National Testing Agency

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Electronic Science and General Paper

Group Number :	1
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General Paper

Section Id :	93806615
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	42
Number of Questions to be attempted :	42
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	93806643
Question Shuffling Allowed :	No

Question Id : 938066979 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

The following table shows the percentage (%) of girls who passed in an examination and the percentage (%) of boys who failed in that exam in a school during the six years from 2018 to 2023. Based on the data in the table, answer the questions that follow.

Year-wise Result details of Students

Year	Percentage of Girls who passed	Percentage of Boys who failed
2018	32%	40%
2019	42%	60%
2020	55%	25%
2021	40%	30%
2022	60%	50%
2023	42%	80%

Sub questions

Question Number : 1 Question Id : 938066980 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In which of the following years did the performance of girls show maximum improvement as compared to the previous year?

1. 2019
2. 2020
3. 2022
4. 2023

Options :

9380663801. 1

9380663802. 2

9380663803. 3

9380663804. 4

Question Number : 2 Question Id : 938066981 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If in the year 2018, the total number of boys who appeared in the exam is 600, then what is the percentage difference between the percentage of boys who passed and the percentage of girls who passed in the exam?

1. 18%
2. 23%
3. 25%
4. 28%

Options :

9380663805. 1

9380663806. 2

9380663807. 3

9380663808. 4

Question Number : 3 Question Id : 938066982 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If in the year 2020, the total number of boys and the total number of girls who appeared in the exam are 800 and 700 respectively, then what is the ratio of the total number of boys who passed to the total number of girls who failed?

1. 40 : 21
2. 154 : 201
3. 18 : 11
4. 7 : 10

Options :

9380663809. 1

9380663810. 2

9380663811. 3

9380663812. 4

Question Number : 4 Question Id : 938066983 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If in the year 2019, the total number of boys and the total number of girls who appeared in the exam are 800 each, then what is the sum of the total number of boys and girls who passed in that year?

1. 650
2. 656
3. 662
4. 668

Options :

9380663813. 1

9380663814. 2

9380663815. 3

9380663816. 4

Question Number : 5 Question Id : 938066984 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If in the year 2023, the total number of boys and the total number of girls who appeared in the exam are 1250 and 850 respectively, then the number of boys who failed is approximately _____ % more than the number of girls who failed in the exam.

1. 42.67
2. 81.53
3. 89.77
4. 102.84

Options :

9380663817. 1

9380663818. 2

9380663819. 3

Question Id : 938066979 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

निम्न तालिका में वर्ष 2018 से 2023 तक के छह वर्षों में एक विद्यालय में परीक्षा उत्तीर्ण करने वाली बालिकाओं का प्रतिशत (%) व परीक्षा में अनुत्तीर्ण बालकों का प्रतिशत (%) दर्शाया गया है। तालिका में प्रदत्त आंकड़ो के आधार पर, आगे पूछे गए प्रश्नों के उत्तर दीजिए:

विद्यार्थियों के परीक्षा फल का वर्षवार विवरण

वर्ष	उत्तीर्ण बालिकाओं का प्रतिशत	अनुत्तीर्ण बालकों का प्रतिशत
2018	32%	40%
2019	42%	60%
2020	55%	25%
2021	40%	30%
2022	60%	50%
2023	42%	80%

Sub questions

Question Number : 1 Question Id : 938066980 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्न में से किस वर्ष में बालिकाओं के प्रदर्शन में गत वर्ष की तुलना में सर्वाधिक सुधार दिखाई देता है?

1. 2019
2. 2020
3. 2022
4. 2023

Options :

9380663801. 1

9380663802. 2

9380663803. 3

9380663804. 4

Question Number : 2 Question Id : 938066981 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

यदि वर्ष 2018 में परीक्षा में भाग लेने वाले बालकों की कुल संख्या 600 है, तो परीक्षा में उत्तीर्ण बालकों के प्रतिशत और परीक्षा में उत्तीर्ण बालिकाओं के प्रतिशत के बीच का प्रतिशत अंतर क्या है?

1. 18%
2. 23%
3. 25%
4. 28%

Options :

9380663805. 1

9380663806. 2

9380663807. 3

9380663808. 4

Question Number : 3 Question Id : 938066982 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

यदि वर्ष 2020 में, परीक्षा में भाग लेने वाले बालकों व बालिकाओं की कुल संख्या क्रमश: 800 व 700 है, तो परीक्षा में उत्तीर्ण बालकों की कुल संख्या का परीक्षा में अनुत्तीर्ण बालिकाओं की कुल संख्या से अनुपात कितना है?

1. 40 : 21
2. 154 : 201
3. 18 : 11
4. 7 : 10

Options :
9380663809. 1
9380663810. 2
9380663811. 3
9380663812. 4

Question Number : 4 Question Id : 938066983 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

यदि वर्ष 2019 में, परीक्षा में भाग लेने वाले बालकों की कुल संख्या 800 है व बालिकाओं की कुल संख्या भी 800 है, तो उक्त वर्ष में परीक्षा उत्तीर्ण करने वाले बालकों व बालिकाओं की कुल संख्या का योग क्या है?

1. 650
2. 656
3. 662
4. 668

Options :
9380663813. 1
9380663814. 2
9380663815. 3
9380663816. 4

Question Number : 5 Question Id : 938066984 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

यदि वर्ष 2023 में, परीक्षा में भाग लेने वाले बालकों व बालिकाओं की कुल संख्या क्रमश: 1250 व 850 है, तो उक्त परीक्षा में अनुत्तीर्ण बालकों की संख्या परीक्षा में अनुत्तीर्ण बालिकाओं की संख्या से लगभग _____ % अधिक है।

1. 42.67
2. 81.53
3. 89.77
4. 102.84

Options :
9380663817. 1
9380663818. 2
9380663819. 3

9380663820. 4

Sub-Section Number : 2
Sub-Section Id : 93806644
Question Shuffling Allowed : Yes

Question Number : 6 Question Id : 938066985 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The term Andragogy refers to _____.

1. Childhood Learning theory
2. Adolescence Learning theory
3. Adult Learning theory
4. Self-directed Learning theory

Options :
9380663821. 1
9380663822. 2
9380663823. 3
9380663824. 4

Question Number : 6 Question Id : 938066985 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

एंड्रागोजी शब्द से तात्पर्य है_____

1. शैशव अधिगम सिद्धांत
2. किशोर अधिगम सिद्धांत
3. प्रौढ़ अधिगम सिद्धांत
4. स्व-निर्देशित अधिगम सिद्धांत

Options :
9380663821. 1
9380663822. 2
9380663823. 3
9380663824. 4

Question Number : 7 Question Id : 938066986 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

_____ is the assessment which may also be seen as informal.

1. Summative Assessment
2. Formative Assessment
3. Subject reviews Assessment
4. Observation Assessment

Options :
9380663825. 1
9380663826. 2
9380663827. 3
9380663828. 4

Question Number : 7 Question Id : 938066986 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

_____ वह आकलन है जिसे अनौपचारिक रूप में भी देखा जा सकता है।

1. संकलनात्मक आकलन
2. निर्माणात्मक आकलन
3. विषय समीक्षा आकलन
4. पर्यवेक्षण आकलन

Options :

9380663825. 1

9380663826. 2

9380663827. 3

9380663828. 4

Question Number : 8 Question Id : 938066987 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Rearrange the sequence to write a lesson plan

A. Lesson opening
B. Preplanning
C. Lesson Layout
D. Closure of Lesson
E. Extended practice

Choose the correct answer from the options given below:

1. D, C, A, E, B
2. C, A, D, B, E
3. A, C, B, D, E
4. B, A, C, E, D

Options :

9380663829. 1

9380663830. 2

9380663831. 3

9380663832. 4

Question Number : 8 Question Id : 938066987 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

पाठ योजना को लिखने के लिए दिए गए अनुक्रम को पुन: व्यवस्थित कीजिए।

A. पाठ आरंभ करना
B. पूर्व योजना बनाना
C. पाठ की रूपरेखा तैयार करना
D. पाठ का समापन करना
E. विस्तारित अभ्यास

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. D, C, A, E, B
2. C, A, D, B, E
3. A, C, B, D, E
4. B, A, C, E, D

Options :
9380663829. 1
9380663830. 2
9380663831. 3
9380663832. 4

Question Number : 9 Question Id : 938066988 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

When a teacher uses Lecture Method, then

A. It provides new information to the students.
B. It provides original research to the students which are generally not found in text books.
C. It can dramatize important concepts and share personal insights.
D. It is less effective method for promoting thought and changing students attitudes.
E. It deals with critical analysis and problem solving.

Choose the correct answer from the options given below:

1. A, B and C Only
2. B, C and E Only
3. A, B, C and E Only
4. A, D and E Only

Options :
9380663833. 1
9380663834. 2
9380663835. 3
9380663836. 4

Question Number : 9 Question Id : 938066988 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

जब कोई अध्यापक व्याख्यान पद्धति का प्रयोग करता है, तो

A. इससे छात्रों को नई जानकारियाँ प्राप्त होती हैं।
B. इससे छात्रों को ऐसे मूल अनुसंधान प्राप्त होते हैं जो पाठ्य पुस्तकों में आमतौर पर प्राप्त नहीं होते।
C. यह महत्त्वपूर्ण संकल्पनाओं को नाटकीय रूप दे सकता है और वैयक्तिक अन्तर्दृष्टि को साझा कर सकता है।
D. विचार को प्रोत्साहित करने और छात्रों की अभिवृत्ति में परिवर्तन लाने की दृष्टि से यह कम प्रभावी है।
E. यह समालोचनात्मक विश्लेषण और समस्या के समाधान से संबंधित होता है।

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A, B और C
2. केवल B, C और E
3. केवल A, B, C और E
4. केवल A, D और E

Options :

9380663833. 1

9380663834. 2

9380663835. 3

9380663836. 4

Question Number : 10 Question Id : 938066989 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I (Types of knowledge)		**LIST-II (Assessment Literacy)**	
A.	The purpose of assessment	I.	An educator assesses student learning and content specific knowledge
B.	What to assess	II.	Educators' intention with assessment data
C.	Assessment strategies	III.	relates to the educator's purpose with the assessment
D.	Interpretation and Action-taking	IV.	associated with the purpose of assessment and deep rooted in the values and principles

Choose the ***correct*** answer from the options given below:

1. A-III, B-IV, C-I, D-II
2. A-I, B-II, C-IV, D-III
3. A-II, B-I, C-III, D-IV
4. A-IV, B-II, C-I, D-III

Options :

9380663837. 1

9380663838. 2

9380663839. 3

9380663840. 4

Question Number : 10 Question Id : 938066989 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

सूची-I (ज्ञान के प्रकार)		सूची-II (साक्षरता निर्धारण)	
A.	आंकलन का प्रयोजन	I.	शिक्षक, छात्र- अधिगम और विषय सामग्री- विशिष्ट ज्ञान का आंकलन करता है
B.	किसका आंकलन किया जाना है	II.	आंकलन आंकड़ों से शिक्षकों के आशय
C.	आंकलन संबंधी रणनीतियाँ	III.	आंकलन के साथ शिक्षक के प्रयोजन से सम्बन्धित होता है
D.	विवेचना और कार्रवाई	IV.	आंकलन के प्रयोजन से संबद्ध होता है और मूल्यों तथा सिद्धांतों से गहराई से जुड़ा होता है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-III, B-IV, C-I, D-II
2. A-I, B-II, C-IV, D-III
3. A-II, B-I, C-III, D-IV
4. A-IV, B-II, C-I, D-III

Options :

9380663837. 1

9380663838. 2

9380663839. 3

9380663840. 4

Question Number : 11 Question Id : 938066990 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is not a step in Scientific Research?

1. This is an ending aspect of science, with the process constantly being not repeated with decreasing refinement
2. Casual observation of event/ phenomenon
3. Wonder/ curiosity about how, why, what etc.
4. Hypothesis (about relationship between two variables).

Options :

9380663841. 1

9380663842. 2

9380663843. 3

9380663844. 4

Question Number : 11 Question Id : 938066990 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्न में से कौन वैज्ञानिक शोध का एक कदम नहीं है?

1. यह विज्ञान का एक समापन पक्ष है, यह प्रक्रिया घटते परिष्कार के साथ लगातार दोहराई नहीं जाती है।
2. घटना/ परिघटना का नैमित्तिक अवलोकन
3. कैसे, क्यों, क्या आदि के बारे में हैरानी/ उत्सुकता
4. प्राक्कल्पना (दो चरों के बीच के संबंध के बारे में)

Options :
9380663841. 1
9380663842. 2
9380663843. 3
9380663844. 4

Question Number : 12 Question Id : 938066991 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

What is Normative Research?

1. Normative research proceeds from evidence to conclusion.
2. Normative research raises the issue in such a way that the conclusion is implied.
3. Normative research inquiry draws conclusion.
4. Normative research method of inquiry consists of posing a question or raising an issue, collecting evidence and drawing conclusion from evidence.

Options :
9380663845. 1
9380663846. 2
9380663847. 3
9380663848. 4

Question Number : 12 Question Id : 938066991 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

मानकीय शोध क्या होता है?

1. मानकीय शोध साक्ष्य से निष्कर्ष की ओर अग्रसर होता है।
2. मानकीय शोध इस प्रकार से मुद्दे को उठाता है कि उसमें निष्कर्ष निहित होता है।
3. मानकीय शोध की जांच निष्कर्ष निकालती है।
4. जांच की मानकीय शोध विधि में किसी एक प्रश्न अथवा मुद्दे को उठाना, साक्ष्य एकत्र करना और साक्ष्य से निष्कर्ष निकालना शामिल होता है।

Options :
9380663845. 1
9380663846. 2
9380663847. 3
9380663848. 4

Question Number : 13 Question Id : 938066992 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Mean (M) and Standard Deviation (S) of different datasets are given in A-D below. Compute the coefficient of variation of each dataset and arrange in ascending order.

A. M = 60, S = 14
B. M = 70, S = 16
C. M = 80, S = 5
D. M = 90, S = 4

Choose the correct answer from the options given below:

1. D, B, C, A
2. A, C, B, D
3. C, A, D, B
4. D, C, B, A

Options :

9380663849. 1

9380663850. 2

9380663851. 3

9380663852. 4

Question Number : 13 Question Id : 938066992 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

भिन्न डाटासेटों के माध्य (M) और मानक विचलन (S) नीचे A-D में दिए गए हैं। प्रत्येक डाटा सेट हेतु विचरण के गुणांक की गणना कीजिए और आरोही क्रम में व्यवस्थित कीजिए:

A. M = 60, S = 14
B. M = 70, S = 16
C. M = 80, S = 5
D. M = 90, S = 4

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. D, B, C, A
2. A, C, B, D
3. C, A, D, B
4. D, C, B, A

Options :

9380663849. 1

9380663850. 2

9380663851. 3

9380663852. 4

Question Number : 14 Question Id : 938066993 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Identify the stages which may form part of a Research Proposal outline.

A. Data Fabrication
B. Methodology
C. Review of related literature or earlier studies
D. Specifying objectives
E. Stating Problem

Choose the correct answer from the options given below:

1. B, C, D and E Only
2. A Only
3. A, B, C and D Only
4. A, C, D and E Only

Options :
9380663853. 1
9380663854. 2
9380663855. 3
9380663856. 4

Question Number : 14 Question Id : 938066993 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

किसी शोध प्रस्ताव की रुपरेखा तैयार करने संबंधी चरण (स्टेप) को चिन्हित कीजिए।

A. डाटा जालसाजी
B. प्रणाली विज्ञान
C. संबंधित साहित्य या पूर्वकालिक अध्ययनों की समीक्षा
D. लक्ष्यों का स्पष्ट उल्लेख करना
E. समस्याओं का उल्लेख करना

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल B, C, D और E
2. केवल A Only
3. केवल A, B, C और D
4. केवल A, C, D और E

Options :
9380663853. 1
9380663854. 2
9380663855. 3
9380663856. 4

Question Number : 15 Question Id : 938066994 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I (Books Title)		**LIST-II (Authors)**
A.	Research Methodology: A step-by-step guide for beginners	I.	Ram Ahuja
B.	Mass Media Research: An Introduction	II.	H.K. Dangi/ Shruti Dewen
C.	Business Research Methods	III.	Ranjit Kumar
D.	Research Methods	IV.	Roger D. Wimmer/ Joseph R. Dominick

Choose the ***correct*** answer from the options given below:

1. A-III, B-IV, C-II, D-I
2. A-I, B-II, C-III, D-IV
3. A-IV, B-III, C-II, D-I
4. A-II, B-III, C-IV, D-I

Options :

9380663857. 1

9380663858. 2

9380663859. 3

9380663860. 4

Question Number : 15 Question Id : 938066994 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

	सूची-I (पुस्तक/ शीर्षक)		**सूची-II (लेखक)**
A.	रिसर्च मेथडालाजी: ए स्टेप बाइ स्टेप गाइड फॉर बिगिनर्स	I.	राम आहूजा
B.	मॉस मीडिया रिसर्च : एन इंट्रोडक्शन	II.	एच. के. डांगी/ श्रुति देवेन
C.	बिजिनेस रिसर्च मेथड्स	III.	रनजीत कुमार
D.	रिसर्च मेथड्स	IV.	रोजर डि. विमर/ जोसेफ आर. डोमिनिक

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-III, B-IV, C-II, D-I
2. A-I, B-II, C-III, D-IV
3. A-IV, B-III, C-II, D-I
4. A-II, B-III, C-IV, D-I

Options :

9380663857. 1

9380663858. 2

9380663859. 3

9380663860. 4

Question Number : 16 Question Id : 938066995 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

If there is fault in the mechanical or electrical channel, the free flow of communication will be obstructed. This obstruction is taking place at what level?

1. At the transmission level
2. At the encoder level
3. At the decoder level
4. At the feedback level

Options :

9380663861. 1

9380663862. 2

9380663863. 3

9380663864. 4

Question Number : 16 Question Id : 938066995 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

यदि किसी यांत्रिक अथवा विद्युतीय माध्यम में कोई दोष है, तो संचार का मुक्त प्रवाह बाधित होगा। वह बाधा निम्न में से किस स्तर पर हो रही होती है?

1. संचरण स्तर पर
2. संकेतक स्तर पर
3. विसंकेतक स्तर पर
4. प्रतिपुष्टि स्तर पर

Options :
9380663861. 1
9380663862. 2
9380663863. 3
9380663864. 4

Question Number : 17 Question Id : 938066996 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The teacher is teaching in a class of students. This can be the best example of

1. Face to face communication
2. Mass communication
3. Inter-Cultural communication
4. Group Communication

Options :
9380663865. 1
9380663866. 2
9380663867. 3
9380663868. 4

Question Number : 17 Question Id : 938066996 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

शिक्षक एक कक्षा के विद्यार्थियों को पढ़ा रहा है। यह निम्न में से किस का सर्वोत्तम उदाहरण है?

1. आमने सामने संचार
2. जन संचार
3. अर्न्तसांस्कृतिक संचार
4. सामूहिक संचार

Options :
9380663865. 1
9380663866. 2
9380663867. 3
9380663868. 4

Question Number : 18 Question Id : 938066997 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

As per the book 'The Five Cs of Cinematography' by Joseph V. Mascelli, arrange the following Cs in order of chapters given in the book (Starting from chapter 1 to chapter 5)

A. Camera Angles
B. Composition
C. Close-Ups
D. Cutting
E. Continuity

Choose the correct answer from the options given below:

1. A, E, D, C, B
2. A, B, C, D, E
3. B, C, A, E, D
4. C, A, B, D, E

Options :

9380663869. 1

9380663870. 2

9380663871. 3

9380663872. 4

Question Number : 18 Question Id : 938066997 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

जोसेफ वी. मासेली की पुस्तक 'द फाइव सी ज ऑफ़ सिनेमाटोग्राफी' के अनुसार निम्न सी ज (Cs) को पुस्तक में दिए अध्यायों के क्रम (अध्याय 1 से आरंभ कर अध्याय 5 तक) अनुसार व्यवस्थित कीजिए:

A. कैमरा एंगल्स
B. कंपोजिशन
C. क्लोजअप्स
D. कटिंग
E. कंटिन्युटी (सातत्य)

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. A, E, D, C, B
2. A, B, C, D, E
3. B, C, A, E, D
4. C, A, B, D, E

Options :

9380663869. 1

9380663870. 2

9380663871. 3

9380663872. 4

Question Number : 19 Question Id : 938066998 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

What among the following are functions of the Mass Media?

A. Infrastructure- Building
B. Entertainment
C. Information
D. Tax- Collection
E. Advertising

Choose the correct answer from the options given below:

1. A and D Only
2. A, B and C Only
3. B, C and E Only
4. B, D and E Only

Options :

9380663873. 1

9380663874. 2

9380663875. 3

9380663876. 4

Question Number : 19 Question Id : 938066998 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्न में से जन माध्यम (मास मीडिया) के कौन-कौन से प्रकार्य होते हैं?

