} + \bar{A}B$ किस लॉजिक गेट का प्रतिनिधित्व करता है?

Options:

- 1) AND
- 2) OR
- 3) XOR
- 4) XNOR

Correct Answer: XOR

QID : 1146 - The group of bits 01100 is serially shifted (right-most bit first) into a 5 bits parallel output shift register with an initial state of 01011. What is the value contained in the register after 2 clock pulses?

Options:

- 1) {00001}
- 2) {00010}
- 3) {10001}
- 4) {10011}

Correct Answer: {00010}

QID : 1147 - What is the number of flip-flops required to produce a divide-by 32 device?

Options:

- 1) 4
- 2) 5
- 3) 6
- 4) 7

Correct Answer: 5

QID : 1148 -

What is the simplest expression for the K-map shown in the table given below?

नीचे दी गयी तालिका में दिखाए गए K-मैप के लिए सबसे सरल समीकरण क्या है?

	\bar{C}	C
$\bar{A}\bar{B}$	0	0
$\bar{A}B$	1	1
AB	1	1
$A\bar{B}$	0	1

Options:

- 1)
 $X = B + AC$
- 2)
 $X = \bar{B} + AC$
- 3)
 $X = \bar{AC}$
- 4)
 $X = ABC + AC$

Correct Answer:

QID : 1149 - What is the resolution of a 0-5 V 16-bit DAC?

Options:

- 1) 0.0019

2) 0.0039

3) 0.0078

4) 0.0156

Correct Answer: 0.0019

QID : 1150 - Convert the binary number 10101110 to octal.

Options:

1) 128

2) 184

3) 256

4) 312

Correct Answer: 256

QID : 1151 - Which of the following device gives the electromagnetic wave as output when fed by a high frequency electric current?

Options:

1) Amplifier

2) Antenna

3) Loudspeaker

4) Microphone

Correct Answer: Antenna

QID : 1152 - What is the horizontal pointing angle of an antenna called?

Options:

1) Azimuth

2) Angle of elevation

3) Angle of depreciation

4) Beam width

Correct Answer: Azimuth

QID : 1153 - Which of the following methods can be used to increase the antenna gain?

Options:

1) Addition of several antennas in parallel

2) Addition of several antennas in series

3) Increasing the thickness of antenna rods

4) Focusing radiated energy in one desired direction

Correct Answer: Focusing radiated energy in one desired direction

QID : 1154 - A dipole antenna has a radiation resistance of 3 Ohms and carries a current of 40 A. What is the value of power radiated by the antenna (in kW)?

Options:

- 1) 2.3
- 2) 3.8
- 3) 4.8
- 4) 5.3

Correct Answer: 4.8

QID : 1155 - Which of the following is TRUE about an ungrounded antenna near the ground?

Options:

- 1) It acts as a single antenna of twice the height.
- 2) It acts as a single antenna of half the height.
- 3) It needs to be placed horizontally to perform actively.
- 4) It acts as an antenna array.

Correct Answer: It acts as an antenna array.

QID : 1156 - Choose the frequency which lies in the low frequency range.

Options:

- 1) 50 Hz
- 2) 5 kHz
- 3) 50 kHz
- 4) 5 MHz

Correct Answer: 50 kHz

QID : 1157 - What is the average range (in km) for radio wave propagation through VHF communications?

Options:

- 1) 25
- 2) 50
- 3) 150
- 4) 200

Correct Answer: 50

QID : 1158 - Calculate the refractive index of a medium if it allows light to travel 200 metres in same time in which the light travels 320 metres in air?

Options:

- 1) 0.625
- 2) 1
- 3) 1.6
- 4) 1.85

Correct Answer: 1.6

QID : 1159 - Which of the following reasons is true for a radio path horizon to exceed the geometric path horizon in radio wave propagation?

Options:

- 1) The radio wave skips the E-layer
- 2) The radio wave skips the D-layer
- 3) The radio wave skips the auroral
- 4) The radio wave can be bent

Correct Answer: The radio wave can be bent

QID : 1160 - What is the maximum reusable frequency (in kHz) of an HF signal, if its critical frequency has a value of 4064.64 kHz at 60 degree incidence?

Options:

- 1) 2032.32
- 2) 2874.13
- 3) 5748.27
- 4) 8129.28

Correct Answer: 8129.28

QID : 1161 - Which among the following separates the oscillator from the load in a radio transmitter?

Options:

- 1) Buffer
- 2) Comparator
- 3) Mixer
- 4) Oscillator

Correct Answer: Buffer

QID : 1162 - What will be the modulation index of a modulated wave if the modulated peak value of a signal is 130 V and the unmodulated carrier peak value is 65 V?

Options:

- 1) 0.13
- 2) 0.5
- 3) 1
- 4) 2

Correct Answer: 2

QID : 1163 - Which of the following is the advantage of phase modulation over direct frequency modulation?

