

# Telangana State Council Higher Education

Notations :

1.Options shown in green color and with icon are correct.

2.Options shown in red color and with icon are incorrect.

Question Paper Name :	2022-08-0416:46:5
Subject Name :	120
Creation Date :	120
Duration :	Yes
Total Marks :	None
Display Marks:	No
Calculator :	No
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	No
Change Font Color :	Yes
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No
Biomedical Engineering 4th Aug 2022 Shift 2	No
Biomedical Engineering	No

## Biomedical Engineering

Group Number :	
Group Id :	34058054
Group Maximum Duration :	
Group Minimum Duration :	120

Show Attended Group? : No  
Edit Attended Group? : No  
Break time :  
Group Marks : 120  
Is this Group for Examiner? : No  
Examiner permission : Cant View  
Show Progress Bar? : No

## Mathematics

Section Id : 34058099  
Section Number : 1  
Section type : Online  
Mandatory or Optional : Mandatory  
Number of Questions : 10  
Number of Questions to be attempted : 10  
Section Marks : 10  
Enable Mark as Answered Mark for Review and Yes  
Clear Response :  
Maximum Instruction Time :  
Sub-Section Number : 1  
Sub-Section Id : 34058099  
Question Shuffling Allowed : Yes  
Question Number : 1 Question Id : 3405806361 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0  
The particular integral of  $x Y'' - y = x$  is  $Y_p =$   
Options :

34058025441. 8 x 3

34058025442. 2 x 3

34058025443M 3 x 3

34058025444. -x<sup>3</sup> 3

Question Number : 2 Question Id : 3405806362 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

If  $y = a \sin x + b \cos x$  satisfies  $y'' - y' = \cos x$  then  $a + b =$

Options :

34058025445. 8 1

34058025446. -1

34058025447. 2

34058025448. -2

Question Number : 3 Question Id : 3405806363 Question Type : MCQ Option Shuffling :  
Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time  
: N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

-1 0 -2

The sum of eigen values of  $\begin{pmatrix} 2 & -1 & 1 \\ 0 & -2 & -3 \end{pmatrix}$  is

Options :

-3

34058025449. 8

-4

34058025450.

-5

34058025451.

5

34058025452. 8

Question Number : 4 Question Id : 3405806364 Question Type : MCQ Option Shuffling :  
Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time  
: N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

The number of solutions of the system  $x + y + z = 2, x - y - z = 0, 2x + y - z = -1$  is

Options :

34058025453.

8 2

34058025454.

34058025455.

34058025456. 00

Question Number : 5 Question Id : 3405806365 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The residue of  $f(z) = \operatorname{cosec} z$  at the pole  $z = 47\pi$  is

Options :

34058025457.

$i\pi$

34058025458.

$27\pi i$

34058025459.

1

34058025460.

Question Number : 6 Question Id : 3405806366 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The probability that an year chosen at random contains 53 Sundays is

Options :

1

4

34058025461.

34058025462. 8

12

5

28

34058025463.

9

28

34058025464. 8

Question Number : 7 Question Id : 3405806367 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Two numbers a, b are chosen at random from the set {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15}. Then the probability that the equation  $2a = 3b$  is satisfied, is

Options :

8

34058025465. s:

6

15

c.

34058025466.

10

34058025467.

12

15

34058025468. 'CQ

Question Number : 8 Question Id : 3405806368 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Solving the equation  $x - xe = 0$  using Newton's method we have

$$(x_n - x_{n+1})(x_n + 1) =$$

Options :

$$x - e^{-x_n}$$

34058025469.

$$x_n + e^{-x_n}$$

34058025470. 8

$$x_n - e^{-x_n}$$

34058025471.

$$x_n$$

34058025472.

Question Number : 9 Question Id : 3405806369 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The maximum value of  $-x^2 + 2xy - y^2 + x - y + 5$  is

Options :

19

34058025473. 8 4

21

34058025474.

34058025475. 8

23

4

27

34058025476. 8 4

Question Number : 10 Question Id : 3405806370 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The area between the curves  $y = |x|$  and  $y = x^2$  is

Options :

5

34058025477. ✖2

5

34058025478.