A. आधारभूत ढांचा निर्माण
B. मनोरंजन
C. सूचना
D. कर संग्रह
E. विज्ञापन

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A और D
2. केवल A, B और C
3. केवल B, C और E
4. केवल B, D और E

Options :

9380663873. 1

9380663874. 2

9380663875. 3

9380663876. 4

Question Number : 20 Question Id : 938066999 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I (Directors)		**LIST-II (Films)**
A.	Orsen Welles	I.	Stage Coach
B.	John Ford	II.	City Lights
C.	Charlie Chaplin	III.	Rear Window
D.	Alfred Hitchcock	IV.	Citizen Kane

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-IV, B-I, C-II, D-III
3. A-IV, B-III, C-II, D-I
4. A-III, B-II, C-I, D-IV

Options :

9380663877. 1

9380663878. 2

9380663879. 3

9380663880. 4

Question Number : 20 Question Id : 938066999 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

	सूची-I (निर्देशक)		**सूची-II (फिल्में)**
A.	ओरसेन वेल्स	I.	स्टेज कोच
B.	जॉन फोर्ड	II.	सिटी लाइट्स
C.	चार्ली चैप्लिन	III.	रियर विंडो
D.	एल्फेड हिचकाक	IV.	सिटिजन केन

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-I, B-II, C-III, D-IV
2. A-IV, B-I, C-II, D-III
3. A-IV, B-III, C-II, D-I
4. A-III, B-II, C-I, D-IV

Options :

9380663877. 1

9380663878. 2

9380663879. 3

9380663880. 4

Question Number : 21 Question Id : 9380661000 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Find the number that can replace question mark (?) in the series given below:
3, 8, 15, 24, 35, 48, ?

1. 62
2. 65
3. 63
4. 73

Options :
9380663881. 1
9380663882. 2
9380663883. 3
9380663884. 4

Question Number : 21 Question Id : 9380661000 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

उस श्रृंखला का पता लगाएं जो निम्न श्रृंखला में प्रश्न चिन्ह (?) को प्रतिस्थापित कर सके।
3, 8, 15, 24, 35, 48, ?

1. 62
2. 65
3. 63
4. 73

Options :
9380663881. 1
9380663882. 2
9380663883. 3
9380663884. 4

Question Number : 22 Question Id : 9380661001 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In a certain code language:
'WHERE' is coded as: 5, 18, 5, 8, 23
'DELHI' is coded as: 9, 8, 12, 5, 4
How 'HORSE' is coded in that language?

1. 5, 18, 5, 8, 20
2. 5, 19, 18, 15, 8
3. 5, 18, 19, 8, 15
4. 5, 19, 18, 8, 15

Options :
9380663885. 1
9380663886. 2
9380663887. 3
9380663888. 4

Question Number : 22 Question Id : 9380661001 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

कतिपय कूट भाषा में:
'WHERE' को 5, 18, 5, 8, 23 के रूप में कूटबद्ध किया गया है।
'DELHI' को 9, 8, 12, 5, 4 के रूप में कूटबद्ध किया गया है।
उपर्युक्त भाषा में 'HORSE' को कूटबद्ध किया जाएगा:

1. 5, 18, 5, 8, 20
2. 5, 19, 18, 15, 8
3. 5, 18, 19, 8, 15
4. 5, 19, 18, 8, 15

Options :

9380663885. 1

9380663886. 2

9380663887. 3

9380663888. 4

Question Number : 23 Question Id : 9380661002 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Mohan can do a piece of work in 7 days working 9 hours a day and Shyam can do the same work in 6 days working 7 hours a day. How long will they take to complete the job working together and $8\frac{2}{5}$ hours a day?

1. 3 days
2. 4 days
3. $3\frac{1}{2}$ days
4. 5 days

Options :

9380663889. 1

9380663890. 2

9380663891. 3

9380663892. 4

Question Number : 23 Question Id : 9380661002 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

मोहन एक कार्य को 9 घंटे प्रतिदिन काम करते हुए 7 दिन में करता है और श्याम उसी काम को 7 घंटे प्रतिदिन कार्य कर 6 दिन में करता है। वे दोनों प्रतिदिन $8\frac{2}{5}$ घंटे कार्य कर उस काम को कितने समय में पूरा करेंगे?

1. 3 दिन
2. 4 दिन
3. $3\frac{1}{2}$ दिन
4. 5 दिन

Options :
9380663889. 1
9380663890. 2
9380663891. 3
9380663892. 4

Question Number : 24 Question Id : 9380661003 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I (Question)		**LIST-II (Answer)**
A.	If, $x+\frac{1}{x}=2$, then $\left(x-\frac{1}{x}\right)=?$	I.	11
B.	If, $x-y=1$ and $x^2+y^2=41$ then $x+y=?$	II.	2
C.	If $\left(1-\frac{1}{x}\right)=2$, then $1+\frac{1}{x^2}=?$	III.	0
D.	If $\left(x-\frac{1}{x}\right)=3$ then $x^2+\frac{1}{x^2}=?$	IV.	± 9

Choose the ***correct*** answer from the options given below:

1. A-I, B-III, C-IV, D-II
2. A-I, B-II, C-III, D-IV
3. A-II, B-III, C-I, D-IV
4. A-III, B-IV, C-II, D-I

Options :
9380663893. 1
9380663894. 2
9380663895. 3
9380663896. 4

Question Number : 24 Question Id : 9380661003 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

	सूची-I (प्रश्न)		सूची-II (उत्तर)
A.	यदि $x+\frac{1}{x}=2$ तो $\left(x-\frac{1}{x}\right)=?$	I.	11
B.	यदि $x-y=1$ और $x^2+y^2=41$ तो $x+y=?$	II.	2
C.	यदि $\left(1-\frac{1}{x}\right)=2$ तो $1+\frac{1}{x^2}=?$	III.	0
D.	यदि $\left(x-\frac{1}{x}\right)=3$ तो $x^2+\frac{1}{x^2}=?$	IV.	± 9

नीचे दिए गए विकल्पों में से **सही** उत्तर का चयन कीजिए :

1. A-I, B-III, C-IV, D-II
2. A-I, B-II, C-III, D-IV
3. A-II, B-III, C-I, D-IV
4. A-III, B-IV, C-II, D-I

Options :

9380663893. 1

9380663894. 2

9380663895. 3

9380663896. 4

Question Number : 25 Question Id : 9380661004 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A sum of money lent at compound interest for 2 years at 20% per annum would fetch ₹ 482 more if the interest was payable half yearly than if it was payable annually. Find the sum of money lent.

1. ₹ 15,000
2. ₹ 13,000
3. ₹ 18,000
4. ₹ 20,000

Options :

9380663897. 1

9380663898. 2

9380663899. 3

9380663900. 4

Question Number : 25 Question Id : 9380661004 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

किसी धनराशि पर 2 वर्ष के लिए प्रतिवर्ष 20% चक्रवृद्धि ब्याज पर उधार दिए गए धन पर ₹ 482 अधिक मिलता है, यदि ब्याज वार्षिक रूप से देय के बजाय ब्याज अर्द्धवार्षिक रूप से देय है। तो उधार दी गई धनराशि को ज्ञात कीजिए।

1. ₹ 15,000
2. ₹ 13,000
3. ₹ 18,000
4. ₹ 20,000

Options :

9380663897. 1

9380663898. 2

9380663899. 3

9380663900. 4

Question Number : 26 Question Id : 9380661005 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which fallacy is committed in the following statement - "God exists since it is written in the scriptures. Since the scriptures are the words of God, whatever is written in them is true."?

1. Hasty Generalization
2. Begging the Question
3. Red herring
4. Slippery slope

Options :

9380663901. 1

9380663902. 2

9380663903. 3

9380663904. 4

Question Number : 26 Question Id : 9380661005 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में कौन-सा तर्क दोष विद्यमान है-
"ईश्वर का अस्तित्व है क्योंकि ऐसा धर्मग्रंथों में लिखा हुआ है। चूँकि धर्मग्रंथ ईश्वर की वाणी है, इसलिए उनमें जो कुछ लिखा है वह सत्य है?

1. अविचारित सामान्यीकरण
2. आत्माश्रय दोष
3. भ्रामक संकेत
4. फिसलनयुक्त ढलान

Options :
9380663901. 1
9380663902. 2
9380663903. 3
9380663904. 4

Question Number : 27 Question Id : 9380661006 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are logically equivalent?

A. All poems are artworks.
B. No non-poems are non-artworks.
C. Some poems are artworks.
D. All non-artworks are non-poems.

Choose the correct answer from the options given below:

1. A, C and D Only
2. A and B Only
3. C and D Only
4. A and D Only

Options :
9380663905. 1
9380663906. 2
9380663907. 3
9380663908. 4

Question Number : 27 Question Id : 9380661006 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन-सा कथन तार्किक दृष्टि से समान है?

A. सभी कविताएँ कलाकृतियाँ होती हैं।
B. कोई भी गैर-कविता, गैर-कलाकृति नहीं होती है।
C. कुछ कविताएँ कलाकृतियाँ होती हैं।
D. सभी गैर-कलाकृतियाँ, गैर-कविताएँ होती हैं।

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A, C और D
2. केवल A और B
3. केवल C और D
4. केवल A और D

Options :

9380663905. 1

9380663906. 2

9380663907. 3

9380663908. 4

Question Number : 28 Question Id : 9380661007 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following propositions are so related that they can neither be true together nor can they be false together?

A. All printers are computer peripherals.
B. Some computer peripherals are printers.
C. Some printers are not computer peripherals.
D. No printers are computer peripherals.

Choose the correct answer from the options given below:

1. A and D Only
2. B and C Only
3. A and C Only
4. A and B Only

Options :

9380663909. 1

9380663910. 2

9380663911. 3

9380663912. 4

Question Number : 28 Question Id : 9380661007 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन-सी प्रतिज्ञप्तियाँ इस प्रकार सम्बन्धित है कि वे दोनों साथ-साथ न तो सत्य हो सकती हैं और न दोनों साथ-साथ असत्य हो सकती हैं?

A. सभी प्रिंटर, कंप्यूटर पेरिफेरल होते हैं।
B. कुछ कंप्यूटर पेरिफेरल, प्रिंटर होते हैं।
C. कुछ प्रिंटर, कंप्यूटर पेरिफेरल नहीं होते हैं।
D. कोई भी प्रिंटर कंप्यूटर पेरिफेरल नहीं होता है।

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A और D
2. केवल B और C
3. केवल A और C
4. केवल A और B

Options :
9380663909. 1
9380663910. 2
9380663911. 3
9380663912. 4

Question Number : 29 Question Id : 9380661008 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following in order of increasing intension.

A. Prose
B. Story
C. Short Story
D. Literary Work

Choose the correct answer from the options given below:

1. D, A, B, C
2. D, B, C, A
3. C, B, A, D
4. C, A, B, D

Options :
9380663913. 1
9380663914. 2
9380663915. 3
9380663916. 4

Question Number : 29 Question Id : 9380661008 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

बढ़ते गुणार्थ के क्रम में निम्नलिखित को व्यवस्थित कीजिए:

A. गद्य
B. कहानी
C. लघुकथा
D. साहित्यिक कृति

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. D, A, B, C
2. D, B, C, A
3. C, B, A, D
4. C, A, B, D

Options :
9380663913. 1
9380663914. 2
9380663915. 3
9380663916. 4

Question Number : 30 Question Id : 9380661009 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

According to Classical Indian School of Logic, the argument- "Sound is eternal because it is produced" is fallacious because:

1. It involves contradictory middle-term.
2. Here the middle term is too narrow.
3. Here the middle term is too wide.
4. Here vyāpti is conditional.

Options :
9380663917. 1
9380663918. 2
9380663919. 3
9380663920. 4

Question Number : 30 Question Id : 9380661009 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

प्राचीन भारतीय तर्कशास्त्र मत के अनुसार "ध्वनि शाश्वत है क्योंकि यह उत्पन्न की जाती है" युक्ति, तर्कदोषयुक्त है क्योंकि:

1. इसमें व्याघाती मध्यमपद शामिल हैं।
2. क्योंकि मध्यम पद अत्यधिक संकीर्ण है।
3. क्योंकि मध्यमपद अत्यधिक व्यापक है।
4. क्योंकि व्याप्ति सोपाधिक है।

Options :

9380663917. 1

9380663918. 2

9380663919. 3

9380663920. 4

Question Number : 31 Question Id : 9380661010 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following is correct physical address of a computer?

1. FC : F8 : AE : 7B
2. F8 : FC : AE
3. F8 : FA : 7B : FC : 16 : 1B : AB
4. F8 : FC : AE : 7B : 16 : CE

Options :

9380663921. 1

9380663922. 2

9380663923. 3

9380663924. 4

Question Number : 31 Question Id : 9380661010 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसा किसी कम्प्यूटर का सही वास्तविक एड्रेस है?

1. FC : F8 : AE : 7B
2. F8 : FC : AE
3. F8 : FA : 7B : FC : 16 : 1B : AB
4. F8 : FC : AE : 7B : 16 : CE

Options :

9380663921. 1

9380663922. 2

9380663923. 3

9380663924. 4

Question Number : 32 Question Id : 9380661011 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

www.ncert.nic.in in the following web address is called _____.
http://www.ncert.nic.in/textbook/textbook.htm

1. DNS Server
2. Subdomain
3. Domain name
4. Uniform resources identifier

Options :
9380663925. 1
9380663926. 2
9380663927. 3
9380663928. 4

Question Number : 32 Question Id : 9380661011 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

नीचे दिए गए वेब एड्रेस में www.ncert.nic.in को क्या कहा जाता है। _____.
http://www.ncert.nic.in/textbook/textbook.htm

1. डी. एन. एस. सर्वर
2. सबडोमेन
3. डोमेन नाम
4. यूनिफ़ॉर्म रिसोर्सेज आइडेन्टिफायर (समान संसाधन पहचानकर्ता)

Options :
9380663925. 1
9380663926. 2
9380663927. 3
9380663928. 4

Question Number : 33 Question Id : 9380661012 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following is the correct sequence of largest to smallest unit of Memory access time?

A. Millisecond
B. Picosecond
C. Nanosecond
D. Microsecond
E. Second

Choose the correct answer from the options given below:

1. E, D, C, A, B
2. E, A, B, C, D
3. E, A, D, C, B
4. E, C, D, A, B

Options :

9380663929. 1

9380663930. 2

9380663931. 3

9380663932. 4

Question Number : 33 Question Id : 9380661012 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसा 'मेमोरी एक्सेस टाइम' का विशालतम से लघुतम तक का सही क्रम है?

A. मिल्लीसेकंड
B. पिकोसेकंड
C. नैनोसेकंड
D. माइक्रोसेकंड
E. सेकंड

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. E, D, C, A, B
2. E, A, B, C, D
3. E, A, D, C, B
4. E, C, D, A, B

Options :

9380663929. 1

9380663930. 2

9380663931. 3

9380663932. 4

Question Number : 34 Question Id : 9380661013 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. Full duplex communication is bidirectional.
B. FM radio is an example of simplex communication.
C. Walkie- talkie is an example of full duplex communication.
D. In half duplex communication both devices can send and receive data at the same time.
E. A landline telephone is an example of half duplex communication.

Choose the correct answer from the options given below:

1. A, B, C, D and E
2. C, D and E Only
3. A and B Only
4. A, B and D Only

Options :

9380663933. 1

9380663934. 2

9380663935. 3

9380663936. 4

Question Number : 34 Question Id : 9380661013 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसे कथन सत्य हैं?

A. फुल डुप्लेक्स संचार द्विदिशात्मक है।
B. एफ. एम. रेडियो सिमप्लेक्स संचार का एक उदाहरण है।
C. वॉकी-टॉकी फुल डुप्कीलेक्स संचार का एक उदाहरण है।
D. हॉफ डुप्लेक्स संचार में दोनों उपकरण डेटा को एक ही समय पर भेज और प्राप्त कर सकते हैं।
E. लैंडलाइन टेलीफोन हाफ डुप्लेक्स संचार का एक उदाहरण है।

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. A, B, C, D और E
2. केवल C, D और E
3. केवल A और B
4. केवल A, B और D

Options :

9380663933. 1

9380663934. 2

9380663935. 3

9380663936. 4

Question Number : 35 Question Id : 9380661014 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I (Electronic Device)		**LIST-II (Properties)**
A.	Wireless mouse	I.	Reading of car number plate
B.	Optical mouse	II.	Output device
C.	Liquid Crystal Display	III.	Infrared light
D.	Optical Character Reader	IV.	Radio waves

Choose the ***correct*** answer from the options given below:

1. A-IV, B-III, C-II, D-I
2. A-III, B-IV, C-II, D-I
3. A-IV, B-I, C-II, D-III
4. A-III, B-II, C-IV, D-I

Options :

9380663937. 1

9380663938. 2

9380663939. 3

9380663940. 4

Question Number : 35 Question Id : 9380661014 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

	सूची-I (इलेक्ट्रॉनिक उपकरण)		**सूची-II (गुण)**
A.	वायरलेस मॉउस	I.	कार नंबर प्लेट को पढ़ना
B.	ऑप्टिकल मॉउस	II.	आउटपुट उपकरण
C.	लिक्विड क्रिस्टल डिसप्ले	III.	इन्फ्रारड लाइट (पराबैंगनी प्रकाश)
D.	ऑप्टिकल कैरेक्टर रीडर	IV.	रेडियो वेव

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-IV, B-III, C-II, D-I
2. A-III, B-IV, C-II, D-I
3. A-IV, B-I, C-II, D-III
4. A-III, B-II, C-IV, D-I

Options :

9380663937. 1

9380663938. 2

9380663939. 3

9380663940. 4

Question Number : 36 Question Id : 9380661015 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following are true about pure rain water?

A. It is naturally acidic
B. It is naturally basic
C. It is neutral (neither acidic nor basic)
D. It's pH value is 7
E. It is called as acid rain when pH becomes less than 5.6

Choose the correct answer from the options given below:

1. A and E Only
2. C and D Only
3. B Only
4. C and E Only

Options :

9380663941. 1

9380663942. 2

9380663943. 3

9380663944. 4

Question Number : 36 Question Id : 9380661015 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसा/ कौनसे कथन शुद्ध वर्षा जल के बारे में सत्य है/हैं?

A. यह स्वाभाविक रूप से अम्लीय है।
B. यह स्वाभाविक रूप से आधारभूत है।
C. यह तटस्थ (न तो अम्लीय, न ही आधारभूत) है।
D. इसका pH मान 7 है।
E. जब pH 5.6 से कम बन जाता है तो इसे अम्ल वर्षा के रूप में कहा जाता है।

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A और E
2. केवल C और D
3. केवल B
4. केवल C और E

Options :

9380663941. 1

9380663942. 2

9380663943. 3

9380663944. 4

Question Number : 37 Question Id : 9380661016 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In which of the following steps of hydrological cycle water is purified?

1. Condensation
2. Precipitation
3. Evaporation
4. Transpiration

Options :

9380663945. 1

9380663946. 2

9380663947. 3

9380663948. 4

Question Number : 37 Question Id : 9380661016 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

जल वैज्ञानिक चक्र के निम्नलिखित चरणों में से किसमें जल को परिशुद्ध होता है?

1. संघनन
2. अवक्षेपण
3. वाष्पीकरण
4. वाष्पोत्सर्जन

Options :

9380663945. 1

9380663946. 2

9380663947. 3

9380663948. 4

Question Number : 38 Question Id : 9380661017 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The scale, which not only measures the intensity of earthquake but also its impact on people, is known as

1. Richter Scale
2. Modified Mercalli Scale
3. Seismogram
4. Intensity Scale

Options :

9380663949. 1

9380663950. 2

9380663951. 3

9380663952. 4

Question Number : 38 Question Id : 9380661017 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

उस मापनी (स्केल) को निम्न में से किस रूप में जाना जाता है जो न केवल भूकंप की तीव्रता का मापन करती है अपितु, लोगों पर उसके प्रभाव को भी मापती है?

