National Testing Agency

Question Paper Name :	88 Electronic Science 23rd June 2026 Shift 2
Subject Name :	88 Electronic Science
Creation Date :	2026-06-23 19:47:12
Duration :	180
Total Marks :	300
Display Marks:	Yes

Electronic Science and General Paper

Group Number :	1
Group Id :	48180440
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	300

General Paper

Section Id :	48180485
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 :	481804251
Question Shuffling Allowed :	No
Is Section Default? :	No

Question Id : 4818046292 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

Study the following table and answer the questions 01 to 05.

The following table shows the constitution of students' population on the basis of certain demographic variables in four colleges:

College	Total no. of students	Rural : Urban	Male : Female	Percentage of Post-graduate within females
A	400	3:7	7:3	40%
B	500	1:4	4:1	60%
C	700	3:4	4:3	50%
D	600	1:1	2:1	30%

Sub questions

Question Number : 1 Question Id : 4818046293 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Total urban population of the students in colleges A and B is how much percent of total population of these two colleges?

1. 13.24%
2. 24.44%
3. 75.56%
4. 88.80%

Options :

48180424501. 1

48180424502. 2

48180424503. 3

48180424504. 4

Question Number : 2 Question Id : 4818046294 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What percentage of total number of female students in the colleges B, C and D are post-graduate?

1. 55%
2. 45%
3. 27.27%
4. 12.27%

Options :

48180424505. 1

48180424506. 2

48180424507. 3

48180424508. 4

Question Number : 3 Question Id : 4818046295 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What is the total number of urban students in all the four colleges?

1. 1380
2. 1680
3. 1100
4. 820

Options :

48180424509. 1

48180424510. 2

48180424511. 3

48180424512. 4

Question Number : 4 Question Id : 4818046296 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

How many female students are post graduate in total students of all the colleges?

1. 720
2. 318
3. 2200
4. 1100

Options :

48180424513. 1

48180424514. 2

48180424515. 3

48180424516. 4

Question Number : 5 Question Id : 4818046297 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The number of female students in college C is how much percent less than the number of male students in this college?

1. 1%
2. 15%
3. 25%
4. 75%

Options :

48180424517. 1

48180424518. 2

48180424519. 3

48180424520. 4

Question Id : 4818046292 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

निम्नलिखित सारणी का अध्ययन कीजिए और उसके बाद दिए गए प्रश्नों 01 से 05 के उत्तर दीजिए:

निम्नलिखित सारणी चार महाविद्यालयों में कुछ निश्चित जनांकिकीय चरों के आधार पर छात्रों की जनसंख्या की संरचना प्रदर्शित करती है:

महाविद्यालय	कुल छात्र	ग्रामीण : शहरी	पुरुष : महिला	महिलाओं में स्नातकोत्तर का प्रतिशत
A	400	3:7	7:3	40%
B	500	1:4	4:1	60%
C	700	3:4	4:3	50%
D	600	1:1	2:1	30%

Sub questions

Question Number : 1 Question Id : 4818046293 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

महाविद्यालयों A और B में शहरी छात्रों की कुल जनसंख्या इन दोनों महाविद्यालयों की कुल छात्र जनसंख्या की कितनी प्रतिशत है?

1. 13.24%
2. 24.44%
3. 75.56%
4. 88.80%

Options :

48180424501. 1

48180424502. 2

48180424503. 3

48180424504. 4

Question Number : 2 Question Id : 4818046294 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

महाविद्यालयों B, C और D में महिला छात्राओं की कुल संख्या की कितनी प्रतिशत स्नातकोत्तर हैं?

1. 55%
2. 45%
3. 27.27%
4. 12.27%

Options :

48180424505. 1
48180424506. 2
48180424507. 3
48180424508. 4

Question Number : 3 Question Id : 4818046295 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

चारों महाविद्यालयों में शहरी छात्रों की कुल संख्या कितनी है?

1. 1380
2. 1680
3. 1100
4. 820

Options :

48180424509. 1
48180424510. 2
48180424511. 3
48180424512. 4

Question Number : 4 Question Id : 4818046296 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

सारे महाविद्यालयों के कुल विद्यार्थियों में स्नातकोत्तर छात्राओं की कुल संख्या कितनी है?

1. 720
2. 318
3. 2200
4. 1100

Options :

48180424513. 1
48180424514. 2
48180424515. 3
48180424516. 4

Question Number : 5 Question Id : 4818046297 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

महाविद्यालय C में छात्राओं की संख्या इसी महाविद्यालय में छात्रों की संख्या से कितने प्रतिशत कम है?

1. 1%
2. 15%
3. 25%
4. 75%

Options :

48180424517. 1
48180424518. 2
48180424519. 3

48180424520. 4

Sub-Section Number :	2
Sub-Section Id :	481804252
Question Shuffling Allowed :	Yes
Is Section Default? :	No

Question Number : 6 Question Id : 4818046298 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

For the maxim of teaching, from known to unknown, the first thing to be focused by the teacher is -

1. Recapitulation
2. Presentation of the teacher
3. Content Selection
4. Previous knowledge of the learner

Options :

48180424521. 1

48180424522. 2

48180424523. 3

48180424524. 4

Question Number : 6 Question Id : 4818046298 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

शिक्षण सूत्र, ज्ञात से अज्ञात की ओर, के अनुसार शिक्षक को निम्नलिखित में से किस पर सबसे पहले ध्यान केंद्रित करना चाहिए-

1. दोहराव
2. शिक्षक की प्रस्तुति
3. विषय वस्तु का चयन
4. शिक्षार्थी का पूर्ववर्ती ज्ञान

Options :

48180424521. 1

48180424522. 2

48180424523. 3

48180424524. 4

Question Number : 7 Question Id : 4818046299 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The teacher is the only source of knowledge. This dictum justifies the teaching method:

1. Lecture method
2. Project method
3. Learner centric method
4. Outcome based method

Options :

48180424525. 1

48180424526. 2

48180424527. 3

48180424528. 4

Question Number : 7 Question Id : 4818046299 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

ज्ञान का एकमात्र स्रोत शिक्षक है। यह उक्ति किस शैक्षणिक विधि को तर्कसंगत ठहराती है?

1. व्याख्यान विधि
2. परियोजना विधि
3. शिक्षार्थी-केंद्रित विधि
4. परिणाम-आधारित विधि

Options :

48180424525. 1

48180424526. 2

48180424527. 3

48180424528. 4

Question Number : 8 Question Id : 4818046300 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following stages of personality development sequentially as proposed by Freud

A. Phallic
B. Oral
C. Anal
D. Genital
E. Latency

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

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

Options :

48180424529. 1

48180424530. 2

48180424531. 3

48180424532. 4

Question Number : 8 Question Id : 4818046300 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

फ्रायड द्वारा प्रस्तावित व्यक्तित्व विकास के निम्नलिखित चरणों को अनुक्रम में व्यवस्थित कीजिए:

A. लैंगिक अवस्था (फैलिक)
B. मुखीय अवस्था (ओरल)
C. गुदीय अवस्था (एनल)
D. जननांगीय (जेनाइटल)
E. सुषुप्तावस्था (लेटेन्सी)

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424529. 1

48180424530. 2
48180424531. 3
48180424532. 4

Question Number : 9 Question Id : 4818046301 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Select CORRECT statements pertaining to phases of teaching

A. Sequential arrangement of content is done during Pre-active phase
B. A quick review of interest, aptitude and ability of learners is a post-active phase
C. Formulation of objectives is a step in pre-active phase
D. Assessment is done in post-active phase
E. Evaluation is done to measure learning progress during Inter-active phase

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

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

Options :

48180424533. 1
48180424534. 2
48180424535. 3
48180424536. 4

Question Number : 9 Question Id : 4818046301 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

शिक्षण के चरणों से संबंधित सही कथनों का चयन कीजिए।

A. सक्रियता-पूर्व चरण में विषयवस्तु का क्रमवार व्यवस्थापन किया जाता है।
B. शिक्षार्थी की अभिरुचि, झुकाव और क्षमता की द्रुत समीक्षा एक सक्रियता-पूर्व चरण है।
C. उद्देश्यों का सूत्रीकरण एक सक्रियता-पूर्व चरण है।
D. आकलन सक्रियता-उपरांत चरण में होता है।
E. मूल्यांकन का काम अंतः-क्रिया चरण की अवधि में अधिगम की प्रगति मापने के लिए किया जाता है।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424533. 1
48180424534. 2
48180424535. 3
48180424536. 4

Question Number : 10 Question Id : 4818046302 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I Assessment		LIST-II Function	
A.	Norm-Referenced	I.	Position of the learner in the class
B.	Criterion Referenced	II.	Cut off marks
C.	Self Referenced	III.	Current behavior compared to earlier behavior
D.	Competency Based	IV.	Measures effective performance of task

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

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

Options :

48180424537. 1

48180424538. 2

48180424539. 3

48180424540. 4

Question Number : 10 Question Id : 4818046302 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

सूची-I आकलन		सूची-II प्रकार्य	
A.	मानक-संदर्भित	I.	कक्षा में शिक्षार्थी का स्थान
B.	कसौटी संदर्भित	II.	विभेदक (कट ऑफ़) अंक
C.	स्व-संदर्भित	III.	पूर्ववर्ती व्यवहार की तुलना में वर्तमान व्यवहार
D.	सक्षमता-आधारित	IV.	कार्य के प्रभावी निष्पादन को मापता है।

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

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

Options :

48180424537. 1

48180424538. 2

48180424539. 3

48180424540. 4

Question Number : 11 Question Id : 4818046303 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A study in which the researcher directly intervenes in and / or manipulates a natural setting in order to observe what happens as a consequence of that intervention is called as:

1. Field simulation
2. Field negotiation
3. Field disturbance
4. Field investigation

Options :

48180424541. 1

48180424542. 2

48180424543. 3

48180424544. 4

Question Number : 11 Question Id : 4818046303 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

जिस अध्ययन में शोधार्थी प्राकृतिक विन्यास में प्रत्यक्ष हस्तक्षेप करता है या उसमें हेर फेर करता है ताकि उस हस्तक्षेप के परिणाम का प्रेक्षण किया जा सके, उसे निम्न कहा जाता है:

1. क्षेत्र - अनुरूपण (सिमुलेशन)
2. क्षेत्र - मोलभाव
3. क्षेत्र - बाधित करना
4. क्षेत्र- अन्वेषण

Options :

48180424541. 1

48180424542. 2

48180424543. 3

48180424544. 4

Question Number : 12 Question Id : 4818046304 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the steps in hypothetico-deductive model

A. Data analysis
B. Observation
C. Framing hypothesis
D. Data collection
E. Reject/accept hypothesis

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

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

Options :

48180424545. 1

48180424546. 2

48180424547. 3

48180424548. 4

Question Number : 12 Question Id : 4818046304 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

प्राक्कल्पना - निगमनात्मक मॉडल के निम्न चरणों को व्यवस्थित कीजिए।

A. दत्त - विश्लेषण
B. प्रेक्षण/अवलोकन
C. प्राक्कल्पना सूत्रीकरण
D. दत्त - संग्रह
E. प्राक्कल्पना पुष्टि/ ख़ारिज

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424545. 1

48180424546. 2

48180424547. 3

48180424548. 4

Question Number : 13 Question Id : 4818046305 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following methods of data collection in terms of the personal involvement of researcher from high to low.

A. Structured interview
B. Unstructured interview
C. Questionnaire
D. Participant observation
E. Observation

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

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

Options :

48180424549. 1

48180424550. 2

48180424551. 3

48180424552. 4

Question Number : 13 Question Id : 4818046305 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

दत्त - संग्रह की निम्नलिखित विधियों की शोधार्थी की व्यक्तिगत भागीदारी के उच्चतर से निम्नतर के क्रम में व्यवस्थित कीजिए:

A. संरचित साक्षात्कार
B. असंरचित साक्षात्कार
C. प्रश्नावली
D. सहभागी प्रेक्षण
E. प्रेक्षण

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424549. 1

48180424550. 2

48180424551. 3

48180424552. 4

Question Number : 14 Question Id : 4818046306 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Some of the most useful code of ethics in social research have been formulated by -

A. British Sociological Association
B. German Sociological Society
C. Social Research Association
D. Austrian Psychological Association
E. The political & psychological research council

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

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

Options :

48180424553. 1

48180424554. 2

48180424555. 3

48180424556. 4

Question Number : 14 Question Id : 4818046306 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

सामाजिक अनुसंधान में कुछ सर्वाधिक उपयोगी आचार-नीति संहिताओं का सूत्रीकरण निम्न द्वारा किया गया है:

A. ब्रिटिश समाजशास्त्रीय संघ (एसोसिएशन)
B. जर्मन समाजशास्त्रीय सोसाइटी
C. सामाजिक अनुसंधान एसोसिएशन
D. ऑस्ट्रियाई मनोवैज्ञानिक एसोसिएशन
E. राजनैतिक और मनोवैज्ञानिक अनुसंधान परिषद्

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424553. 1
48180424554. 2
48180424555. 3
48180424556. 4

Question Number : 15 Question Id : 4818046307 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I Theorist		LIST-II Concept/Perspective	
A.	August Comte	I.	Falsification
B.	Karl Popper	II.	Interpretivism
C.	Max Weber	III.	Feminism
D.	Claire Wallace	IV.	Positivism

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

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

Options :

48180424557. 1
48180424558. 2
48180424559. 3
48180424560. 4

Question Number : 15 Question Id : 4818046307 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

सूची-I सिद्धांतकार		सूची-II संकल्पना/परिप्रेक्ष्य	
A.	ऑगस्ट काम्टे	I.	मिथ्याकरण
B.	कार्ल पॉपर	II.	अर्थापनवाद
C.	मैक्स वेबर	III.	नारीवाद
D.	क्लेयर वालेस	IV.	प्रत्यक्षवाद

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

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

Options :

48180424557. 1

48180424558. 2

48180424559. 3

48180424560. 4

Question Number : 16 Question Id : 4818046308 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

This term is derived from the French, meaning type or classification. It is used in literature and mostly in cinema to classify as a tragedy, epic, comedy, satire, action etc. What is this term?

1. A-la-carte
2. Typecast
3. Guild
4. Genre

Options :

48180424561. 1

48180424562. 2

48180424563. 3

48180424564. 4

Question Number : 16 Question Id : 4818046308 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

यह पद फ्रेंच भाषा से व्युत्पन्न है जिसका अर्थ प्रकार या वर्गीकरण होता है। इसका उपयोग साहित्य में और अधिकांशतः सिनेमा में होता है-त्रासदी, महाकाव्य, हास्य, व्यंग्य, मार-धाड़ आदि में वर्गीकृत करने के लिए। यह पद क्या है?

1. ए-ला-कार्ते
2. टाइप कास्ट
3. गिल्ड
4. जॉनर

Options :

48180424561. 1

48180424562. 2

48180424563. 3

48180424564. 4

Question Number : 17 Question Id : 4818046309 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following defines selective exposure?

1. The idea that you are more likely to recall things that support your beliefs, values and attitude
2. The idea that you are more likely to expose yourself to that which supports your beliefs, values and attitude
3. The idea that you are more likely to perceive and focus on things that support your beliefs, values and attitudes
4. News selection

Options :

48180424565. 1

48180424566. 2

48180424567. 3

48180424568. 4

Question Number : 17 Question Id : 4818046309 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित में से कौन चयनात्मक उद्भासन (सेलेक्टिव एक्सपोजर) को परिभाषित करता है:

1. वह विचार जिसके अनुसार आप द्वारा उन चीजों को दुबारा याद करने की संभावना ज्यादा है जो आपके विश्वासों, मूल्यों और अभिवृत्तियों का समर्थन करती हैं।
2. वह विचार जिसके अनुसार आप स्वयं को ऐसी चीजों से अधिक उद्भासित (एक्सपोज) करते है जो आपके विश्वासों, मूल्यों और अभिवृत्तियों का समर्थन करती हैं।
3. वह विचार जिसके अनुसार आप उन चीजों पर अधिक ध्यान देते हैं और समझते है जो आपके विश्वासों, मूल्यों और अभिवृत्तियों का समर्थन करती हैं।
4. समाचार चयन

Options :

48180424565. 1

48180424566. 2

48180424567. 3

48180424568. 4

Question Number : 18 Question Id : 4818046310 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following stages of transmission models of news learning mentioned in Denis Mcquil's book from start to end:

A. Comprehension
B. News item display
C. Learning
D. Actual Exposure
E. Recall

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

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

Options :

48180424569. 1
48180424570. 2
48180424571. 3
48180424572. 4

Question Number : 18 Question Id : 4818046310 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

डेनिस मैक्क्विल की पुस्तक में उल्लिखित समाचार-अधिगम के प्रसारण (ट्रांसमिशन) मॉडल के निम्नलिखित चरणों को व्यवस्थित कीजिए।

A. बोध
B. समाचार का प्रदर्शन
C. अधिगम
D. वास्तविक प्रभावन/उद्भासन (एक्सपोजर)
E. पुनः स्मरण

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424569. 1
48180424570. 2
48180424571. 3
48180424572. 4

Question Number : 19 Question Id : 4818046311 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Forms of interpersonal conflicts combine

A. Pervasive communication
B. Innovation Diffusion
C. Hostile episode
D. Agenda-setting model
E. Disagreeable communication

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

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

Options :

48180424573. 1
48180424574. 2
48180424575. 3
48180424576. 4

Question Number : 19 Question Id : 4818046311 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

अंतर्वैयक्तिक द्वन्द के प्रकारों में निम्न होते हैं:

A. व्यापक संचार
B. नवाचार विसरण
C. शत्रुतापूर्ण वृत्तांत/घटना
D. कार्यसूची - निर्धारण (एजेंडा सेटिंग) मॉडल
E. अस्वीकार्य संचार

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424573. 1
48180424574. 2
48180424575. 3
48180424576. 4

Question Number : 20 Question Id : 4818046312 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I Forms of message style		LIST-II Dialogue, examples	
A.	Threat	I.	I think you are great, would you clean the apartment
B.	Altruism	II.	I will make your favourite dinner if you clean the apartment
C.	Promise	III.	If you will not clean the apartment I am going to be mad
D.	Linking	IV.	For my sake clean the apartment, will you?

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

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

Options :

48180424577. 1
48180424578. 2
48180424579. 3
48180424580. 4

Question Number : 20 Question Id : 4818046312 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

	सूची-I संदेश शैली के रूप		**सूची-II संवाद, उदाहरण**
A.	धमकी	I.	मैं सोचता हूँ कि तुम महान हो, क्या तुम अपार्टमेंट साफ कर दोगे?
B.	परहितवाद	II.	यदि तुम अपार्टमेंट साफ कर दोगे तो मैं तुम्हारा पसंदीदा भोजन बनाऊंगा
C.	वचन देना	III.	यदि तुम अपार्टमेंट साफ नहीं करोगे तो मैं बहुत गुस्सा हो जाऊंगा
D.	जोड़ना/सम्बद्धन	IV.	मेरी खातिर, क्या तुम अपार्टमेंट साफ कर दोगे?

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

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

Options :

48180424577. 1

48180424578. 2

48180424579. 3

48180424580. 4

Question Number : 21 Question Id : 4818046313 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The sum of two numbers is 20 and the product of their LCM and HCF is 96. Then the sum of squares of these numbers is equal to:

1. 208
2. 582
3. 2308
4. 1033

Options :

48180424581. 1

48180424582. 2

48180424583. 3

48180424584. 4

Question Number : 21 Question Id : 4818046313 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

दो संख्याओं का योग 20 है और उनके लघुत्तम समापवर्त्य और महत्तम समापवर्तक का गुणनफल 96 है। इन संख्याओं के वर्गों का योग क्या है?

1. 208
2. 582
3. 2308
4. 1033

Options :

48180424581. 1

48180424582. 2

48180424583. 3

48180424584. 4

Question Number : 22 Question Id : 4818046314 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following in the decreasing order

A. LCM of 15, 20, 75
B. LCM of $\frac{25}{3}, \frac{40}{9}, \frac{50}{6}$
C. HCF of 600, 150, 675
D. LCM of 4, 6, 9
E. HCF of 0.5, 1.5, 3.5

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

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

Options :

48180424585. 1

48180424586. 2

48180424587. 3

48180424588. 4

Question Number : 22 Question Id : 4818046314 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित को घटते क्रम में लिखिये।

A. 15, 20, 75 का लघुत्तम समापवर्त्य
B. $\frac{25}{3}, \frac{40}{9}, \frac{50}{6}$ का लघुत्तम समापवर्त्य
C. 600, 150, 675 का महत्तम समापवर्तक
D. 4, 6, 9 का लघुत्तम समापवर्त्य
E. 0.5, 1.5, 3.5 का महत्तम समापवर्तक

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424585. 1

48180424586. 2

48180424587. 3

48180424588. 4

Question Number : 23 Question Id : 4818046315 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The average test score of a class of m students is 60 and that of n students is 81. When the scores of both classes are combined, then the average is 70. In this context, which of the following statements are correct?