3

34058025479. ✖5

2

34058025480. ✖5

## Biomedical Engineering

Section Id :

3405801 oo



Section Number : 2 Section type : Online

Mandatory or Optional : Mandatory

Number of Questions : 110

Number of Questions to be attempted : 110

Section Marks : 110

Enable Mark as Answered Mark for Review and Yes

Clear Response :

Maximum Instruction Time :

Sub-Section Number : 1

Sub-Section Id : 3405801 oo

Question Shuffling Allowed : Yes

Question Number : 11 Question Id : 3405806371 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which mode of ultrasound imaging is used for the study of blood flow through the chambers of heart

Options :

34058025481.  B-mode

A-mode

34058025482.

M-mode

34058025483.

C-mode

34058025484.

Question Number : 12 Question Id : 3405806372 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

How much energy is stored by a 211F capacitor with a voltage of 1000V

Options :

34058025485. ✖ 0.05 J

34058025486.

34058025487. ✖ 5 J

34058025488. ✖ 10 J

Question Number : 13 Question Id : 3405806373 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Six light bulbs are connected in parallel across 110 V. Each bulb is related at

75W. How much current flows through each bulb

Options :

34058025489. ✖ 0.682 A

34058025490. ' 0.7 A

34058025491. 75 A

34058025492. 110 A

Question Number : 14 Question Id : 3405806374 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

What is the operational temperature of Autoclave

Options :

34058025493. s: 500 c

34058025494. 8

150%

34058025495.

✖ 250%

34058025496.

Question Number : 15 Question Id : 3405806375 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

If the peak value of a sine wave voltage is 5 V, what is the rms value

Options :

0.707 v

34058025497.

8 3.535 v

34058025498.

34058025499. 5 V

8 1.17 v

34058025500.

Question Number : 16 Question Id : 3405806376 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

In a certain series RC circuit,  $V_R = 4\text{ V}$  and  $V_C = 6\text{ V}$ , what is the magnitude of  
the total voltage

Options :

7.2 v

34058025501.

34058025502. 4 V

34058025503. 8.6 v

52 v

34058025504.

Question Number : 17 Question Id : 3405806377 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

How many NOR gates are required to obtain AND operation

Options :

34058025505. 2

34058025506.

34058025507. 8 4

34058025508. 1

Question Number : 18 Question Id : 3405806378 Question Type : MCQ Option Shuffling :  
Yes

Question Number :

:

Display Yes Is Question Mandatory : No Calculator None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The output of a logic gate is 1 when all its inputs are at logic 1 . The gate is either

Options :

34058025509. An OR or an X-NOR

34058025510. An AND or a NAND

An OR or an X-OR 34058025511.

34058025512. ✖ A NAND or an X-NOR

Question Number : 19 Question Id : 3405806379 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The logical expression  $A + AB + ABC + ABCD + ABCDE + \dots$  is equal to

Options :

34058025513.

34058025514.

34058025515. ✖  $A + AB$

34058025516. 8

Question Number : Question Id : 3405806382 Question Type : MCQ Option Shuffling :  
Yes

Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

Minimum Instruction Time : 0

Marks : 0

Question Number : 20 Question Id : 3405806380 Question Type : MCQ Option Shuffling :  
Yes Display Yes Is Question Mandatory : No Calculator None Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0 Which of the following

Boolean algebraic expressions is incorrect

Options :

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

34058025517. 8

34058025518.   $A + AB = B$

34058025519.  $B(A + C) - A + BC$

34058025520.  $(A + B)(A + B) = A$

Question Number : 21 Question Id : 3405806381 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The adder preferred for applications where circuit minimization is more important than  
speed is

Options :

34058025521. Parallel adder

Question Number :

:

Serial adder

34058025522.

34058025523. ✖ Full adder

34058025524. 8 Half adder

22

Display Question

: N.A Think Time : N.A

Correct Marks : 1 Wrong

\M1ich logic gate is a basic comparator

Options :

34058025525. s: NOR gate

34058025526. 8 NAND gate

34058025527. ✖ X-OR gate

34058025528. ✔ X-NOR gate

Question Number : 23 Question Id : 3405806383 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A logic circuit that accepts several data inputs and allow only one of them at a

time to get through to the output is called



Question Number : Question

Id : 3405806382 Question Type

: MCQ Option Shuffling : Yes

Number : Yes

Is Question

Mandatory :

No Calculator

: None

Response

Time

Minimum

Instruction

Time :

0

Marks

: 0

Options :

34058025529.  Multiplexer

34058025530.  8 Demultiplexer

Transmitter

34058025531.