1. रिक्टर स्केल
2. संशोधित मारकेली स्केल
3. भूकंप लेखी
4. तीव्रता स्केल

Options :

9380663949. 1

9380663950. 2

9380663951. 3

9380663952. 4

Question Number : 39 Question Id : 9380661018 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I (Disinfectant byproducts (DBPs) of Chlorine)		**LIST-II (Chemical Composition)**	
A.	Dibromochloromethane	I.	$CHBr_2Cl$
B.	Bromoform	II.	$CHCl_3$
C.	Bromodichloromethane	III.	$CHBrCl_2$
D.	Chloro form	IV.	$CHBr_3$

Choose the ***correct*** answer from the options given below:

1. A-IV, B-III, C-I, D-II
2. A-IV, B-III, C-II, D-I
3. A-III, B-IV, C-I, D-II
4. A-III, B-I, C-IV, D-II

Options :

9380663953. 1

9380663954. 2

9380663955. 3

9380663956. 4

Question Number : 39 Question Id : 9380661018 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

सूची-I क्लोरीन के विसंक्रामी उपोत्पाद (डी. बी. पी.)		सूची-II (रासायनिक संघटन)	
A.	डाइब्रोमोक्लोरो मेथेन	I.	$CHBr_2Cl$
B.	ब्रामोफॉर्म	II.	$CHCl_3$
C.	ब्रोमोडाइक्लोरो मेथेन	III.	$CHBrCl_2$
D.	क्लोरोफॉर्म	IV.	$CHBr_3$

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-IV, B-III, C-I, D-II
2. A-IV, B-III, C-II, D-I
3. A-III, B-IV, C-I, D-II
4. A-III, B-I, C-IV, D-II

Options :

9380663953. 1

9380663954. 2

9380663955. 3

9380663956. 4

Question Number : 40 Question Id : 9380661019 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following are true about moderator used in nuclear reactors?

A. Moderators slow down neutrons to sustain the chain reaction
B. Moderators stops the neutrons to control chain reaction
C. Without a moderator chain reaction would stop
D. Example of moderator is Graphite Rod

Choose the correct answer from the options given below:

1. A and C Only
2. B and D Only
3. A, C and D Only
4. B, C and D Only

Options :

9380663957. 1

9380663958. 2

9380663959. 3

9380663960. 4

Question Number : 40 Question Id : 9380661019 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

नाभिकीय रिएक्टरों में प्रयुक्त विमंदक के संबंध में निम्न में से क्या-क्या सही है?

A. विमंदक श्रृंखला-अभिक्रिया को बनाए रखने हेतु, न्यूट्रोन को धीमा कर देते हैं।
B. श्रृंखला अभिक्रिया को नियंत्रित करने हेतु विमंदक न्यूट्रोन को रोक देते हैं।
C. विमंदक के बिना श्रृंखला अभिक्रिया रुक जाएगी।
D. विमंदक का उदाहरण ग्रेफाइट छड़ें हैं।

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A और C
2. केवल B और D
3. केवल A, C और D
4. केवल B, C और D

Options :

9380663957. 1

9380663958. 2

9380663959. 3

9380663960. 4

Question Number : 41 Question Id : 9380661020 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Basic principles of "Integrative Learning Map" is _____

1. Assessment, Examination and Faculty Development.
2. Faculty Development, Assessment and Civic Engagement.
3. Curriculum Development, Faculty Development and Assessment.
4. Curriculum Development, Bridging programs and Assessment.

Options :

9380663961. 1

9380663962. 2

9380663963. 3

9380663964. 4

Question Number : 41 Question Id : 9380661020 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

"समेकित अधिगम प्रतिचित्र" के मूल सिद्धांत हैं:-

1. आँकलन, परीक्षा और संकाय-विकास।
2. संकाय विकास, आँकलन और नागरिक संलग्नता।
3. पाठ्यचर्या विकास, संकाय विकास और आँकलन।
4. पाठ्यचर्या विकास, सेतु (ब्रिज) कार्यक्रम और आँकलन।

Options :
9380663961. 1
9380663962. 2
9380663963. 3
9380663964. 4

Question Number : 42 Question Id : 9380661021 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Lord Macaulay had written in his famous Minutes called "Macaulay Minutes" in the year_____

1. 1853
2. 1856
3. 1846
4. 1835

Options :
9380663965. 1
9380663966. 2
9380663967. 3
9380663968. 4

Question Number : 42 Question Id : 9380661021 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

"मैकाले मिनट" के नाम से अपने प्रसिद्ध मिनट (कार्यवृत्त) को लार्ड मैकाले ने निम्न वर्ष में लिखा था:-

1. 1853
2. 1856
3. 1846
4. 1835

Options :
9380663965. 1
9380663966. 2
9380663967. 3
9380663968. 4

Question Number : 43 Question Id : 9380661022 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following programme in order of their incorporation.

A. Achieving 100% literacy.
B. National Literacy Mission
C. Sarva Shiksha Abhiyan
D. NAEP [National Adult Education Programme]
E. Padhna Likhna Abhiyan

Choose the correct answer from the options given below:

1. E, A, B, C and D Only
2. D, B, C, A and E Only
3. A, B, C, D and E Only
4. C, D, A, E and B Only

Options :

9380663969. 1

9380663970. 2

9380663971. 3

9380663972. 4

Question Number : 43 Question Id : 9380661022 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित कार्यक्रमों को उनके प्रारम्भ होने के क्रम में व्यवस्थित कीजिए:-

A. शत् प्रतिशत साक्षरता प्राप्त करना
B. राष्ट्रीय साक्षरता मिशन
C. सर्व शिक्षा अभियान
D. एन. ए. इ. पी. (राष्ट्रीय प्रौढ़ शिक्षा कार्यक्रम)
E. पढ़ना लिखना अभियान

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल E, A, B, C और D
2. केवल D, B, C, A और E
3. केवल A, B, C, D और E
4. केवल C, D, A, E और B

Options :

9380663969. 1

9380663970. 2

9380663971. 3

9380663972. 4

Question Number : 44 Question Id : 9380661023 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the context of AI, NRF may consider a three-pronged approach. These are:

A. Advancing International research efforts to address global challenges.
B. Developing and deploying application.
C. Efforts to address global challenges through research.
D. Advancing core AI research.
E. Enhancing the knowledge regarding AI, NRF

Choose the correct answer from the options given below:

1. A, B and D Only
2. A, B and E Only
3. A, C and D Only
4. C, D and E Only

Options :

9380663973. 1

9380663974. 2

9380663975. 3

9380663976. 4

Question Number : 44 Question Id : 9380661023 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

ए. आइ. के सन्दर्भ में, एन. आर. एफ. निम्नलिखित त्रि- आयामी रणनीति अपना सकता है:-

A. अन्तर्राष्ट्रीय शोध के माध्यम से वैश्विक चुनौतियों का सामना करने का प्रयास करना
B. अनुप्रयोग आधारित शोध का विकास करना और परिनियोजन करना
C. शोध के माध्यम से वैश्विक चुनौतियों का सामना करने के प्रयास
D. मूल ए. आइ. शोध को अग्रसर करना
E. ए. आइ., एन. आर. एफ. से सम्बन्धित ज्ञान को बढ़ावा देना

नीचे दिए गए विकल्पों में से सही उत्तर चुने:

1. केवल A, B और D
2. केवल A, B और E
3. केवल A, C और D
4. केवल C, D और E

Options :

9380663973. 1

9380663974. 2

9380663975. 3

9380663976. 4

Question Number : 45 Question Id : 9380661024 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I (Academic Body)		**LIST-II (Year of Establishment)**
A.	NCTE	I.	1961
B.	UGC	II.	2017
C.	NTA	III.	1956
D.	NCERT	IV.	1995

Choose the ***correct*** answer from the options given below:

1. A-I, B-III, C-IV, D-II
2. A-III, B-I, C-II, D-IV
3. A-IV, B-III, C-II, D-I
4. A-II, B-III, C-IV, D-I

Options :

9380663977. 1

9380663978. 2

9380663979. 3

9380663980. 4

Question Number : 45 Question Id : 9380661024 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सूची-**I** के साथ सूची-**II** का मिलान कीजिए:

	सूची-I (अकादमिक निकाय)		**सूची-II (स्थापना का वर्ष)**
A.	एन. सी. टी. इ.	I.	1961
B.	यू. जी. सी.	II.	2017
C.	एन. टी. ए	III.	1956
D.	एन. सी. ई. आर. टी.	IV.	1995

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

1. A-I, B-III, C-IV, D-II
2. A-III, B-I, C-II, D-IV
3. A-IV, B-III, C-II, D-I
4. A-II, B-III, C-IV, D-I

Options :

9380663977. 1

9380663978. 2

9380663979. 3

9380663980. 4

Sub-Section Number :

Sub-Section Id :	93806645
Question Shuffling Allowed :	No

Question Id : 9380661025 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (46 to 50)

Read the following passage carefully and answer the questions:

The rule of the road means that in order that the liberties of all may be preserved, the liberties of everybody must be curtailed. When the policemen, say, at a road-crossing steps into the middle of the road and puts out his hand, he is the symbol not of tyranny but of liberty. You have submitted to a curtailment of private liberty in order that you may enjoy a social order which makes your liberty a reality. We have both liberties to preserve- our individual liberty and our social liberty. That is, we must have a judicious mixture of both. I shall not permit any authority to say that my child must go to this school or that, shall specialise in science or arts. These things are personal. But if I say that my child shall have no education at all, then society will firmly tell me that my child must have education whether I like it or not.

Sub questions

Question Number : 46 Question Id : 9380661026 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

To preserve liberties of all, they should be

1. withdrawn.
2. selective.
3. redefined.
4. reduced to a reasonable extent.

Options :

9380663981. 1

9380663982. 2

9380663983. 3

9380663984. 4

Question Number : 47 Question Id : 9380661027 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The author intends to tell that the rule of the road stands for

1. Public liberty
2. Private liberty
3. Liberty in a true sense of word
4. Individual liberty

Options :

9380663985. 1

9380663986. 2

9380663987. 3

9380663988. 4

Question Number : 48 Question Id : 9380661028 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

One needs to preserve one's

1. Individual liberty
2. Social liberty
3. Personal liberty
4. Both individual and social liberty

Options :

9380663989. 1

9380663990. 2

9380663991. 3

9380663992. 4

Question Number : 49 Question Id : 9380661029 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Selection of a school for the child study will be considered as ____

1. Personal liberty
2. Social liberty
3. Individual liberty
4. Collective liberty

Options :

9380663993. 1

9380663994. 2

9380663995. 3

9380663996. 4

Question Number : 50 Question Id : 9380661030 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The most suitable title of the passage would be

1. The Policeman at cross roads
2. The Road Laws
3. Importance of Liberty
4. The Children's Rights

Options :

9380663997. 1

9380663998. 2

9380663999. 3

9380664000. 4

Question Id : 9380661025 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (46 to 50)

निम्नलिखित गद्यांश को सावधानीपूर्वक पढ़िए व पूछे गए प्रश्नों के उत्तर दीजिए:

सड़क के नियम का अर्थ है कि सभी की स्वतंत्रताओं को संरक्षित रखने हेतु प्रत्येक की स्वतंत्रताओं में अनिवार्यत: कटौती की जाए। जैसे जब किसी चौराहे पर कोई पुलिसकर्मी सड़क के बीचों-बीच आकर अपना हाथ खड़ा करता है तो वह निरंकुशता का नहीं अपितु स्वतंत्रता का प्रतीक होता है। आपने निजी स्वतंत्रता की कटौती को स्वीकार किया है ताकि आप ऐसी सामजिक व्यवस्था का आनन्द ले सकें जो आपकी स्वतंत्रता को यथार्थ बनाती है। हमें अपनी व्यक्तिगत स्वतंत्रता और हमारी सामजिक स्वतंत्रता- दोनों स्वतंत्रताओं का संरक्षण करना है। अर्थात्, हमें दोनों का विवेकसम्मत सम्मिश्रण चाहिए। मैं किसी प्राधिकारी को यह कहने की अनुमति नहीं दूंगा कि मेरे बच्चे को इस या उस विद्यालय में जाना होगा या वह विज्ञान में अथवा कला में विशेषज्ञता प्राप्त करेगा। ये चीजें व्यक्तिगत हैं। परन्तु यदि मैं यह कहूँ कि मेरा बच्चा कोई शिक्षा लेगा ही नहीं, तब समाज मुझे दृढ़तापूर्वक यह बताएगा कि चाहे मुझे पसंद हो अथवा नहीं, मेरे बच्चे को शिक्षा ग्रहण करनी ही होगी।

Sub questions

Question Number : 46 Question Id : 9380661026 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

सभी की स्वतंत्रताओं के संरक्षण हेतु उन्हें _____

1. वापस ले लिया जाना चाहिए।
2. चयनात्मक होना चाहिए।
3. पुन: परिभाषित किया जाना चाहिए।
4. तर्क संगत सीमा तक कम किया जाना चाहिए।

Options :

9380663981. 1

9380663982. 2

9380663983. 3

9380663984. 4

Question Number : 47 Question Id : 9380661027 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

लेखक का आशय यह बताना है कि सड़क के नियम निम्न हेतु है: _____

1. सार्वजनिक स्वतंत्रता
2. निजी स्वतंत्रता
3. शब्द के सही मायने में स्वतंत्रता
4. व्यक्तिगत स्वतंत्रता

Options :

9380663985. 1

9380663986. 2

9380663987. 3

9380663988. 4

Question Number : 48 Question Id : 9380661028 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

हमें निम्न में से किसके संरक्षण की आवश्यकता है?

1. व्यक्तिगत स्वतंत्रता
2. सामजिक स्वतंत्रता
3. व्यक्तिगत स्वतंत्रता
4. व्यक्तिगत व सामजिक स्वतंत्रता, दोनों की

Options :

9380663989. 1

9380663990. 2

9380663991. 3

9380663992. 4

Question Number : 49 Question Id : 9380661029 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

बच्चे की शिक्षा हेतु विद्यालय के चयन को निम्न में से क्या माना जाएगा?

1. व्यक्तिगत स्वतंत्रता
2. सामाजिक स्वतंत्रता
3. व्यक्तिगत स्वतंत्रता
4. सामूहिक स्वतंत्रता

Options :

9380663993. 1

9380663994. 2

9380663995. 3

9380663996. 4

Question Number : 50 Question Id : 9380661030 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

इस गद्यांश का सर्वाधिक उपयुक्त शीर्षक निम्न में से क्या होगा?

1. चौराहे पर पुलिसकर्मी
2. सड़क के नियम
3. स्वतंत्रता का महत्त्व
4. बच्चों के अधिकार

Options :

9380663997. 1

9380663998. 2

9380663999. 3

9380664000. 4

Electronic Science

Section Id : 93806616

Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	92
Number of Questions to be attempted :	92
Section Marks :	200
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	93806646
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 9380661031 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following materials will form p-type semiconductor on doping to an intrinsic semiconductor?

1. As
2. P
3. B
4. Ge

Options :

9380664001. 1

9380664002. 2

9380664003. 3

9380664004. 4

Question Number : 51 Question Id : 9380661031 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following materials will form p-type semiconductor on doping to an intrinsic semiconductor?

1. As
2. P
3. B
4. Ge

Options :

9380664001. 1

9380664002. 2

9380664003. 3

9380664004. 4

Question Number : 52 Question Id : 9380661032 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The ohmic resistance of JFET with $V_P = 4V$ and $I_{DSS} = 10mA$ is

1. 100 Ω
2. 200 Ω
3. 300 Ω
4. 400 Ω

Options :

9380664005. 1

9380664006. 2

9380664007. 3

9380664008. 4

Question Number : 52 Question Id : 9380661032 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The ohmic resistance of JFET with $V_P = 4V$ and $I_{DSS} = 10mA$ is

1. 100 Ω
2. 200 Ω
3. 300 Ω
4. 400 Ω

Options :

9380664005. 1

9380664006. 2

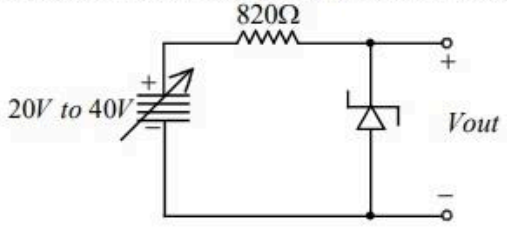
9380664007. 3

9380664008. 4

Question Number : 53 Question Id : 9380661033 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Suppose the Zener diode in Figure is ideal and has breakdown voltage of 10V. What is the maximum current through the Zener diode?



1. 12.2 mA
2. 36.6 mA
3. 6.1 mA
4. 18.3 mA

Options :

9380664009. 1

9380664010. 2

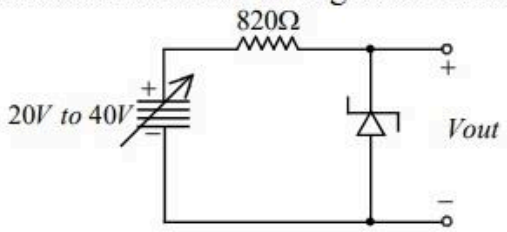
9380664011. 3

9380664012. 4

Question Number : 53 Question Id : 9380661033 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Suppose the Zener diode in Figure is ideal and has breakdown voltage of 10V. What is the maximum current through the Zener diode?



1. 12.2 mA
2. 36.6 mA
3. 6.1 mA
4. 18.3 mA

Options :

9380664009. 1

9380664010. 2

9380664011. 3

9380664012. 4

Question Number : 54 Question Id : 9380661034 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A silicon diode has a saturation current of 5nA at 25°C. What is the saturation current at 95°C?

1. 898 nA
2. 798 nA
3. 640 nA
4. 740 nA

Options :

9380664013. 1

9380664014. 2

9380664015. 3

9380664016. 4

Question Number : 54 Question Id : 9380661034 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A silicon diode has a saturation current of 5nA at 25°C. What is the saturation current at 95°C?

1. 898 nA
2. 798 nA
3. 640 nA
4. 740 nA

Options :

9380664013. 1

9380664014. 2

9380664015. 3

9380664016. 4

Question Number : 55 Question Id : 9380661035 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In layout Design Rule, what should be the minimum width and spacing of metal and diffusion layers?

1. λ
2. 2λ
3. 3λ
4. 4λ

Options :

9380664017. 1

9380664018. 2

9380664019. 3

9380664020. 4

Question Number : 55 Question Id : 9380661035 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In layout Design Rule, what should be the minimum width and spacing of metal and diffusion layers?