A. $\frac{m+n}{m-n}=21$
B. $\frac{m}{m-n}=11$
C. $\frac{n}{n+m}=10$
D. $\frac{m}{m+n}=11$
E. $\frac{n}{m-n}=10$

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

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

Options :

48180424589. 1

48180424590. 2

48180424591. 3

48180424592. 4

Question Number : 23 Question Id : 4818046315 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

एम (m) छात्रों वाली एक कक्षा का औसत परीक्षण प्राप्तांक 60 है और एन (n) छात्रों वाली कक्षा का औसत प्राप्तांक 81 है। जब दोनों कक्षाओं के प्राप्तांक मिला दिए जाते है तो औसत 70 हो जाता है। इस संदर्भ में निम्नलिखित में से कौन से कथन सही हैं?

A. $\frac{m+n}{m-n}=21$
B. $\frac{m}{m-n}=11$
C. $\frac{n}{n+m}=10$
D. $\frac{m}{m+n}=11$
E. $\frac{n}{m-n}=10$

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424589. 1

48180424590. 2

48180424591. 3

48180424592. 4

Question Number : 24 Question Id : 4818046316 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

If $a=\frac{\sqrt{5}-2}{\sqrt{5}+2}$, then match the following

LIST-I		LIST-II	
A.	$a+\frac{1}{a}$	I.	$8\sqrt{5}$
B.	$\frac{1}{a}-a$	II.	161
C.	$\frac{1}{2}\left(a^2+\frac{1}{a^2}\right)$	III.	18
D.	$\frac{1}{a^2}-a^2$	IV.	$144\sqrt{5}$

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

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

Options :

48180424593. 1

48180424594. 2

48180424595. 3

48180424596. 4

Question Number : 24 Question Id : 4818046316 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

यदि $a=\frac{\sqrt{5}-2}{\sqrt{5}+2}$ है, तो निम्न का मिलान कीजिए:

सूची-I		सूची-II	
A.	$a+\frac{1}{a}$	I.	$8\sqrt{5}$
B.	$\frac{1}{a}-a$	II.	161
C.	$\frac{1}{2}\left(a^2+\frac{1}{a^2}\right)$	III.	18
D.	$\frac{1}{a^2}-a^2$	IV.	$144\sqrt{5}$

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

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

Options :

48180424593. 1

48180424594. 2

48180424595. 3

48180424596. 4

Question Number : 25 Question Id : 4818046317 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	$Sin^2 30° + Cos^2 30° + Sin\ 90°$	I.	4
B.	$Sin^2 45° + Cos^2 45° + Cos\ 90°$	II.	2
C.	$2\ Sin^2 60° + 2Cos^2 30° + Cos\ 0°$	III.	1
D.	$4\ Cos\ 60° + 2Cos^2 30° + 5\ Sin^2 45°$	IV.	6

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

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

Options :

48180424597. 1

48180424598. 2

48180424599. 3

48180424600. 4

Question Number : 25 Question Id : 4818046317 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

सूची-I		सूची-II	
A.	$Sin^2 30° + Cos^2 30° + Sin\ 90°$	I.	4
B.	$Sin^2 45° + Cos^2 45° + Cos\ 90°$	II.	2
C.	$2\ Sin^2 60° + 2Cos^2 30° + Cos\ 0°$	III.	1
D.	$4\ Cos\ 60° + 2Cos^2 30° + 5\ Sin^2 45°$	IV.	6

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

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

Options :

48180424597. 1

48180424598. 2

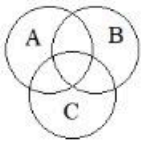
48180424599. 3

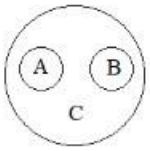
48180424600. 4

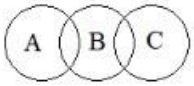
Question Number : 26 Question Id : 4818046318 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

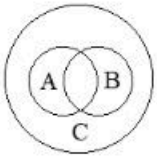
Select the Venn diagram that best illustrates the relationship among the following classes:

(A) Dogs (B) Pets (C) Cats

1. 

2. 

3. 

4. 

Options :

48180424601. 1

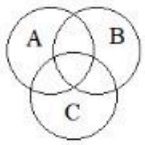
48180424602. 2

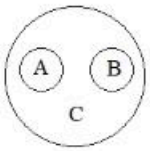
48180424603. 3

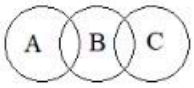
48180424604. 4

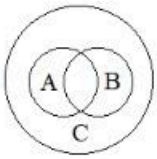
Question Number : 26 Question Id : 4818046318 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित वर्गों के बीच के संबंधों को सर्वोत्तम ढंग से प्रदर्शित करने वाले वेन आरेख का चयन कीजिए।
(A) कुत्ते (B) पालतू (C) बिल्लियाँ

1. 

2. 

3. 

4. 

Options :

48180424601. 1

48180424602. 2

48180424603. 3

48180424604. 4

Question Number : 27 Question Id : 4818046319 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following steps according to deductive reasoning

A. Data collection
B. Hypothesis
C. General principle (Theory)
D. Specific Result
E. Analysis

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

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

Options :

48180424605. 1

48180424606. 2

48180424607. 3

48180424608. 4

Question Number : 27 Question Id : 4818046319 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निगमनात्मक तर्कणा के अनुसार निम्न चरणों को व्यवस्थित कीजिए।

A. दत्त - संग्रह
B. प्राक्कल्पना
C. सामान्य सिद्धांत
D. विशिष्ट परिणाम
E. विश्लेषण

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424605. 1
48180424606. 2
48180424607. 3
48180424608. 4

Question Number : 28 Question Id : 4818046320 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements correctly explain the fallacy of hasty generalization?

A. It draws a general conclusion from insufficient evidence
B. It is also known as converse accident
C. It relies on large and representative samples
D. It often results in stereotypes
E. Anecdotal evidence is sufficient to justify generalization

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

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

Options :

48180424609. 1
48180424610. 2
48180424611. 3
48180424612. 4

Question Number : 28 Question Id : 4818046320 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित में से कौन से कथन जल्दबाजी में किए गए सामान्यीकरण के तर्क दोष को सही ढंग से व्याख्यायित करते हैं?

A. यह अपर्याप्त प्रमाणों से सामान्य निष्कर्ष निकालता है।
B. यह उपाधि - व्यत्यय - दोष भी कहलाता है।
C. यह बड़े और प्रतिनिधि प्रतिदर्श (सैंपल) पर आधारित होता है।
D. प्रायः इसके परिणाम रूढ़प्रारूप (स्टीरियोटाइप) होते हैं।
E. सामान्यीकरण को तर्कसंगत ठहराने के लिए उपाख्यानात्मक प्रमाण पर्याप्त है।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424609. 1
48180424610. 2
48180424611. 3
48180424612. 4

Question Number : 29 Question Id : 4818046321 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following pertain to the Denotation?

A. Extension
B. Intension
C. Area
D. Limit
E. Aim

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

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

Options :

48180424613. 1
48180424614. 2
48180424615. 3
48180424616. 4

Question Number : 29 Question Id : 4818046321 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित में से किनका संबंध वस्त्वर्थ (डिनोटेशन) से है?

A. विस्तार
B. अभिप्राय
C. क्षेत्र
D. सीमा
E. लक्ष्य/उद्देश्य

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

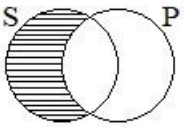
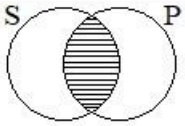
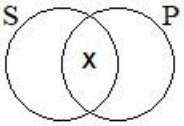
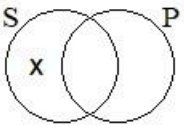
1. केवल A, C और D
2. केवल B, C और E
3. केवल A, D और E
4. केवल B, D और E

Options :

48180424613. 1
48180424614. 2
48180424615. 3
48180424616. 4

Question Number : 30 Question Id : 4818046322 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	A - proposition	I.	
B.	E - proposition	II.	
C.	I - proposition	III.	
D.	O - proposition	IV.	

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

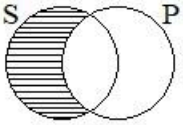
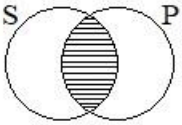
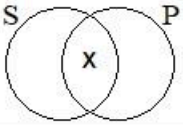
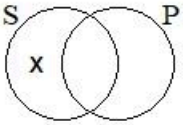
1. A-IV, B-III, C-II, D-I
2. A-II, B-III, C-I, D-IV
3. A-III, B-II, C-IV, D-I
4. A-I, B-II, C-III, D-IV

Options :

48180424617. 1
48180424618. 2
48180424619. 3
48180424620. 4

Question Number : 30 Question Id : 4818046322 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

सूची-I		सूची-II	
A.	A- तर्कवाक्य	I.	
B.	E- तर्कवाक्य	II.	
C.	I- तर्कवाक्य	III.	
D.	O- तर्कवाक्य	IV.	

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

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

Options :

48180424617. 1

48180424618. 2

48180424619. 3

48180424620. 4

Question Number : 31 Question Id : 4818046323 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Gyan Vani FM channel is run by:

1. AICTE
2. UGC
3. IGNOU
4. NIOS

Options :

48180424621. 1

48180424622. 2

48180424623. 3

48180424624. 4

Question Number : 31 Question Id : 4818046323 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

ज्ञान वाणी एफ एम चैनल कौन चलाता है?

1. ए आई सी टी ई
2. यू जी सी
3. आई जी एन ओ यू (इग्नू)
4. एन आई ओ एस

Options :

48180424621. 1

48180424622. 2

48180424623. 3

48180424624. 4

Question Number : 32 Question Id : 4818046324 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the steps followed to delete an E-mail permanently:

A. Click on Inbox of your email
B. Click delete, the e-mail will be sent to Trash folder
C. Confirm the clear/delete trash option, folder will get empty
D. Select checkbox corresponding to e-mails you want to delete
E. Click on Empty trash option

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

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

Options :

48180424625. 1

48180424626. 2

48180424627. 3

48180424628. 4

Question Number : 32 Question Id : 4818046324 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

एक ईमेल को स्थायी रूप से मिटाने (डिलीट करने) के चरणों को व्यवस्थित कीजिए।

A. अपनी ईमेल के इनबॉक्स पर क्लिक कीजिए
B. डिलीट पर क्लिक कीजिए, इमेल को ट्रैश (कचरा) फोल्डर में भेज दिया जाएगा।
C. क्लीयर/डिलीट विकल्प का चयन करें, फोल्डर खाली हो जाएगा।
D. जिन ईमेल को डिलीट करना हो, उनके चेकबॉक्स को सेलेक्ट (चयनित) कीजिए।
E. ट्रैश खाली करने (एम्प्टी) वाले विकल्प पर क्लिक कीजिए।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424625. 1

48180424626. 2
48180424627. 3
48180424628. 4

Question Number : 33 Question Id : 4818046325 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which devices are NOT used in a network?

A. DJ45
B. Gateway
C. Modem
D. RJ45
E. Media Access Control (MAC)

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

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

Options :

48180424629. 1
48180424630. 2
48180424631. 3
48180424632. 4

Question Number : 33 Question Id : 4818046325 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

किसी नेटवर्क में कौन से यंत्रों का उपयोग नहीं होता है?

A. डी जे 45
B. गेटवे
C. मोडम
D. आर जे 45
E. मीडिया एक्सेस कंट्रोल (एम ए सी)

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424629. 1
48180424630. 2
48180424631. 3
48180424632. 4

Question Number : 34 Question Id : 4818046326 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which among these are the input devices?

A. Touch pad
B. Touch screen
C. Magnetic Ink Character Recognition (MICR)
D. Optical Mark Reading and Recognition (OMR)
E. Monitor

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

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

Options :

48180424633. 1

48180424634. 2

48180424635. 3

48180424636. 4

Question Number : 34 Question Id : 4818046326 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित में से कौन से इनपुट डिवाइस हैं?

A. टच पैड
B. टच स्क्रीन
C. मैग्नेटिक इंक करैक्टर्स रिकगनिशन (एम. आई. सी. आर)
D. ऑप्टिकल मार्क रीडिंग एंड रिकगनिशन (ओ.एम.आर.)
E. मॉनिटर

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424633. 1

48180424634. 2

48180424635. 3

48180424636. 4

Question Number : 35 Question Id : 4818046327 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	1GB (Gigabytes)	I.	10^{12} bytes
B.	1KB (Kilobytes)	II.	10^{6} bytes
C.	1TB (Terabytes)	III.	10^{3} bytes
D.	1MB (Megabytes)	IV.	10^{9} bytes

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

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

Options :

48180424637. 1

48180424638. 2

48180424639. 3

48180424640. 4

Question Number : 35 Question Id : 4818046327 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

सूची-I		सूची-II	
A.	1 GB (गीगा बाइट)	I.	10^{12} बाइट
B.	1 KB (किलो बाइट)	II.	10^{6} बाइट
C.	1 TB (टेरा बाइट)	III.	10^{3} बाइट
D.	1 MB (मेगा बाइट)	IV.	10^{9} बाइट

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

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

Options :

48180424637. 1

48180424638. 2

48180424639. 3

48180424640. 4

Question Number : 36 Question Id : 4818046328 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In one of the 'Conference of Parties' (COP), an agreement on plans for finance to mitigate the effects of climate change and help developing nations transition to more sustainable energy sources had been signed. Which country hosted that COP?

1. United Kingdom, COP 26
2. United Arab Emirates, COP 28
3. Azerbaijan, COP 29
4. Brazil, COP 30

Options :

48180424641. 1

48180424642. 2

48180424643. 3

48180424644. 4

Question Number : 36 Question Id : 4818046328 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

एक 'कांफ्रेंस आफ पार्टीज' (सी ओ पी) में वित्त पोषण की एक ऐसी योजना के समझौते पर हस्ताक्षर हुए थे जो जलवायु परिवर्तन के प्रभावों का शमन कर सके और विकासशील देशों को और अधिक टिकाऊ उर्जा के स्रोतों के उपयोग की दिशा में सहायता दे सके। इस सी ओ पी का आयोजन किस देश में हुआ था?

1. यूनाइटेड किंगडम, सी ओ पी 26
2. यूनाइटेड अरब एमिरेट, सी ओ पी 28
3. अजरबैजान, सी ओ पी 29
4. ब्राज़ील, सी ओ पी 30

Options :

48180424641. 1

48180424642. 2

48180424643. 3

48180424644. 4

Question Number : 37 Question Id : 4818046329 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Producing of the following items requires huge amount of fresh water. Arrange them from highest to lowest in order of water-consumption.

A. Bread
B. Car
C. Jeans
D. House
E. T-shirt

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

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

Options :

48180424645. 1

48180424646. 2

48180424647. 3

48180424648. 4

Question Number : 37 Question Id : 4818046329 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

निम्नलिखित वस्तुओं के उत्पादन और वितरण में ताजे पानी की बड़ी मात्रा की आवश्यकता होती है। उन्हें जल-उपभोग के अधिकतम से न्यूनतम के क्रम में लगाइए।

A. रोटी
B. कार
C. जीन्स
D. मकान
E. टी-शर्ट

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424645. 1

48180424646. 2

48180424647. 3

48180424648. 4

Question Number : 38 Question Id : 4818046330 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following events in proper sequence with respect to land degradation cycle arising from opencast mining, mineral dressing and other related activities.

A. Loss of greenery
B. Drying up of land
C. Land degradation
D. Decrease in irrigation potential
E. Desertification

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

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

Options :

48180424649. 1

48180424650. 2

48180424651. 3

48180424652. 4

Question Number : 38 Question Id : 4818046330 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

विवृत खनन, खनिज प्रसाधन और अन्य संबंधित गतिविधियों से उत्पन्न भू-क्षरण चक्र के संदर्भ में निम्नलिखित घटनाओं को उचित क्रम में लगाइए।

A. हरित क्षेत्र की हानि
B. भूमि का सूखना
C. भूमि का क्षरण/अपक्षय
D. सिंचाई संभाव्यता/ सक्षमता में कमी
E. मरुस्थलीकरण

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424649. 1

48180424650. 2

48180424651. 3

48180424652. 4

Question Number : 39 Question Id : 4818046331 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Green Accounting is a widely prevalent concept both in developed and underdeveloped countries. Which of the following are true related to it?

A. It can be described as number of individuals of a species that it can sustain.
B. It underlines the same concept of sustainable development.
C. It provides us an economic interpretation of both resource base and the environment quality as against the GDP.
D. It gives us a uniform level by converting both natural resource base and the environment quality in monetary terms.
E. The concepts of green accounting and carrying capacity are different.

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

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

Options :

48180424653. 1

48180424654. 2

48180424655. 3

48180424656. 4

Question Number : 39 Question Id : 4818046331 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

विकसित और अल्पविकसित, दोनों ही प्रकार के देशों में हरित लेखाकरण एक व्यापक रूप से प्रचलित संकल्पना है। इसके संबंध में निम्नलिखित में से कौन से सत्य हैं?

A. यह किसी प्रजाति के सदस्यों की वह संख्या है जिसे यह जीवित रख सकता है।
B. यह टिकाऊ/सतत विकास की अवधारणा पर ही बल देता है।
C. यह जी डी पी की तुलना में संसाधन आधार और पर्यावरणीय गुणवत्ता की एक आर्थिक व्याख्या प्रस्तुत करता है।
D. यह प्राकृतिक संसाधन आधार और पर्यावरण गुणवत्ता को मौद्रिक रूप में बदलने का एक समान आधार देता है।
E. हरित लेखाकरण और संधारणीय क्षमता भिन्न संकल्पनाएँ है।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424653. 1

48180424654. 2

48180424655. 3

48180424656. 4

Question Number : 40 Question Id : 4818046332 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

	LIST-I **Radionuclide**		**LIST-II** **Target Tissue**
A.	Iodine - 131	I.	Spleen
B.	Strontium - 90	II.	Bones
C.	Plutonium - 239	III.	Soft tissue
D.	Caesium - 137	IV.	Liver

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

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

Options :

48180424657. 1

48180424658. 2

48180424659. 3

48180424660. 4

Question Number : 40 Question Id : 4818046332 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

सूची-I रेडियो एक्टिव न्यूक्लाइड		**सूची-II लक्षित ऊतक**	
A.	आयोडीन-131	I.	तिल्ली (स्पलीन)
B.	स्ट्रोंटियम-90	II.	हड्डियाँ
C.	प्लूटोनियम-239	III.	नरम ऊतक
D.	सीजियम-137	IV.	यकृत

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

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

Options :

48180424657. 1

48180424658. 2

48180424659. 3

48180424660. 4

Question Number : 41 Question Id : 4818046333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Foreign universities can now open campus in India. This is because India is a signatory of :

1. Dunkel Project (DP)
2. General Agreement on Trade in Services (GATS)
3. Sustainable Development Goals (SDGs)
4. Incheon Declarations (ID)

Options :

48180424661. 1

48180424662. 2

48180424663. 3

48180424664. 4

Question Number : 41 Question Id : 4818046333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

भारत में अब विदेशी विश्वविद्यालय अपना परिसर खोल रहे हैं। इसका कारण यह है कि भारत निम्न का हस्ताक्षरकर्ता है-

1. डंकल प्रोजेक्ट (डी.पी)
2. जनरल एग्रीमेंट ऑन ट्रेड एंड सर्विसेज (जी ए टी एस)
3. सतत विकास लक्ष्य (सस्टेनेबल डेवलपमेंट गोल्स- एस डी जी.)
4. इन्चिऑन घोषणा (आई.डी.)