34058025532.  8 Receiver

Question Number : Question Id : 3405806382 Question Type : MCQ Option Shuffling :  
Yes

Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

Minimum Instruction Time : 0

Marks : 0

24

Display Question

: N.A Think Time : N.A

Correct Marks : 1 Wrong

A 16: 1 multiplexer can be used to design

Options :

34058025533. ✓ 4 variable logic function

34058025534. ✘ BCD to binary code convener

34058025535. ✘ BCD to 7 segment decoder

34058025536. ✘ Full adder

Question Number : 25 Question Id : 3405806385 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following flip-flop is used as a latch

Options :

34058025537. s: J-K flip-flop

Question Id : 3405806388 Question Type MCQ Option Shuffling :  
Yes

Number : Yes IS Question Mandatory : No Calculator : None  
Response Time

Minimum Instruction Time : 0

Marks : 0

34058025538. ✖ Master-slave flip-flop

34058025539. 8 T flip-flop

34058025540. D flip-flop

Question Number : 26 :

Display Question

: N.A Think Time : N.A

Correct Marks : 1 Wrong

Master- slave configuration is used in flip-flops to

Options :

Increase ✖ its clocking rate 34058025541.

8 Reduce power dissipation

34058025542.

Eliminate race -around condition

34058025543.

8 Improve its reliability

34058025544.

Question Id : 3405806388 Question Type MCQ Option Shuffling :  
Yes

Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

Minimum Instruction Time : 0

Marks : 0

Question Number : 27 Question Id : 3405806387 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The integral  $\int_0^{\pi} \sin(t) dt$  evaluate to

Options :

34058025545.

34058025546.

1.5

34058025547.

34058025548. 0

Question Number : 28

Display Question

: N.A Think Time : N.A

Correct Marks : 1 Wrong

The real function  $f(t)$  has Fourier transform  $F(\omega)$ . The Fourier transform of

$[f(t)-f(-t)]$  is

Question Id : 3405806388 Question Type MCQ Option Shuffling :  
Yes

Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

Minimum Instruction Time : 0

Marks : 0

Options :

34058025549. Zero

34058025550. 8 Real

34058025551. Real and odd

34058025552. Imaginary

Question Number : 29 Question Id : 3405806389 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The Fourier transform  $x(t) = e^{-at}u(-t)$ . when  $u(t)$  is unit step function

Options :

34058025553. 8 Exist for any real value of  $a$

34058025554. ✘ Does not exist for any real value of  $a$

34058025555. ✔ Exist if the real value of  $a$  is strictly negative

34058025556.  $s$ : Exists if the real value of  $a$  is strictly positive

Question Number : 30 Question Id : 3405806390 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

$u(t)$  represents the unit step function. The Laplace transform of  $u(t-\tau)$  is

Options :

$\frac{1}{s}$   
34058025557.  $\frac{1}{s}$

$\frac{1}{s}$   
34058025558.

34058025559.  $s$

$e^{-st}$   
34058025560.

Question Number : 31 Question Id : 3405806391 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The region of Convergence (ROC) of the Z-transform of a causal unit step discrete-time sequence is

Options :

34058025561.  $|z| < 1$

# |z| s |

34058025562.

34058025563. ✓  $|z| > 1$

# VI 2 1

34058025564.

Question Number : 32 Question Id : 3405806392 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The highest frequency present in signal  $x(t)$  is  $f_{max}$ . The highest frequency present

in the signal  $y(t) = x^2(t)$  is

Options :

1

34058025565. max

34058025566. max

$2f_{max}$

34058025567.

34058025568. 8

Question Number : 33 Question Id : 3405806393 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Three DFT coefficients, out of the DFT coefficients of a five-point real sequence are given as:  $X(0) = 0$ ,  $X(1) = 1 - j$  and  $X(3) = 2 + j2$ . The zeroth value of the sequence  $x(n)$

Options :

34058025569.