1. λ
2. 2λ
3. 3λ
4. 4λ

Options :

9380664017. 1

9380664018. 2

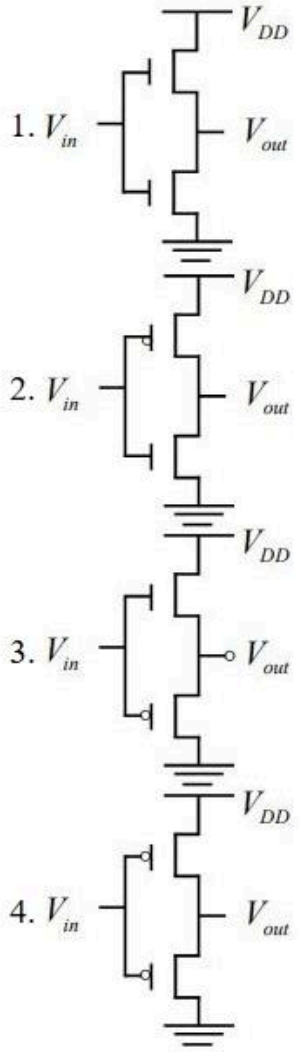
9380664019. 3

9380664020. 4

Question Number : 56 Question Id : 9380661036 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The schematic of CMOS inverter is:-



Options :

9380664021. 1

9380664022. 2

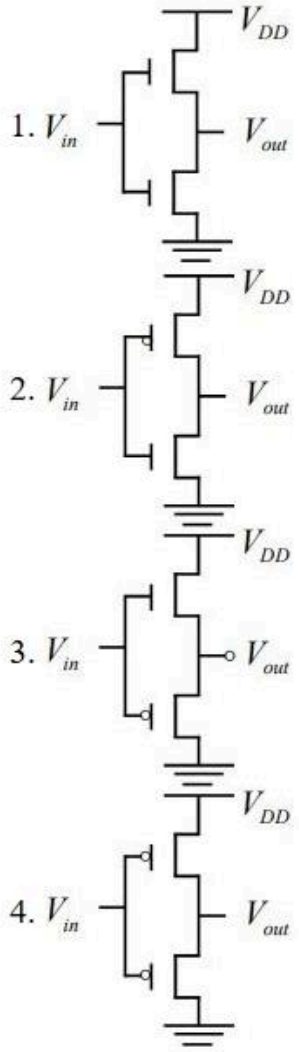
9380664023. 3

9380664024. 4

Question Number : 56 Question Id : 9380661036 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The schematic of CMOS inverter is:-



Options :

9380664021. 1

9380664022. 2

9380664023. 3

9380664024. 4

Question Number : 57 Question Id : 9380661037 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A straight line is seen to result from a plot of $1/C^3$ versus V (Where C is capacitance and V is voltage). What does this imply about the doping profile shape

1. Shallow
2. Linearly Graded
3. Quadratically Graded
4. Deep

Options :

9380664025. 1

9380664026. 2

9380664027. 3

9380664028. 4

Question Number : 57 Question Id : 9380661037 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A straight line is seen to result from a plot of $1/C^3$ versus V (Where C is capacitance and V is voltage). What does this imply about the doping profile shape

1. Shallow
2. Linearly Graded
3. Quadratically Graded
4. Deep

Options :

9380664025. 1

9380664026. 2

9380664027. 3

9380664028. 4

Question Number : 58 Question Id : 9380661038 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

From the thermodynamics principle, the concentration as a function of temperature has the following relation

1. $Nd = A \exp\left(-\frac{Ea}{KT}\right)$
2. $Nd = A \exp\left(\frac{Ea}{KT}\right)$
3. $Nd = \frac{1}{A} \exp\left(-\frac{Ea}{KT}\right)$
4. $Nd = \frac{1}{A} \exp\left(\frac{Ea}{KT}\right)$

Options :

9380664029. 1

9380664030. 2

9380664031. 3

9380664032. 4

Question Number : 58 Question Id : 9380661038 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

From the thermodynamics principle, the concentration as a function of temperature has the following relation

1. $Nd = A \exp\left(-\frac{Ea}{KT}\right)$
2. $Nd = A \exp\left(\frac{Ea}{KT}\right)$
3. $Nd = \frac{1}{A} \exp\left(-\frac{Ea}{KT}\right)$
4. $Nd = \frac{1}{A} \exp\left(\frac{Ea}{KT}\right)$

Options :

9380664029. 1

9380664030. 2

9380664031. 3

9380664032. 4

Question Number : 59 Question Id : 9380661039 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In Bode plot, the number of octaves between any two frequencies, W_1 and W_2 is given by:-

1. $\frac{1}{0.301}\log_{10}\left(\frac{w_2}{w_1}\right)$
2. $\frac{1}{0.602}\log_{10}\left(\frac{w_2}{w_1}\right)$
3. $0.301\log_{10}\left(\frac{w_2}{w_1}\right)$
4. $0.602\log_{10}\left(\frac{w_2}{w_1}\right)$

Options :

9380664033. 1

9380664034. 2

9380664035. 3

9380664036. 4

Question Number : 59 Question Id : 9380661039 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In Bode plot, the number of octaves between any two frequencies, W_1 and W_2 is given by:-

1. $\frac{1}{0.301}\log_{10}\left(\frac{w_2}{w_1}\right)$
2. $\frac{1}{0.602}\log_{10}\left(\frac{w_2}{w_1}\right)$
3. $0.301\log_{10}\left(\frac{w_2}{w_1}\right)$
4. $0.602\log_{10}\left(\frac{w_2}{w_1}\right)$

Options :

9380664033. 1

9380664034. 2

9380664035. 3

9380664036. 4

Question Number : 60 Question Id : 9380661040 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The condition for symmetry obtained from $\not{Z}$-parameters is:-

1. $\not{Z}_{11} = \not{Z}_{22}$
2. $\not{Z}_{11} = \not{Z}_{12}$
3. $\not{Z}_{11} = \not{Z}_{21}$
4. None of the above

Options :
9380664037. 1
9380664038. 2
9380664039. 3
9380664040. 4

Question Number : 60 Question Id : 9380661040 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The condition for symmetry obtained from $\not{Z}$-parameters is:-

1. $\not{Z}_{11} = \not{Z}_{22}$
2. $\not{Z}_{11} = \not{Z}_{12}$
3. $\not{Z}_{11} = \not{Z}_{21}$
4. None of the above

Options :
9380664037. 1
9380664038. 2
9380664039. 3
9380664040. 4

Question Number : 61 Question Id : 9380661041 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Maximum power will be delivered by a network, to an impedance $\not{Z}_R$, if the impedance of $\not{Z}_R$ is:-

1. Zero
2. Infinity
3. Same as the impedance, Z of network
4. Complex conjugate of the impedance, Z of the network

Options :
9380664041. 1
9380664042. 2
9380664043. 3
9380664044. 4

Question Number : 61 Question Id : 9380661041 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Maximum power will be delivered by a network, to an impedance Z_R, if the impedance of Z_R is:-

1. Zero
2. Infinity
3. Same as the impedance, Z of network
4. Complex conjugate of the impedance, Z of the network

Options :

9380664041. 1

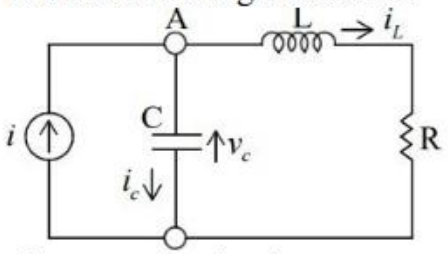
9380664042. 2

9380664043. 3

9380664044. 4

Question Number : 62 Question Id : 9380661042 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

For the network given below:-



The state equation is:-

1. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} o & -\frac{1}{c} \\ \frac{1}{L} & -\frac{R}{L} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} \frac{1}{c} \\ o \end{bmatrix} i$
2. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} \frac{1}{L} & -\frac{1}{c} \\ o & -\frac{R}{L} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} \frac{1}{c} \\ o \end{bmatrix} i$
3. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} \frac{1}{L} & -\frac{R}{L} \\ o & -\frac{1}{c} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} \frac{1}{c} \\ o \end{bmatrix} i$
4. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} o & -\frac{1}{c} \\ \frac{1}{L} & -\frac{R}{L} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} o \\ \frac{1}{c} \end{bmatrix} i$

Options :

9380664045. 1

9380664046. 2

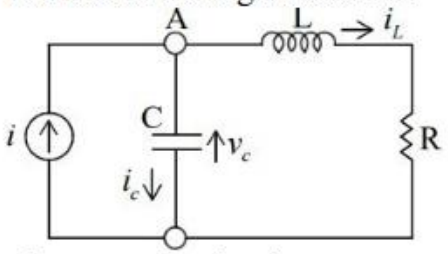
9380664047. 3

9380664048. 4

Question Number : 62 Question Id : 9380661042 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

For the network given below:-



The state equation is:-

1. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} o & -\frac{1}{c} \\ \frac{1}{L} & -\frac{R}{L} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} \frac{1}{c} \\ o \end{bmatrix} i$

2. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} \frac{1}{L} & -\frac{1}{c} \\ o & -\frac{R}{L} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} \frac{1}{c} \\ o \end{bmatrix} i$

3. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} \frac{1}{L} & -\frac{R}{L} \\ o & -\frac{1}{c} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} \frac{1}{c} \\ o \end{bmatrix} i$

4. $\frac{d}{dt}\begin{bmatrix} v_c \\ i_L \end{bmatrix} = \begin{bmatrix} o & -\frac{1}{c} \\ \frac{1}{L} & -\frac{R}{L} \end{bmatrix}\begin{bmatrix} v_c \\ i_L \end{bmatrix} + \begin{bmatrix} o \\ \frac{1}{c} \end{bmatrix} i$

Options :

9380664045. 1

9380664046. 2

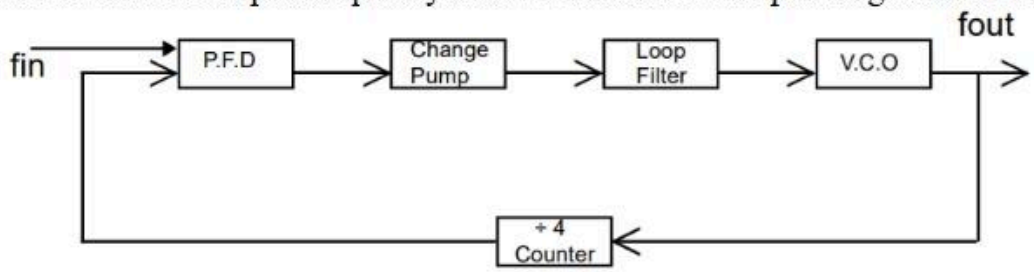
9380664047. 3

9380664048. 4

Question Number : 63 Question Id : 9380661043 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the given block diagram of the PLL circuit, the input reference frequency fin = 40 MHZ. What is the value of output frequency fout when the PLL is operating in locked state?



1. 10 MHZ
2. 36 MHZ
3. 4 MHZ
4. 160 MHZ

Options :

9380664049. 1

9380664050. 2

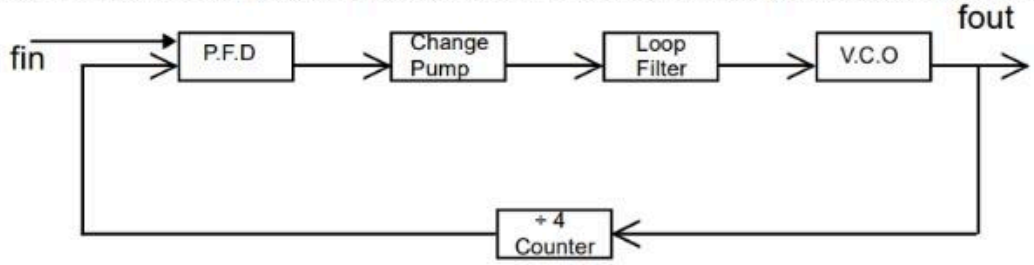
9380664051. 3

9380664052. 4

Question Number : 63 Question Id : 9380661043 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the given block diagram of the PLL circuit, the input reference frequency fin = 40 MHZ. What is the value of output frequency fout when the PLL is operating in locked state?



1. 10 MHZ
2. 36 MHZ
3. 4 MHZ
4. 160 MHZ

Options :

9380664049. 1

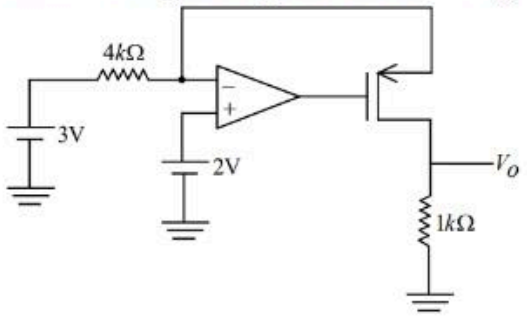
9380664050. 2

9380664051. 3

9380664052. 4

Question Number : 64 Question Id : 9380661044 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

What is the value of output voltage V_0 in the given circuit? Assume op-amp to be ideal and MOSFET operating in stauration region.



1. 0.25 V
2. 2.5 V
3. 1.0 V
4. 2.0 V

Options :

9380664053. 1

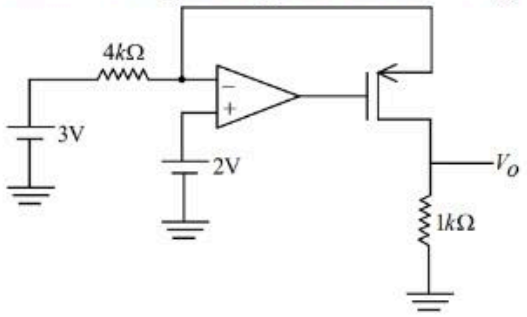
9380664054. 2

9380664055. 3

9380664056. 4

Question Number : 64 Question Id : 9380661044 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

What is the value of output voltage V_0 in the given circuit? Assume op-amp to be ideal and MOSFET operating in stauration region.



1. 0.25 V
2. 2.5 V
3. 1.0 V
4. 2.0 V

Options :

9380664053. 1

9380664054. 2

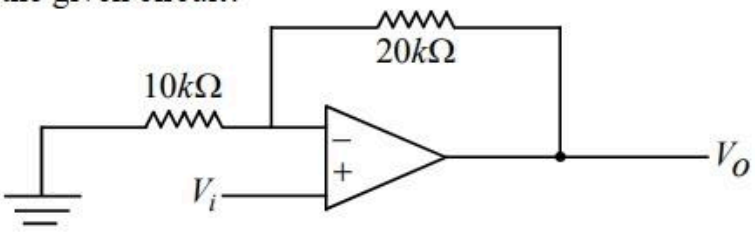
9380664055. 3

9380664056. 4

Question Number : 65 Question Id : 9380661045 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the given circuit, the open-loop gain of the op-amp is $15\frac{V}{V}$. What is the closed-loop gain of the given circuit?



1. $-2\frac{V}{V}$
2. $3\frac{V}{V}$
3. $2.5\frac{V}{V}$
4. $-3.5\frac{V}{V}$

Options :

9380664057. 1

9380664058. 2

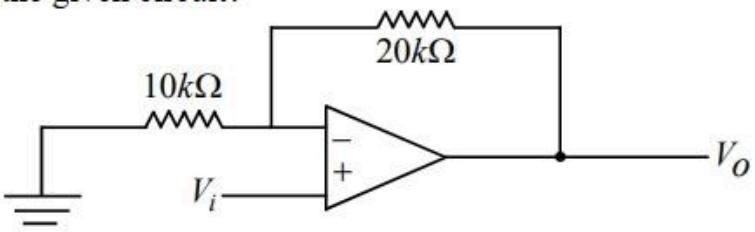
9380664059. 3

9380664060. 4

Question Number : 65 Question Id : 9380661045 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the given circuit, the open-loop gain of the op-amp is $15\frac{V}{V}$. What is the closed-loop gain of the given circuit?



1. $-2\frac{V}{V}$
2. $3\frac{V}{V}$
3. $2.5\frac{V}{V}$
4. $-3.5\frac{V}{V}$

Options :

9380664057. 1

9380664058. 2

9380664059. 3

9380664060. 4

Question Number : 66 Question Id : 9380661046 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

An op-amp with an open-loop gain of 100 dB has unity gain bandwidth of 1 GHz. what is the bandwidth of this op-amp assuming it a single pole system?

1. 10 MHz
2. 10 KHz
3. 1 MHz
4. 10 Hz

Options :

9380664061. 1

9380664062. 2

9380664063. 3

9380664064. 4

Question Number : 66 Question Id : 9380661046 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

An op-amp with an open-loop gain of 100 dB has unity gain bandwidth of 1 GHz. what is the bandwidth of this op-amp assuming it a single pole system?

1. 10 MHz
2. 10 KHz
3. 1 MHz
4. 10 Hz

Options :

9380664061. 1

9380664062. 2

9380664063. 3

9380664064. 4

Question Number : 67 Question Id : 9380661047 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

How many 1 – to – 4 demultiplexers are required to implement 1 – to – 256 demultiplexer?

1. 64
2. 16
3. 256
4. 85

Options :

9380664065. 1

9380664066. 2

9380664067. 3

9380664068. 4

Question Number : 67 Question Id : 9380661047 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

How many 1 – to – 4 demultiplexers are required to implement 1 – to – 256 demultiplexer?

1. 64
2. 16
3. 256
4. 85

Options :

9380664065. 1

9380664066. 2

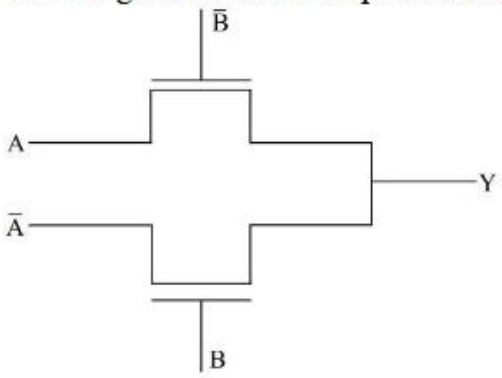
9380664067. 3

9380664068. 4

Question Number : 68 Question Id : 9380661048 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What logic function is implemented by the following circuit?



1. $Y = A \cdot B$
2. $Y = A + B$
3. $Y = \overline{A \oplus B}$
4. $Y = A \oplus B$

Options :

9380664069. 1

9380664070. 2

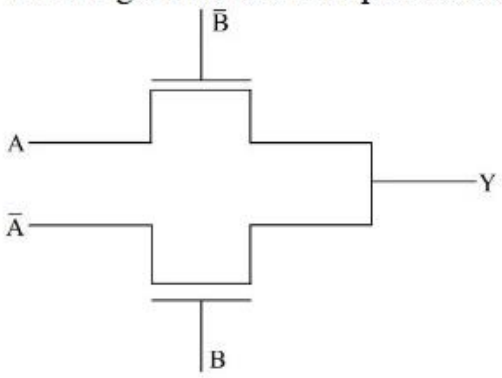
9380664071. 3

9380664072. 4

Question Number : 68 Question Id : 9380661048 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What logic function is implemented by the following circuit?



1. $Y = A \cdot B$
2. $Y = A + B$
3. $Y = \overline{A \oplus B}$
4. $Y = A \oplus B$

Options :

9380664069. 1

9380664070. 2

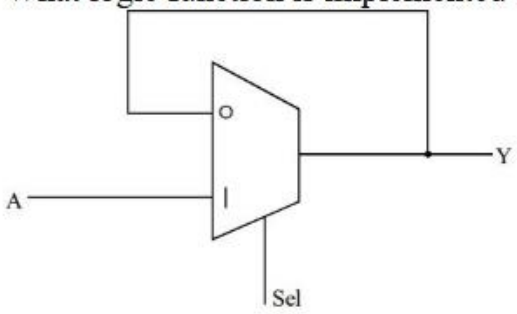
9380664071. 3

9380664072. 4

Question Number : 69 Question Id : 9380661049 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What logic function is implemented by the following circuit?



1. NOT gate
2. AND gate
3. Flip-flop
4. Latch

Options :

9380664073. 1

9380664074. 2

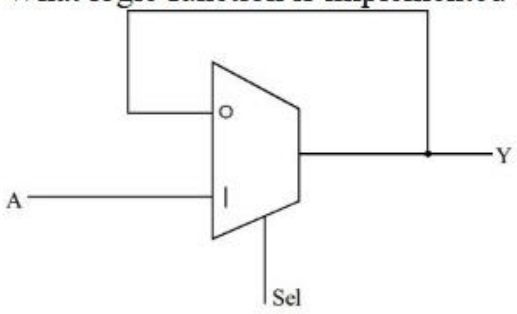
9380664075. 3

9380664076. 4

Question Number : 69 Question Id : 9380661049 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What logic function is implemented by the following circuit?



1. NOT gate
2. AND gate
3. Flip-flop
4. Latch

Options :

9380664073. 1

9380664074. 2

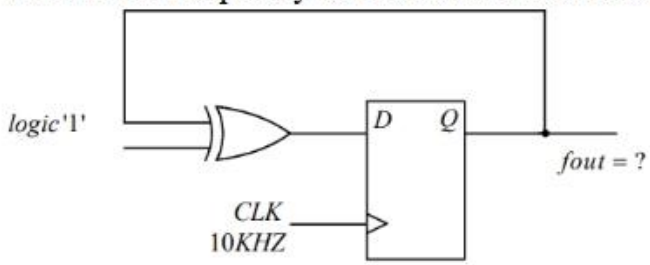
9380664075. 3

9380664076. 4

Question Number : 70 Question Id : 9380661050 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the frequency of the waveform at the Q output in the given circuit?



1. 5 KHz
2. 10 KHz
3. 20 KHz
4. 15 KHz

Options :

9380664077. 1

9380664078. 2

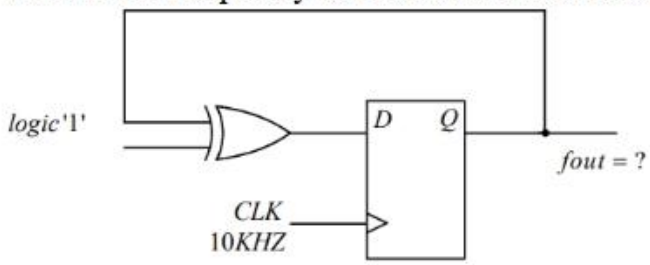
9380664079. 3

9380664080. 4

Question Number : 70 Question Id : 9380661050 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the frequency of the waveform at the Q output in the given circuit?