Options :

48180424661. 1

48180424662. 2

48180424663. 3

48180424664. 4

Question Number : 42 Question Id : 4818046334 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the opening lines of stanzas in Vande Matram

A. Sujalam, Suflam malyaj sheetalam
B. Saptakoti kanth kalkal ninad karale
C. Shubra jyotsna pulkit yaminim
D. Tvan hi durga dashapraharan dharini
E. Tumi vidya tumi dharma, tumi hridi tumi marma

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

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

Options :

48180424665. 1

48180424666. 2

48180424667. 3

48180424668. 4

Question Number : 42 Question Id : 4818046334 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

वंदेमातरम् में अंतरों की प्रारंभिक पंक्तियों को व्यवस्थित कीजिए।

A. सुजलाम्, सुफलाम् मलयज शीतलाम्
B. सप्तकोटि कंठ कलकल निनाद कराले
C. शुभ्र ज्योत्स्ना पुलकित यामिनीम्
D. त्वां हि दुर्गा दशप्रहारण धारिणी
E. तुमि विद्या तुमि धर्म, तुमि हिर्दि तुमि मर्म

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424665. 1

48180424666. 2

48180424667. 3

48180424668. 4

Question Number : 43 Question Id : 4818046335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The effective implementation of the world ethics will only be possible if it is taken up by all sections of the community. It should include,

A. Parents teaching their children to act with respect for other people and other species.
B. Educators incorporating the world ethics into their teaching.
C. Artists have significant role in it.
D. Technologists must not take part in it.
E. As no legal issues are involved in world ethics, lawyers have no role in it.

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

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

Options :

48180424669. 1

48180424670. 2

48180424671. 3

48180424672. 4

Question Number : 43 Question Id : 4818046335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

विश्व-नैतिकता का क्रियान्वयन केवल तभी संभव होगा जब उसका उत्तरदायित्व समुदाय के सभी हिस्सों द्वारा उठाया जाएगा। इसमें निम्न सम्मिलित हैं:

A. अभिभावकों द्वारा बच्चों को यह शिक्षा देना कि वे अन्य व्यक्तियों और अन्य प्रजातियों का सम्मान करें।
B. शिक्षक विश्व-नैतिकता को अपने शिक्षण में सम्मिलित करें।
C. इसमें कलाकारों की महत्वपूर्ण भूमिका है।
D. प्रौद्योगिकीविदों को इसमें भाग लेना ही नहीं चाहिए।
E. चूँकि विश्व नैतिकता में कोई क़ानूनी मुद्दे शामिल नहीं हैं, वकीलों की इसमें कोई भूमिका नहीं है।

नीचे दिए गए विकल्पों में से **सही** उत्तर चुनें:

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

Options :

48180424669. 1

48180424670. 2

48180424671. 3

48180424672. 4

Question Number : 44 Question Id : 4818046336 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

	LIST-I Scheme		LIST-II Agenda
A.	PRAGATI	I.	For faculty development and research upgradation
B.	SAKSHAM	II.	Fellowship for specially-abled students
C.	QIP	III.	Improvement of laboratories and infrastructure
D.	MODROB	IV.	Fellowship for girl students in technical Education

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

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

Options :

48180424673. 1

48180424674. 2

48180424675. 3

48180424676. 4

Question Number : 44 Question Id : 4818046336 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

	सूची-I योजना		सूची-II उद्देश्य
A.	प्रगति	I.	शिक्षक विकास और शोध-उन्नयन
B.	सक्षम	II.	विशेष विद्यार्थियों के लिए फेलोशिप
C.	क्यू आइ. पी.	III.	प्रयोगशालाओं और आधारभूत संरचनाओं में सुधार
D.	एम. ओ. डी. आर. ओ. बी.	IV.	तकनीकी शिक्षा में छात्राओं के लिए फेलोशिप

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

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

Options :

48180424673. 1

48180424674. 2

48180424675. 3

48180424676. 4

Question Number : 45 Question Id : 4818046337 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Carvak	I.	First step in Pabbaja
B.	Sharantrayi	II.	A Upnishad
C.	Kalesha	III.	Nastik school of Indian philosophy
D.	Mandukya	IV.	Asmita-one of five affliction

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

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

Options :

48180424677. 1

48180424678. 2

48180424679. 3

48180424680. 4

Question Number : 45 Question Id : 4818046337 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

सूची-I के साथ **सूची-II** का मिलान कीजिएः

सूची-I		सूची-II	
A.	चार्वाक	I.	पब्बज का पहला चरण
B.	शरणत्रयी	II.	एक उपनिषद
C.	क्लेश	III.	भारतीय दर्शन का नास्तिक मत
D.	माण्डूक्य	IV.	अस्मिता- पांच दुःखों में एक

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

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

Options :

48180424677. 1

48180424678. 2

48180424679. 3

48180424680. 4

Sub-Section Number : 3

Sub-Section Id : 481804253

Question Shuffling Allowed : No

Is Section Default? : No

Question Id : 4818046338 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (46 to 50)

The workforce has become increasingly more diverse and this trend toward diversity will continue. This includes increasing diversity along racial, ethnic and gender lines, as well as an increasing percentage of the workforce that is over age fifty-five. Effectively managing diversity has been identified as one of five distinguishing features of organizations that make it onto Fortune magazine's list of 100 Best Companies. Diversity issues have several implications for HRD professionals. First, organizations need to address racial, ethnic and other prejudices that may persist, as well as cultural insensitivity and language differences. Second, with the increasing numbers of women in the workforce, organizations should continue to provide developmental opportunities that will prepare women for advancement into the senior ranks and provide safeguards against sexual harassment. Third, the ageing of the workforce highlights the importance of creating HRD programs that recognize and address the learning-related needs of both younger and older workers. Diversity can be a catalyst for improved organizational performance - though this is far from a sure thing!

Sub questions

Question Number : 46 Question Id : 4818046339 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The specific requirement of an ageing workforce would be related to:

1. Removal of prejudices
2. Learning-related needs
3. Cultural sensitivity
4. Racial parity

Options :

48180424681. 1

48180424682. 2

48180424683. 3

48180424684. 4

Question Number : 47 Question Id : 4818046340 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The prediction of diversity in the opening line of the paragraph is that the trend will:

1. Stop
2. Persist
3. Transform
4. Diverge

Options :

48180424685. 1

48180424686. 2

48180424687. 3

48180424688. 4

Question Number : 48 Question Id : 4818046341 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What does the last line of the passage imply?

1. Diversity has a harmful effect on organizational performance.
2. There is ambiguity regarding its role for improved organisational performance.
3. Diversity does not bring change in organizational performance.
4. Diversity has a negative impact on employees.

Options :

48180424689. 1

48180424690. 2

48180424691. 3

48180424692. 4

Question Number : 49 Question Id : 4818046342 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Making it to the Fortune magazine's list of 100 best companies is one of the rewards related to:

1. Popularizing learning-related needs
2. Corporate Social Responsibility
3. Effectively managing diversity
4. Respectful treatment of employees.

Options :

48180424693. 1

48180424694. 2

48180424695. 3

48180424696. 4

Question Number : 50 Question Id : 4818046343 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Organizations should provide developmental opportunities for women so as to -

1. Assist them to move up the hierarchical ladder
2. Help them to get recruited
3. Assist in childcare
4. Help them to gain visibility

Options :

48180424697. 1

48180424698. 2

48180424699. 3

48180424700. 4

Question Id : 4818046338 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (46 to 50)

कार्य-बल और अधिक विविध होता जा रहा है और विविधता की ओर यह रुझान जारी रहेगा। इसमें नस्लीय, जातीय और लैंगिक आधार पर बढ़ती विविधता के साथ-साथ पचपन वर्ष से अधिक के कार्य-बल का बढ़ता प्रतिशत भी शामिल है। प्रभावी विविधता प्रबंधन को 'फारच्यून' पत्रिका की सौ सर्वश्रेष्ठ कंपनियों की सूची में पहुँचने वाले संगठनों के पांच विशिष्ट लक्षणों में से एक के रूप में चिह्नित किया गया है। मानव संसाधन विकास पर काम करने वाले पेशेवरों के लिए विविधता से जुड़ी समस्याएं कई निहितार्थ सामने लाती हैं। प्रथमतः संगठनों को सांस्कृतिक असंवेदनशीलता और भाषाई भिन्नताओं के साथ-साथ नस्लीय, जातीय और अन्य प्रचलित पूर्वाग्रहों पर ध्यान देना पड़ता है। दूसरे, कार्य-बल में महिलाओं की बढ़ती संख्या के कारण संगठनों को ऐसे विकास के अवसर उपलब्ध कराने चाहिए जो महिलाओं को वरिष्ठ पदों तक उन्नति करने के लिए तैयार करें तथा उन्हें लैंगिक प्रताड़ना के विरुद्ध सुरक्षा के उपाय भी उपलब्ध करायें। तीसरे, कार्य-बल की बढ़ती आयु ऐसे मानव संसाधन विकास कार्यक्रम बनाने के महत्व को रेखांकित करती है, जो अपेक्षाकृत युवा और अधिक आयु वाले श्रमिकों, दोनों की अधिगम-संबंधी आवश्यकताओं को पूरा कर सकें। विविधता बेहतर सांगठनिक प्रदर्शन/निष्पादन के लिए एक उत्प्रेरक हो सकती है, हालाँकि यह कहना कि ऐसा होगा ही, दूर की कल्पना होगी।

Sub questions

Question Number : 46 Question Id : 4818046339 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

बढ़ती आयु वाले श्रम-बल की एक विशिष्ट आवश्यकता निम्न से संबंधित होगी:

1. पूर्वाग्रह मिटाना
2. अधिगम-संबंधी आवश्यकताएं
3. सांस्कृतिक संवेदनशीलता
4. नस्लीय समानता

Options :

48180424681. 1
48180424682. 2
48180424683. 3
48180424684. 4

Question Number : 47 Question Id : 4818046340 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

गद्यांश की प्रारंभिक पंक्ति में विविधता की रुझान के बारे में अनुमान है कि यह

1. रुक जाएगा
2. नैरंतर्य में रहेगा
3. रूपांतरित होगा
4. भिन्न दिशाओं में बंट जाएगा

Options :

48180424685. 1
48180424686. 2
48180424687. 3
48180424688. 4

Question Number : 48 Question Id : 4818046341 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

गद्यांश की अंतिम पंक्ति का क्या अर्थ है?

1. विविधता का सांगठनिक प्रदर्शन पर हानिकारक प्रभाव होता है।
2. बेहतर सांगठनिक प्रदर्शन के संबंध में इसकी भूमिका अनिश्चित है।
3. विविधता सांगठनिक प्रदर्शन में परिवर्तन नहीं लाती।
4. विविधता कर्मचारियों पर नकारात्मक प्रभाव डालती है।

Options :

48180424689. 1
48180424690. 2
48180424691. 3
48180424692. 4

Question Number : 49 Question Id : 4818046342 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

फारच्यून पत्रिका की सौ सर्वश्रेष्ठ कंपनियों की सूची में पहुंचना निम्नलिखित में से किसका एक प्रतिफल है?

1. अधिगम-संबंधी आवश्यकताओं को लोकप्रिय बनाना।
2. कारपोरेट सामाजिक उत्तरदायित्व
3. प्रभावी विविधता-प्रबंधन
4. कर्मचारियों के साथ सम्मानजनक व्यवहार

Options :

48180424693. 1
48180424694. 2
48180424695. 3
48180424696. 4

Question Number : 50 Question Id : 4818046343 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

संगठनों द्वारा महिलाओं के लिए विकास के अवसर उपलब्ध कराये जाने चाहिए ताकि:

1. उच्च पदानुक्रम में उन्हें ऊपर बढ़ने में सहायता मिल सके।
2. उन्हें नौकरी पाने में सहायता मिल सके।
3. बच्चों की देखभाल में सहायता मिल सके।
4. उन्हें उपस्थिति दर्ज कराने में सहायता मिल सके।

Options :

48180424697. 1
48180424698. 2
48180424699. 3
48180424700. 4

Electronic Science

Section Id :	48180486
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 :	481804254
Question Shuffling Allowed :	Yes
Is Section Default? :	No

Question Number : 51 Question Id : 4818046344 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of following semiconductors for LED gives the lowest wavelength of emission?

1. AlGaAs
2. InAlGaP
3. InGaN
4. GaAsP

Options :

48180424701. 1
48180424702. 2
48180424703. 3
48180424704. 4

Question Number : 51 Question Id : 4818046344 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of following semiconductors for LED gives the lowest wavelength of emission?

1. AlGaAs
2. InAlGaP
3. InGaN
4. GaAsP

Options :

48180424701. 1

48180424702. 2

48180424703. 3

48180424704. 4

Question Number : 52 Question Id : 4818046345 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

$CuInGaSe_2$ (CIGS) is used in which type of solar cell?

1. Thin film solar cell
2. Dye Sensitized solar cell
3. Perovskite solar cell
4. PERL Solar cell

Options :

48180424705. 1

48180424706. 2

48180424707. 3

48180424708. 4

Question Number : 52 Question Id : 4818046345 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

$CuInGaSe_2$ (CIGS) is used in which type of solar cell?

1. Thin film solar cell
2. Dye Sensitized solar cell
3. Perovskite solar cell
4. PERL Solar cell

Options :

48180424705. 1

48180424706. 2

48180424707. 3

48180424708. 4

Question Number : 53 Question Id : 4818046346 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A photon of 1400Å wavelength is absorbed by cold mercury vapor and two other photons are emitted. If one of these photon has a wavelength of 1850Å, what is the wave length of other photon?

1. 5212 Å
2. 5754 Å
3. 5617 Å
4. 5542 Å

Options :

48180424709. 1

48180424710. 2

48180424711. 3

48180424712. 4

Question Number : 53 Question Id : 4818046346 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A photon of 1400Å wavelength is absorbed by cold mercury vapor and two other photons are emitted. If one of these photon has a wavelength of 1850Å, what is the wave length of other photon?

1. 5212 Å
2. 5754 Å
3. 5617 Å
4. 5542 Å

Options :

48180424709. 1

48180424710. 2

48180424711. 3

48180424712. 4

Question Number : 54 Question Id : 4818046347 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Calculate the thermal - equilibrium electron concertation in Germanium for a given doping concertation.

Consider Germanium sample at T=300 K in which $N_d = 2 \times 10^{14}\ cm^{-3}$ and $N_a = 0$, $n_i = 2.4 \times 10^{13}\ cm^{-3}$

1. $3.58 \times 10^{13}\ cm^{-3}$
2. $4.07 \times 10^{14}\ cm^{-3}$
3. $1.58 \times 10^{13}\ cm^{-3}$
4. $2.028 \times 10^{14}\ cm^{-3}$

Options :

48180424713. 1

48180424714. 2

48180424715. 3

48180424716. 4

Question Number : 54 Question Id : 4818046347 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Calculate the thermal - equilibrium electron concertation in Germanium for a given doping concertation.

Consider Germanium sample at T=300 K in which $N_d = 2 \times 10^{14}\ cm^{-3}$ and $N_a = 0$, $n_i = 2.4 \times 10^{13}\ cm^{-3}$

1. $3.58 \times 10^{13}\ cm^{-3}$
2. $4.07 \times 10^{14}\ cm^{-3}$
3. $1.58 \times 10^{13}\ cm^{-3}$
4. $2.028 \times 10^{14}\ cm^{-3}$

Options :

48180424713. 1

48180424714. 2

48180424715. 3

48180424716. 4

Question Number : 55 Question Id : 4818046348 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is not used as gate dielectric material in CMOS technology?

1. SiO_2
2. Si_3N_4
3. SiON
4. HfO_2

Options :

48180424717. 1

48180424718. 2

48180424719. 3

48180424720. 4

Question Number : 55 Question Id : 4818046348 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is not used as gate dielectric material in CMOS technology?

1. SiO_2
2. Si_3N_4
3. SiON
4. HfO_2

Options :

48180424717. 1

48180424718. 2

48180424719. 3

48180424720. 4

Question Number : 56 Question Id : 4818046349 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is the most prevalent lithography technique for mask making?

1. EUV lithography
2. Ion lithography
3. Electron beam lithography
4. X-ray lithography

Options :

48180424721. 1

48180424722. 2

48180424723. 3

48180424724. 4

Question Number : 56 Question Id : 4818046349 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following is the most prevalent lithography technique for mask making?

1. EUV lithography
2. Ion lithography
3. Electron beam lithography
4. X-ray lithography

Options :

48180424721. 1

48180424722. 2

48180424723. 3

48180424724. 4

Question Number : 57 Question Id : 4818046350 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following unit process steps in IC fabrication dictates the critical dimension (CD) ?

1. Oxidation
2. Diffusion
3. Etching
4. Lithography

Options :

48180424725. 1

48180424726. 2

48180424727. 3

48180424728. 4

Question Number : 57 Question Id : 4818046350 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following unit process steps in IC fabrication dictates the critical dimension (CD) ?

1. Oxidation
2. Diffusion
3. Etching
4. Lithography

Options :

48180424725. 1

48180424726. 2

48180424727. 3

48180424728. 4

Question Number : 58 Question Id : 4818046351 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following process steps is most likely to cause isotropic etching?

1. Chemical Mechanical Polishing (CMP)
2. Wet Chemical Etching
3. Ion-Enhanced Chemical Etching
4. Purely Physical Plasma Etching

Options :

48180424729. 1

48180424730. 2

48180424731. 3

48180424732. 4

Question Number : 58 Question Id : 4818046351 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following process steps is most likely to cause isotropic etching?

1. Chemical Mechanical Polishing (CMP)
2. Wet Chemical Etching
3. Ion-Enhanced Chemical Etching
4. Purely Physical Plasma Etching

Options :

48180424729. 1

48180424730. 2

48180424731. 3

48180424732. 4

Question Number : 59 Question Id : 4818046352 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The Laplace transform of a damped sinusoidal function $f(t) = e^{-at} \sin(\omega t)$ is

1. $\frac{\omega}{(s+a)^2+\omega^2}$
2. $\frac{s+a}{(s+a)^2+\omega^2}$
3. $\frac{s}{(s+a)^2+\omega^2}$
4. $\frac{s}{(s-a)^2+\omega^2}$

Options :

48180424733. 1

48180424734. 2

48180424735. 3

48180424736. 4

Question Number : 59 Question Id : 4818046352 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The Laplace transform of a damped sinusoidal function $f(t) = e^{-at} \sin(\omega t)$ is

1. $\frac{\omega}{(s+a)^2+\omega^2}$
2. $\frac{s+a}{(s+a)^2+\omega^2}$
3. $\frac{s}{(s+a)^2+\omega^2}$
4. $\frac{s}{(s-a)^2+\omega^2}$

Options :

48180424733. 1

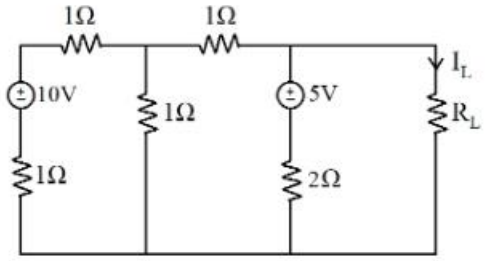
48180424734. 2

48180424735. 3

48180424736. 4

Question Number : 60 Question Id : 4818046353 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The current in the resistance $R_L = 2\Omega$ in the given network is



1. 3.25 A
2. 1.41 A
3. 2.50 A
4. 0.25 A

Options :

48180424737. 1

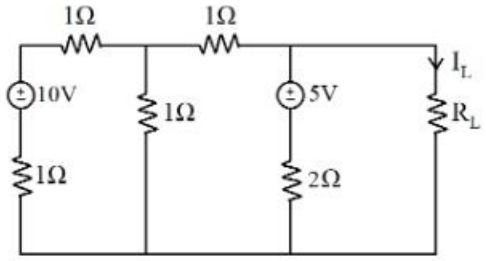
48180424738. 2

48180424739. 3

48180424740. 4

Question Number : 60 Question Id : 4818046353 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The current in the resistance $R_L = 2\Omega$ in the given network is



1. 3.25 A
2. 1.41 A
3. 2.50 A
4. 0.25 A

Options :

48180424737. 1

48180424738. 2

48180424739. 3

48180424740. 4

Question Number : 61 Question Id : 4818046354 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A delayed step function is defined as

1. $Ku(t-a) = Kt : t > 0$
2. $Ku(t-a) = K : t > 0$
3. $Ku(t-a) = K : t > a$
   $= 0 : t < a$
4. $Ku(t-a) = K : t < a$
   $= 0 : t > a$

Options :