34058025570. 2

34058025571.

34058025572. ✖

Question Number : 34 Question Id : 3405806394 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Consider a low-pass filter module with a pass band ripple of  $\delta$  in the gain magnitude. If  $M$  such identical modules are cascaded, ignoring the loading effects, the pass-band ripple of the cascade is

Options :

34058025573.  $(1 - \delta)^M$

34058025574.  $6^M$



34058025575. ✖  $(1 - \delta^M)$

34058025576. ✖  $(1 - \delta)^M$

Question Number : 35 Question Id : 3405806395 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The Laplace transform of the function  $f(t) \cdot u(t)$  is  $F(s)$ , where  $u(t)$  represents the unit step function. The inverse Laplace transform of  $e^{-s} F(s)$  is

Options :

34058025577. ✖  $f(t) u(t-1)$

✖  $f(t-1) u(t)$

34058025578.

34058025579. ✔  $f(t-1) u(t-1)$

34058025580. s:  $f(t)/t-1$

Question Number : 36 Question Id : 3405806396 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The fundamental period of the sequence  $x[n] = \sin(1.3\pi n + 0.5\pi) + 5 \sin(1.2\pi n)$  is

Options :

34058025581. 20

27t

34058025582. ✖ 1.31t

27t

34058025583. 8 1.21t

34058025584. ✖ 10

Question Number : 37 Question Id : 3405806397 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

An ammeter with input resistance of 50  $\Omega$  gives full scale deflection for 50  $\mu$ A current. The input resistance of a 0 - 1 mA ammeter obtained by connecting a shunt across the 0 - 50  $\mu$ A meter will be

Options :

8 50  $\Omega$

34058025585.

✖ 25  $\Omega$

34058025586.

34058025587. 5  $\Omega$

2.5  $\Omega$

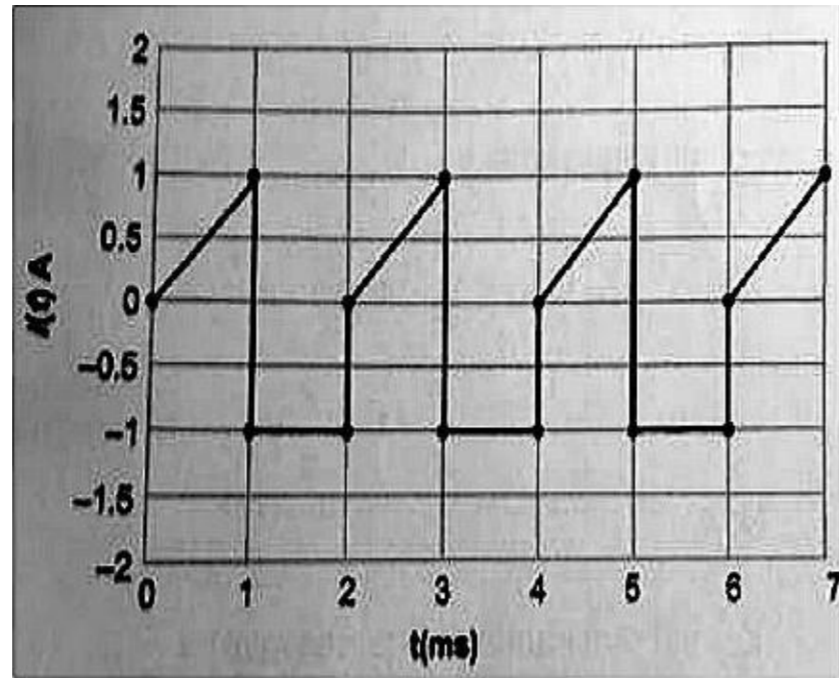
34058025588.

Question Number : 38 Question Id : 3405806398 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The current waveform  $i(t)$  shown below, is passed through a PMMC type ammeter. The reading of the ammeter up to two decimal place is



Options :

34058025589. -0.25 A

-0.12 A

34058025590.

✘ 0.37 A

34058025591.

0.5 A

34058025592.