1. 5 KHz
2. 10 KHz
3. 20 KHz
4. 15 KHz

Options :

9380664077. 1

9380664078. 2

9380664079. 3

9380664080. 4

Question Number : 71 Question Id : 9380661051 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The micro controller 8051 has

1. 16-bit Harvard architecture
2. 8-bit Von-Neumann architecture
3. 8-bit Harvard architecture
4. 32-bit Von-Neumann architecture

Options :

9380664081. 1

9380664082. 2

9380664083. 3

9380664084. 4

Question Number : 71 Question Id : 9380661051 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The micro controller 8051 has

1. 16-bit Harvard architecture
2. 8-bit Von-Neumann architecture
3. 8-bit Harvard architecture
4. 32-bit Von-Neumann architecture

Options :

9380664081. 1

9380664082. 2

9380664083. 3

9380664084. 4

Question Number : 72 Question Id : 9380661052 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The type 4 interrupt represent

1. Auxiliary carry interrupt
2. Overflow interrupt
3. Carry interrupt
4. Sign interrupt

Options :

9380664085. 1

9380664086. 2

9380664087. 3

9380664088. 4

Question Number : 72 Question Id : 9380661052 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The type 4 interrupt represent

1. Auxiliary carry interrupt
2. Overflow interrupt
3. Carry interrupt
4. Sign interrupt

Options :

9380664085. 1

9380664086. 2

9380664087. 3

9380664088. 4

Question Number : 73 Question Id : 9380661053 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The transistor count in 8086 microprocessor is

1. 6500
2. 1.5 million
3. 29000
4. 7.5 million

Options :

9380664089. 1

9380664090. 2

9380664091. 3

9380664092. 4

Question Number : 73 Question Id : 9380661053 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The transistor count in 8086 microprocessor is

1. 6500
2. 1.5 million
3. 29000
4. 7.5 million

Options :

9380664089. 1

9380664090. 2

9380664091. 3

9380664092. 4

Question Number : 74 Question Id : 9380661054 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Instruction AAA is used to

1. Adjust ASCII after arithmetic operation
2. Adjust ASCII after addition
3. All addition arithmetic operations
4. Adjust addition after ASCII code

Options :

9380664093. 1

9380664094. 2

9380664095. 3

9380664096. 4

Question Number : 74 Question Id : 9380661054 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Instruction AAA is used to

1. Adjust ASCII after arithmetic operation
2. Adjust ASCII after addition
3. All addition arithmetic operations
4. Adjust addition after ASCII code

Options :

9380664093. 1

9380664094. 2

9380664095. 3

9380664096. 4

Question Number : 75 Question Id : 9380661055 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Given $\vec{A} = 3y^4z^2\vec{a}_x + 4x^3z^2\vec{a}_y + 3z^2y^2\vec{a}_z$, then $\nabla \cdot \vec{A}$ is

1. $6x^2y$
2. $6y^2z$
3. $6z^2x$
4. $6xy$

Options :

9380664097. 1

9380664098. 2

9380664099. 3

9380664100. 4

Question Number : 75 Question Id : 9380661055 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Given $\vec{A} = 3y^4z^2\vec{a}_x + 4x^3z^2\vec{a}_y + 3z^2y^2\vec{a}_z$, then $\nabla \cdot \vec{A}$ is

1. $6x^2y$
2. $6y^2z$
3. $6z^2x$
4. $6xy$

Options :

9380664097. 1

9380664098. 2

9380664099. 3

9380664100. 4

Question Number : 76 Question Id : 9380661056 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the unit of electric flux density (D)

1. $\frac{Amp}{m^2}$
2. $\frac{Webers}{m^2}$
3. $\frac{V}{m}$
4. $\frac{C}{m^2}$

Options :

9380664101. 1

9380664102. 2

9380664103. 3

9380664104. 4

Question Number : 76 Question Id : 9380661056 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What is the unit of electric flux density (D)

1. $\frac{Amp}{m^2}$
2. $\frac{Webers}{m^2}$
3. $\frac{V}{m}$
4. $\frac{C}{m^2}$

Options :

9380664101. 1

9380664102. 2

9380664103. 3

9380664104. 4

Question Number : 77 Question Id : 9380661057 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Consider a plane wave propagating in x-direction. The velocity of propagation of free space is

1. $V_o = \frac{1}{\sqrt{\mu_o \in_o}}$
2. $V_o = \sqrt{\frac{\mu_o}{\in_o}}$
3. $V_o = \sqrt{\frac{\in_o}{\mu_o}}$
4. $V_o = \sqrt{\mu_o \in_o}$

Options :

9380664105. 1

9380664106. 2

9380664107. 3

9380664108. 4

Question Number : 77 Question Id : 9380661057 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Consider a plane wave propagating in x-direction. The velocity of propagation of free space is

1. $V_o = \frac{1}{\sqrt{\mu_o \in_o}}$
2. $V_o = \sqrt{\frac{\mu_o}{\in_o}}$
3. $V_o = \sqrt{\frac{\in_o}{\mu_o}}$
4. $V_o = \sqrt{\mu_o \in_o}$

Options :
9380664105. 1
9380664106. 2
9380664107. 3
9380664108. 4

Question Number : 78 Question Id : 9380661058 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The characteristics impedance of a uniform plane wave in free spaces is

1. 180 π
2. 190 π
3. 120 π
4. 80 π

Options :
9380664109. 1
9380664110. 2
9380664111. 3
9380664112. 4

Question Number : 78 Question Id : 9380661058 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The characteristics impedance of a uniform plane wave in free spaces is

1. 180 π
2. 190 π
3. 120 π
4. 80 π

Options :
9380664109. 1
9380664110. 2
9380664111. 3
9380664112. 4

Question Number : 79 Question Id : 9380661059 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Given an angle-modulated signal
$x_c(t) = 10\cos\left[\left(10^8\right)\pi t + 5\sin 2\pi\left(10^3\right)t\right]$
The maximum phase deviation and maximum frequency deviation is given by

1. $|\phi(t)|\max = 5rad \;\; and \;\; \triangle f = 5\text{kHz}$
2. $|\phi(t)|\max = 50rad \;\; and \;\; \triangle f = 50\text{kHz}$
3. $|\phi(t)|\max = 150rad \;\; and \;\; \triangle f = 150\text{kHz}$
4. $|\phi(t)|\max = 105rad \;\; and \;\; \triangle f = 105\text{kHz}$

Options :
9380664113. 1
9380664114. 2
9380664115. 3
9380664116. 4

Question Number : 79 Question Id : 9380661059 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Given an angle-modulated signal
$x_c(t) = 10\cos\left[\left(10^8\right)\pi t + 5\sin 2\pi\left(10^3\right)t\right]$
The maximum phase deviation and maximum frequency deviation is given by

1. $|\phi(t)|\max = 5rad \;\; and \;\; \triangle f = 5\text{kHz}$
2. $|\phi(t)|\max = 50rad \;\; and \;\; \triangle f = 50\text{kHz}$
3. $|\phi(t)|\max = 150rad \;\; and \;\; \triangle f = 150\text{kHz}$
4. $|\phi(t)|\max = 105rad \;\; and \;\; \triangle f = 105\text{kHz}$

Options :
9380664113. 1
9380664114. 2
9380664115. 3
9380664116. 4

Question Number : 80 Question Id : 9380661060 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The transmission Efficiency of a AM wave is given by

1. $\eta = \frac{\rho_s}{\rho_t} \times 100$
2. $\eta = \frac{\rho_t}{\rho_s} \times 100$
3. $\eta = \frac{\rho_A}{\rho_B} \times 100$
4. $\eta = \frac{1}{\rho_s \rho_e} \times 100$

Options :

9380664117. 1

9380664118. 2

9380664119. 3

9380664120. 4

Question Number : 80 Question Id : 9380661060 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The transmission Efficiency of a AM wave is given by

1. $\eta = \frac{\rho_s}{\rho_t} \times 100$
2. $\eta = \frac{\rho_t}{\rho_s} \times 100$
3. $\eta = \frac{\rho_A}{\rho_B} \times 100$
4. $\eta = \frac{1}{\rho_s \rho_e} \times 100$

Options :

9380664117. 1

9380664118. 2

9380664119. 3

9380664120. 4

Question Number : 81 Question Id : 9380661061 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

A spectrum analyzer is a

1. Time Domain Instrument
2. Frequency Domain Instrument
3. Both, time and frequency Domain
4. Voltage and current analyzer

Options :

9380664121. 1

9380664122. 2

9380664123. 3

9380664124. 4

Question Number : 81 Question Id : 9380661061 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

A spectrum analyzer is a

1. Time Domain Instrument
2. Frequency Domain Instrument
3. Both, time and frequency Domain
4. Voltage and current analyzer

Options :

9380664121. 1

9380664122. 2

9380664123. 3

9380664124. 4

Question Number : 82 Question Id : 9380661062 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

A step index fiber is an optical fibre with

1. Core with constant index of refraction n_1 and cladding with slight lower index of refraction n_2
2. n_1 is varying and n_2 is higher than n_1
3. n_1 and n_2 are same
4. $\frac{n_1}{n_2} = 1$

Options :

9380664125. 1

9380664126. 2

9380664127. 3

9380664128. 4

Question Number : 82 Question Id : 9380661062 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

A step index fiber is an optical fibre with

1. Core with constant index of refraction n_1 and cladding with slight lower index of refraction n_2
2. n_1 is varying and n_2 is higher than n_1
3. n_1 and n_2 are same
4. $\frac{n_1}{n_2}=1$

Options :
9380664125. 1
9380664126. 2
9380664127. 3
9380664128. 4

Question Number : 83 Question Id : 9380661063 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Choose the correct option for a $\frac{di}{dt}$ rating of a thyristor

1. Maximum rate of rise of current from anode to cathode without any harm to the device
2. Minimum rate of rise of current from anode to cathode without any harm to the device
3. The energy that the device can be absorb for a short time before fault is cleared
4. Heating of the resistive element such as metallic joints, leads and interfaces

Options :
9380664129. 1
9380664130. 2
9380664131. 3
9380664132. 4

Question Number : 83 Question Id : 9380661063 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Choose the correct option for a $\frac{di}{dt}$ rating of a thyristor

1. Maximum rate of rise of current from anode to cathode without any harm to the device
2. Minimum rate of rise of current from anode to cathode without any harm to the device
3. The energy that the device can be absorb for a short time before fault is cleared
4. Heating of the resistive element such as metallic joints, leads and interfaces

Options :
9380664129. 1
9380664130. 2
9380664131. 3
9380664132. 4

Question Number : 84 Question Id : 9380661064 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The main advantage of SMPS over conventional linear power supplies is

1. SMPS has lower output ripple and its regulation is superior
2. SMPS is a source of both electromagnetic and radio interface due to high frequency switching
3. SMPS is less sensitive to input voltage variations and is small in size and lighter in weight for same power rating
4. SMPS requires the use of filters on both input and output to control radio frequency noise

Options :

9380664133. 1

9380664134. 2

9380664135. 3

9380664136. 4

Question Number : 84 Question Id : 9380661064 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The main advantage of SMPS over conventional linear power supplies is

1. SMPS has lower output ripple and its regulation is superior
2. SMPS is a source of both electromagnetic and radio interface due to high frequency switching
3. SMPS is less sensitive to input voltage variations and is small in size and lighter in weight for same power rating
4. SMPS requires the use of filters on both input and output to control radio frequency noise

Options :

9380664133. 1

9380664134. 2

9380664135. 3

9380664136. 4

Question Number : 85 Question Id : 9380661065 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The switching characteristics of a power MOSFET are influenced to a large extent by

1. Internal capacitance and internal impedance of gate drive circuit
2. External impedance of source drive circuit
3. Internal capacitance and external impedance of drain terminal
4. External capacitance and external impedance of source terminal

Options :

9380664137. 1

9380664138. 2

9380664139. 3

9380664140. 4

Question Number : 85 Question Id : 9380661065 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The switching characteristics of a power MOSFET are influenced to a large extent by

1. Internal capacitance and internal impedance of gate drive circuit
2. External impedance of source drive circuit
3. Internal capacitance and external impedance of drain terminal
4. External capacitance and external impedance of source terminal

Options :

9380664137. 1

9380664138. 2

9380664139. 3

9380664140. 4

Question Number : 86 Question Id : 9380661066 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Choose the correct option in context to power transistor (MOSFET & BJT)

1. MOSFET has negative temperature coefficient and BJT has positive temperature coefficient
2. BJT has negative temperature coefficient and MOSFET has positive temperature coefficient
3. BJT is a voltage controlled device
4. MOSFET is a current controlled device

Options :

9380664141. 1

9380664142. 2

9380664143. 3

9380664144. 4

Question Number : 86 Question Id : 9380661066 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Choose the correct option in context to power transistor (MOSFET & BJT)

1. MOSFET has negative temperature coefficient and BJT has positive temperature coefficient
2. BJT has negative temperature coefficient and MOSFET has positive temperature coefficient
3. BJT is a voltage controlled device
4. MOSFET is a current controlled device

Options :

9380664141. 1

9380664142. 2

9380664143. 3

9380664144. 4

Question Number : 87 Question Id : 9380661067 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Frequency can be measured by using:

1. Maxwell's Bridge
2. Schering Bridge
3. Heaviside Compbell Bridge
4. Wien's Bridge

Options :

9380664145. 1

9380664146. 2

9380664147. 3

9380664148. 4

Question Number : 87 Question Id : 9380661067 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Frequency can be measured by using:

1. Maxwell's Bridge
2. Schering Bridge
3. Heaviside Compbell Bridge
4. Wien's Bridge

Options :

9380664145. 1

9380664146. 2

9380664147. 3

9380664148. 4

Question Number : 88 Question Id : 9380661068 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Strain gauge is a _____ transducer.

1. resistive type
2. capacitive type
3. Inductive type
4. active

Options :

9380664149. 1

9380664150. 2

9380664151. 3

9380664152. 4

Question Number : 88 Question Id : 9380661068 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Strain gauge is a _____ transducer.

1. resistive type
2. capacitive type
3. Inductive type
4. active

Options :

9380664149. 1

9380664150. 2

9380664151. 3

9380664152. 4

Question Number : 89 Question Id : 9380661069 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If the bandwidth of an oscilloscope is given as 10 MHz, what is the fastest rise time a sine wave can have to be accurately reproduced by the instrument?

1. 15 ns
2. 25 ns
3. 35 ns
4. 45 ns

Options :

9380664153. 1

9380664154. 2

9380664155. 3

9380664156. 4

Question Number : 89 Question Id : 9380661069 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If the bandwidth of an oscilloscope is given as 10 MHz, what is the fastest rise time a sine wave can have to be accurately reproduced by the instrument?

1. 15 ns
2. 25 ns
3. 35 ns
4. 45 ns

Options :

9380664153. 1

9380664154. 2

9380664155. 3

9380664156. 4

Question Number : 90 Question Id : 9380661070 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The resolution of $4\frac{1}{2}$ digit voltmeter is:

1. 0.01
2. 0.001
3. 0.0001
4. 0.00001

Options :

9380664157. 1

9380664158. 2

9380664159. 3

9380664160. 4

Question Number : 90 Question Id : 9380661070 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The resolution of $4\frac{1}{2}$ digit voltmeter is:

1. 0.01
2. 0.001
3. 0.0001
4. 0.00001

Options :

9380664157. 1

9380664158. 2

9380664159. 3

9380664160. 4

Question Number : 91 Question Id : 9380661071 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following semiconductors in the order of their use from top layer to bottom layer of multijunction solar cell

A. Ge
B. AlGaAs
C. GaInP
D. GaInAs

Choose the correct answer from the options given below:

1. C, B, D, A
2. A, B, C, D
3. C, D, A, B
4. A, C, D, B

Options :

9380664161. 1

9380664162. 2

9380664163. 3

9380664164. 4

Question Number : 91 Question Id : 9380661071 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following semiconductors in the order of their use from top layer to bottom layer of multijunction solar cell

A. Ge
B. AlGaAs
C. GaInP
D. GaInAs

Choose the correct answer from the options given below:

1. C, B, D, A
2. A, B, C, D
3. C, D, A, B
4. A, C, D, B

Options :

9380664161. 1

9380664162. 2

9380664163. 3

9380664164. 4

Question Number : 92 Question Id : 9380661072 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following in the correct sequence of steps for MOS fabrication

A. Wafer formation
B. Photolithography
C. Oxidation
D. Gate and source/drain formation
E. Metallization

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, D, C, B, A
3. A, C, B, D, E
4. A, D, B, C, E

Options :

9380664165. 1

9380664166. 2

9380664167. 3

9380664168. 4

Question Number : 92 Question Id : 9380661072 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following in the correct sequence of steps for MOS fabrication

A. Wafer formation
B. Photolithography
C. Oxidation
D. Gate and source/drain formation
E. Metallization

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, D, C, B, A
3. A, C, B, D, E
4. A, D, B, C, E

Options :

9380664165. 1

9380664166. 2

9380664167. 3

9380664168. 4

Question Number : 93 Question Id : 9380661073 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following technologies in terms of decreasing noise margin.

A. ECL
B. NMOS
C. CMOS
D. TTL

Choose the correct answer from the options given below:

1. A, B, C, D
2. B, C, D, A
3. C, B, D, A
4. D, C, B, A

Options :

9380664169. 1

9380664170. 2

9380664171. 3

9380664172. 4

Question Number : 93 Question Id : 9380661073 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following technologies in terms of decreasing noise margin.

A. ECL
B. NMOS
C. CMOS
D. TTL

Choose the correct answer from the options given below:

1. A, B, C, D
2. B, C, D, A
3. C, B, D, A
4. D, C, B, A

Options :

9380664169. 1

9380664170. 2

9380664171. 3

9380664172. 4

Question Number : 94 Question Id : 9380661074 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following in the sequence of steps for writing STATE EQUATION:-

A. Choose a normal tree for a network
B. Take either voltages or charges across the capacitor, which are tree branches and either currents or fluxes through inductors, which are co-tree chords
C. Write independent KVL, KCL and branch voltage current relations (VCR).
D. Rearrange the vector matrix differential equation for state variable representation.
E. Eliminate all non-state variables of the network

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, D, C, B, A
3. A, B, C, E, D
4. D, A, B, C, E

Options :

9380664173. 1

9380664174. 2

9380664175. 3

9380664176. 4

Question Number : 94 Question Id : 9380661074 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following in the sequence of steps for writing STATE EQUATION:-

A. Choose a normal tree for a network
B. Take either voltages or charges across the capacitor, which are tree branches and either currents or fluxes through inductors, which are co-tree chords
C. Write independent KVL, KCL and branch voltage current relations (VCR).
D. Rearrange the vector matrix differential equation for state variable representation.
E. Eliminate all non-state variables of the network

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, D, C, B, A
3. A, B, C, E, D
4. D, A, B, C, E

Options :

9380664173. 1

9380664174. 2

9380664175. 3

9380664176. 4

Question Number : 95 Question Id : 9380661075 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following class of power amplifiers in the order of increasing conduction angle.

A. Class - B
B. Class - C
C. Class - AB
D. Class - A
E. Class - D

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, C, D, A, B
3. E, B, A, C, D
4. D, C, B, A, E

Options :

9380664177. 1

9380664178. 2

9380664179. 3

9380664180. 4

Question Number : 95 Question Id : 9380661075 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following class of power amplifiers in the order of increasing conduction angle.

A. Class - B
B. Class - C
C. Class - AB
D. Class - A
E. Class - D

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. E, C, D, A, B
3. E, B, A, C, D
4. D, C, B, A, E

Options :

9380664177. 1

9380664178. 2

9380664179. 3

9380664180. 4

Question Number : 96 Question Id : 9380661076 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the given power amplifiers in the order of increasing power efficiency.

A. Class A
B. Class AB
C. Class B
D. Class C
E. Class D

Choose the correct answer from the options given below:

1. A, C, B, D, E
2. E, D, C, B, A
3. A, B, C, D, E
4. E, D, B, C, A

Options :

9380664181. 1

9380664182. 2

9380664183. 3

9380664184. 4

Question Number : 96 Question Id : 9380661076 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the given power amplifiers in the order of increasing power efficiency.

A. Class A
B. Class AB
C. Class B
D. Class C
E. Class D

Choose the correct answer from the options given below:

1. A, C, B, D, E
2. E, D, C, B, A
3. A, B, C, D, E
4. E, D, B, C, A

Options :

9380664181. 1

9380664182. 2

9380664183. 3

9380664184. 4

Question Number : 97 Question Id : 9380661077 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following programmable logic devices in the order of increasing complexity of their architecture.

A. PAL
B. SPLD
C. CPLD
D. FPGA

Choose the correct answer from the options given below:

1. A, B, C, D
2. A, C, B, D
3. D, C, B, A
4. D, B, C, A

Options :

9380664185. 1

9380664186. 2

9380664187. 3

9380664188. 4

Question Number : 97 Question Id : 9380661077 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following programmable logic devices in the order of increasing complexity of their architecture.