48180424741. 1

48180424742. 2

48180424743. 3

48180424744. 4

Question Number : 61 Question Id : 4818046354 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A delayed step function is defined as

1. $Ku(t-a) = Kt : t > 0$
2. $Ku(t-a) = K : t > 0$
3. $Ku(t-a) = K : t > a$
   $= 0 : t < a$
4. $Ku(t-a) = K : t < a$
   $= 0 : t > a$

Options :

48180424741. 1

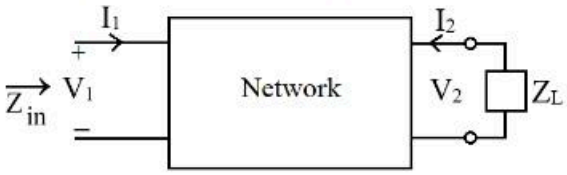
48180424742. 2

48180424743. 3

48180424744. 4

Question Number : 62 Question Id : 4818046355 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The input impedance of a two port network in terms of transmission parameters in figure below is



1. $Z_{in} = \frac{A + BZ_L}{C + DZ_L}$
2. $Z_{in} = \frac{AZ_L + C}{BZ_L + D}$
3. $Z_{in} = \frac{A + CZ_L}{B + DZ_L}$
4. $Z_{in} = \frac{AZ_L + B}{CZ_L + D}$

Options :

48180424745. 1

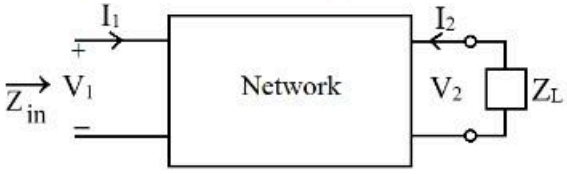
48180424746. 2

48180424747. 3

48180424748. 4

Question Number : 62 Question Id : 4818046355 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The input impedance of a two port network in terms of transmission parameters in figure below is



1. $Z_{in}=\frac{A+BZ_L}{C+DZ_L}$
2. $Z_{in}=\frac{AZ_L+C}{BZ_L+D}$
3. $Z_{in}=\frac{A+CZ_L}{B+DZ_L}$
4. $Z_{in}=\frac{AZ_L+B}{CZ_L+D}$

Options :

48180424745. 1

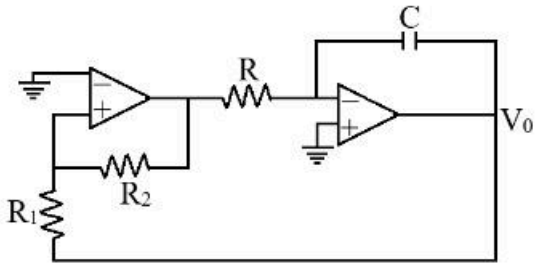
48180424746. 2

48180424747. 3

48180424748. 4

Question Number : 63 Question Id : 4818046356 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The output frequency of a triangular wave generator circuit as shown below is



1. $f=\frac{R_1R_2}{4RC}$
2. $f=\frac{R_2}{4R_1RC}$
3. $f=\frac{4R_1R_2}{RC}$
4. $f=\frac{4RC}{R_1R_2}$

Options :

48180424749. 1

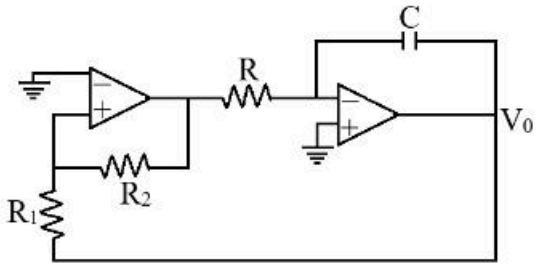
48180424750. 2

48180424751. 3

48180424752. 4

Question Number : 63 Question Id : 4818046356 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The output frequency of a triangular wave generator circuit as shown below is



1. $f = \frac{R_1 R_2}{4RC}$
2. $f = \frac{R_2}{4R_1 RC}$
3. $f = \frac{4R_1 R_2}{RC}$
4. $f = \frac{4RC}{R_1 R_2}$

Options :

48180424749. 1

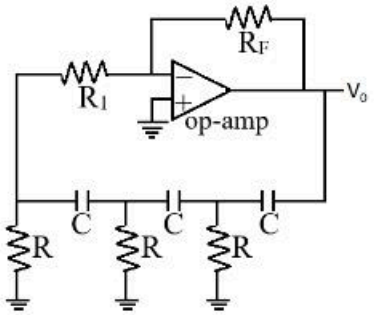
48180424750. 2

48180424751. 3

48180424752. 4

Question Number : 64 Question Id : 4818046357 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In the given circuit of phase shift oscillator, the frequency of oscillation and relation between R_F and R_1 is given as



1. $f_0 = \frac{1}{2\pi\sqrt{RC}}$ and $\left|\frac{R_f}{R_1}\right| = 9$
2. $f_0 = \frac{1}{2\pi\sqrt{6}\cdot RC}$ and $\left|\frac{R_f}{R_1}\right| = 29$
3. $f_0 = \frac{1}{2\pi\sqrt{6}\cdot RC}$ and $\left|\frac{R_f}{R_1}\right| = 9$
4. $f_0 = \frac{1}{2\pi\sqrt{6RC}}$ and $\left|\frac{R_f}{R_1}\right| = 29$

Options :

48180424753. 1

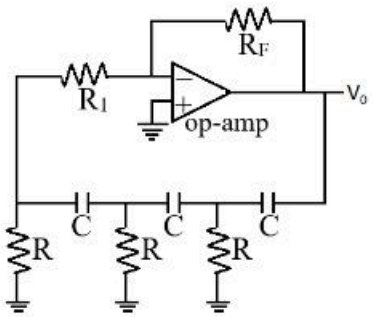
48180424754. 2

48180424755. 3

48180424756. 4

Question Number : 64 Question Id : 4818046357 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In the given circuit of phase shift oscillator, the frequency of oscillation and relation between R_F and R_1 is given as



1. $f_0 = \frac{1}{2\pi\sqrt{RC}}$ and $\left|\frac{R_f}{R_1}\right| = 9$
2. $f_0 = \frac{1}{2\pi\sqrt{6}\cdot RC}$ and $\left|\frac{R_f}{R_1}\right| = 29$
3. $f_0 = \frac{1}{2\pi\sqrt{6}\cdot RC}$ and $\left|\frac{R_f}{R_1}\right| = 9$
4. $f_0 = \frac{1}{2\pi\sqrt{6RC}}$ and $\left|\frac{R_f}{R_1}\right| = 29$

Options :

48180424753. 1

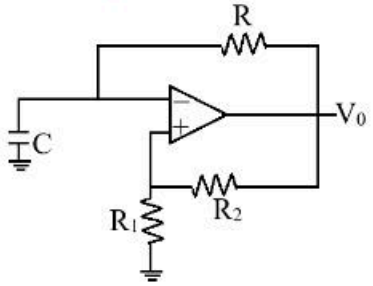
48180424754. 2

48180424755. 3

48180424756. 4

Question Number : 65 Question Id : 4818046358 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The time period of the output waveform of the astable multi-vibrator circuit shown below is given as



1. $T = 2RC \ln\left[1+\frac{2R_2}{R_1}\right]$
2. $T = 2RC \ln\left[1+\frac{R_2}{R_1}\right]$
3. $T = 2RC \ln\left[1+\frac{2R_1}{R_2}\right]$
4. $T = 2RC \ln\left[1+\frac{R_1}{R_2}\right]$

Options :

48180424757. 1

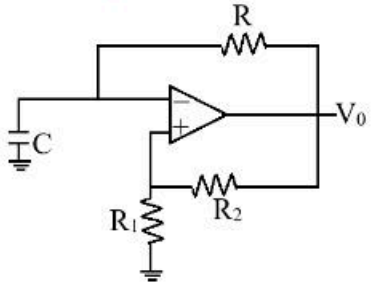
48180424758. 2

48180424759. 3

48180424760. 4

Question Number : 65 Question Id : 4818046358 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The time period of the output waveform of the astable multi-vibrator circuit shown below is given as



1. $T = 2RC \ln\left[1+\frac{2R_2}{R_1}\right]$
2. $T = 2RC \ln\left[1+\frac{R_2}{R_1}\right]$
3. $T = 2RC \ln\left[1+\frac{2R_1}{R_2}\right]$
4. $T = 2RC \ln\left[1+\frac{R_1}{R_2}\right]$

Options :

48180424757. 1

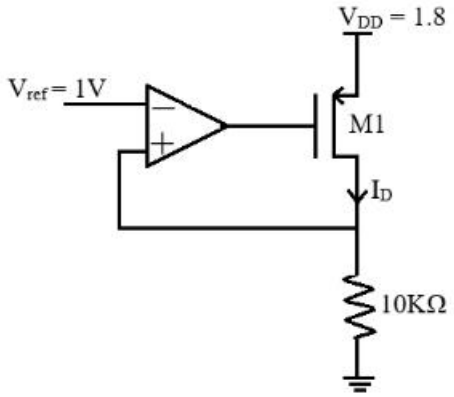
48180424758. 2

48180424759. 3

48180424760. 4

Question Number : 66 Question Id : 4818046359 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Assuming an ideal op-amp, the value of drain current of M1 is



1. 100 μA
2. 160 μA
3. 140 μA
4. 180 μA

Options :

48180424761. 1

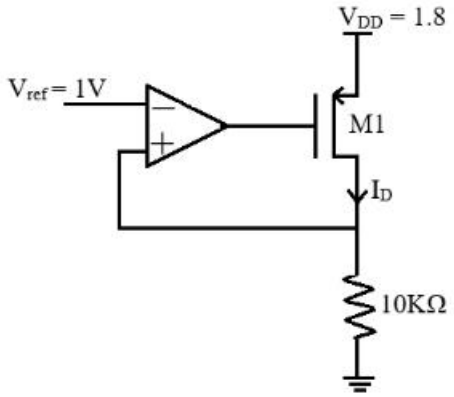
48180424762. 2

48180424763. 3

48180424764. 4

Question Number : 66 Question Id : 4818046359 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Assuming an ideal op-amp, the value of drain current of M1 is



1. 100 μA
2. 160 μA
3. 140 μA
4. 180 μA

Options :

48180424761. 1

48180424762. 2

48180424763. 3

48180424764. 4

Question Number : 67 Question Id : 4818046360 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The minimum number of states in the state-diagram of a Mealy type finite state machine designed to detect a binary sequence 110 is

1. 5
2. 4
3. 3
4. 6

Options :

48180424765. 1

48180424766. 2

48180424767. 3

48180424768. 4

Question Number : 67 Question Id : 4818046360 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The minimum number of states in the state-diagram of a Mealy type finite state machine designed to detect a binary sequence 110 is

1. 5
2. 4
3. 3
4. 6

Options :

48180424765. 1

48180424766. 2

48180424767. 3

48180424768. 4

Question Number : 68 Question Id : 4818046361 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Minimum number of logic gates required for NAND only implementation of the function $F = A \cdot B + C \cdot D$ is

1. 6
2. 5
3. 4
4. 3

Options :

48180424769. 1

48180424770. 2

48180424771. 3

48180424772. 4

Question Number : 68 Question Id : 4818046361 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Minimum number of logic gates required for NAND only implementation of the function $F = A \cdot B + C \cdot D$ is

1. 6
2. 5
3. 4
4. 3

Options :

48180424769. 1

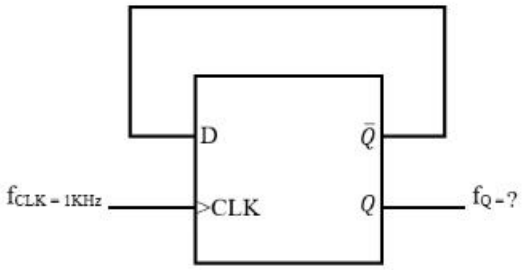
48180424770. 2

48180424771. 3

48180424772. 4

Question Number : 69 Question Id : 4818046362 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The frequency of the waveform obtained at Q output in the following circuit is



1. 2 KHz
2. 0.5 KHz
3. 1.5 KHz
4. 2.5 KHz

Options :

48180424773. 1

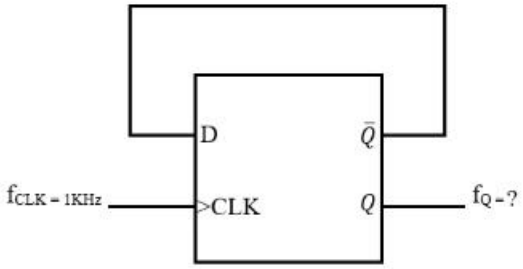
48180424774. 2

48180424775. 3

48180424776. 4

Question Number : 69 Question Id : 4818046362 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The frequency of the waveform obtained at Q output in the following circuit is



1. 2 KHz
2. 0.5 KHz
3. 1.5 KHz
4. 2.5 KHz

Options :

48180424773. 1

48180424774. 2

48180424775. 3

48180424776. 4

Question Number : 70 Question Id : 4818046363 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The minimum number of 2-to-1 multiplexers required to implement a 32-to-1 multiplexer is

1. 31
2. 32
3. 16
4. 15

Options :

48180424777. 1

48180424778. 2

48180424779. 3

48180424780. 4

Question Number : 70 Question Id : 4818046363 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The minimum number of 2-to-1 multiplexers required to implement a 32-to-1 multiplexer is

1. 31
2. 32
3. 16
4. 15

Options :

48180424777. 1

48180424778. 2

48180424779. 3

48180424780. 4

Question Number : 71 Question Id : 4818046364 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Chose the correct option in the context of resources available on the 8051 microcontroller chip

1. 128 byte RAM, 4 Timers, 6 Interrupts, 8K ROM
2. 256 byte RAM, 2 Timers, 4 Interrupts, 4K ROM
3. 128 byte RAM, 2 Timers, 6 Interrupts, 4K ROM
4. 256 byte RAM, 4 Timers, 6 Interrupts, 8K ROM

Options :

48180424781. 1

48180424782. 2

48180424783. 3

48180424784. 4

Question Number : 71 Question Id : 4818046364 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Chose the correct option in the context of resources available on the 8051 microcontroller chip

1. 128 byte RAM, 4 Timers, 6 Interrupts, 8K ROM
2. 256 byte RAM, 2 Timers, 4 Interrupts, 4K ROM
3. 128 byte RAM, 2 Timers, 6 Interrupts, 4K ROM
4. 256 byte RAM, 4 Timers, 6 Interrupts, 8K ROM

Options :

48180424781. 1

48180424782. 2

48180424783. 3

48180424784. 4

Question Number : 72 Question Id : 4818046365 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

For 8051 microcontroller operating at frequency 11.0592 MHz, how long it will take to execute the instruction MUL AB

1. 1.085 µs
2. 2.17 µs
3. 3.255 µs
4. 4.34 µs

Options :

48180424785. 1

48180424786. 2

48180424787. 3

48180424788. 4

Question Number : 72 Question Id : 4818046365 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

For 8051 microcontroller operating at frequency 11.0592 MHz, how long it will take to execute the instruction MUL AB

1. 1.085 µs
2. 2.17 µs
3. 3.255 µs
4. 4.34 µs

Options :

48180424785. 1

48180424786. 2

48180424787. 3

48180424788. 4

Question Number : 73 Question Id : 4818046366 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In 8051 microcontroller, what will be the content of Accumulate (A) register and CY flag status after the execution of the following instructions?

```
CLR C

MOV A, #3FH

MOV R3, #23H

SUBB A, R3
```

1. A = 2C, CY = 0
2. A = 1C, CY = 1
3. A = 2C, CY = 1
4. A = 1C, CY = 0

Options :

48180424789. 1

48180424790. 2

48180424791. 3

48180424792. 4

Question Number : 73 Question Id : 4818046366 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In 8051 microcontroller, what will be the content of Accumulate (A) register and CY flag status after the execution of the following instructions?

CLR C

MOV A, #3FH

MOV R3, #23H

SUBB A, R3

1. A = 2C, CY = 0
2. A = 1C, CY = 1
3. A = 2C, CY = 1
4. A = 1C, CY = 0

Options :

48180424789. 1

48180424790. 2

48180424791. 3

48180424792. 4

Question Number : 74 Question Id : 4818046367 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The external interrupts INT0 and INT1 of 8051 microcontroller are available at which pins of port-3?

1. INT0 →P3.4 and INT1 → P3.5
2. INT0 →P3.3 and INT1 → P3.4
3. INT0 →P3.2 and INT1 → P3.3
4. INT0 →P3.1 and INT1 → P3.2

Options :

48180424793. 1

48180424794. 2

48180424795. 3

48180424796. 4

Question Number : 74 Question Id : 4818046367 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The external interrupts INT0 and INT1 of 8051 microcontroller are available at which pins of port-3?

1. INT0 →P3.4 and INT1 → P3.5
2. INT0 →P3.3 and INT1 → P3.4
3. INT0 →P3.2 and INT1 → P3.3
4. INT0 →P3.1 and INT1 → P3.2

Options :

48180424793. 1

48180424794. 2

48180424795. 3

48180424796. 4

Question Number : 75 Question Id : 4818046368 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

An S-band radar transmitting at 3 GHz radiates 200 kW of power. Determine the signal power density at a range of 100 nautical miles if the effective area of the radar antenna is 9 m^2

1. 9.928 mW / m^2
2. 3.189 mW / m^2
3. 7.782 mW / m^2
4. 5.248 mW / m^2

Options :

48180424797. 1

48180424798. 2

48180424799. 3

48180424800. 4

Question Number : 75 Question Id : 4818046368 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

An S-band radar transmitting at 3 GHz radiates 200 kW of power. Determine the signal power density at a range of 100 nautical miles if the effective area of the radar antenna is 9 m^2

1. 9.928 mW / m^2
2. 3.189 mW / m^2
3. 7.782 mW / m^2
4. 5.248 mW / m^2

Options :

48180424797. 1

48180424798. 2

48180424799. 3

48180424800. 4

Question Number : 76 Question Id : 4818046369 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a rectangular wave guide for which a = 1.5 cm, b = 0.8 cm, $\sigma = 0$, $\mu = \mu_0$ and $\varepsilon = 9\varepsilon_0$

$$H_x = 2\sin\left(\frac{\pi x}{a}\right)\cos\left(\frac{3\pi y}{b}\right)\sin\left(\pi \times 10^{11} t - \beta z\right)\ A/m$$

Determine the cut-off frequency (f_c)

1. 37.25 GHz
2. 28.57 GHz
3. 19.05 GHz
4. 12.85 GHz

Options :

48180424801. 1

48180424802. 2

48180424803. 3

48180424804. 4

Question Number : 76 Question Id : 4818046369 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a rectangular wave guide for which a = 1.5 cm, b = 0.8 cm, $\sigma = 0$, $\mu = \mu_0$ and $\varepsilon = 9\varepsilon_0$

$$H_x = 2\sin\left(\frac{\pi x}{a}\right)\cos\left(\frac{3\pi y}{b}\right)\sin\left(\pi \times 10^{11} t - \beta z\right)\ A/m$$

Determine the cut-off frequency (f_c)

1. 37.25 GHz
2. 28.57 GHz
3. 19.05 GHz
4. 12.85 GHz

Options :

48180424801. 1

48180424802. 2

48180424803. 3

48180424804. 4

Question Number : 77 Question Id : 4818046370 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A parallel - plate capacitor with plate area of 5 cm^2 and plate separation of 3 mm has a voltage 50 sin (10^3t) V applied to its plates. Calculate the displacement current (I_d) assuming $\varepsilon = 2\varepsilon_o$

1. I_d = 147.4 cos (10^3t) nA
2. I_d = 138.2 cos (10^3t) nA
3. I_d = 144.5 sin (10^3t) nA
4. I_d = 138.7 sin (10^3t) nA

Options :

48180424805. 1

48180424806. 2

48180424807. 3

48180424808. 4

Question Number : 77 Question Id : 4818046370 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A parallel - plate capacitor with plate area of 5 cm^2 and plate separation of 3 mm has a voltage 50 sin (10^3t) V applied to its plates. Calculate the displacement current (I_d) assuming $\varepsilon = 2\varepsilon_o$

1. I_d = 147.4 cos (10^3t) nA
2. I_d = 138.2 cos (10^3t) nA
3. I_d = 144.5 sin (10^3t) nA
4. I_d = 138.7 sin (10^3t) nA

Options :