Question Number : 39 Question Id : 3405806399 Question Type : MCQ Option Shuffling :  
 Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
 Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A resistance potentiometer has a total resistance of 10000  $\Omega$  and is rated 4 W. If

the range of potentiometer is 0 to 100 then sensitivity in V/mm

Options :

34058025593. 8 1.0

34058025594. 2.0

34058025595. ' 5

34058025596. 8 25

Question Number : 40 Question Id : 3405806400 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A wire potentiometer of length 11 m and resistance 1 Q/m balances a standard cell  
voltage of 1.018 V at a length of 10 m 18 cm. If the voltage of the battery supplymg  
the cunent through the potentiometer is 2.0 V, then the value of the series resistance  
connected to the potentiometer is

Options :

34058025597.

34058025598. 90 Q

s, 900 Q

34058025599.

✖ 990 Q

34058025600.

Question Number : 41 Question Id : 3405806401 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The bridge most suited for measurement of a four-terminal resistance in the range  
of 0.001 Q to 0.1 Q is

Options :

34058025601.  Wien 's bridge

34058025602. Kelvin double bridge

34058025603.  Maxwell's bridge

Schering bridge

34058025604.

Question Number : 42 Question Id : 3405806402 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks :

The base units in SI system are

Options :

34058025605.  s: Metre, kilogramme, second

34058025606.  8 Metre, kilogramme, second, ampere

34058025607.  Metre, kilogramme, second, ampere, kelvin, candela, mole

34058025608.  8 Metre, kilogramme, second, ampere, kelvin, candela

Question Number : 43 Question Id : 3405806403 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The voltage of a circuit is measured by a voltmeter having Input impedance comparable with the output impedance of the circuit thereby causing an error in voltage measurement. This error may be called as

Options :

Gross Error

34058025609.

Random Error

34058025610. 8

Error

34058025611. caused by misuse of instrument

34058025612. Error caused by loading effect

Question Number : 44 Question Id : 3405806404 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A set of readings has a wide range. Therefore, it has

Options :

34058025613. Low precision

✘ High precision

34058025614.

34058025615. Medium accuracy

✘ High accuracy

34058025616.

Question Number : 45 Question Id : 3405806405 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

If the confidence level is 0.95. then the values lying outside the confidence  
intervals are

Options :

34058025617. 8 I in 5

34058025618. ✓ I in 20

1 in 100

34058025619.

34058025620. 8 I in 1000

Question Number : 46 Question Id : 3405806406 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0

The true value of Q of a coil is 245 and the measured value of 244.5. The ratio of  
distributed capacitance to self-capacitance of the coil is

Options :

$2.04 \times 10^3$

34058025621.

1.002

34058025622.

0.997

34058025623.

100

34058025624.

Question Number : 47 Question Id : 3405806407 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A Hall effect transducer is used for the measurement of a magnetic field of

$1.5 \text{ Wb/m}^2$  with a copper transducer for which Hall effect coefficient is  $-52 \times 10^{-12}$

$\text{V-m/A-Wb m}^2$ . The thickness of the element is 2 mm and the current passing is 5

A, Find the voltage generated

Options :

34058025625.  $e-0.195 \text{ UV}$

0.195 V

34058025626.

-390 Inv

34058025627.

$-390 \times 10^{-9} \text{ v}$

34058025628. s:

Question Number : 48 Question Id : 3405806408 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A cadmium sulphide cell has the highest response for a light of wavelength of nearly



Options :

300 mn

34058025629.

34058025630. 8800 nm

34058025631.

500 nm

600 nm

34058025632. 8

Question Number : 49 Question Id : 3405806409 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A quartz piezo-electric crystal having a thickness of 2mm and voltage sensitivity of 0.05 V-mtN is subjected to a pressure of  $1.5 \text{ Wm}^2$ . If permittivity =  $40.6 \times 10^{12} \text{ F/m}$ , the output voltage will be

Options :

100 v

34058025633.

150 v

34058025634.

165 v

34058025635.

34058025636.

Question Number : 50 Question Id : 3405806410 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

34058025631.

The coils having self-inductance of 10mH and 15mH have an effective Inductance of 40mH, when connected in series aiding. What will be the equivalent if we connect them in series-opposing

Options :

20mH

34058025638.  10mH

5111H

34058025639.