A. PAL
B. SPLD
C. CPLD
D. FPGA

Choose the correct answer from the options given below:

1. A, B, C, D
2. A, C, B, D
3. D, C, B, A
4. D, B, C, A

Options :

9380664185. 1

9380664186. 2

9380664187. 3

9380664188. 4

Question Number : 98 Question Id : 9380661078 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The location of flags in 8086 flag register in ascending order is

A. CY
B. T
C. D
D. Z
E. O

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. B, C, D, E, A
3. C, D, E, B, A
4. A, D, B, C, E

Options :

9380664189. 1

9380664190. 2

9380664191. 3

9380664192. 4

Question Number : 98 Question Id : 9380661078 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The location of flags in 8086 flag register in ascending order is

A. CY
B. T
C. D
D. Z
E. O

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. B, C, D, E, A
3. C, D, E, B, A
4. A, D, B, C, E

Options :

9380664189. 1

9380664190. 2

9380664191. 3

9380664192. 4

Question Number : 99 Question Id : 9380661079 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The ascending order of pin numbers of 8086MP is

A. NMI
B. INTR
C. LOCK
D. $\overline{RD}$
E. $MN/\overline{MX}$

Choose the correct answer from the options given below:

1. A, B, C, E, D
2. A, B, E, D, C
3. A, B, C, D, E
4. B, A, C, D, E

Options :
9380664193. 1
9380664194. 2
9380664195. 3
9380664196. 4

Question Number : 99 Question Id : 9380661079 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The ascending order of pin numbers of 8086MP is

A. NMI
B. INTR
C. LOCK
D. $\overline{RD}$
E. $MN/\overline{MX}$

Choose the correct answer from the options given below:

1. A, B, C, E, D
2. A, B, E, D, C
3. A, B, C, D, E
4. B, A, C, D, E

Options :
9380664193. 1
9380664194. 2
9380664195. 3
9380664196. 4

Question Number : 100 Question Id : 9380661080 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Electromagnetic wave in order of longest to shortest wavelength

A. Microwave
B. Radio wave
C. Visible light
D. Ultraviolet
E. Infrared

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. B, A, E, C, D
3. E, D, B, A, C
4. B, C, D, A, E

Options :

9380664197. 1

9380664198. 2

9380664199. 3

9380664200. 4

Question Number : 100 Question Id : 9380661080 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Electromagnetic wave in order of longest to shortest wavelength

A. Microwave
B. Radio wave
C. Visible light
D. Ultraviolet
E. Infrared

Choose the correct answer from the options given below:

1. A, B, C, D, E
2. B, A, E, C, D
3. E, D, B, A, C
4. B, C, D, A, E

Options :

9380664197. 1

9380664198. 2

9380664199. 3

9380664200. 4

Question Number : 101 Question Id : 9380661081 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The bandwidth with efficiency of M-ary PSK Signals with M=2, 4, 8, 16, 32 are

A. 0.5
B. 1.0
C. 1.5
D. 2.0
E. 2.5

Choose the correct answer from the options given below:

1. E, D, C, B, A
2. A, B, C, D, E
3. A, C, B, D, E
4. C, B, D, E, A

Options :

9380664201. 1

9380664202. 2

9380664203. 3

9380664204. 4

Question Number : 101 Question Id : 9380661081 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The bandwidth with efficiency of M-ary PSK Signals with M=2, 4, 8, 16, 32 are

A. 0.5
B. 1.0
C. 1.5
D. 2.0
E. 2.5

Choose the correct answer from the options given below:

1. E, D, C, B, A
2. A, B, C, D, E
3. A, C, B, D, E
4. C, B, D, E, A

Options :

9380664201. 1

9380664202. 2

9380664203. 3

9380664204. 4

Question Number : 102 Question Id : 9380661082 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The indirect method of generating a wideband FM signal involves:

A. Base band signal
B. Integrator
C. Narrow band phase modulator
D. Frequency multiplier

Choose the correct answer from the options given below:

1. A, C, D, B
2. C, A, B, D
3. D, A, B, C
4. A, B, C, D

Options :

9380664205. 1

9380664206. 2

9380664207. 3

9380664208. 4

Question Number : 102 Question Id : 9380661082 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The indirect method of generating a wideband FM signal involves:

A. Base band signal
B. Integrator
C. Narrow band phase modulator
D. Frequency multiplier

Choose the correct answer from the options given below:

1. A, C, D, B
2. C, A, B, D
3. D, A, B, C
4. A, B, C, D

Options :

9380664205. 1

9380664206. 2

9380664207. 3

9380664208. 4

Question Number : 103 Question Id : 9380661083 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following components in order they appear in a negative feedback control system

A. Error detector
B. Plant output
C. Setpoint
D. Control actuator
E. Controller

Choose the correct answer from the options given below:

1. A, C, B, D, E
2. C, A, E, D, B
3. C, E, A, D, B
4. A, E, C, D, B

Options :

9380664209. 1

9380664210. 2

9380664211. 3

9380664212. 4

Question Number : 103 Question Id : 9380661083 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Arrange the following components in order they appear in a negative feedback control system

A. Error detector
B. Plant output
C. Setpoint
D. Control actuator
E. Controller

Choose the correct answer from the options given below:

1. A, C, B, D, E
2. C, A, E, D, B
3. C, E, A, D, B
4. A, E, C, D, B

Options :

9380664209. 1

9380664210. 2

9380664211. 3

9380664212. 4

Question Number : 104 Question Id : 9380661084 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In five ammeters, the full-scale deflection current of meter is 1mA. The internal resistance (Rm) shunt resistance (Rsh) values are given below. Arrange the ammeters in ascending order of current ranges.

A. Rm = 10 Ω, Rsh = 0.17 Ω
B. Rm = 60 Ω, Rsh = 0.06 Ω
C. Rm = 30 Ω, Rsh = 0.38 Ω
D. Rm = 80 Ω, Rsh = 1.63 Ω
E. Rm = 100 Ω, Rsh = 1.01 Ω

Choose the correct answer from the options given below:

1. B, D, E, A, C
2. B, D, A, C, E
3. A, B, D, E, C
4. D, A, E, C, B

Options :

9380664213. 1

9380664214. 2

9380664215. 3

9380664216. 4

Question Number : 104 Question Id : 9380661084 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In five ammeters, the full-scale deflection current of meter is 1mA. The internal resistance (Rm) shunt resistance (Rsh) values are given below. Arrange the ammeters in ascending order of current ranges.

A. Rm = 10 Ω, Rsh = 0.17 Ω
B. Rm = 60 Ω, Rsh = 0.06 Ω
C. Rm = 30 Ω, Rsh = 0.38 Ω
D. Rm = 80 Ω, Rsh = 1.63 Ω
E. Rm = 100 Ω, Rsh = 1.01 Ω

Choose the correct answer from the options given below:

1. B, D, E, A, C
2. B, D, A, C, E
3. A, B, D, E, C
4. D, A, E, C, B

Options :

9380664213. 1

9380664214. 2

9380664215. 3

9380664216. 4

Question Number : 105 Question Id : 9380661085 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following materials in descending order (maximum to minimum) of their Hall-effect coefficient (K_H)

A. As
B. Fe
C. Si
D. Te

Choose the correct answer from the options given below:

1. A, B, D, C
2. D, A, C, B
3. D, A, B, C
4. C, D, B, A

Options :
9380664217. 1
9380664218. 2
9380664219. 3
9380664220. 4

Question Number : 105 Question Id : 9380661085 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Arrange the following materials in descending order (maximum to minimum) of their Hall-effect coefficient (K_H)

A. As
B. Fe
C. Si
D. Te

Choose the correct answer from the options given below:

1. A, B, D, C
2. D, A, C, B
3. D, A, B, C
4. C, D, B, A

Options :
9380664217. 1
9380664218. 2
9380664219. 3
9380664220. 4

Question Number : 106 Question Id : 9380661086 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. Degenerative semiconductors are lightly doped semiconductor.
B. The mobility of GaAs is higher than silicon.
C. LEDs are made up of direct band semiconductor.
D. In a diode, the width of depletion region increases with the increase in doping of p and n regions.

Choose the correct answer from the options given below:

1. A and C only
2. B and C only
3. A and B only
4. B and D only

Options :

9380664221. 1

9380664222. 2

9380664223. 3

9380664224. 4

Question Number : 106 Question Id : 9380661086 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. Degenerative semiconductors are lightly doped semiconductor.
B. The mobility of GaAs is higher than silicon.
C. LEDs are made up of direct band semiconductor.
D. In a diode, the width of depletion region increases with the increase in doping of p and n regions.

Choose the correct answer from the options given below:

1. A and C only
2. B and C only
3. A and B only
4. B and D only

Options :

9380664221. 1

9380664222. 2

9380664223. 3

9380664224. 4

Question Number : 107 Question Id : 9380661087 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are correct for an N channel FETs?

A. N channel FET has larger electron mobility than P channel FETs.
B. N channel FET has electrons as current carriers.
C. N channel FET has more noise than P channel FET.
D. N channel FET has larger transconductance than P channel FETs.

Choose the correct answer from the options given below:

1. A, B, C only
2. A, B, D only
3. A, C, D only
4. B, C, D only

Options :

9380664225. 1

9380664226. 2

9380664227. 3

9380664228. 4

Question Number : 107 Question Id : 9380661087 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are correct for an N channel FETs?

A. N channel FET has larger electron mobility than P channel FETs.
B. N channel FET has electrons as current carriers.
C. N channel FET has more noise than P channel FET.
D. N channel FET has larger transconductance than P channel FETs.

Choose the correct answer from the options given below:

1. A, B, C only
2. A, B, D only
3. A, C, D only
4. B, C, D only

Options :

9380664225. 1

9380664226. 2

9380664227. 3

9380664228. 4

Question Number : 108 Question Id : 9380661088 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

For Bode plot of a system to be stable

A. Phase margin and gain margin should be positive
B. Phase margin and gain margin should be negative
C. Stability of system is independent of gain margin and phase margin
D. Stability of system is dependent of gain margin and phase margin

Choose the correct answer from the options given below:

1. C only
2. A, B only
3. A, D only
4. B, D only

Options :

9380664229. 1

9380664230. 2

9380664231. 3

9380664232. 4

Question Number : 108 Question Id : 9380661088 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

For Bode plot of a system to be stable

A. Phase margin and gain margin should be positive
B. Phase margin and gain margin should be negative
C. Stability of system is independent of gain margin and phase margin
D. Stability of system is dependent of gain margin and phase margin

Choose the correct answer from the options given below:

1. C only
2. A, B only
3. A, D only
4. B, D only

Options :

9380664229. 1

9380664230. 2

9380664231. 3

9380664232. 4

Question Number : 109 Question Id : 9380661089 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. Frequency of output waveform of a full-wave bridge rectifier is twice of the input waveform.
B. Frequency of output waveform of a half-wave bridge rectifier is twice of the input waveform.
C. Frequency of output waveform of a full-wave bridge rectifier is same as the input waveform.
D. Frequency of output waveform of a half-wave rectifier is same as the input waveform.
E. The dc level at the output of half-wave rectifier is same as the full-wave bridge rectifier.

Choose the correct answer from the options given below:

1. B and E only
2. A and E only
3. C and E only
4. A and D only

Options :

9380664233. 1

9380664234. 2

9380664235. 3

9380664236. 4

Question Number : 109 Question Id : 9380661089 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. Frequency of output waveform of a full-wave bridge rectifier is twice of the input waveform.
B. Frequency of output waveform of a half-wave bridge rectifier is twice of the input waveform.
C. Frequency of output waveform of a full-wave bridge rectifier is same as the input waveform.
D. Frequency of output waveform of a half-wave rectifier is same as the input waveform.
E. The dc level at the output of half-wave rectifier is same as the full-wave bridge rectifier.

Choose the correct answer from the options given below:

1. B and E only
2. A and E only
3. C and E only
4. A and D only

Options :

9380664233. 1

9380664234. 2

9380664235. 3

9380664236. 4

Question Number : 110 Question Id : 9380661090 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. 2-to-1 multiplexers can be used to implement any logic function.
B. Three 2-input NAND gates can be used to implement the logic function $F = A \cdot B + C$
C. Static random access memory (SRAM) can retain information even after the power supply is switched OFF.
D. Read only memory (ROM) is a volatile memory.
E. Dynamic RAM (DRAM) is the fastest memory.

Choose the correct answer from the options given below:

1. B and C only
2. A and B only
3. C and D only
4. D and E only

Options :

9380664237. 1

9380664238. 2

9380664239. 3

9380664240. 4

Question Number : 110 Question Id : 9380661090 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. 2-to-1 multiplexers can be used to implement any logic function.
B. Three 2-input NAND gates can be used to implement the logic function $F = A \cdot B + C$
C. Static random access memory (SRAM) can retain information even after the power supply is switched OFF.
D. Read only memory (ROM) is a volatile memory.
E. Dynamic RAM (DRAM) is the fastest memory.

Choose the correct answer from the options given below:

1. B and C only
2. A and B only
3. C and D only
4. D and E only

Options :

9380664237. 1

9380664238. 2

9380664239. 3

9380664240. 4

Question Number : 111 Question Id : 9380661091 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. 8259 is Programmable Interrupt Controller
B. Interrupts (hardware) are Synchronous in nature.
C. 8086 has 20 address lines.
D. $\overline{RQ}/\overline{G_1}$ and $\overline{RQ}/\overline{GT_0}$, are used in Minimum mode operation of 8086
E. 8087 is a co-processor

Choose the correct answer from the options given below:

1. A and B only
2. A, B and C only
3. A, C and E only
4. C, D and E only

Options :
9380664241. 1
9380664242. 2
9380664243. 3
9380664244. 4

Question Number : 111 Question Id : 9380661091 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. 8259 is Programmable Interrupt Controller
B. Interrupts (hardware) are Synchronous in nature.
C. 8086 has 20 address lines.
D. $\overline{RQ}/\overline{G_1}$ and $\overline{RQ}/\overline{GT_0}$, are used in Minimum mode operation of 8086
E. 8087 is a co-processor

Choose the correct answer from the options given below:

1. A and B only
2. A, B and C only
3. A, C and E only
4. C, D and E only

Options :
9380664241. 1
9380664242. 2
9380664243. 3
9380664244. 4

Question Number : 112 Question Id : 9380661092 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

An n-type GaAs Gunn diode has the following parameters drift velocity (Vd) = 10^7 cm/s, Doping concentration = 2 x 10^{14} cm^{-3}, and electric field = 3200 V/cm. Choose the correct option:

A. Current density = 320 A/cm^2
B. Electron mobility = 3100 $cm^2/v\text{-}s$
C. Current density = 120 A/cm^2
D. Electron mobility = 1450 $cm^2/v\text{-}s$
E. Electron mobility = 1500 $cm^2/v\text{-}s$

Choose the correct answer from the options given below:

1. A and B only
2. A and E only
3. C and D only
4. D only

Options :
9380664245. 1
9380664246. 2
9380664247. 3
9380664248. 4

Question Number : 112 Question Id : 9380661092 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

An n-type GaAs Gunn diode has the following parameters drift velocity (Vd) = 10^7 cm/s, Doping concentration = 2 x 10^{14} cm^{-3}, and electric field = 3200 V/cm. Choose the correct option:

A. Current density = 320 A/cm^2
B. Electron mobility = 3100 $cm^2/v\text{-}s$
C. Current density = 120 A/cm^2
D. Electron mobility = 1450 $cm^2/v\text{-}s$
E. Electron mobility = 1500 $cm^2/v\text{-}s$

Choose the correct answer from the options given below:

1. A and B only
2. A and E only
3. C and D only
4. D only

Options :
9380664245. 1
9380664246. 2
9380664247. 3
9380664248. 4

Question Number : 113 Question Id : 9380661093 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. If $g(t) \rightleftharpoons G(f)$, then $G(t) \rightleftharpoons g(-f)$ is duality property
B. Mixer is not the basic element of superhtrodyane AM receiver
C. The power spectral density of a wide sense stationary random process is always Negative
D. Typical RF carrier range for FM radio is 88–108GHz
E. Typical RF carrier range for AM radio is 0.535–1.605 MHz

Choose the correct answer from the options given below:

1. B, C, D only
2. A, B, C only
3. C, D only
4. A, E only

Options :
9380664249. 1
9380664250. 2
9380664251. 3
9380664252. 4

Question Number : 113 Question Id : 9380661093 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. If $g(t) \rightleftharpoons G(f)$, then $G(t) \rightleftharpoons g(-f)$ is duality property
B. Mixer is not the basic element of superhtrodyane AM receiver
C. The power spectral density of a wide sense stationary random process is always Negative
D. Typical RF carrier range for FM radio is 88–108GHz
E. Typical RF carrier range for AM radio is 0.535–1.605 MHz

Choose the correct answer from the options given below:

1. B, C, D only
2. A, B, C only
3. C, D only
4. A, E only

Options :
9380664249. 1
9380664250. 2
9380664251. 3
9380664252. 4

Question Number : 114 Question Id : 9380661094 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

A system is said to be stable, if:

A. The output is unbounded for bounded input
B. The output is bounded for bounded input
C. All roots of characteristics equation has positive real part
D. All roots of characteristics equation has negative real part
E. All roots are in left half of s-plane

Choose the correct answer from the options given below:

1. B, C and E only
2. A, D and E only
3. B, D and E only
4. D and E only

Options :

9380664253. 1

9380664254. 2

9380664255. 3

9380664256. 4

Question Number : 114 Question Id : 9380661094 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

A system is said to be stable, if:

A. The output is unbounded for bounded input
B. The output is bounded for bounded input
C. All roots of characteristics equation has positive real part
D. All roots of characteristics equation has negative real part
E. All roots are in left half of s-plane

Choose the correct answer from the options given below:

1. B, C and E only
2. A, D and E only
3. B, D and E only
4. D and E only

Options :

9380664253. 1

9380664254. 2

9380664255. 3

9380664256. 4

Question Number : 115 Question Id : 9380661095 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. Dual trace oscilloscope can be used in alternate and chop modes but not in x-y mode.
B. Lissajous patterns are obtained in x-y mode
C. Phosphor storage CRT have longer CRT life than mesh storage CRT.
D. DC coupling is useful for low-frequency and low repetition rate signals.
E. Sampling is done in cathode ray oscilloscopes.

Choose the correct answer from the options given below:

1. A and C only
2. A, B and E only
3. B and D only
4. B, C and D only

Options :

9380664257. 1

9380664258. 2

9380664259. 3

9380664260. 4

Question Number : 115 Question Id : 9380661095 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. Dual trace oscilloscope can be used in alternate and chop modes but not in x-y mode.
B. Lissajous patterns are obtained in x-y mode
C. Phosphor storage CRT have longer CRT life than mesh storage CRT.
D. DC coupling is useful for low-frequency and low repetition rate signals.
E. Sampling is done in cathode ray oscilloscopes.

Choose the correct answer from the options given below:

1. A and C only
2. A, B and E only
3. B and D only
4. B, C and D only

Options :

9380664257. 1

9380664258. 2

9380664259. 3

9380664260. 4

Question Number : 116 Question Id : 9380661096 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. In solar cells, the open circuit voltage varies linearly with the illumination of light.
B. In solar cells, the short circuit current varies linearly with the illumination of light.
C. In solar cells, the short circuit current is fairly constant with the illumination of light.
D. Polycrystalline silicon solar cells have better efficiency levels than single-crystal silicon solar cells.

Choose the correct answer from the options given below:

1. A only
2. B only
3. A and C only
4. B and D only

Options :

9380664261. 1

9380664262. 2

9380664263. 3

9380664264. 4

Question Number : 116 Question Id : 9380661096 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. In solar cells, the open circuit voltage varies linearly with the illumination of light.
B. In solar cells, the short circuit current varies linearly with the illumination of light.
C. In solar cells, the short circuit current is fairly constant with the illumination of light.
D. Polycrystalline silicon solar cells have better efficiency levels than single-crystal silicon solar cells.

Choose the correct answer from the options given below:

1. A only
2. B only
3. A and C only
4. B and D only

Options :

9380664261. 1

9380664262. 2

9380664263. 3

9380664264. 4

Question Number : 117 Question Id : 9380661097 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true for optical photoresists

A. Solubility of a photo-resist changes on exposure to light in developer solution.
B. Solubility of a photo-resist does not change on exposure to light in developer solution.
C. A negative photo-resist on exposure to light becomes less soluble in developer solution.
D. A positive photo-resist on exposure to light becomes more soluble in developer solution.

Choose the correct answer from the options given below:

1. B only
2. A and C only
3. A and B only
4. A, C and D only

Options :

9380664265. 1

9380664266. 2

9380664267. 3

9380664268. 4

Question Number : 117 Question Id : 9380661097 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true for optical photoresists

A. Solubility of a photo-resist changes on exposure to light in developer solution.
B. Solubility of a photo-resist does not change on exposure to light in developer solution.
C. A negative photo-resist on exposure to light becomes less soluble in developer solution.
D. A positive photo-resist on exposure to light becomes more soluble in developer solution.

Choose the correct answer from the options given below:

1. B only
2. A and C only
3. A and B only
4. A, C and D only

Options :

9380664265. 1

9380664266. 2

9380664267. 3

9380664268. 4

Question Number : 118 Question Id : 9380661098 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Thevenin's Resistance (R_{th}) is determined when all the:

A. Voltage sources are open circulated
B. Current sources are short circulated
C. Current sources are open circulated
D. Voltage sources are short circulated
E. All the sources are kept as it is.