Options:

- 1) Multipliers can be used
- 2) Small deviation is obtained
- 3) Easy practical application
- 4) Oscillator can be controlled by crystal

Correct Answer: Oscillator can be controlled by crystal

QID : 1164 - What will be the change in transmitted power (in Watt) if the antenna current which was 800 mA at 50 W is reduced to 500 mA?

Options:

- 1) 12.5
- 2) 19.53
- 3) 30.47
- 4) 37.5

Correct Answer: 30.47

QID : 1165 - An AM broadcast station is found to be transmitting modulating frequencies up to 5 kHz and the station is allowed to transmit on a frequency of 950 kHz, then what will be the bandwidth (in kHz) allotted to the station?

Options:

- 1) 5
- 2) 10
- 3) 20

4) 25

Correct Answer: 10

QID : 1166 - What will be the power transmitted (in Watt) by the AM transmitter if the carrier wave power is 150 W and the carrier wave is 60% modulated?

Options:

- 1) 1.5
- 2) 13.5
- 3) 16.5
- 4) 25.5

Correct Answer: 13.5

QID : 1167 - What is the percentage of power saved when an 80% modulated wave is transmitted over SSB-SC which was initially transmitted over AM?

Options:

- 1) 0.8568
- 2) 0.8666
- 3) 0.8788
- 4) 0.8988

Correct Answer: 0.8788

QID : 1168 - What is the power transmitted (in W) by a DSB-SC signal when the carrier wave power is 80 W and modulation index is 0.4?

Options:

- 1) 6.4
- 2) 9.8
- 3) 12.6
- 4) 16.2

Correct Answer: 6.4

QID : 1169 - Calculate the antenna current (in A) having impedance of 20 Ohms if a 60% amplitude modulated wave is transmitted with the help of a 50 W carrier wave.

Options:

- 1) 1.03
- 2) 1.28

3) 1.69

4) 1.72

Correct Answer: 1.72

QID : 1170 - Which of the following part of a carrier wave is affected during the modulation in AM?

Options:

- 1) Amplitude
- 2) Frequency
- 3) Phase
- 4) Angle

Correct Answer: Amplitude

QID : 1171 - Which of the followings are associated with AM?

- I. DSB-FC
- II. DSB-SC
- III. SSB-SC
- IV. VSB

Options:

- 1) I only
- 2) II only
- 3) II and IV only
- 4) I, II, III and IV

Correct Answer: I, II, III and IV

QID : 1172 - Which among the following uses de-emphasis circuit?

Options:

- 1) FM receiver
- 2) FM transmitter
- 3) VSB receiver
- 4) VSB transmitter

Correct Answer: FM receiver

QID : 1173 - Which of the following constitutes emphasis system in FM?

- I. Pre-emphasis
- II. Intermediate-emphasis

III. De-emphasis

IV. Post-emphasis

Options:

- 1) I only
- 2) I and IV only
- 3) I and III only
- 4) II and III only

Correct Answer: I and III only

QID : 1174 - Which of the following is TRUE about the power of a FM signal if the modulation index becomes halved?

Options:

- 1) Power becomes four times the previous value
- 2) Power becomes two times the previous value
- 3) Power remains same
- 4) Power becomes half of the previous value

Correct Answer: Power remains same

QID : 1175 - Which of the following contains a limiter stage, a discriminator and a de-emphasis circuit?

Options:

- 1) Direct FM transmitter
- 2) Indirect FM transmitter
- 3) Double Side Band AM receiver
- 4) FM receiver

Correct Answer: FM receiver

QID : 1176 - Calculate the carrier swing (in kHz) of the FM signal if a 90 MHz carrier is frequency modulated by 10 kHz and having a frequency deviation of 60 kHz.

Options:

- 1) 60
- 2) 90
- 3) 100
- 4) 120

Correct Answer: 120

QID : 1177 - Choose the areas where the pulse modulation is used?

I. Radio Navigation

II. Automatic Flight Landing Equipment

III. Data Communications

Options:

- 1) I only
- 2) II only
- 3) III only
- 4) I, II and III

Correct Answer: I, II and III

QID : 1178 - Which of the following is associated with pulse modulation?

Options:

- 1) Gamma waves
- 2) LF band
- 3) Microwave
- 4) Telegraphy

Correct Answer: Microwave

QID : 1179 - Which of the following is the advantage of AM over FM?

Options:

- 1) High Quality
- 2) Large coverage area
- 3) Low interference
- 4) Noise reduction

Correct Answer: Large coverage area

QID : 1180 - Which of the followings are the reasons for use of narrow-band FM rather than wide-band FM?

- I. It improves signal to noise ratio.
- II. It reduces inter-channel interference.
- III. Efficient use of power for better coverage.

Options:

- 1) I, II and III
- 2) II and III only
- 3) I and II only
- 4) III only

Correct Answer: I, II and III

QID : 1181 - What are the new frequencies outside the regular spectrum called?