34058025640. 8 Zero

Question Number : 51 Question Id : 3405806411 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A resistance potentiometer is a

Options :

8 First order instruments

34058025641.

Zero order instruments

34058025642.

34058025643. 8 Second order instruments

First and second order instruments

34058025644.

34058025631.

Question Number : 52 Question Id : 3405806412 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

An advantage of a permanent magnet coil instrument is that it

Options :

✖ Free from friction error

34058025646. Has high (torque/weight of the moving parts) ratio

Has low (torque/weight of the moving parts) ratio

34058025647.

34058025648. 8 Can be used on both a.c. and d.c.

Question Number : 53 Question Id : 3405806413 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

If a dynamometer type wattmeter is connected in an ac circuit, the power indicated by the wattmeter will be

Options :

34058025649. 8 Volt-ampere product

Average power  
34058025650.

34058025631.

34058025651. 8 Peak power

34058025652. 8 Instantaneous power

Question Number : 54 Question Id : 3405806414 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A photo voltaic cell is connected across a very large value of resistance, Its sensitivity at higher illumination levels is typically

Options :

34058025653. s: Infinity

Zero

34058025654.

Some finite value which is very large

34058025655. ✖

Some finite value which is very small and nears zero

34058025656.

Question Number : 55 Question Id : 3405806415 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In a Q meter, an inductor tunes to 2MHz with 450 PF and to 4MHz with 90 PF.

The distributed capacitance of the inductor is

Options :

34058025657. ✔ 30 PF

34058025658. 8 45 PF

90 PF

34058025659. 8

360 PF

34058025660.

Question Number : 56 Question Id : 3405806416 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which one of the following statement is not correct

Options :

34058025661. It is not possible to have precise measurement which are not accurate

Consistency in measurement requires both accuracy and precision

34058025662.

Reproducibility and consistency are expressions that best describe

precision in measurements

34058025663. 8

An instrument with 2% accuracy is better than another with 5% accuracy

34058025664.

Question Number : 57 Question Id : 3405806417 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The dynamic characteristics of capacitive transducer are similar to those of

Options :

34058025665.  Low pass filters

34058025666.  High pass filters

34058025667. 8 Notch filters

34058025668. Band stop filters

Question Number : 58 Question Id : 3405806418 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

**Which** of the photoelectric transducers is used for production of electric energy by converting solar energy

Options :

Photo emissive

34058025669. 8

Photo diode

34058025670.

Photo transistor

34058025671.

Photo voltaic cell

34058025672.

Question Number : 59 Question Id : 3405806419 Question Type : MCQ Option Shuffling : Yes

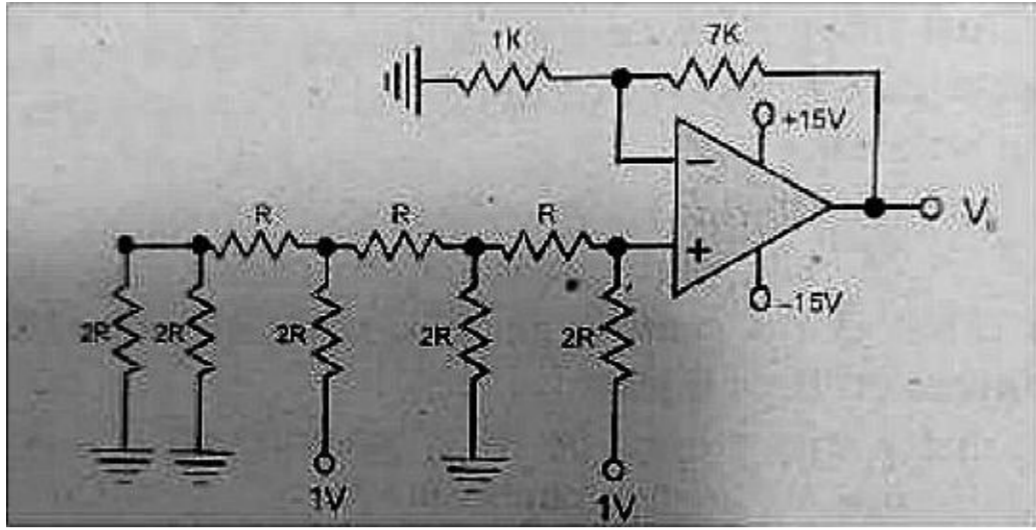
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

For the 4- bit DAC shown, the output voltage  $V$  is





Options :

34058025673. ✖ 10 v

34058025674.