Choose the correct answer from the options given below:

1. E only
2. A and C only
3. C and D only
4. A and B only

Options :
9380664269. 1
9380664270. 2
9380664271. 3
9380664272. 4

Question Number : 118 Question Id : 9380661098 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Thevenin's Resistance (R_{th}) is determined when all the:

A. Voltage sources are open circulated
B. Current sources are short circulated
C. Current sources are open circulated
D. Voltage sources are short circulated
E. All the sources are kept as it is.

Choose the correct answer from the options given below:

1. E only
2. A and C only
3. C and D only
4. A and B only

Options :
9380664269. 1
9380664270. 2
9380664271. 3
9380664272. 4

Question Number : 119 Question Id : 9380661099 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. MOSFET is biased in saturation region for amplifier applications.
B. MOSFET is biased in linear region for amplifier applications.
C. BJT is biased in saturation region for amplifier applications.
D. BJT is biased in ACTIVE region for amplifier applications.
E. MOSFET is biased in saturation region for realising a resistor.

Choose the correct answer from the options given below:

1. A and C only
2. B and D only
3. A and D only
4. C and E only

Options :

9380664273. 1

9380664274. 2

9380664275. 3

9380664276. 4

Question Number : 119 Question Id : 9380661099 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. MOSFET is biased in saturation region for amplifier applications.
B. MOSFET is biased in linear region for amplifier applications.
C. BJT is biased in saturation region for amplifier applications.
D. BJT is biased in ACTIVE region for amplifier applications.
E. MOSFET is biased in saturation region for realising a resistor.

Choose the correct answer from the options given below:

1. A and C only
2. B and D only
3. A and D only
4. C and E only

Options :

9380664273. 1

9380664274. 2

9380664275. 3

9380664276. 4

Question Number : 120 Question Id : 9380661100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. Flip-flops may also be referred to on bistable multivibrator
B. A maximum of 2^n logic functions can be implemented with n variables.
C. Dynamic hazards may occur in asynchronous sequential circuits.
D. Static hazards may occur in synchronous sequential circuits.
E. Hardware Description Language (HDL) is used for analog circuit design entry.

Choose the correct answer from the options given below:

1. A and B only
2. B and E only
3. B and D only
4. A and C only

Options :
9380664277. 1
9380664278. 2
9380664279. 3
9380664280. 4

Question Number : 120 Question Id : 9380661100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true?

A. Flip-flops may also be referred to on bistable multivibrator
B. A maximum of 2^n logic functions can be implemented with n variables.
C. Dynamic hazards may occur in asynchronous sequential circuits.
D. Static hazards may occur in synchronous sequential circuits.
E. Hardware Description Language (HDL) is used for analog circuit design entry.

Choose the correct answer from the options given below:

1. A and B only
2. B and E only
3. B and D only
4. A and C only

Options :
9380664277. 1
9380664278. 2
9380664279. 3
9380664280. 4

Question Number : 121 Question Id : 9380661101 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. 8051 is an 8-bit microcontroller.
B. 8051 has an overflow flag.
C. 8051 has five interrupts.
D. 8051 has also indexed addressing mode.
E. CJNE is an instruction in 8051 microcontroller.

Choose the correct answer from the options given below:

1. A and B only
2. A and C only
3. A, B, C, D, E
4. A and D only

Options :

9380664281. 1

9380664282. 2

9380664283. 3

9380664284. 4

Question Number : 121 Question Id : 9380661101 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. 8051 is an 8-bit microcontroller.
B. 8051 has an overflow flag.
C. 8051 has five interrupts.
D. 8051 has also indexed addressing mode.
E. CJNE is an instruction in 8051 microcontroller.

Choose the correct answer from the options given below:

1. A and B only
2. A and C only
3. A, B, C, D, E
4. A and D only

Options :

9380664281. 1

9380664282. 2

9380664283. 3

9380664284. 4

Question Number : 122 Question Id : 9380661102 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Choose the correct option in term of transmission lines:

A. characteristic impedance $Z_o = \sqrt{\frac{R + j\omega L}{G + j\omega C}}$

B. phase constant $\beta = \omega\sqrt{LC}$

C. characteristic impedance $Z_o = \sqrt{\frac{R + j\omega C}{G + j\omega L}}$

D. phase constant $\beta = L\sqrt{\omega C}$

E. phase velocity $V_P = \frac{1}{\sqrt{LC}}$

Choose the correct answer from the options given below:

1. E only
2. C, D, E only
3. A, B, E only
4. A, D, E only

Options :

9380664285. 1

9380664286. 2

9380664287. 3

9380664288. 4

Question Number : 122 Question Id : 9380661102 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Choose the correct option in term of transmission lines:

A. characteristic impedance $Z_o = \sqrt{\frac{R + j\omega L}{G + j\omega C}}$

B. phase constant $\beta = \omega\sqrt{LC}$

C. characteristic impedance $Z_o = \sqrt{\frac{R + j\omega C}{G + j\omega L}}$

D. phase constant $\beta = L\sqrt{\omega C}$

E. phase velocity $V_P = \frac{1}{\sqrt{LC}}$

Choose the correct answer from the options given below:

1. E only
2. C, D, E only
3. A, B, E only
4. A, D, E only

Options :

9380664285. 1

9380664286. 2

9380664287. 3

9380664288. 4

Question Number : 123 Question Id : 9380661103 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A. Congugate functions are the property of Fourier transform

B. $P_R = \frac{P_T G_T G_R}{L_P}$ is the Friis equation

C. The increase of power level from 13 to 36 watts is 8

D. Auto correlation function of a real valued energy signal is a real value odd function

E. $\int_{-\infty}^{\infty} |g(t)|^2 dt = \int_{0}^{\infty} |G(f)|^2 df$

Choose the correct answer from the options given below:

1. C, D only
2. D, E only
3. A, B only
4. C, E only

Options :

9380664289. 1

9380664290. 2

9380664291. 3

9380664292. 4

Question Number : 123 Question Id : 9380661103 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A. Congugate functions are the property of Fourier transform

B. $P_R = \frac{P_T G_T G_R}{L_P}$ is the Friis equation

C. The increase of power level from 13 to 36 watts is 8

D. Auto correlation function of a real valued energy signal is a real value odd function

E. $\int_{-\infty}^{\infty} |g(t)|^2 dt = \int_{0}^{\infty} |G(f)|^2 df$

Choose the correct answer from the options given below:

1. C, D only
2. D, E only
3. A, B only
4. C, E only

Options :

9380664289. 1

9380664290. 2

9380664291. 3

9380664292. 4

Question Number : 124 Question Id : 9380661104 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Choose the correct option for a thyristor

A. A p-n-p-n semiconductor device
B. A three junction semiconductor device
C. When anode is positive with respect to cathode is a forward blocking mode
D. When a cathode is positive with respect to anode with switch open is reverse blocking mode
E. When cathode is positive with respect to anode in a forward blocking mode.

Choose the correct answer from the options given below:

1. A only
2. A and E only
3. A and B only
4. A, B, C and D only

Options :

9380664293. 1

9380664294. 2

9380664295. 3

9380664296. 4

Question Number : 124 Question Id : 9380661104 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Choose the correct option for a thyristor

A. A p-n-p-n semiconductor device
B. A three junction semiconductor device
C. When anode is positive with respect to cathode is a forward blocking mode
D. When a cathode is positive with respect to anode with switch open is reverse blocking mode
E. When cathode is positive with respect to anode in a forward blocking mode.

Choose the correct answer from the options given below:

1. A only
2. A and E only
3. A and B only
4. A, B, C and D only

Options :

9380664293. 1

9380664294. 2

9380664295. 3

9380664296. 4

Question Number : 125 Question Id : 9380661105 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. Lithium sulphate is a common Piezo-electric material .
B. Hall effect transducer used as magnetic to electric transducer are very sensitive to temperature variations.
C. LVDT is not sensitive to stray magnetic fields.
D. MEMS technology is used to design sensors at micro-meter scale.
E. Piezo-electric crystals can not be used as inverse transducers.

Choose the correct answer from the options given below:

1. A, C and E only
2. B, C and D only
3. B, D and E only
4. A, B and D only

Options :
9380664297. 1
9380664298. 2
9380664299. 3
9380664300. 4

Question Number : 125 Question Id : 9380661105 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

In the following statements:

A. Lithium sulphate is a common Piezo-electric material .
B. Hall effect transducer used as magnetic to electric transducer are very sensitive to temperature variations.
C. LVDT is not sensitive to stray magnetic fields.
D. MEMS technology is used to design sensors at micro-meter scale.
E. Piezo-electric crystals can not be used as inverse transducers.

Choose the correct answer from the options given below:

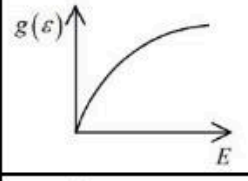
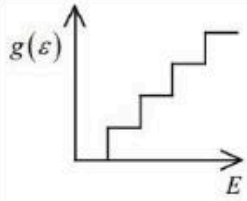
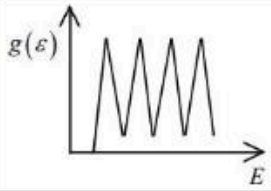
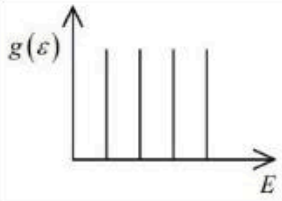
1. A, C and E only
2. B, C and D only
3. B, D and E only
4. A, B and D only

Options :
9380664297. 1
9380664298. 2
9380664299. 3
9380664300. 4

Question Number : 126 Question Id : 9380661106 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I **Low Dimensional Structures**		**LIST-II** **Density of state vs energy**	
A.	Quantum Dot	I.	
B.	Quantum wire	II.	
C.	Quantum well	III.	
D.	Bulk	IV.	

Choose the ***correct*** answer from the options given below:

1. A-IV, B-III, C-II, D-I
2. A-I, B-II, C-III, D-IV
3. A-I, B-III, C-II, D-IV
4. A-IV, B-II, C-I, D-III

Options :

9380664301. 1

9380664302. 2

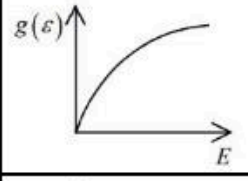
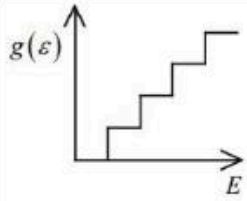
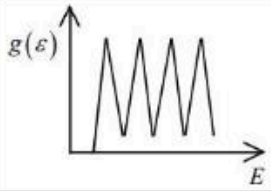
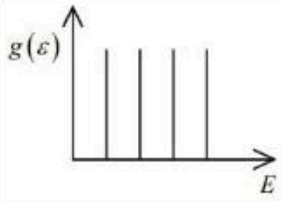
9380664303. 3

9380664304. 4

Question Number : 126 Question Id : 9380661106 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I **Low Dimensional Structures**		**LIST-II** **Density of state vs energy**	
A.	Quantum Dot	I.	
B.	Quantum wire	II.	
C.	Quantum well	III.	
D.	Bulk	IV.	

Choose the ***correct*** answer from the options given below:

1. A-IV, B-III, C-II, D-I
2. A-I, B-II, C-III, D-IV
3. A-I, B-III, C-II, D-IV
4. A-IV, B-II, C-I, D-III

Options :

9380664301. 1

9380664302. 2

9380664303. 3

9380664304. 4

Question Number : 127 Question Id : 9380661107 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Graphene	I.	Chirality
B.	Carbon Nano Tube (CNT)	II.	High thermal conductivity
C.	ZnO	III.	Sp^2 hybridization
D.	SiC	IV.	Wide bandgap and high transparency

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-IV, D-I
2. A-III, B-I, C-IV, D-II
3. A-I, B-II, C-IV, D-III
4. A-IV, B-III, C-II, D-I

Options :

9380664305. 1

9380664306. 2

9380664307. 3

9380664308. 4

Question Number : 127 Question Id : 9380661107 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Graphene	I.	Chirality
B.	Carbon Nano Tube (CNT)	II.	High thermal conductivity
C.	ZnO	III.	Sp^2 hybridization
D.	SiC	IV.	Wide bandgap and high transparency

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-IV, D-I
2. A-III, B-I, C-IV, D-II
3. A-I, B-II, C-IV, D-III
4. A-IV, B-III, C-II, D-I

Options :

9380664305. 1

9380664306. 2

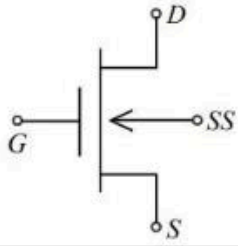
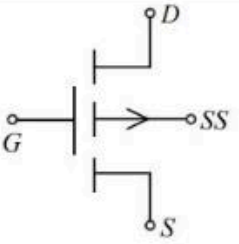
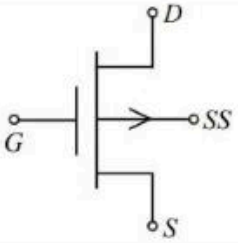
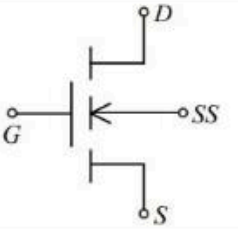
9380664307. 3

9380664308. 4

Question Number : 128 Question Id : 9380661108 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.		I.	n channel depletion type MOSFET
B.		II.	P channel depletion type MOSFET
C.		III.	n channel enhancement type MOSFET
D.		IV.	p channel enhancement type MOSFET

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-I, B-IV, C-II, D-III
3. A-I, B-III, C-II, D-IV
4. A-IV, B-III, C-II, D-I

Options :

9380664309. 1

9380664310. 2

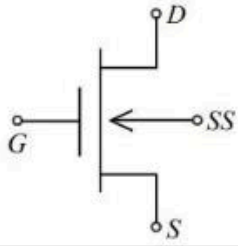
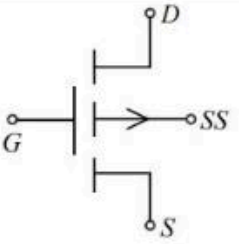
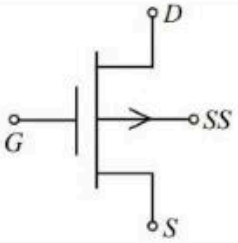
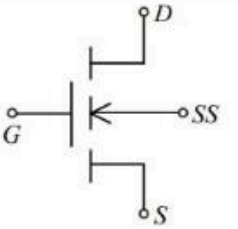
9380664311. 3

9380664312. 4

Question Number : 128 Question Id : 9380661108 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.		I.	n channel depletion type MOSFET
B.		II.	P channel depletion type MOSFET
C.		III.	n channel enhancement type MOSFET
D.		IV.	p channel enhancement type MOSFET

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-I, B-IV, C-II, D-III
3. A-I, B-III, C-II, D-IV
4. A-IV, B-III, C-II, D-I

Options :

9380664309. 1

9380664310. 2

9380664311. 3

9380664312. 4

Question Number : 129 Question Id : 9380661109 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Input Impedance with output short circuited	I.	h_{11}
B.	Reverse Voltage Gain with input open circuited	II.	h_{12}
C.	Forward Current Gain with output short circuited	III.	h_{21}
D.	Output Admittance with Input open circuited	IV.	h_{22}

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-IV, B-III, C-II, D-I
3. A-I, B-III, C-II, D-IV
4. A-III, B-IV, C-II, D-I

Options :

9380664313. 1

9380664314. 2

9380664315. 3

9380664316. 4

Question Number : 129 Question Id : 9380661109 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Input Impedance with output short circuited	I.	h_{11}
B.	Reverse Voltage Gain with input open circuited	II.	h_{12}
C.	Forward Current Gain with output short circuited	III.	h_{21}
D.	Output Admittance with Input open circuited	IV.	h_{22}

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-IV, B-III, C-II, D-I
3. A-I, B-III, C-II, D-IV
4. A-III, B-IV, C-II, D-I

Options :

9380664313. 1

9380664314. 2

9380664315. 3

9380664316. 4

Question Number : 130 Question Id : 9380661110 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Superposition Theoram	I.	Z-parameter
B.	Routh - Hurwitz Criterion	II.	Linearity
C.	Open Circuit Impendence	III.	Stability
D.	Short Circuit Admittance	IV.	Y-Parameter

Choose the ***correct*** answer from the options given below:

1. A-IV, B-III, C-II, D-I
2. A-II, B-III, C-I, D-IV
3. A-II, B-III, C-IV, D-I
4. A-I, B-III, C-II, D-IV

Options :

9380664317. 1

9380664318. 2

9380664319. 3

9380664320. 4

Question Number : 130 Question Id : 9380661110 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Superposition Theoram	I.	Z-parameter
B.	Routh - Hurwitz Criterion	II.	Linearity
C.	Open Circuit Impendence	III.	Stability
D.	Short Circuit Admittance	IV.	Y-Parameter

Choose the ***correct*** answer from the options given below:

1. A-IV, B-III, C-II, D-I
2. A-II, B-III, C-I, D-IV
3. A-II, B-III, C-IV, D-I
4. A-I, B-III, C-II, D-IV

Options :

9380664317. 1

9380664318. 2

9380664319. 3

9380664320. 4

Question Number : 131 Question Id : 9380661111 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Low Pass Filters	I.	High gain at high frequencies
B.	High Pass Filters	II.	Very small gain at high frequencies
C.	Band Pass Filters	III.	Very small gain for a band of frequencies
D.	Band Reject Filters	IV.	High gain for a band of frequencies

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-IV, D-III
2. A-II, B-I, C-IV, D-III
3. A-II, B-IV, C-I, D-III
4. A-I, B-II, C-III, D-IV

Options :

9380664321. 1

9380664322. 2

9380664323. 3

9380664324. 4

Question Number : 131 Question Id : 9380661111 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Low Pass Filters	I.	High gain at high frequencies
B.	High Pass Filters	II.	Very small gain at high frequencies
C.	Band Pass Filters	III.	Very small gain for a band of frequencies
D.	Band Reject Filters	IV.	High gain for a band of frequencies

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-IV, D-III
2. A-II, B-I, C-IV, D-III
3. A-II, B-IV, C-I, D-III
4. A-I, B-II, C-III, D-IV

Options :

9380664321. 1

9380664322. 2

9380664323. 3

9380664324. 4

Question Number : 132 Question Id : 9380661112 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	CMOS logic family	I.	highest packing density
B.	ECL logic family	II.	least static power dissipation
C.	TTL logic family	III.	highest speed of operation
D.	Prendo NMOS logic family	IV.	multiple emitter transistors are use

Choose the ***correct*** answer from the options given below:

1. A-II, B-IV, C-I, D-III
2. A-II, B-III, C-IV, D-I
3. A-I, B-III, C-IV, D-II
4. A-II, B-III, C-I, D-IV

Options :

9380664325. 1

9380664326. 2

9380664327. 3

9380664328. 4

Question Number : 132 Question Id : 9380661112 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	CMOS logic family	I.	highest packing density
B.	ECL logic family	II.	least static power dissipation
C.	TTL logic family	III.	highest speed of operation
D.	Prendo NMOS logic family	IV.	multiple emitter transistors are use

Choose the ***correct*** answer from the options given below:

1. A-II, B-IV, C-I, D-III
2. A-II, B-III, C-IV, D-I
3. A-I, B-III, C-IV, D-II
4. A-II, B-III, C-I, D-IV

Options :

9380664325. 1

9380664326. 2

9380664327. 3

9380664328. 4

Question Number : 133 Question Id : 9380661113 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Flash ADC	I.	Constant conversion time
B.	Successive Approximation ADC	II.	1-bit quantization
C.	Dual-slope ADC	III.	Used in measuring instruments
D.	Sigma Delta ADC	IV.	Fastest ADC

Choose the ***correct*** answer from the options given below:

1. A-I, B-IV, C-III, D-II
2. A-III, B-IV, C-I, D-II
3. A-I, B-II, C-III, D-IV
4. A-IV, B-I, C-III, D-II

Options :

9380664329. 1

9380664330. 2

9380664331. 3

9380664332. 4

Question Number : 133 Question Id : 9380661113 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Flash ADC	I.	Constant conversion time
B.	Successive Approximation ADC	II.	1-bit quantization
C.	Dual-slope ADC	III.	Used in measuring instruments
D.	Sigma Delta ADC	IV.	Fastest ADC

Choose the ***correct*** answer from the options given below:

1. A-I, B-IV, C-III, D-II
2. A-III, B-IV, C-I, D-II
3. A-I, B-II, C-III, D-IV
4. A-IV, B-I, C-III, D-II

Options :