48180424805. 1

48180424806. 2

48180424807. 3

48180424808. 4

Question Number : 78 Question Id : 4818046371 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

TEM mode is supported by _____

1. Rectangular waveguide
2. Cylindrical waveguide
3. Coaxial Transmission line
4. Microstrip line

Options :

48180424809. 1

48180424810. 2

48180424811. 3

48180424812. 4

Question Number : 78 Question Id : 4818046371 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

TEM mode is supported by _____

1. Rectangular waveguide
2. Cylindrical waveguide
3. Coaxial Transmission line
4. Microstrip line

Options :

48180424809. 1

48180424810. 2

48180424811. 3

48180424812. 4

Question Number : 79 Question Id : 4818046372 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

For an ideal photodiode ($\eta = 1$), the responsivity (R) is equal to:

1. $\frac{\lambda}{2.14}(A/W)$
2. $\frac{2.14}{\lambda}(A/W)$
3. $\frac{\lambda}{1.24}(A/W)$
4. $\frac{1.24}{\lambda}(A/W)$

Options :

48180424813. 1

48180424814. 2

48180424815. 3

48180424816. 4

Question Number : 79 Question Id : 4818046372 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

For an ideal photodiode ($\eta = 1$), the responsivity (R) is equal to:

1. $\frac{\lambda}{2.14}(A/W)$
2. $\frac{2.14}{\lambda}(A/W)$
3. $\frac{\lambda}{1.24}(A/W)$
4. $\frac{1.24}{\lambda}(A/W)$

Options :

48180424813. 1

48180424814. 2

48180424815. 3

48180424816. 4

Question Number : 80 Question Id : 4818046373 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In an optic fibre, the refractive index of core, $\mu_1 = 1.55$ and refractive index of cladding, $\mu_2 = 1.5$, what are the values of numerical aperture (NA) and acceptance angle (θ_o)

1. NA = 0.494, $\theta_o = 46^o$
2. NA = 0.494, $\theta_o = 23.2^o$
3. NA = 0.394, $\theta_o = 23.2^o$
4. NA = 0.394, $\theta_o = 46^o$

Options :

48180424817. 1

48180424818. 2

48180424819. 3

48180424820. 4

Question Number : 80 Question Id : 4818046373 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In an optic fibre, the refractive index of core, $\mu_1 = 1.55$ and refractive index of cladding, $\mu_2 = 1.5$, what are the values of numerical aperture (NA) and acceptance angle (θ_o)

1. NA = 0.494, $\theta_o = 46^o$
2. NA = 0.494, $\theta_o = 23.2^o$
3. NA = 0.394, $\theta_o = 23.2^o$
4. NA = 0.394, $\theta_o = 46^o$

Options :

48180424817. 1

48180424818. 2

48180424819. 3

48180424820. 4

Question Number : 81 Question Id : 4818046374 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A carrier is frequency modulated by $m(t) = A_m \sin(\omega_m t)$ with frequency modulation sensitivity constant K_f. The resulting modulation index is β_f. The same carrier is phase modulated by m(t) with phase modulation sensitivity constant K_p. The resulting modulation index is β_p. Obtain the relation between K_f and K_p so that $\beta_f = \beta_p$

1. $\frac{k_f}{k_p} = \frac{1}{\omega_m^2}$
2. $\frac{k_f}{k_p} = \omega_m$
3. $\frac{k_f}{k_p} = \frac{1}{\omega_m}$
4. $\frac{k_f}{k_p} = 2\omega_m$

Options :

48180424821. 1

48180424822. 2

48180424823. 3

48180424824. 4

Question Number : 81 Question Id : 4818046374 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A carrier is frequency modulated by $m(t) = A_m \sin(\omega_m t)$ with frequency modulation sensitivity constant K_f. The resulting modulation index is β_f. The same carrier is phase modulated by m(t) with phase modulation sensitivity constant K_p. The resulting modulation index is β_p. Obtain the relation between K_f and K_p so that $\beta_f = \beta_p$

1. $\frac{k_f}{k_p} = \frac{1}{\omega_m^2}$
2. $\frac{k_f}{k_p} = \omega_m$
3. $\frac{k_f}{k_p} = \frac{1}{\omega_m}$
4. $\frac{k_f}{k_p} = 2\omega_m$

Options :

48180424821. 1

48180424822. 2

48180424823. 3

48180424824. 4

Question Number : 82 Question Id : 4818046375 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A signal $x(t)$ is described below,

$$x(t)=\left(\frac{3}{2}\right)\cos\left(190\times10^{3}\pi t\right)+5\cos\left(200\times10^{3}\pi t\right)+\left(\frac{3}{2}\right)\cos\left(210\times10^{3}\pi t\right)$$

Determine the ratio P_s / P_c where P_s is the power in side bands and P_c is the power in the carrier

1. 0.66
2. 0.50
3. 0.18
4. 0.70

Options :

48180424825. 1

48180424826. 2

48180424827. 3

48180424828. 4

Question Number : 82 Question Id : 4818046375 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A signal $x(t)$ is described below,

$$x(t)=\left(\frac{3}{2}\right)\cos\left(190\times10^{3}\pi t\right)+5\cos\left(200\times10^{3}\pi t\right)+\left(\frac{3}{2}\right)\cos\left(210\times10^{3}\pi t\right)$$

Determine the ratio P_s / P_c where P_s is the power in side bands and P_c is the power in the carrier

1. 0.66
2. 0.50
3. 0.18
4. 0.70

Options :

48180424825. 1

48180424826. 2

48180424827. 3

48180424828. 4

Question Number : 83 Question Id : 4818046376 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The closed loop transfer function of a system is:

$$\frac{C(s)}{R(s)}=\frac{\mathrm{K}}{s\left(s^{2}+s+1\right)(s+4)+\mathrm{K}}$$

The range of K for which the system is stable is

1. $0<\mathrm{K}<\frac{84}{5}$
2. $0<\mathrm{K}<\frac{84}{25}$
3. $1<\mathrm{K}<\frac{84}{5}$
4. $1<\mathrm{K}<\frac{84}{25}$

Options :

48180424829. 1
48180424830. 2
48180424831. 3
48180424832. 4

Question Number : 83 Question Id : 4818046376 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The closed loop transfer function of a system is:

$$\frac{C(s)}{R(s)}=\frac{\mathrm{K}}{s\left(s^2+s+1\right)(s+4)+\mathrm{K}}$$

The range of K for which the system is stable is

1. $0<\mathrm{K}<\frac{84}{5}$
2. $0<\mathrm{K}<\frac{84}{25}$
3. $1<\mathrm{K}<\frac{84}{5}$
4. $1<\mathrm{K}<\frac{84}{25}$

Options :

48180424829. 1
48180424830. 2
48180424831. 3
48180424832. 4

Question Number : 84 Question Id : 4818046377 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A feedback control system having transfer function

$$F(s)=\frac{K(s+2)}{s^2\left(s^2+s+2\right)(s+1)}$$

is a:

1. First - order system
2. Second - order system
3. Fourth - order system
4. Fifth - order system

Options :

48180424833. 1
48180424834. 2
48180424835. 3
48180424836. 4

Question Number : 84 Question Id : 4818046377 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A feedback control system having transfer function

$$F(s)=\frac{K(s+2)}{s^2(s^2+s+2)(s+1)}$$

is a:

1. First - order system
2. Second - order system
3. Fourth - order system
4. Fifth - order system

Options :

48180424833. 1

48180424834. 2

48180424835. 3

48180424836. 4

Question Number : 85 Question Id : 4818046378 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements is correct for thyristor?

1. Latching current is less than holding current
2. Latching current is the minimum anode current required to maintain the thyristor in the on-state immediately after a thyristor has been turned on and the gate signal is removed.
3. Holding current is the minimum anode current to maintain thyristor in the off-state
4. Forward breakdown voltage V_{BO} is the anode to cathode voltage at which junctions J_1 & J_3 break down while the junction J_2 does not.

Options :

48180424837. 1

48180424838. 2

48180424839. 3

48180424840. 4

Question Number : 85 Question Id : 4818046378 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements is correct for thyristor?

1. Latching current is less than holding current
2. Latching current is the minimum anode current required to maintain the thyristor in the on-state immediately after a thyristor has been turned on and the gate signal is removed.
3. Holding current is the minimum anode current to maintain thyristor in the off-state
4. Forward breakdown voltage V_{BO} is the anode to cathode voltage at which junctions J_1 & J_3 break down while the junction J_2 does not.

Options :

48180424837. 1

48180424838. 2

48180424839. 3

48180424840. 4

Question Number : 86 Question Id : 4818046379 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The size of the transformer is reduced in:

1. Switched-mode AC power supplies
2. Resonant AC Power supplies
3. Bidirectional AC Power supplies
4. Switched-mode and Resonant AC power supplies

Options :

48180424841. 1

48180424842. 2

48180424843. 3

48180424844. 4

Question Number : 86 Question Id : 4818046379 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The size of the transformer is reduced in:

1. Switched-mode AC power supplies
2. Resonant AC Power supplies
3. Bidirectional AC Power supplies
4. Switched-mode and Resonant AC power supplies

Options :

48180424841. 1

48180424842. 2

48180424843. 3

48180424844. 4

Question Number : 87 Question Id : 4818046380 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Table gives the set of 10 measurements that were recorded in the laboratory. What is the precision of the 6^{th} measurement?

Measurement Number	Measurement Value (x_n)
1	98
2	101
3	102
4	97
5	101
6	100
7	103
8	98
9	106
10	99

1. 0.901
2. 0.995
3. 0.899
4. 0.896

Options :

48180424845. 1

48180424846. 2

48180424847. 3

48180424848. 4

Question Number : 87 Question Id : 4818046380 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Table gives the set of 10 measurements that were recorded in the laboratory. What is the precision of the 6^{th} measurement?

Measurement Number	Measurement Value (x_n)
1	98
2	101
3	102
4	97
5	101
6	100
7	103
8	98
9	106
10	99

1. 0.901
2. 0.995
3. 0.899
4. 0.896

Options :

48180424845. 1

48180424846. 2

48180424847. 3

48180424848. 4

Question Number : 88 Question Id : 4818046381 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

To determine the frequency from any Lissajous figure:

1. Count the number of horizontal loops in the pattern, divide it by the number of vertical loops and multiply this quantity by the known standard frequency.
2. Count the number of vertical loops in the pattern, divide it by the number of horizontal loops and multiply this quantity by the known standard frequency.
3. Count the number of horizontal loops in the pattern, divide it by the number of vertical loops and divide this quantity by the known standard frequency.
4. Count the number of vertical loops in the pattern, divide it by the number of horizontal loops and divide this quantity by the known standard frequency.

Options :

48180424849. 1

48180424850. 2

48180424851. 3

48180424852. 4

Question Number : 88 Question Id : 4818046381 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

To determine the frequency from any Lissajous figure:

1. Count the number of horizontal loops in the pattern, divide it by the number of vertical loops and multiply this quantity by the known standard frequency.
2. Count the number of vertical loops in the pattern, divide it by the number of horizontal loops and multiply this quantity by the known standard frequency.
3. Count the number of horizontal loops in the pattern, divide it by the number of vertical loops and divide this quantity by the known standard frequency.
4. Count the number of vertical loops in the pattern, divide it by the number of horizontal loops and divide this quantity by the known standard frequency.

Options :

48180424849. 1

48180424850. 2

48180424851. 3

48180424852. 4

Question Number : 89 Question Id : 4818046382 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Casimir effect is associated with:

1. Bridges
2. Digital Multimeters
3. Transducers
4. MEMS

Options :

48180424853. 1

48180424854. 2

48180424855. 3

48180424856. 4

Question Number : 89 Question Id : 4818046382 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Casimir effect is associated with:

1. Bridges
2. Digital Multimeters
3. Transducers
4. MEMS

Options :

48180424853. 1

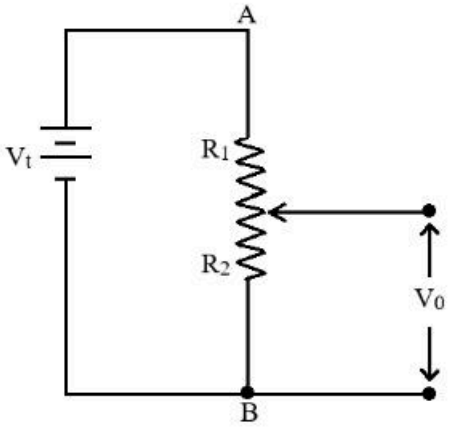
48180424854. 2

48180424855. 3

48180424856. 4

Question Number : 90 Question Id : 4818046383 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A displacement transducer, with a shaft stroke of 3.0 inches is applied to the circuit of figure given below. The total resistance of the potentiometer is 5 kΩ. The applied voltage V_t is 5V. When the wiper is 0.9 inches from B, what is the value of the output voltage?



1. 2 V
2. 1.5 V
3. 3 V
4. 3.5 V

Options :

48180424857. 1

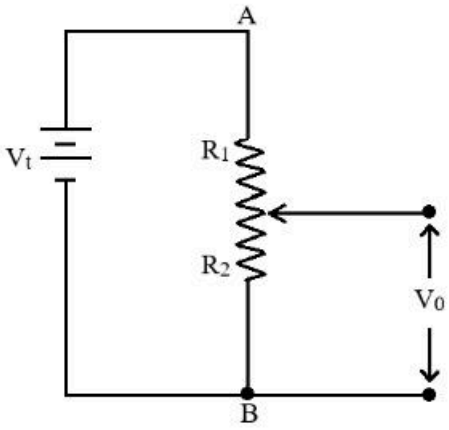
48180424858. 2

48180424859. 3

48180424860. 4

Question Number : 90 Question Id : 4818046383 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A displacement transducer, with a shaft stroke of 3.0 inches is applied to the circuit of figure given below. The total resistance of the potentiometer is 5 kΩ. The applied voltage V_t is 5V. When the wiper is 0.9 inches from B, what is the value of the output voltage?



1. 2 V
2. 1.5 V
3. 3 V
4. 3.5 V

Options :

48180424857. 1

48180424858. 2

48180424859. 3

48180424860. 4

Question Number : 91 Question Id : 4818046384 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following in terms of electron mobility from lowest to highest

A. Gallium Arsenide
B. Silicon
C. Germanium
D. Graphene

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

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

Options :

48180424861. 1

48180424862. 2

48180424863. 3

48180424864. 4

Question Number : 91 Question Id : 4818046384 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following in terms of electron mobility from lowest to highest

A. Gallium Arsenide
B. Silicon
C. Germanium
D. Graphene

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

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

Options :

48180424861. 1

48180424862. 2

48180424863. 3

48180424864. 4

Question Number : 92 Question Id : 4818046385 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following deposition processes in the increasing order of temperature requirements.

A. Chemical vapour deposition (CVD)
B. Plasma - enhanced chemical vapour deposition (PECVD)
C. Atomic layer Deposition (ALD)
D. Metal-organic chemical vapour deposition (MOCVD)

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

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

Options :

48180424865. 1

48180424866. 2

48180424867. 3

48180424868. 4

Question Number : 92 Question Id : 4818046385 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following deposition processes in the increasing order of temperature requirements.

A. Chemical vapour deposition (CVD)
B. Plasma - enhanced chemical vapour deposition (PECVD)
C. Atomic layer Deposition (ALD)
D. Metal-organic chemical vapour deposition (MOCVD)

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

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

Options :

48180424865. 1

48180424866. 2

48180424867. 3

48180424868. 4

Question Number : 93 Question Id : 4818046386 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following material and device structure innovations in chronological order.

A. Gate all around (GAA) FET
B. High-K metal gate
C. Strained silicon
D. FinFET

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

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

Options :

48180424869. 1

48180424870. 2

48180424871. 3

48180424872. 4

Question Number : 93 Question Id : 4818046386 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following material and device structure innovations in chronological order.

A. Gate all around (GAA) FET
B. High-K metal gate
C. Strained silicon
D. FinFET

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

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

Options :

48180424869. 1

48180424870. 2

48180424871. 3

48180424872. 4

Question Number : 94 Question Id : 4818046387 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The sequence of convolution process to find output response y[n] of a system having impulse response h[n] and input signal x[n] is

A. Folding h[k] about origin and get h[-k]
B. Time shifting h[k] to the right
C. Multiplication of input and time shifted impulse signal
D. Summation of all values of product to obtain output

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

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

Options :

48180424873. 1

48180424874. 2

48180424875. 3

48180424876. 4

Question Number : 94 Question Id : 4818046387 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The sequence of convolution process to find output response y[n] of a system having impulse response h[n] and input signal x[n] is

A. Folding h[k] about origin and get h[-k]
B. Time shifting h[k] to the right
C. Multiplication of input and time shifted impulse signal
D. Summation of all values of product to obtain output

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

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

Options :

48180424873. 1

48180424874. 2

48180424875. 3

48180424876. 4

Question Number : 95 Question Id : 4818046388 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following loads of a CMOS cascode amplifier in the increasing order of output voltage swing . (Assume all the transistors operating with the same overdrive voltage Vov).

A. Simple current source load
B. Simple cascode current source load
C. Low voltage cascode current source load
D. Ideal current source load

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

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

Options :

48180424877. 1

48180424878. 2

48180424879. 3

48180424880. 4

Question Number : 95 Question Id : 4818046388 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following loads of a CMOS cascode amplifier in the increasing order of output voltage swing . (Assume all the transistors operating with the same overdrive voltage Vov).

A. Simple current source load
B. Simple cascode current source load
C. Low voltage cascode current source load
D. Ideal current source load

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

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

Options :

48180424877. 1

48180424878. 2

48180424879. 3

48180424880. 4

Question Number : 96 Question Id : 4818046389 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following regions of operation of a MOSFET in the increasing order of its output conductance (g_{ds}).

A. Triode region
B. Deep triode region
C. Saturation region
D. Edge of saturation

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

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

Options :

48180424881. 1

48180424882. 2

48180424883. 3

48180424884. 4

Question Number : 96 Question Id : 4818046389 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following regions of operation of a MOSFET in the increasing order of its output conductance (g_{ds}).

A. Triode region
B. Deep triode region
C. Saturation region
D. Edge of saturation

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

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

Options :

48180424881. 1

48180424882. 2

48180424883. 3

48180424884. 4

Question Number : 97 Question Id : 4818046390 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following series of TTL logic family in the increasing order of propagation delay.

A. Standard 74 series
B. Advanced Schottky 74 AS series
C. Schottky 74 S series
D. Low power 74 L series

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

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

Options :

48180424885. 1

48180424886. 2

48180424887. 3

48180424888. 4

Question Number : 97 Question Id : 4818046390 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following series of TTL logic family in the increasing order of propagation delay.

A. Standard 74 series
B. Advanced Schottky 74 AS series
C. Schottky 74 S series
D. Low power 74 L series

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

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

Options :

48180424885. 1

48180424886. 2

48180424887. 3

48180424888. 4

Question Number : 98 Question Id : 4818046391 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the sequence of SCON (serial control) register from LSB to MSB

A. REN
B. RB8
C. TB8
D. RI
E. TI

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

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

Options :

48180424889. 1

48180424890. 2

48180424891. 3

48180424892. 4

Question Number : 98 Question Id : 4818046391 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the sequence of SCON (serial control) register from LSB to MSB

A. REN
B. RB8
C. TB8
D. RI
E. TI

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

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

Options :

48180424889. 1

48180424890. 2

48180424891. 3

48180424892. 4

Question Number : 99 Question Id : 4818046392 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following interrupt vector memory location in ascending order of address location.

A. INT0
B. INT1
C. Timer 0 interrupt (TF0)
D. Timer 1 interrupt (TF1)
E. Serial COM interrupt (RI and TI)

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

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

Options :

48180424893. 1

48180424894. 2

48180424895. 3

48180424896. 4

Question Number : 99 Question Id : 4818046392 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following interrupt vector memory location in ascending order of address location.

A. INT0
B. INT1
C. Timer 0 interrupt (TF0)
D. Timer 1 interrupt (TF1)
E. Serial COM interrupt (RI and TI)

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

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

Options :

48180424893. 1

48180424894. 2

48180424895. 3

48180424896. 4

Question Number : 100 Question Id : 4818046393 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following components of two cavity klystron amplifier from input to output.