34058025675.

34058025676. 8V

Question Number : 60 Question Id : 3405806420 Question Type : MCQ Option Shuffling :  
 Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
 Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The contents of the accumulator in an 8085 microprocessor are altered after the  
 execution of the instruction.

Options :

✖ CMP C

34058025677.

34058025678. s, CPI 3 A

34058025679. CAN15C

ORA A

34058025680.

Question Number : 61 Question Id : 3405806421 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A memory system has a total of 8 memory chips, each with 12 address lines and  
4 data lines. The total size of memory system is

Options :

16 kbytes

34058025681.

48 kbytes

34058025682. 8

34058025683. ✖ 32 kbytes

64 kbytes

34058025684. 8

Question Number : 62 Question Id : 3405806422 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Voltage series feedback (also called series — shunt feedback) result in

Options :

34058025685. 8 Increase in both input and output impedance

34058025686. ✖ Decrease in both input and output impedance

34058025687. Increase in input impedance and decrease in output impedance

34058025688. 8 Decrease in input impedance and increase in output impedance

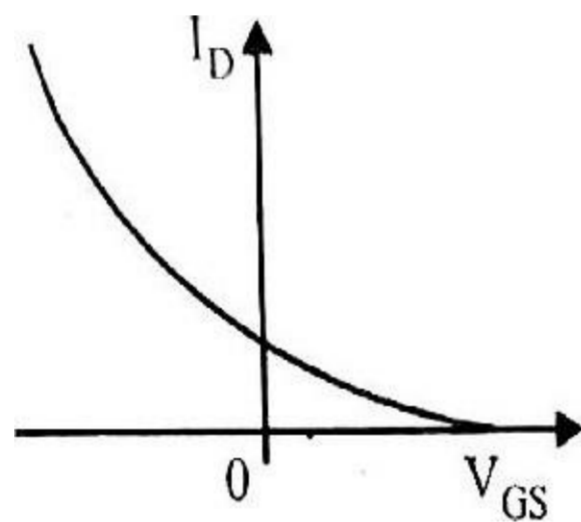
Question Number : 63 Question Id : 3405806423 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The variation of drain current with gate-to-source voltage ( $I_D - V_{GS}$  characteristic) of a MOSFET is shown below. The MOSFET is



Options :

34058025689. ✖ An n-channel depletion mode device

34058025690. An n-channel enhancement mode device

34058025691. An p-channel depletion mode device

34058025692. ✖ An p-channel enhancement mode device

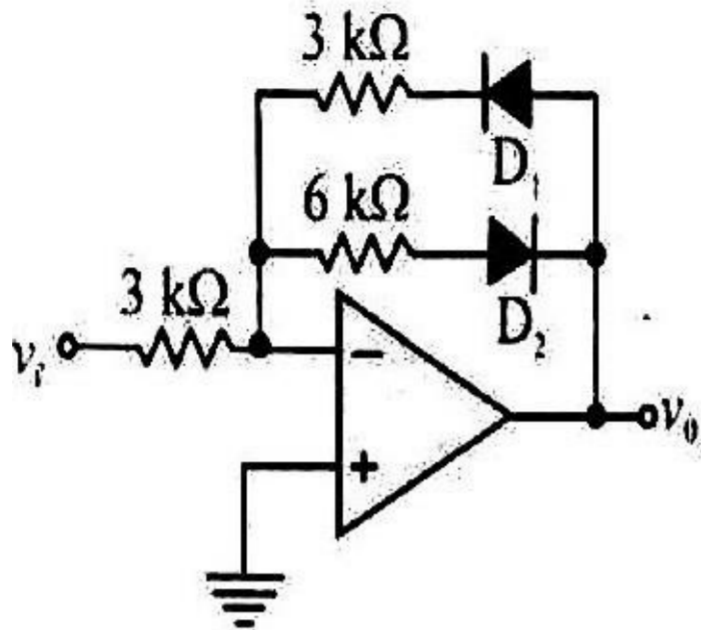
Question Number : 64 Question Id : 3405806424 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In the circuit shown below if input voltage is 2V, then the voltage is



Options :

34058025693. s:

34058025694.