9380664329. 1

9380664330. 2

9380664331. 3

9380664332. 4

Question Number : 134 Question Id : 9380661114 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Microcontroller	I.	6-byte Instruction Queue
B.	8086	II.	8257
C.	DMA Controller	III.	8259
D.	Programmable Interrupt Controller	IV.	8051

Choose the ***correct*** answer from the options given below:

1. A-I, B-III, C-II, D-IV
2. A-II, B-IV, C-I, D-III
3. A-IV, B-I, C-II, D-III
4. A-I, B-II, C-III, D-IV

Options :

9380664333. 1

9380664334. 2

9380664335. 3

9380664336. 4

Question Number : 134 Question Id : 9380661114 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Microcontroller	I.	6-byte Instruction Queue
B.	8086	II.	8257
C.	DMA Controller	III.	8259
D.	Programmable Interrupt Controller	IV.	8051

Choose the ***correct*** answer from the options given below:

1. A-I, B-III, C-II, D-IV
2. A-II, B-IV, C-I, D-III
3. A-IV, B-I, C-II, D-III
4. A-I, B-II, C-III, D-IV

Options :

9380664333. 1

9380664334. 2

9380664335. 3

9380664336. 4

Question Number : 135 Question Id : 9380661115 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Divergence theorem	I.	$Q = \iiint P_v \cdot dv$
B.	Stokes theorem	II.	$\oiint \vec{A} \cdot \vec{ds} = \iiint \nabla \cdot \vec{A} \cdot dv$
C.	Gauss Law	III.	$\oint \vec{F} \cdot \vec{dl} = \iint \left(\nabla \times \vec{F}\right) \cdot \vec{ds}$
D.	Poisson's equation	IV.	$\nabla^2 v = -\frac{P_v}{\varepsilon}$

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-I, B-II, C-IV, D-III
3. A-II, B-I, C-IV, D-III
4. A-IV, B-III, C-II, D-I

Options :

9380664337. 1

9380664338. 2

9380664339. 3

9380664340. 4

Question Number : 135 Question Id : 9380661115 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Divergence theorem	I.	$Q = \iiint P_v \cdot dv$
B.	Stokes theorem	II.	$\oiint \vec{A} \cdot \vec{ds} = \iiint \nabla \cdot \vec{A} \cdot dv$
C.	Gauss Law	III.	$\oint \vec{F} \cdot \vec{dl} = \iint \left(\nabla \times \vec{F}\right) \cdot \vec{ds}$
D.	Poisson's equation	IV.	$\nabla^2 v = -\frac{P_v}{\varepsilon}$

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-I, B-II, C-IV, D-III
3. A-II, B-I, C-IV, D-III
4. A-IV, B-III, C-II, D-I

Options :

9380664337. 1

9380664338. 2

9380664339. 3

9380664340. 4

Question Number : 136 Question Id : 9380661116 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Standing Wave Ration (SWR)	I.	$\sqrt{(R+j\omega L)(G+j\omega L)}$
B.	Reflection Coefficient (τ)	II.	$\sqrt{\frac{R+j\omega L}{G+j\omega L}}$
C.	Propagation Constant (γ)	III.	$\frac{Z_L - Z_O}{Z_L + Z_O}$
D.	Characteristic Impedance (Z_o)	IV.	$\frac{1+\lvert\tau\rvert}{1-\lvert\tau\rvert}$

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-IV, D-I
2. A-IV, B-III, C-I, D-II
3. A-IV, B-II, C-III, D-I
4. A-IV, B-I, C-II, D-III

Options :

9380664341. 1

9380664342. 2

9380664343. 3

9380664344. 4

Question Number : 136 Question Id : 9380661116 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Standing Wave Ration (SWR)	I.	$\sqrt{(R+j\omega L)(G+j\omega L)}$
B.	Reflection Coefficient (τ)	II.	$\sqrt{\frac{R+j\omega L}{G+j\omega L}}$
C.	Propagation Constant (γ)	III.	$\frac{Z_L - Z_O}{Z_L + Z_O}$
D.	Characteristic Impedance (Z_o)	IV.	$\frac{1+\lvert\tau\rvert}{1-\lvert\tau\rvert}$

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-IV, D-I
2. A-IV, B-III, C-I, D-II
3. A-IV, B-II, C-III, D-I
4. A-IV, B-I, C-II, D-III

Options :

9380664341. 1

9380664342. 2

9380664343. 3

9380664344. 4

Question Number : 137 Question Id : 9380661117 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Sinc (λ)	I.	White Noise
B.	Power spectral density is independent of operating frequency	II.	Knowledge of a probabilistic model of the source
C.	M-ary PAM System	III.	1 baud = $\log_2$ M bits/sec
D.	Huffman code requires	IV.	$\frac{\sin(\pi\lambda)}{\pi\lambda}$

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-IV, B-III, C-II, D-I
3. A-IV, B-I, C-III, D-II
4. A-III, B-II, C-I, D-IV

Options :

9380664345. 1

9380664346. 2

9380664347. 3

9380664348. 4

Question Number : 137 Question Id : 9380661117 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Sinc (λ)	I.	White Noise
B.	Power spectral density is independent of operating frequency	II.	Knowledge of a probabilistic model of the source
C.	M-ary PAM System	III.	1 baud = $\log_2$ M bits/sec
D.	Huffman code requires	IV.	$\frac{\sin(\pi\lambda)}{\pi\lambda}$

Choose the ***correct*** answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-IV, B-III, C-II, D-I
3. A-IV, B-I, C-III, D-II
4. A-III, B-II, C-I, D-IV

Options :

9380664345. 1

9380664346. 2

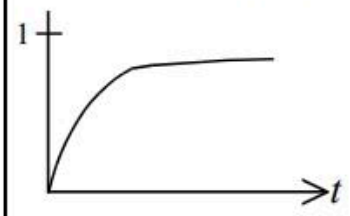
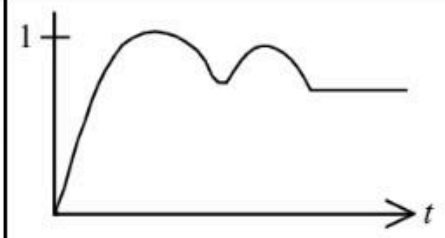
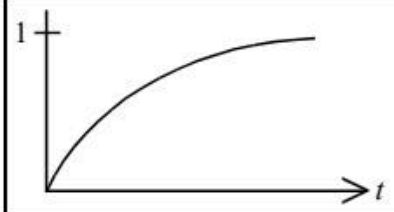
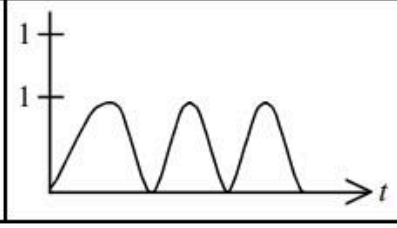
9380664347. 3

9380664348. 4

Question Number : 138 Question Id : 9380661118 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I Transfer function		**LIST-II Step response**
A.	$\frac{25}{S^2+25}$	I.	
B.	$\frac{36}{S^2+70S+36}$	II.	
C.	$\frac{36}{S^2+12S+36}$	III.	
D.	$\frac{36}{S^2+7S+49}$	IV.	

Choose the ***correct*** answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-IV, B-III, C-I, D-II
3. A-IV, B-II, C-III, D-I
4. A-III, B-IV, C-I, D-II

Options :

9380664349. 1

9380664350. 2

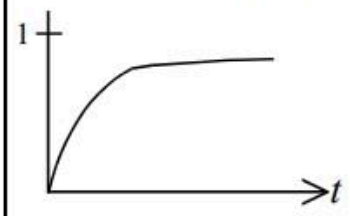
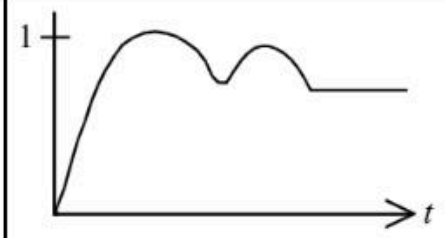
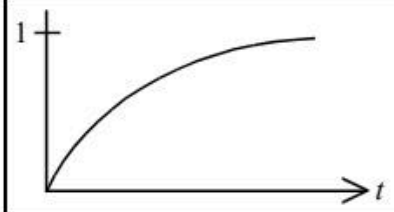
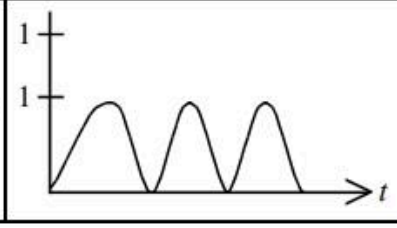
9380664351. 3

9380664352. 4

Question Number : 138 Question Id : 9380661118 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

	LIST-I Transfer function		**LIST-II Step response**
A.	$\frac{25}{S^2+25}$	I.	
B.	$\frac{36}{S^2+70S+36}$	II.	
C.	$\frac{36}{S^2+12S+36}$	III.	
D.	$\frac{36}{S^2+7S+49}$	IV.	

Choose the ***correct*** answer from the options given below:

1. A-II, B-I, C-IV, D-III
2. A-IV, B-III, C-I, D-II
3. A-IV, B-II, C-III, D-I
4. A-III, B-IV, C-I, D-II

Options :

9380664349. 1

9380664350. 2

9380664351. 3

9380664352. 4

Question Number : 139 Question Id : 9380661119 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I **Damping coefficient (δ)**		**LIST-II** **Step response**	
A.	$\delta = 0$	I.	Underdamped
B.	$\delta < 1$	II.	Undamped
C.	$\delta = 1$	III.	Overdamped
D.	$\delta > 1$	IV.	Critically damped

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-I, C-III, D-IV
3. A-IV, B-III, C-I, D-II
4. A-II, B-I, C-IV, D-III

Options :

9380664353. 1

9380664354. 2

9380664355. 3

9380664356. 4

Question Number : 139 Question Id : 9380661119 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I **Damping coefficient (δ)**		**LIST-II** **Step response**	
A.	$\delta = 0$	I.	Underdamped
B.	$\delta < 1$	II.	Undamped
C.	$\delta = 1$	III.	Overdamped
D.	$\delta > 1$	IV.	Critically damped

Choose the ***correct*** answer from the options given below:

1. A-II, B-III, C-I, D-IV
2. A-II, B-I, C-III, D-IV
3. A-IV, B-III, C-I, D-II
4. A-II, B-I, C-IV, D-III

Options :

9380664353. 1

9380664354. 2

9380664355. 3

9380664356. 4

Question Number : 140 Question Id : 9380661120 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Miner	I.	Frequency measurement
B.	Gating Error	II.	ECG
C.	QRS wave	III.	Spectrum Analyzer
D.	C-shaped bourdon	IV.	Pressure Transducer

Choose the ***correct*** answer from the options given below:

1. A-III, B-IV, C-II, D-I
2. A-II, B-I, C-III, D-IV
3. A-IV, B-II, C-III, D-I
4. A-III, B-I, C-II, D-IV

Options :

9380664357. 1

9380664358. 2

9380664359. 3

9380664360. 4

Question Number : 140 Question Id : 9380661120 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

Match the **LIST-I** with **LIST-II**

LIST-I		LIST-II	
A.	Miner	I.	Frequency measurement
B.	Gating Error	II.	ECG
C.	QRS wave	III.	Spectrum Analyzer
D.	C-shaped bourdon	IV.	Pressure Transducer

Choose the ***correct*** answer from the options given below:

1. A-III, B-IV, C-II, D-I
2. A-II, B-I, C-III, D-IV
3. A-IV, B-II, C-III, D-I
4. A-III, B-I, C-II, D-IV

Options :

9380664357. 1

9380664358. 2

9380664359. 3

9380664360. 4

Sub-Section Number : 2

Sub-Section Id : 93806647

Question Shuffling Allowed : No

Question Id : 9380661121 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (141 to 145)

Read the following passage and answer the question:

Moore's Law states that the number of transistors on a chip doubles nearly every two years. MOSFET scaling has been pursued by the semiconductor industry for more than five decades to keep track of the Moore's Law. Over the period of more than five decades, various scaling techniques such as constant field scaling, constant voltage scaling and lately Hybrid scaling have been used. Decades of technology scaling has offered tremendous increase in the component density and speed of operation. However, technology scaling also results into increased leakage power and short channel effects. Therefore, the circuit designers need to account for these short-channel effects while designing circuits. In this journey of technology scaling various novel materials and novel transistor structures have been introduced to contain the short channel effects and to continue with technology scaling.

Sub questions

Question Number : 141 Question Id : 9380661122 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A constant voltage scaling with scaling factor S=0.7 is used to scale a MOSFET. The speed of scaled MOSFET will increase by nearly _____ times.

1. 0.7
2. 1.43
3. 1
4. 2

Options :

9380664361. 1

9380664362. 2

9380664363. 3

9380664364. 4

Question Number : 142 Question Id : 9380661123 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

One of the short channel effects referred to as Drain-induced Barrier Lowering (DIBL) results into _____

1. increase in threshold voltage with increase in V_{DS}
2. increase in gate oxide capacitance
3. decrease in threshold voltage with increase in V_{DS}
4. decrease in threshold voltage with decrease in V_{DS}

Options :

9380664365. 1

9380664366. 2

9380664367. 3

9380664368. 4

Question Number : 143 Question Id : 9380661124 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What will be the change in power dissipation of a MOSFET when scaled using constant voltage scaling with scaling factor S = 0.7?

1. 1.43 times increase
2. 4.43 folds decrease
3. 0.7 times increase
4. 0.49 times increase

Options :

9380664369. 1

9380664370. 2

9380664371. 3

9380664372. 4

Question Number : 144 Question Id : 9380661125 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In constant field scaling with scaling factor S = 0.7, the power density of scaled device is _____ times the power density of unscaled device.

1. 1.43
2. 1
3. 0.49
4. 0.7

Options :

9380664373. 1

9380664374. 2

9380664375. 3

9380664376. 4

Question Number : 145 Question Id : 9380661126 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In constant field scaling with scaling factor S=0.7, the ON current in scaled device is ____ times the ON current in unscaled device.

1. 1.43
2. 0.7
3. 0.49
4. 2

Options :

9380664377. 1

9380664378. 2

9380664379. 3

9380664380. 4

Question Id : 9380661121 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (141 to 145)

Read the following passage and answer the question:

Moore's Law states that the number of transistors on a chip doubles nearly every two years. MOSFET scaling has been pursued by the semiconductor industry for more than five decades to keep track of the Moore's Law. Over the period of more than five decades, various scaling techniques such as constant field scaling, constant voltage scaling and lately Hybrid scaling have been used. Decades of technology scaling has offered tremendous increase in the component density and speed of operation. However, technology scaling also results into increased leakage power and short channel effects. Therefore, the circuit designers need to account for these short-channel effects while designing circuits. In this journey of technology scaling various novel materials and novel transistor structures have been introduced to contain the short channel effects and to continue with technology scaling.

Sub questions

Question Number : 141 Question Id : 9380661122 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

A constant voltage scaling with scaling factor S=0.7 is used to scale a MOSFET. The speed of scaled MOSFET will increase by nearly _____ times.

1. 0.7
2. 1.43
3. 1
4. 2

Options :

9380664361. 1

9380664362. 2

9380664363. 3

9380664364. 4

Question Number : 142 Question Id : 9380661123 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

One of the short channel effects referred to as Drain-induced Barrier Lowering (DIBL) results into _____

1. increase in threshold voltage with increase in V_{DS}
2. increase in gate oxide capacitance
3. decrease in threshold voltage with increase in V_{DS}
4. decrease in threshold voltage with decrease in V_{DS}

Options :

9380664365. 1

9380664366. 2

9380664367. 3

9380664368. 4

Question Number : 143 Question Id : 9380661124 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

What will be the change in power dissipation of a MOSFET when scaled using constant voltage scaling with scaling factor S = 0.7?

1. 1.43 times increase
2. 4.43 folds decrease
3. 0.7 times increase
4. 0.49 times increase

Options :

9380664369. 1

9380664370. 2

9380664371. 3

9380664372. 4

Question Number : 144 Question Id : 9380661125 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In constant field scaling with scaling factor S = 0.7, the power density of scaled device is _____ times the power density of unscaled device.

1. 1.43
2. 1
3. 0.49
4. 0.7

Options :

9380664373. 1

9380664374. 2

9380664375. 3

9380664376. 4

Question Number : 145 Question Id : 9380661126 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

In constant field scaling with scaling factor S=0.7, the ON current in scaled device is ____ times the ON current in unscaled device.

1. 1.43
2. 0.7
3. 0.49
4. 2

Options :

9380664377. 1

9380664378. 2

9380664379. 3

9380664380. 4

Sub-Section Number : 3

Sub-Section Id : 93806648

Question Shuffling Allowed : No

Question Id : 9380661127 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (146 to 150)

Read the following passage and answer the question:

In past few decades, many new technologies have come up and they are extensively used for communication purposes. Three such technologies are satellite communication, optical communication and mobile communication. These technologies have become very popular and their knowledge is mandatory for any communication student. While the satellite communication can be considered as extension of line-of-sight microwave communication and uses free space as medium of communication, the optical communication uses optical region of EM spectrum (50nm to 100μm) which includes visible light spectrum lying between 400nm (violet) to 700nm (red) wavelength. The optical communication usually takes place through optic fibers. Mobile communication has huge impact on our lives during the last two decades. Today, mobile communication is used for the transmission of data, voice, video, internet and other value-added services. In mobile communication, the service area is divided into small geographical areas called cells. The cells are formed with an objection of frequency re-use. Each cell has a base station consisting of low-power transmitters so that radiation is restricted to respective cell boundary. All the base stations are connected to a master telephones switching office (MT50) which monitors and controls the entire call processing.

Sub questions

Question Number : 146 Question Id : 9380661128 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The approximate height of the geostationary orbit from the earth's surface is:

1. 6,400 Km
2. 42,200 Km
3. 3,500 Km
4. 35,800 Km

Options :

9380664381. 1

9380664382. 2

9380664383. 3

9380664384. 4

Question Number : 147 Question Id : 9380661129 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

An optical fibre has a core refractive index of 1.45 and a cladding refractive index of 1.4. Assuming ray theory of analysis, what is the numerical aperture in air for fibre?

1. 0.3774
2. 0.4774
3. 0.5774
4. 0.6774

Options :

9380664385. 1

9380664386. 2

9380664387. 3

9380664388. 4

Question Number : 148 Question Id : 9380661130 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The detector used as optical detector at the receiver of optical communication link is:

1. LED
2. LASER
3. Avalanch Photodiode (APD)
4. Zener diode

Options :
9380664389. 1
9380664390. 2
9380664391. 3
9380664392. 4

Question Number : 149 Question Id : 9380661131 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If the cell coverage radius is R and the frequency re-use constant is K, the minimum frequency re-use distance D is given by:

1. $D = 3.k.R$
2. $D = \sqrt{3R}.k$
3. $D = \sqrt{3k}.R$
4. $D = \sqrt{3kR}$

Options :
9380664393. 1
9380664394. 2
9380664395. 3
9380664396. 4

Question Number : 150 Question Id : 9380661132 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The 4G network promises speed upto _____ in cell-phone, and up to _____ in Local W-Fi network.

1. 10 Mbps, 100 Mbps
2. 50 Mbps, 500 Mbps
3. 100 Mbps, 10 Gbps
4. 100 Mbps, 1 Gbps

Options :
9380664397. 1
9380664398. 2
9380664399. 3
9380664400. 4

Question Id : 9380661127 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (146 to 150)

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Sub questions

Question Number : 146 Question Id : 9380661128 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

The approximate height of the geostationary orbit from the earth's surface is:

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4. 35,800 Km

Options :

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9380664382. 2

9380664383. 3

9380664384. 4

Question Number : 147 Question Id : 9380661129 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No

Correct Marks : 2 Wrong Marks : 0

An optical fibre has a core refractive index of 1.45 and a cladding refractive index of 1.4. Assuming ray theory of analysis, what is the numerical aperture in air for fibre?

1. 0.3774
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4. 0.6774

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9380664385. 1

9380664386. 2

9380664387. 3

9380664388. 4

Question Number : 148 Question Id : 9380661130 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The detector used as optical detector at the receiver of optical communication link is:

1. LED
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4. Zener diode

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9380664390. 2
9380664391. 3
9380664392. 4

Question Number : 149 Question Id : 9380661131 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

If the cell coverage radius is R and the frequency re-use constant is K, the minimum frequency re-use distance D is given by:

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9380664394. 2
9380664395. 3
9380664396. 4

Question Number : 150 Question Id : 9380661132 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No
Correct Marks : 2 Wrong Marks : 0

The 4G network promises speed upto _____ in cell-phone, and up to _____ in Local W-Fi network.

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Options :
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9380664399. 3
9380664400. 4