A. Catcher cavity
B. Buncher cavity
C. Cathode
D. Anode
E. Collector

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

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

Options :

48180424897. 1

48180424898. 2

48180424899. 3

48180424900. 4

Question Number : 100 Question Id : 4818046393 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following components of two cavity klystron amplifier from input to output.

A. Catcher cavity
B. Buncher cavity
C. Cathode
D. Anode
E. Collector

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

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

Options :

48180424897. 1

48180424898. 2

48180424899. 3

48180424900. 4

Question Number : 101 Question Id : 4818046394 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In superheterodyne receiver, arrange the following functional blocks from beginning to end

A. Mixer
B. Detector
C. IF amplifier
D. RF amplifier

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

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

Options :

48180424901. 1

48180424902. 2

48180424903. 3

48180424904. 4

Question Number : 101 Question Id : 4818046394 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In superheterodyne receiver, arrange the following functional blocks from beginning to end

A. Mixer
B. Detector
C. IF amplifier
D. RF amplifier

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

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

Options :

48180424901. 1
48180424902. 2
48180424903. 3
48180424904. 4

Question Number : 102 Question Id : 4818046395 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following layers of vertical cavity surface emitting LASER (VCSEL) from bottom to top:

A. n^+ - Substrate
B. p^+ - DBR
C. Active region (Multiple quantum wells)
D. n^+ - DBR

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

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

Options :

48180424905. 1
48180424906. 2
48180424907. 3
48180424908. 4

Question Number : 102 Question Id : 4818046395 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following layers of vertical cavity surface emitting LASER (VCSEL) from bottom to top:

A. n^+ - Substrate
B. p^+ - DBR
C. Active region (Multiple quantum wells)
D. n^+ - DBR

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

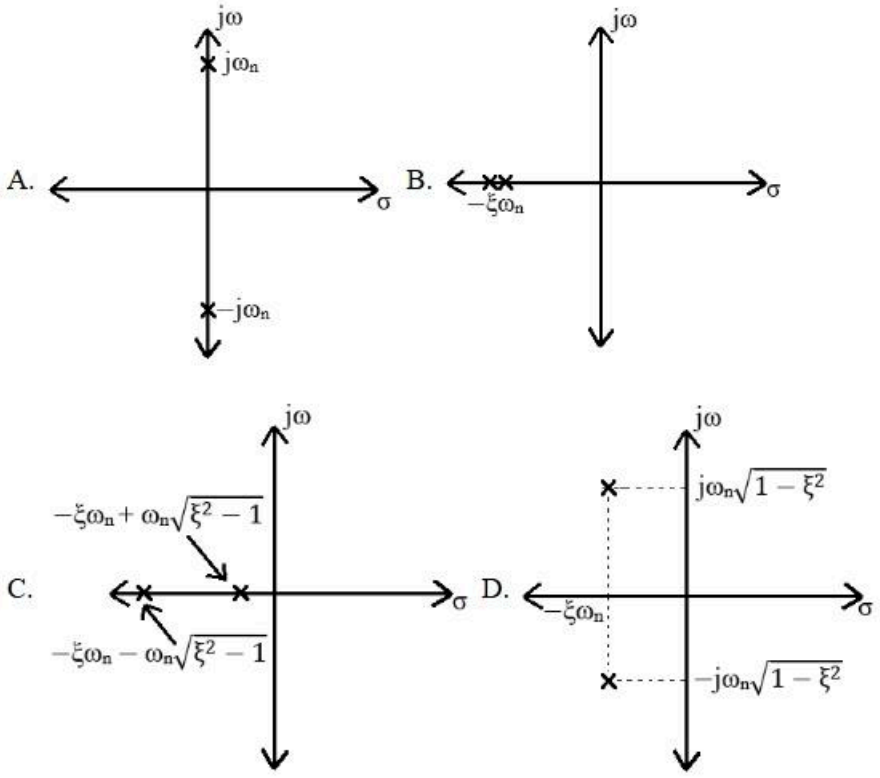
1. A, D, C, B
2. A, D, B, C
3. C, A, D, B
4. C, A, B, D

Options :

48180424905. 1
48180424906. 2
48180424907. 3
48180424908. 4

Question Number : 103 Question Id : 4818046396 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The poles locations of a second order system are given below where ξ is the damping factor and ω_n is the natural frequency. Arrange the plots in decreasing value of ξ



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

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

Options :

48180424909. 1

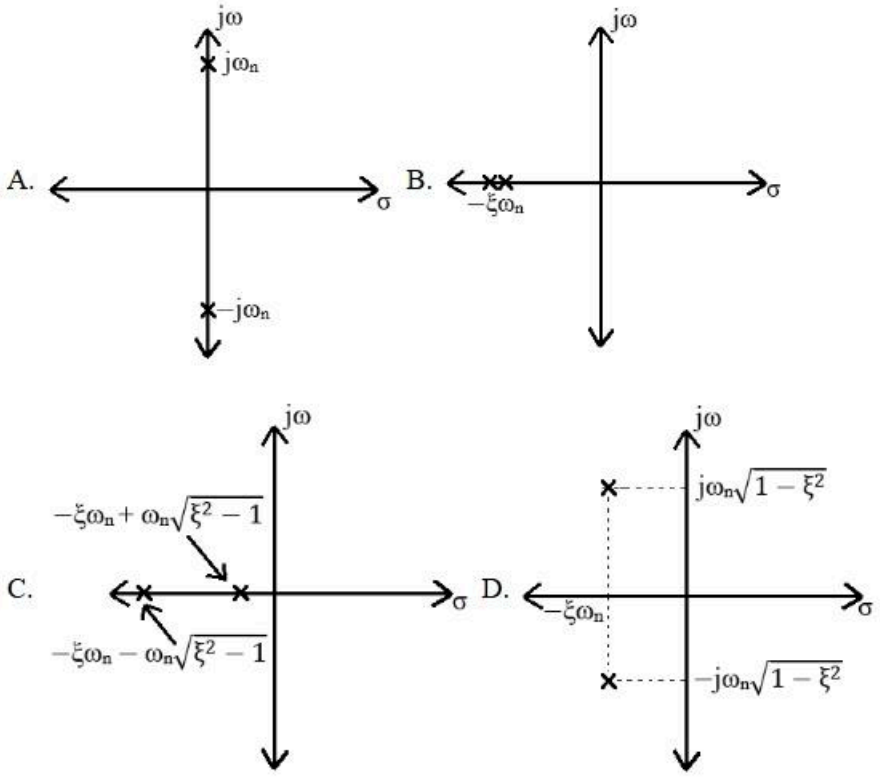
48180424910. 2

48180424911. 3

48180424912. 4

Question Number : 103 Question Id : 4818046396 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The poles locations of a second order system are given below where ξ is the damping factor and ω_n is the natural frequency. Arrange the plots in decreasing value of ξ



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

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

Options :

48180424909. 1

48180424910. 2

48180424911. 3

48180424912. 4

Question Number : 104 Question Id : 4818046397 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following blocks of ECG machine in the order in which they are connected from electrodes to pen motor

A. Power amplifier
B. Bridge output circuit
C. Lead selector
D. Pre-amplifier

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

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

Options :

48180424913. 1

48180424914. 2

48180424915. 3
48180424916. 4

Question Number : 104 Question Id : 4818046397 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Arrange the following blocks of ECG machine in the order in which they are connected from electrodes to pen motor

A. Power amplifier
B. Bridge output circuit
C. Lead selector
D. Pre-amplifier

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

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

Options :

48180424913. 1
48180424914. 2
48180424915. 3
48180424916. 4

Question Number : 105 Question Id : 4818046398 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In thermocouples, arrange the following materials with descending order of highest temperature measured (°C).

A. Iron / Constantan
B. Chromel / Alumel
C. Copper / Constantan
D. Chromel / Constantan

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

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

Options :

48180424917. 1
48180424918. 2
48180424919. 3
48180424920. 4

Question Number : 105 Question Id : 4818046398 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In thermocouples, arrange the following materials with descending order of highest temperature measured (°C).

A. Iron / Constantan
B. Chromel / Alumel
C. Copper / Constantan
D. Chromel / Constantan

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

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

Options :

48180424917. 1

48180424918. 2

48180424919. 3

48180424920. 4

Question Number : 106 Question Id : 4818046399 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. The electron concentration in intrinsic semiconductor under thermal equilibrium is

$$n_o = N_c \exp\left[\frac{-(E_c - E_{fi})}{KT}\right]$$

B. Tunnel diode is a degenerately doped diode

C. Fill factor of solar cell is $FF = \frac{I_{sc} \cdot V_{oc}}{V_m \cdot I_m}$

D. In a Schottky barrier diode, a rectifying contact is achieved for the metal-n-type semiconductor contact if metal work function (Φ_m) is less than semiconductor work function (Φ_s)

E. The diffusion capacitance of diode is $C_D = \frac{C(0)}{\left(1 + \left|\frac{V_R}{V_K}\right|\right)^n}$

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

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

Options :

48180424921. 1

48180424922. 2

48180424923. 3

48180424924. 4

Question Number : 106 Question Id : 4818046399 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. The electron concentration in intrinsic semiconductor under thermal equilibrium is $n_o = N_c \exp\left[\frac{-(E_c - E_{fi})}{KT}\right]$

B. Tunnel diode is a degenerately doped diode

C. Fill factor of solar cell is $FF = \frac{I_{sc} \cdot V_{oc}}{V_m \cdot I_m}$

D. In a Schottky barrier diode, a rectifying contact is achieved for the metal-n-type semiconductor contact if metal work function (Φ_m) is less than semiconductor work function (Φ_s)

E. The diffusion capacitance of diode is $C_D = \frac{C(0)}{\left(1 + \left|\frac{V_R}{V_K}\right|\right)^n}$

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

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

Options :

48180424921. 1

48180424922. 2

48180424923. 3

48180424924. 4

Question Number : 107 Question Id : 4818046400 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Limited source diffusion results into Gaussian distribution profile
B. Constant source diffusion results into Error function distribution profile
C. Ion implantation results into Error function distribution profile
D. Ion implantation results into Gaussian distribution profile
E. Limited source diffusion results into Error function distribution profile

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

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

Options :

48180424925. 1

48180424926. 2

48180424927. 3

48180424928. 4

Question Number : 107 Question Id : 4818046400 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Limited source diffusion results into Gaussian distribution profile
B. Constant source diffusion results into Error function distribution profile
C. Ion implantation results into Error function distribution profile
D. Ion implantation results into Gaussian distribution profile
E. Limited source diffusion results into Error function distribution profile

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

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

Options :

48180424925. 1

48180424926. 2

48180424927. 3

48180424928. 4

Question Number : 108 Question Id : 4818046401 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. The superposition principle is applicable to any networks and systems.
B. A reciprocal network comprises of linear, time-invariant, bilateral, passive elements only.
C. Tellegen's theorem is applicable to any lumped network having linear or nonlinear elements.
D. Thevenin's theorem is applicable to any linear network, time invariant or time varying.
E. Nortan's theorem is applicable to only time-invariant linear network.

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

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

Options :

48180424929. 1

48180424930. 2

48180424931. 3

48180424932. 4

Question Number : 108 Question Id : 4818046401 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. The superposition principle is applicable to any networks and systems.
B. A reciprocal network comprises of linear, time-invariant, bilateral, passive elements only.
C. Tellegen's theorem is applicable to any lumped network having linear or nonlinear elements.
D. Thevenin's theorem is applicable to any linear network, time invariant or time varying.
E. Nortan's theorem is applicable to only time-invariant linear network.

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

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

Options :

48180424929. 1

48180424930. 2

48180424931. 3

48180424932. 4

Question Number : 109 Question Id : 4818046402 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Phase locked loops can be used for frequency synthesis.
B. Astable multivibrators generate free running waveform.
C. Second order low-pass filter has a gain roll-off of 60 dB/decade
D. A voltage-to-frequency converter is an integral part of PLL.
E. XOR gate can be used as phase frequency detector (PFD)

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

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

Options :

48180424933. 1

48180424934. 2

48180424935. 3

48180424936. 4

Question Number : 109 Question Id : 4818046402 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Phase locked loops can be used for frequency synthesis.
B. Astable multivibrators generate free running waveform.
C. Second order low-pass filter has a gain roll-off of 60 dB/decade
D. A voltage-to-frequency converter is an integral part of PLL.
E. XOR gate can be used as phase frequency detector (PFD)

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

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

Options :

48180424933. 1

48180424934. 2

48180424935. 3

48180424936. 4

Question Number : 110 Question Id : 4818046403 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Analog-to-digital converter having conversion time independent of the magnitude of analog input is

A. Flash ADC
B. Digital Ramp ADC
C. Successive Approximation ADC
D. Dual-Slope Integrating ADC

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

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

Options :

48180424937. 1

48180424938. 2

48180424939. 3

48180424940. 4

Question Number : 110 Question Id : 4818046403 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Analog-to-digital converter having conversion time independent of the magnitude of analog input is

A. Flash ADC
B. Digital Ramp ADC
C. Successive Approximation ADC
D. Dual-Slope Integrating ADC

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

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

Options :

48180424937. 1

48180424938. 2

48180424939. 3

48180424940. 4

Question Number : 111 Question Id : 4818046404 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a Timer mode (TMOD) register, when

A. C/T = 0, the timer gets pulse from the crystal.
B. C/T = 1, the timer gets pulse from outside 8051.
C. C/T = 1, the timer is used as a counter.
D. C/T = 0, the timer get pulse from outside 8051.
E. C/T = 0, the timer is used as a counter.

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

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

Options :

48180424941. 1

48180424942. 2

48180424943. 3

48180424944. 4

Question Number : 111 Question Id : 4818046404 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a Timer mode (TMOD) register, when

A. C/T = 0, the timer gets pulse from the crystal.
B. C/T = 1, the timer gets pulse from outside 8051.
C. C/T = 1, the timer is used as a counter.
D. C/T = 0, the timer get pulse from outside 8051.
E. C/T = 0, the timer is used as a counter.

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

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

Options :

48180424941. 1

48180424942. 2

48180424943. 3

48180424944. 4

Question Number : 112 Question Id : 4818046405 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following parameters are associated with Antenna

A. Gain
B. Modulation Index
C. Cross-Polarization
D. Balanced Modulator
E. Directivity

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

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

Options :

48180424945. 1

48180424946. 2

48180424947. 3

48180424948. 4

Question Number : 112 Question Id : 4818046405 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following parameters are associated with Antenna

A. Gain
B. Modulation Index
C. Cross-Polarization
D. Balanced Modulator
E. Directivity

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

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

Options :

48180424945. 1

48180424946. 2

48180424947. 3

48180424948. 4

Question Number : 113 Question Id : 4818046406 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In Dielectric-Dielectric boundary conditions, which of the following relations are true

A. $E_{2t} = D_{1n}$
B. $E_{1t} = E_{2t}$
C. $D_{1n} = D_{2n}$
D. $D_{1n} = E_{1t}$

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

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

Options :

48180424949. 1

48180424950. 2

48180424951. 3

48180424952. 4

Question Number : 113 Question Id : 4818046406 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In Dielectric-Dielectric boundary conditions, which of the following relations are true

A. $E_{2t} = D_{1n}$
B. $E_{1t} = E_{2t}$
C. $D_{1n} = D_{2n}$
D. $D_{1n} = E_{1t}$

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

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

Options :

48180424949. 1

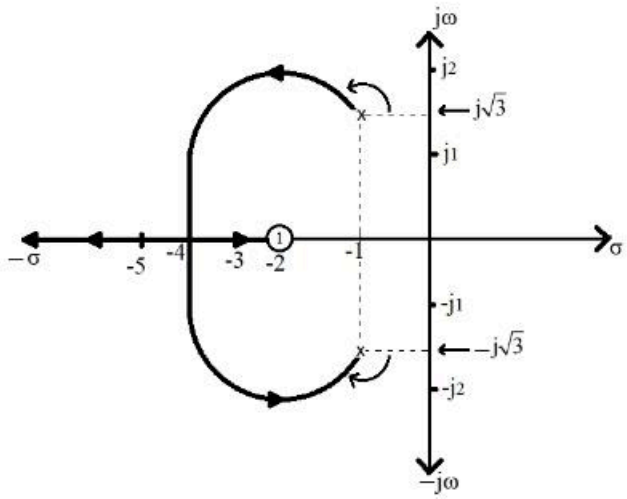
48180424950. 2

48180424951. 3

48180424952. 4

Question Number : 114 Question Id : 4818046407 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a system with given root locus for open-loop transfer function.



A. Number of loci is 3.
B. Number of loci at ∞ is 1.
C. Number of asymptotes are 1.
D. Angle of departure is 150°.
E. Centroid lies at S = -4

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

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

Options :

48180424953. 1

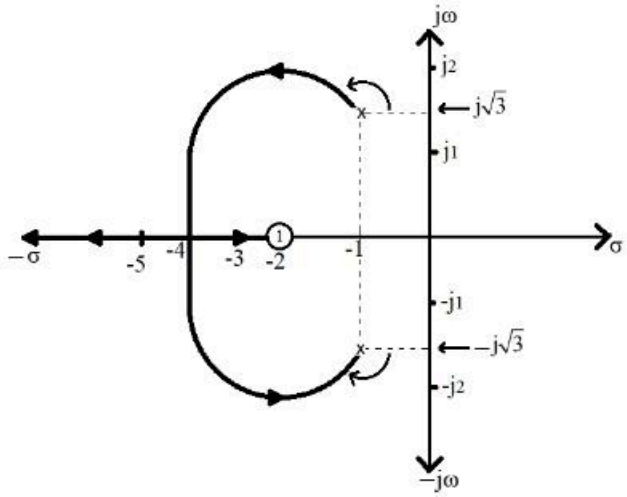
48180424954. 2

48180424955. 3

48180424956. 4

Question Number : 114 Question Id : 4818046407 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a system with given root locus for open-loop transfer function.



A. Number of loci is 3.
B. Number of loci at ∞ is 1.
C. Number of asymptotes are 1.
D. Angle of departure is 150°.
E. Centroid lies at S = -4

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

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

Options :

48180424953. 1

48180424954. 2

48180424955. 3

48180424956. 4

Question Number : 115 Question Id : 4818046408 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Piezo electric sensors are passive type sensors.
B. The gauge factor is defined as the ratio of change in resistance (ΔR/R) to the change in length (ΔL/L).
C. For a given amount of illumination on a very small area, the photodiode provides a much larger output current than that available from a phototransistor.
D. In a spectrum analyzer, the saw-tooth wave is applied only to the horizontal plates.
E. Hall effect can be used for the measurement of magnetic field.

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

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

Options :

48180424957. 1

48180424958. 2

48180424959. 3

48180424960. 4

Question Number : 115 Question Id : 4818046408 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Piezo electric sensors are passive type sensors.
B. The gauge factor is defined as the ratio of change in resistance ($\Delta R/R$) to the change in length ($\Delta L/L$).
C. For a given amount of illumination on a very small area, the photodiode provides a much larger output current than that available from a phototransistor.
D. In a spectrum analyzer, the saw-tooth wave is applied only to the horizontal plates.
E. Hall effect can be used for the measurement of magnetic field.

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

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

Options :

48180424957. 1

48180424958. 2

48180424959. 3

48180424960. 4

Question Number : 116 Question Id : 4818046409 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. MOSFET is a three-terminal device.
B. Zener diode is a heavily doped diode.
C. The mobility of electrons in Germanium is higher than Silicon
D. CNTs can be used as semiconductors as well as conductors
E. The Fermi level of intrinsic semiconductor lies exactly at the centre between valence and conduction bands.

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

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

Options :

48180424961. 1

48180424962. 2

48180424963. 3

48180424964. 4

Question Number : 116 Question Id : 4818046409 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. MOSFET is a three-terminal device.
B. Zener diode is a heavily doped diode.
C. The mobility of electrons in Germanium is higher than Silicon
D. CNTs can be used as semiconductors as well as conductors
E. The Fermi level of intrinsic semiconductor lies exactly at the centre between valence and conduction bands.

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

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

Options :

48180424961. 1

48180424962. 2

48180424963. 3

48180424964. 4

Question Number : 117 Question Id : 4818046410 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the given statements are correct?

A. Dry oxidation is faster than wet oxidation.
B. Wet oxidation is faster than dry oxidation.
C. Oxide deposition is used to form gate oxide of MOSFET.
D. Silicon oxynitride (SiON) has higher dielectric constant than silicon dioxide (SiO_2)
E. Thermal oxidation at high temperatures increases fixed oxide charges.