Options:

- 1) Distortion
- 2) Harmonics
- 3) Interference
- 4) Splatter

Correct Answer: Splatter

QID : 1182 - What is the correct sequence of the blocks in an AM receiver from receiving the signal to output?

Options:

- 1) RF amplifier - Mixer - IF amplifier - Demodulator - Audio amplifier
- 2) RF amplifier - Mixer - IF amplifier - Audio amplifier - Demodulator
- 3) IF amplifier - Demodulator - RF amplifier - Mixer - Audio Amplifier
- 4) Audio Amplifier - Mixer - Demodulator - IF amplifier - RF amplifier

Correct Answer: RF amplifier - Mixer - IF amplifier - Demodulator - Audio amplifier

QID : 1183 - What is the Nyquist time interval (in ms) between two successive samples while sampling a signal having maximum frequency of 5 kHz?

Options:

- 1) 0.01
- 2) 0.1
- 3) 1
- 4) 10

Correct Answer: 0.1

QID : 1184 - Which of the following is TRUE when the sampling time becomes less than the Nyquist interval?

Options:

- 1) Original signal can be recreated
- 2) Bandwidth decreases
- 3) Bandwidth increases
- 4) Channel capacity decreases

Correct Answer: Original signal can be recreated

QID : 1185 - Which of the followings are digital modulation techniques?

- I. SSB-SC
- II. PCM
- III. Delta Modulation
- IV. VSB

Options:

- 1) II and IV only
- 2) III and IV only
- 3) I and IV only
- 4) I and II only

Correct Answer: I and II only

QID : 1186 - What is the use of Schmitt trigger in PWM signal reception?

Options:

- 1) For better synchronization
- 2) To produce ramp signal
- 3) To remove noise
- 4) For better selectivity

Correct Answer: To remove noise

QID : 1188 - Choose the areas where the multiplexing is used?

- I. Packet switching
- II. Circuit switching
- III. Data switching

Options:

- 1) I only
- 2) II only
- 3) III only
- 4) I and II only

Correct Answer: II only

QID : 1189 - Calculate the transmission rate (in kbps) of TDM if the link transmits 2,000 frames per second and each slot has 16 bits.

Options:

- 1) 8
- 2) 16
- 3) 32
- 4) 64

Correct Answer: 32

QID : 1190 - Which of the following is a disadvantage of FDM?

Options:

- 1) Complexity in demodulation
- 2) Only one signal can be transmitted at a given time
- 3) Need of synchronization between transmitter and receiver
- 4) Cross talk occurs

Correct Answer: Cross talk occurs

QID : 1191 - What is the relation between the bandwidth of ASK modulated signal and baseband signal?

Options:

- 1) Modulated signal bandwidth is one-fourth of the bandwidth of baseband signal.
- 2) Modulated signal bandwidth is half of the bandwidth of baseband signal.
- 3) Modulated signal bandwidth is equal to the bandwidth of baseband signal.
- 4) Modulated signal bandwidth is double of the bandwidth of baseband signal.

Correct Answer: Modulated signal bandwidth is equal to the bandwidth of baseband signal.

QID : 1192 - Which of the following pair shares same probability of error?

Options:

- 1) ASK and FSK
- 2) ASK and PSK
- 3) FSK and PSK
- 4) ASK and QPSK

Correct Answer: FSK and PSK

QID : 1193 - Which among the following is NOT a common usage area of fibre-optic cable?

Options:

- 1) Computer Network
- 2) Consumer TV
- 3) Closed circuit TV
- 4) Long distance telephone systems

Correct Answer: Consumer TV

QID : 1194 - Which of the following is the principle of operation of fibre-optic cable?

Options:

- 1) Absorption
- 2) Dispersion
- 3) Distortion

4) Reflection

Correct Answer: Reflection

QID : 1195 - Which material is preferred for making the core of a fibre-optic cable?

Options:

- 1) Air
- 2) Diamond
- 3) Glass
- 4) Quartz

Correct Answer: Glass

QID : 1196 - What is the refractive index of the incident medium in a fibre-optic cable when the reflective index of reflective medium is 1.2 and critical angle is 30 degree?

Options:

- 1) 0.6
- 2) 1
- 3) 1.5
- 4) 2.4

Correct Answer: 2.4

QID : 1197 - Which modulation technique is mostly used in communication through satellites?

Options:

- 1) AM
- 2) FM
- 3) PAM
- 4) PCM

Correct Answer: FM

QID : 1198 - What is the minimum number of satellites needed for global communication?

Options:

- 1) 3
- 2) 6
- 3) 7
- 4) 8

Correct Answer: 3

QID : 1199 - Which of the following is best suited for satellite operation?

Options:

- 1) LF
- 2) HF
- 3) SHF
- 4) VHF

Correct Answer: VHF

QID : 1200 - Wavelength of 0.5 m lies in which of the following frequency range?

Options:

- 1) UHF
- 2) VHF
- 3) LF
- 4) SHF

Correct Answer: UHF