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

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

Options :

48180424965. 1

48180424966. 2

48180424967. 3

48180424968. 4

Question Number : 117 Question Id : 4818046410 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the given statements are correct?

A. Dry oxidation is faster than wet oxidation.
B. Wet oxidation is faster than dry oxidation.
C. Oxide deposition is used to form gate oxide of MOSFET.
D. Silicon oxynitride (SiON) has higher dielectric constant than silicon dioxide (SiO_2)
E. Thermal oxidation at high temperatures increases fixed oxide charges.

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

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

Options :

48180424965. 1

48180424966. 2

48180424967. 3

48180424968. 4

Question Number : 118 Question Id : 4818046411 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The impulse response $h(n) = \left[\frac{1}{2}\right]^n u(n+3)$ of an LTI System is

A. Unstable
B. Stable
C. Causal
D. non-causal
E. non-linear and time varying

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

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

Options :

48180424969. 1

48180424970. 2

48180424971. 3

48180424972. 4

Question Number : 118 Question Id : 4818046411 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The impulse response $h(n) = \left[\frac{1}{2}\right]^n u(n+3)$ of an LTI System is

A. Unstable
B. Stable
C. Causal
D. non-causal
E. non-linear and time varying

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

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

Options :

48180424969. 1

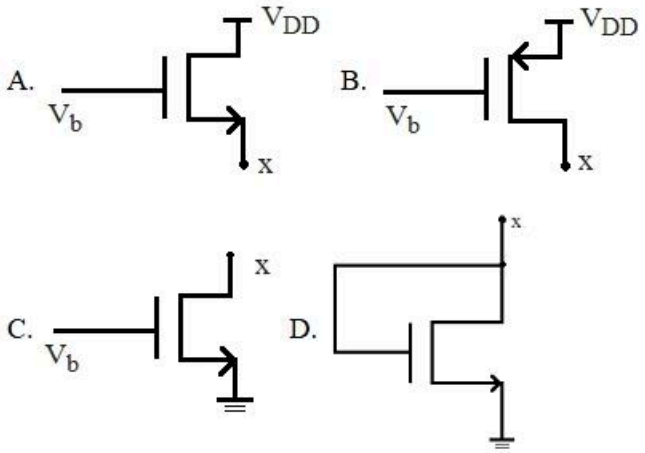
48180424970. 2

48180424971. 3

48180424972. 4

Question Number : 119 Question Id : 4818046412 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following MOSFET configurations can be used as a current source? Assume V_b and V_{DD} are fixed.



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

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

Options :

48180424973. 1

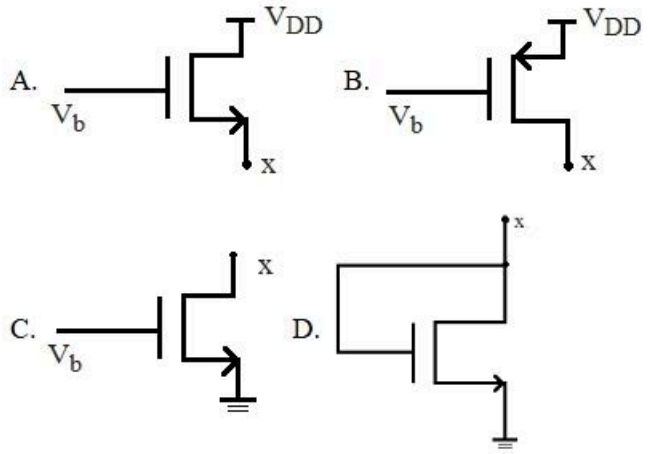
48180424974. 2

48180424975. 3

48180424976. 4

Question Number : 119 Question Id : 4818046412 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following MOSFET configurations can be used as a current source? Assume V_b and V_{DD} are fixed.



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

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

Options :

48180424973. 1

48180424974. 2

48180424975. 3

48180424976. 4

Question Number : 120 Question Id : 4818046413 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following Boolean equations can be implemented using 2-to-1 multiplexers?

A. $F = A \oplus B$

B. $F = A \cdot \overline{B} + C \cdot B$

C. $F = \overline{A+B}$

D. $F = A \cdot \overline{B}$

E. $Q_{n+1} = Q_n \cdot \overline{En} + D \cdot En$

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

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

Options :

48180424977. 1

48180424978. 2

48180424979. 3

48180424980. 4

Question Number : 120 Question Id : 4818046413 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following Boolean equations can be implemented using 2-to-1 multiplexers?

A. $F = A \oplus B$
B. $F = A \cdot \overline{B} + C \cdot B$
C. $F = \overline{A+B}$
D. $F = A \cdot \overline{B}$
E. $Q_{n+1} = Q_n \cdot \overline{En} + D \cdot En$

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

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

Options :

48180424977. 1

48180424978. 2

48180424979. 3

48180424980. 4

Question Number : 121 Question Id : 4818046414 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

M1 and M0 are the mode select bits in a TMOD register.

A. Mode 0 is a 13 bit timer mode
B. Mode 1 is a 8 bit auto reload timer / counter
C. Mode 0 is a 16 bit timer mode
D. Mode 2 is a 8 bit auto reload timer / counter.
E. Mode 1 is a 16 bit timer mode

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

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

Options :

48180424981. 1

48180424982. 2

48180424983. 3

48180424984. 4

Question Number : 121 Question Id : 4818046414 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

M1 and M0 are the mode select bits in a TMOD register.

A. Mode 0 is a 13 bit timer mode
B. Mode 1 is a 8 bit auto reload timer / counter
C. Mode 0 is a 16 bit timer mode
D. Mode 2 is a 8 bit auto reload timer / counter.
E. Mode 1 is a 16 bit timer mode

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

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

Options :

48180424981. 1

48180424982. 2

48180424983. 3

48180424984. 4

Question Number : 122 Question Id : 4818046415 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Example of crossed - field tube (M type) is

A. Reflex - Klystron
B. TWT
C. Magnetron
D. Gyrotron

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

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

Options :

48180424985. 1

48180424986. 2

48180424987. 3

48180424988. 4

Question Number : 122 Question Id : 4818046415 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Example of crossed - field tube (M type) is

A. Reflex - Klystron
B. TWT
C. Magnetron
D. Gyrotron

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

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

Options :

48180424985. 1

48180424986. 2

48180424987. 3

48180424988. 4

Question Number : 123 Question Id : 4818046416 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

To generate pulse code modulation (PCM), which of the following blocks are required

A. Lowpass filter (LPF)
B. Sampler
C. Integrator
D. Phase Shifter
E. Quantizer

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

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

Options :

48180424989. 1

48180424990. 2

48180424991. 3

48180424992. 4

Question Number : 123 Question Id : 4818046416 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

To generate pulse code modulation (PCM), which of the following blocks are required

A. Lowpass filter (LPF)
B. Sampler
C. Integrator
D. Phase Shifter
E. Quantizer

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

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

Options :

48180424989. 1

48180424990. 2

48180424991. 3

48180424992. 4

Question Number : 124 Question Id : 4818046417 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Snubber circuits are used for the protection of thyristors against over voltage and over current
B. In a UPS, if the main supply fails, the load gets its input from a secondary ac-supply.
C. The number of poles at origin determines the type of a system
D. The Mason's Gain equation is given by $\frac{C(s)}{R(s)} = \frac{\sum F_i \cdot \Delta_i}{\sum F_i}$
E. A thyristor can be turned ON if the rate of rise of the anode-cathode voltage is high

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

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

Options :

48180424993. 1

48180424994. 2

48180424995. 3

48180424996. 4

Question Number : 124 Question Id : 4818046417 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. Snubber circuits are used for the protection of thyristors against over voltage and over current
B. In a UPS, if the main supply fails, the load gets its input from a secondary ac-supply.
C. The number of poles at origin determines the type of a system
D. The Mason's Gain equation is given by $\frac{C(s)}{R(s)} = \frac{\sum F_i \cdot \Delta_i}{\sum F_i}$
E. A thyristor can be turned ON if the rate of rise of the anode-cathode voltage is high

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

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

Options :

48180424993. 1

48180424994. 2

48180424995. 3

48180424996. 4

Question Number : 125 Question Id : 4818046418 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. In a piezoelectric transducer, the output voltage is directly proportional to shunt capacitance
B. Sphygmomanometer works very well at very low blood pressures.
C. Light weight encryption algorithms are required for IoTs.
D. Sacrificial layers are used in MEMS.
E. In LVDT, nickel-iron alloy core is slotted longitudinally to reduce eddy current losses

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

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

Options :

48180424997. 1

48180424998. 2

48180424999. 3

48180425000. 4

Question Number : 125 Question Id : 4818046418 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Which of the following statements are correct?

A. In a piezoelectric transducer, the output voltage is directly proportional to shunt capacitance
B. Sphygmomanometer works very well at very low blood pressures.
C. Light weight encryption algorithms are required for IoTs.
D. Sacrificial layers are used in MEMS.
E. In LVDT, nickel-iron alloy core is slotted longitudinally to reduce eddy current losses

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

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

Options :

48180424997. 1

48180424998. 2

48180424999. 3

48180425000. 4

Question Number : 126 Question Id : 4818046419 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Schottky diode	I.	Voltage regulator
B.	Tunnel diode	II.	High Speed Switch
C.	Zener diode	III.	Voltage tuning of an LC resonator circuit
D.	Varactor diode	IV.	use in low voltage and high current rectifier circuit

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

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

Options :

48180425001. 1

48180425002. 2

48180425003. 3

48180425004. 4

Question Number : 126 Question Id : 4818046419 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Schottky diode	I.	Voltage regulator
B.	Tunnel diode	II.	High Speed Switch
C.	Zener diode	III.	Voltage tuning of an LC resonator circuit
D.	Varactor diode	IV.	use in low voltage and high current rectifier circuit

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

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

Options :

48180425001. 1

48180425002. 2

48180425003. 3

48180425004. 4

Question Number : 127 Question Id : 4818046420 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	ZnO	I.	Sp^2 hybridization
B.	Graphene	II.	Isoelectronic centre for GaP in GaAsP LEDs
C.	SiC	III.	Step staircase density of state function
D.	Quantum Well	IV.	wide bandgap material

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

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

Options :

48180425005. 1

48180425006. 2

48180425007. 3

48180425008. 4

Question Number : 127 Question Id : 4818046420 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	ZnO	I.	Sp^2 hybridization
B.	Graphene	II.	Isoelectronic centre for GaP in GaAsP LEDs
C.	SiC	III.	Step staircase density of state function
D.	Quantum Well	IV.	wide bandgap material

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

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

Options :

48180425005. 1

48180425006. 2

48180425007. 3

48180425008. 4

Question Number : 128 Question Id : 4818046421 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Birds beak formation	I.	STI isolation
B.	Inverse narrow width effect	II.	Junction isolation
C.	Lowest component density	III.	LOCOS isolation
D.	Noise and Latch-up prevention	IV.	Guard Ring isolation

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

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

Options :

48180425009. 1

48180425010. 2

48180425011. 3

48180425012. 4

Question Number : 128 Question Id : 4818046421 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Birds beak formation	I.	STI isolation
B.	Inverse narrow width effect	II.	Junction isolation
C.	Lowest component density	III.	LOCOS isolation
D.	Noise and Latch-up prevention	IV.	Guard Ring isolation

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

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

Options :

48180425009. 1

48180425010. 2

48180425011. 3

48180425012. 4

Question Number : 129 Question Id : 4818046422 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Discrete time unit step u[n]	I.	$\frac{1}{2}[f[n]+f[-n]]$
B.	Discrete time unit impulse δ[n]	II.	$u[n]-u[n-1]$
C.	Discrete time even function	III.	$\sum_{m=-\infty}^{n}\delta[m]$
D.	Discrete time odd function	IV.	$\frac{1}{2}[f[n]-f[-n.]]$

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

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

Options :

48180425013. 1

48180425014. 2

48180425015. 3

48180425016. 4

Question Number : 129 Question Id : 4818046422 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Discrete time unit step u[n]	I.	$\frac{1}{2}[f[n]+f[-n]]$
B.	Discrete time unit impulse δ[n]	II.	$u[n]-u[n-1]$
C.	Discrete time even function	III.	$\sum_{m=-\infty}^{n}\delta[m]$
D.	Discrete time odd function	IV.	$\frac{1}{2}[f[n]-f[-n.]]$

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

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

Options :

48180425013. 1

48180425014. 2

48180425015. 3

48180425016. 4

Question Number : 130 Question Id : 4818046423 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	$\mathcal{L}\left(t^4 \cdot e^{-at} \cdot u(t)\right)$	I.	$s \xrightarrow{Lt} 0 \left[sF(s)\right]$
B.	$\mathcal{L}\left(u(t)-u(t-4)\right)$	II.	$s \xrightarrow{Lt} \infty \left[sF(s)\right]$
C.	Initial value theorem $f(0^+)$	III.	$\frac{1}{s}\left(1-e^{-4s}\right)$
D.	Final value theorem $f(\infty)$	IV.	$\frac{24}{(s+a)^5}$

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

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

Options :

48180425017. 1

48180425018. 2

48180425019. 3

48180425020. 4

Question Number : 130 Question Id : 4818046423 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	$\mathcal{L}\left(t^4 \cdot e^{-at} \cdot u(t)\right)$	I.	$s \xrightarrow{Lt} 0 \left[sF(s)\right]$
B.	$\mathcal{L}\left(u(t)-u(t-4)\right)$	II.	$s \xrightarrow{Lt} \infty \left[sF(s)\right]$
C.	Initial value theorem $f(0^+)$	III.	$\frac{1}{s}\left(1-e^{-4s}\right)$
D.	Final value theorem $f(\infty)$	IV.	$\frac{24}{(s+a)^5}$

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

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

Options :

48180425017. 1

48180425018. 2

48180425019. 3

48180425020. 4

Question Number : 131 Question Id : 4818046424 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Common emitter amplifier	I.	Voltage gain less than unity
B.	Common Collector amplifier	II.	High input resistance
C.	Common base amplifier	III.	Low input resistance
D.	Common emitter amplifier with emitter resistance R_E	IV.	Low nonlinear distortion

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

Options :

48180425021. 1

48180425022. 2

48180425023. 3

48180425024. 4

Question Number : 131 Question Id : 4818046424 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Common emitter amplifier	I.	Voltage gain less than unity
B.	Common Collector amplifier	II.	High input resistance
C.	Common base amplifier	III.	Low input resistance
D.	Common emitter amplifier with emitter resistance R_E	IV.	Low nonlinear distortion

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

Options :

48180425021. 1

48180425022. 2

48180425023. 3

48180425024. 4

Question Number : 132 Question Id : 4818046425 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Cache memory	I.	EPROM
B.	Main memory	II.	DRAM
C.	Auxiliary memory	III.	SRAM
D.	Portable memory	IV.	MRAM

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

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

Options :

48180425025. 1

48180425026. 2

48180425027. 3

48180425028. 4

Question Number : 132 Question Id : 4818046425 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Cache memory	I.	EPROM
B.	Main memory	II.	DRAM
C.	Auxiliary memory	III.	SRAM
D.	Portable memory	IV.	MRAM

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

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

Options :

48180425025. 1

48180425026. 2

48180425027. 3

48180425028. 4

Question Number : 133 Question Id : 4818046426 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Dynamic hazards	I.	synchronous sequential circuit
B.	Set-up time violation	II.	bi-stable circuit
C.	semiconductor memories	III.	combinational circuit
D.	Demultiplexer	IV.	asynchronous sequential circuit

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

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

Options :

48180425029. 1

48180425030. 2

48180425031. 3

48180425032. 4

Question Number : 133 Question Id : 4818046426 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Dynamic hazards	I.	synchronous sequential circuit
B.	Set-up time violation	II.	bi-stable circuit
C.	semiconductor memories	III.	combinational circuit
D.	Demultiplexer	IV.	asynchronous sequential circuit

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

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

Options :

48180425029. 1

48180425030. 2

48180425031. 3

48180425032. 4

Question Number : 134 Question Id : 4818046427 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** (Special function register of 8051) with **LIST-II** (Addresses)

LIST-I		LIST-II	
A.	Accumulator (A)	I.	98 H
B.	Stack Pointer (SP)	II.	81 H
C.	TMOD	III.	89 H
D.	SCON	IV.	0E0H

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

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

Options :

48180425033. 1

48180425034. 2

48180425035. 3

48180425036. 4

Question Number : 134 Question Id : 4818046427 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Match the **LIST-I** (Special function register of 8051) with **LIST-II** (Addresses)

LIST-I		LIST-II	
A.	Accumulator (A)	I.	98 H
B.	Stack Pointer (SP)	II.	81 H
C.	TMOD	III.	89 H
D.	SCON	IV.	0E0H

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

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

Options :

48180425033. 1

48180425034. 2

48180425035. 3

48180425036. 4

Question Number : 135 Question Id : 4818046428 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Free space	I.	$\sigma \simeq 0, \varepsilon = \varepsilon_r\varepsilon_0, \mu = \mu_r\mu_0$, or $\sigma << \omega\varepsilon$
B.	Lossless dielectrics	II.	$\sigma \simeq \infty, \varepsilon = \varepsilon_0, \mu = \mu_r\mu_0$, or $\sigma >> \omega\varepsilon$
C.	Lossy dielectrics	III.	$\sigma \neq 0, \varepsilon = \varepsilon_r\varepsilon_0, \mu = \mu_r\mu_0$
D.	Good conductors	IV.	$\sigma = 0, \varepsilon = \varepsilon_0, \mu = \mu_0$

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

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

Options :

48180425037. 1

48180425038. 2

48180425039. 3

48180425040. 4

Question Number : 135 Question Id : 4818046428 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Free space	I.	$\sigma \simeq 0, \varepsilon = \varepsilon_r\varepsilon_0, \mu = \mu_r\mu_0$, or $\sigma << \omega\varepsilon$
B.	Lossless dielectrics	II.	$\sigma \simeq \infty, \varepsilon = \varepsilon_0, \mu = \mu_r\mu_0$, or $\sigma >> \omega\varepsilon$
C.	Lossy dielectrics	III.	$\sigma \neq 0, \varepsilon = \varepsilon_r\varepsilon_0, \mu = \mu_r\mu_0$
D.	Good conductors	IV.	$\sigma = 0, \varepsilon = \varepsilon_0, \mu = \mu_0$

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

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

Options :

48180425037. 1

48180425038. 2

48180425039. 3

48180425040. 4

Question Number : 136 Question Id : 4818046429 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Hertzian Dipole Antenna	I.	$R_{rad} = \frac{320\,\pi^4 s^2}{\lambda^4}$
B.	Half wave Dipole Antenna	II.	$R_{rad} = 80\,\pi^2 \left(\frac{d\ell}{\lambda}\right)^2$
C.	Quarter wave monopole Antenna	III.	$R_{rad} \simeq 36{\cdot}5\Omega$
D.	Small loop Antenna	IV.	$R_{rad} = 73\Omega$

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

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

Options :

48180425041. 1

48180425042. 2

48180425043. 3

48180425044. 4

Question Number : 136 Question Id : 4818046429 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Hertzian Dipole Antenna	I.	$R_{rad} = \frac{320\,\pi^4 s^2}{\lambda^4}$
B.	Half wave Dipole Antenna	II.	$R_{rad} = 80\,\pi^2 \left(\frac{d\ell}{\lambda}\right)^2$
C.	Quarter wave monopole Antenna	III.	$R_{rad} \simeq 36{\cdot}5\Omega$
D.	Small loop Antenna	IV.	$R_{rad} = 73\Omega$

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

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

Options :

48180425041. 1

48180425042. 2

48180425043. 3

48180425044. 4

Question Number : 137 Question Id : 4818046430 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	AM	I.	Number of side bands are infinite
B.	SSB-SC	II.	Number of side bands is two
C.	NBFM	III.	Number of side bands is one
D.	WBFM	IV.	Number of side bands are two but opposite in phase

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

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

Options :

48180425045. 1

48180425046. 2

48180425047. 3

48180425048. 4

Question Number : 137 Question Id : 4818046430 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	AM	I.	Number of side bands are infinite
B.	SSB-SC	II.	Number of side bands is two
C.	NBFM	III.	Number of side bands is one
D.	WBFM	IV.	Number of side bands are two but opposite in phase

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

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

Options :

48180425045. 1

48180425046. 2

48180425047. 3

48180425048. 4

Question Number : 138 Question Id : 4818046431 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	COOLMOS	I.	PUT
B.	$V_{BR1} = V_{BR2} \pm 0.1\ V_{BR2}$	II.	DIAC
C.	$e_g = k_v \cdot \omega \cdot i_f$	III.	Power Transistor
D.	$V_P = \eta V_{BB} + V_D$	IV.	DC motor

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

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

Options :

48180425049. 1

48180425050. 2

48180425051. 3

48180425052. 4

Question Number : 138 Question Id : 4818046431 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	COOLMOS	I.	PUT
B.	$V_{BR1} = V_{BR2} \pm 0.1\ V_{BR2}$	II.	DIAC
C.	$e_g = k_v \cdot \omega \cdot i_f$	III.	Power Transistor
D.	$V_P = \eta V_{BB} + V_D$	IV.	DC motor

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

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

Options :

48180425049. 1

48180425050. 2

48180425051. 3

48180425052. 4

Question Number : 139 Question Id : 4818046432 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	PI Controller	I.	Introduces offset
B.	PD Controller	II.	Reduces steady state error and improves stability
C.	Proportional Controller	III.	Reduces steady state error
D.	PID Controller	IV.	Amplifies noise

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

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

Options :

48180425053. 1

48180425054. 2

48180425055. 3

48180425056. 4

Question Number : 139 Question Id : 4818046432 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	PI Controller	I.	Introduces offset
B.	PD Controller	II.	Reduces steady state error and improves stability
C.	Proportional Controller	III.	Reduces steady state error
D.	PID Controller	IV.	Amplifies noise

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

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

Options :

48180425053. 1

48180425054. 2

48180425055. 3

48180425056. 4

Question Number : 140 Question Id : 4818046433 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Maxwell's Bridge	I.	Measurement of unknown capacitance
B.	Schering's Bridge	II.	Measurement of low value resistance
C.	Wien's Bridge	III.	Measurement of unknown inductance
D.	Kelvin's Bridge	IV.	Measurement of unknown frequency

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

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

Options :

48180425057. 1

48180425058. 2

48180425059. 3

48180425060. 4

Question Number : 140 Question Id : 4818046433 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

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

LIST-I		LIST-II	
A.	Maxwell's Bridge	I.	Measurement of unknown capacitance
B.	Schering's Bridge	II.	Measurement of low value resistance
C.	Wien's Bridge	III.	Measurement of unknown inductance
D.	Kelvin's Bridge	IV.	Measurement of unknown frequency

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

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

Options :

48180425057. 1

48180425058. 2

48180425059. 3

48180425060. 4

Sub-Section Number : 2

Sub-Section Id : 481804255

Question Shuffling Allowed : No

Is Section Default? : No

Question Id : 4818046434 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (141 to 145)

The word 'communicate' refers to pass on and the act of 'communicating' termed as communication. Based on technology, communication can be classified as analog and digital communication. To transmit a message signal from transmitter to receiver needs a communication system which consists of information source, transmitter, channel, noise source and receiver. Example of some communication systems are mobile communication, radio and television broadcasting etc. A low frequency message signal can not be transmitted over a larger distance, hence it needs modulation techniques such as AM, FM, PM in analog modulation schemes and ASK, FSK, PSK, QPSK, MSK etc. in digital communication one. We need demodulation technique at the receiver to extract the original message signal.

Sub questions

Question Number : 141 Question Id : 4818046435 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

_____ modulation technique is used for transmission of picture signals in television.

1. PM
2. FM
3. AM
4. VSB

Options :

48180425061. 1

48180425062. 2

48180425063. 3

48180425064. 4

Question Number : 142 Question Id : 4818046436 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A certain transmitter radiates 9 kW with the carrier unmodulated and 10.125 kW when the carrier is sinusoidally modulated. If another sine wave is simultaneously transmitted with modulation index 0.4, determine the total radiated power.

1. 7.45 kW
2. 10.84 kW
3. 9.90 kW
4. 12.74 kW

Options :

48180425065. 1

48180425066. 2

48180425067. 3

48180425068. 4

Question Number : 143 Question Id : 4818046437 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Let the carrier voltage (V_c) and modulating voltage (V_m), be represented by $V_c = A_c \sin \omega_c t$ and $V_m = A_m \sin \omega_m t$, respectivly.

The correct expression for the modulation index (m) is _____

1. $m=\frac{A_c}{A_m}$
2. $m=\frac{A_m}{A_c}$
3. $m=\frac{A_c^2}{A_m^2}$
4. $m=\frac{1}{A_c}$

Options :

48180425069. 1

48180425070. 2

48180425071. 3

48180425072. 4

Question Number : 144 Question Id : 4818046438 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A 400 W carrier is modulated to a depth of 75%, the total power in the amplitude modulated wave is _____

1. 512.5 W
2. 242 W
3. 378 W
4. 400 W

Options :

48180425073. 1

48180425074. 2

48180425075. 3

48180425076. 4

Question Number : 145 Question Id : 4818046439 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a hexagonal cellular system, the following information is provided:

D = minimum distance between centres of cells that use the same frequency band (co channels)

R = Radius of a cell

N = Number of cells in a repetitious pattern, so $\frac{D}{R}$ = _____

1. 5 N
2. $\frac{1}{3N}$
3. 3N
4. $\sqrt{3N}$

Options :

48180425077. 1

48180425078. 2

48180425079. 3

48180425080. 4

Question Id : 4818046434 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (141 to 145)

The word 'communicate' refers to pass on and the act of 'communicating' termed as communication. Based on technology, communication can be classified as analog and digital communication. To transmit a message signal from transmitter to receiver needs a communication system which consists of information source, transmitter, channel, noise source and receiver. Example of some communication systems are mobile communication, radio and television broadcasting etc. A low frequency message signal can not be transmitted over a larger distance, hence it needs modulation techniques such as AM, FM, PM in analog modulation schemes and ASK, FSK, PSK, QPSK, MSK etc. in digital communication one. We need demodulation technique at the receiver to extract the original message signal.

Sub questions

Question Number : 141 Question Id : 4818046435 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

_____ modulation technique is used for transmission of picture signals in television.

1. PM
2. FM
3. AM
4. VSB

Options :

48180425061. 1

48180425062. 2

48180425063. 3

48180425064. 4

Question Number : 142 Question Id : 4818046436 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A certain transmitter radiates 9 kW with the carrier unmodulated and 10.125 kW when the carrier is sinusoidally modulated. If another sine wave is simultaneously transmitted with modulation index 0.4, determine the total radiated power.

1. 7.45 kW
2. 10.84 kW
3. 9.90 kW
4. 12.74 kW

Options :

48180425065. 1

48180425066. 2

48180425067. 3

48180425068. 4

Question Number : 143 Question Id : 4818046437 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Let the carrier voltage (V_c) and modulating voltage (V_m), be represented by $V_c = A_c \sin \omega_c t$ and $V_m = A_m \sin \omega_m t$, respectivly.

The correct expression for the modulation index (m) is _____

1. $m=\frac{A_c}{A_m}$
2. $m=\frac{A_m}{A_c}$
3. $m=\frac{A_c^2}{A_m^2}$
4. $m=\frac{1}{A_c}$

Options :

48180425069. 1

48180425070. 2

48180425071. 3

48180425072. 4

Question Number : 144 Question Id : 4818046438 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

A 400 W carrier is modulated to a depth of 75%, the total power in the amplitude modulated wave is _____

1. 512.5 W
2. 242 W
3. 378 W
4. 400 W

Options :

48180425073. 1

48180425074. 2

48180425075. 3

48180425076. 4

Question Number : 145 Question Id : 4818046439 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

In a hexagonal cellular system, the following information is provided:

D = minimum distance between centres of cells that use the same frequency band (co channels)

R = Radius of a cell

N = Number of cells in a repetitious pattern, so $\frac{D}{R}$ = _____

1. 5 N
2. $\frac{1}{3N}$
3. 3N
4. $\sqrt{3N}$

Options :

48180425077. 1

48180425078. 2

48180425079. 3

48180425080. 4

Sub-Section Number : 3
Sub-Section Id : 481804256
Question Shuffling Allowed : No
Is Section Default? : No

Question Id : 4818046440 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

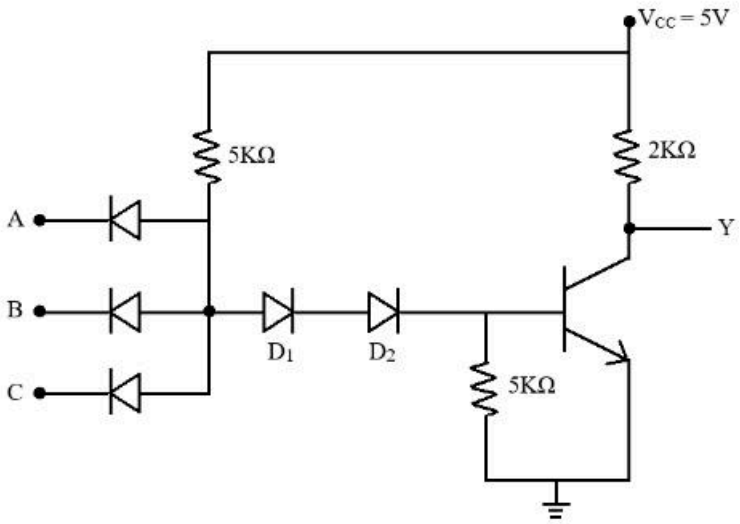
Question Numbers : (146 to 150)

An integrated circuit (IC) is fabricated on a die of a silicon semiconductor crystal, called a chip, containing the electronic components connected in a specific fashion to construct digital gates. subsequently, a set of digital gates are interconnected inside a chip to form the required circuit. There are various approaches to implement basic logic functions on a chip. These approaches involve the use of electronic components such as resistors, diodes, BJTs and MOSFETs. Depending on what set of these components is used to implement logic functions, these circuits have been classified into various logic families. Therfore, logic families can be defined as electronic circuits using specific set of electronic components that implement various basic logic functions. The various IC logic families that have been developed over decades are Resistor Transistor Logic (RTL), Diode Transistor Logic (DTL), Transistor- Transistor Logic (TTL), Emitter Coupled Logic (ECL), Metal Oxide Semiconductor (MOS) and Complementary Metal Oxide Semiconductor (CMOS) families. Some of these logic families have become obsolete and have only historical perspective. On the other hand, one of these has been the work horse of the state-of the-art IC manufacturing for nearly five decades and fueled the unprecedented growth in semiconductor industry.

Sub questions

Question Number : 146 Question Id : 4818046441 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What logic function is implemented by the following circuit?



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

Options :

48180425081. 1

48180425082. 2

48180425083. 3

48180425084. 4

Question Number : 147 Question Id : 4818046442 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The standard TTL gates have the following values for the current: I_{OH} = 400 μA, I_{IH} = 40 μA, I_{OL} = 16 mA and I_{IL} = 1.6 mA

What is the fan-out of this gate?

1. 5
2. 40
3. 4
4. 10

Options :

48180425085. 1

48180425086. 2

48180425087. 3

48180425088. 4

Question Number : 148 Question Id : 4818046443 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The input and output voltage ranges of a standard TTL NAND gate are: V_{OH} = 2.4 V, V_{OL} = 0.4 V, V_{IH} = 2 V and V_{IL} = 0.8 V. The high state noise margin (NM_H) of this gate is

1. 1.6 V
2. 1.2 V
3. 0.4 V
4. 2.2 V

Options :

48180425089. 1

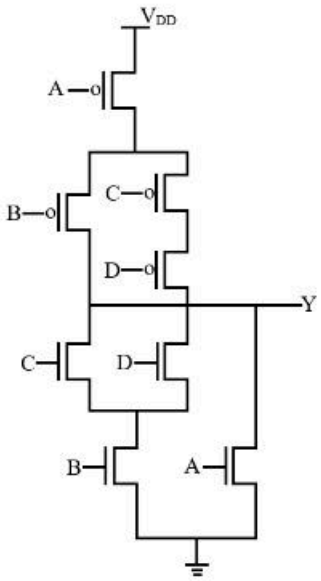
48180425090. 2

48180425091. 3

48180425092. 4

Question Number : 149 Question Id : 4818046444 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What logic function is implemented by the given circuit?



1. $A + B \cdot (C + D)$
2. $\overline{A} \cdot \left(\overline{B} + \overline{C + D}\right)$
3. $\overline{A} \cdot \left(\overline{B} + C \cdot D\right)$
4. $(A + B)\ (C + D)$

Options :

48180425093. 1

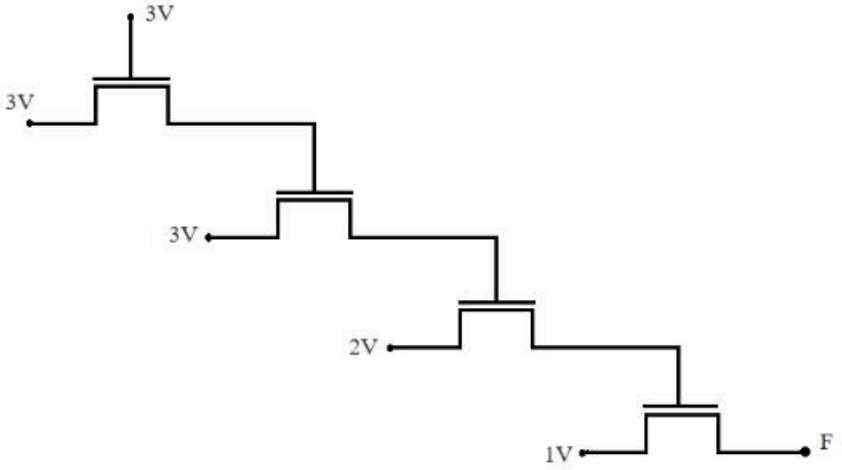
48180425094. 2

48180425095. 3

48180425096. 4

Question Number : 150 Question Id : 4818046445 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What will be the voltage (V_F) at the output node F? Assume the body bias effect is negligible and the threshold voltage of the transistors is $V_{TN} = 0.5$ V.



1. $V_F = 1$ V
2. $V_F = 1.5$ V
3. $V_F = 2$ V
4. $V_F = 2.5$ V

Options :

48180425097. 1

48180425098. 2

48180425099. 3

48180425100. 4

Question Id : 4818046440 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

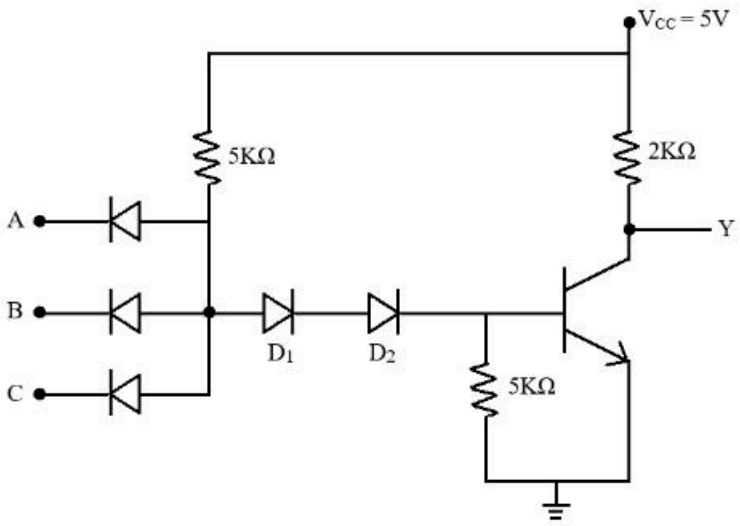
Question Numbers : (146 to 150)

An integrated circuit (IC) is fabricated on a die of a silicon semiconductor crystal, called a chip, containing the electronic components connected in a specific fashion to construct digital gates. subsequently, a set of digital gates are interconnected inside a chip to form the required circuit. There are various approaches to implement basic logic functions on a chip. These approaches involve the use of electronic components such as resistors, diodes, BJTs and MOSFETs. Depending on what set of these components is used to implement logic functions, these circuits have been classified into various logic families. Therfore, logic families can be defined as electronic circuits using specific set of electronic components that implement various basic logic functions. The various IC logic families that have been developed over decades are Resistor Transistor Logic (RTL), Diode Transistor Logic (DTL), Transistor- Transistor Logic (TTL), Emitter Coupled Logic (ECL), Metal Oxide Semiconductor (MOS) and Complementary Metal Oxide Semiconductor (CMOS) families. Some of these logic families have become obsolete and have only historical perspective. On the other hand, one of these has been the work horse of the state-of the-art IC manufacturing for nearly five decades and fueled the unprecedented growth in semiconductor industry.

Sub questions

Question Number : 146 Question Id : 4818046441 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What logic function is implemented by the following circuit?



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

Options :

48180425081. 1

48180425082. 2

48180425083. 3

48180425084. 4

Question Number : 147 Question Id : 4818046442 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The standard TTL gates have the following values for the current: I_{OH} = 400 μA, I_{IH} = 40 μA, I_{OL} = 16 mA and I_{IL} = 1.6 mA

What is the fan-out of this gate?

1. 5
2. 40
3. 4
4. 10

Options :

48180425085. 1

48180425086. 2

48180425087. 3

48180425088. 4

Question Number : 148 Question Id : 4818046443 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

The input and output voltage ranges of a standard TTL NAND gate are: V_{OH} = 2.4 V, V_{OL} = 0.4 V, V_{IH} = 2 V and V_{IL} = 0.8 V. The high state noise margin (NM_H) of this gate is

1. 1.6 V
2. 1.2 V
3. 0.4 V
4. 2.2 V

Options :

48180425089. 1

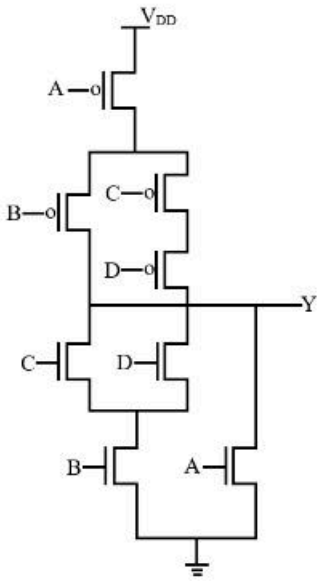
48180425090. 2

48180425091. 3

48180425092. 4

Question Number : 149 Question Id : 4818046444 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What logic function is implemented by the given circuit?



1. $A + B \cdot (C + D)$
2. $\overline{A} \cdot \left(\overline{B} + \overline{C + D}\right)$
3. $\overline{A} \cdot \left(\overline{B} + C \cdot D\right)$
4. $(A + B)\ (C + D)$

Options :

48180425093. 1

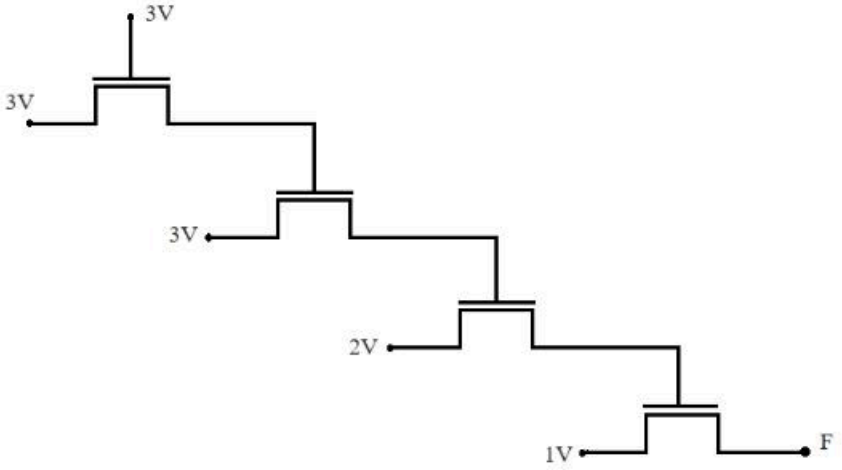
48180425094. 2

48180425095. 3

48180425096. 4

Question Number : 150 Question Id : 4818046445 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

What will be the voltage (V_F) at the output node F? Assume the body bias effect is negligible and the threshold voltage of the transistors is $V_{TN} = 0.5$ V.



1. $V_F = 1$ V
2. $V_F = 1.5$ V
3. $V_F = 2$ V
4. $V_F = 2.5$ V

Options :

48180425097. 1
48180425098. 2
48180425099. 3
48180425100. 4