34058025695. ✖

34058025696.

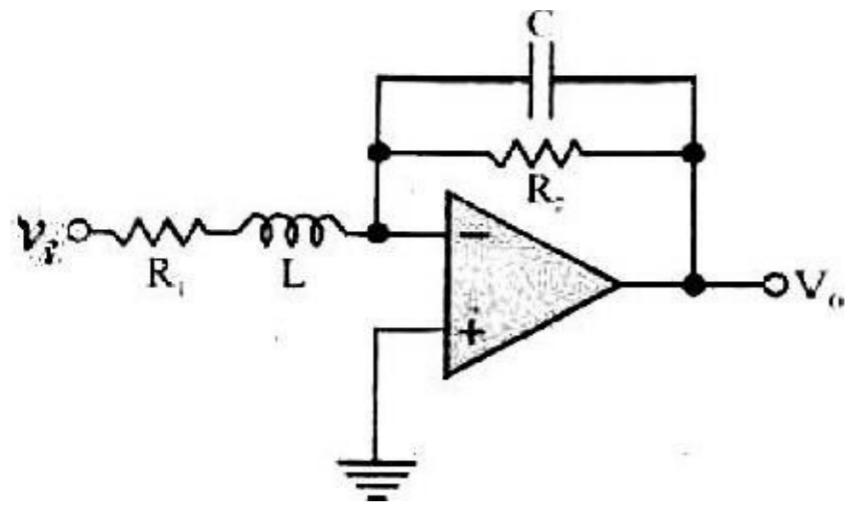
Question Number : 65 Question Id : 3405806425 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The OP-AMP circuit shown represent a



Options :

34058025697. s, High pass filter

34058025698.Low pass filter

34058025699. Band pass filter

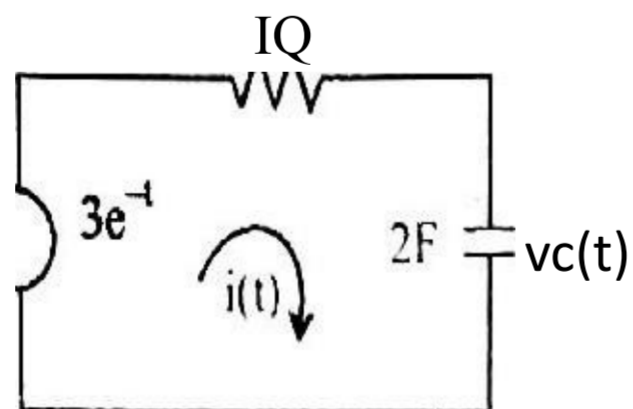
34058025700. 8 Band reject filter

Question Number : 66 Question Id : 3405806426 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A Circuit consisting a  $1\Omega$  resistor and a  $2F$  capacitor in series is excited from a voltage source with the voltage expressed as  $3e^{-t}$ , as shown in given figure. If the  $i(0^-)$  and  $V_c(0^-)$  both are zero, then the values of  $i(0^+)$  and  $i(\infty)$  will be respectively



Options :

3A and 5A

34058025701.

34058025702. 8 1.5 A and zero

3A and zero

34058025703.

1.5 and 3A

34058025704.

Question Number : 67 Question Id : 3405806427 Question Type : MCQ Option Shuffling

: Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

5+2

For the initial and final value of  $v(t)$  will be respectively  $s(s+1)$

Options :

34058025705. ✖ I and I

34058025706. ✖ 2 and 2

34058025707. 2 and 1

34058025708. 1 and 2

Question Number : 68 Question Id : 3405806428 Question Type : MCQ Option Shuffling

: Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

02+21

The Fourier transform of a function  $g(t)$  is given by  $G(\omega) = \dots$ . Then the  
 (02+9 function  $g(t)$  is given as

Options :

34058025709.  $\delta(t) + 2\exp(-\dots)$

34058025710.  $\cos 30t + 21 \exp(-3t)$

34058025711.  $\sin 30t + 7 \cos t$

34058025712.  $\sin 30t + 21 \exp(-3t)$

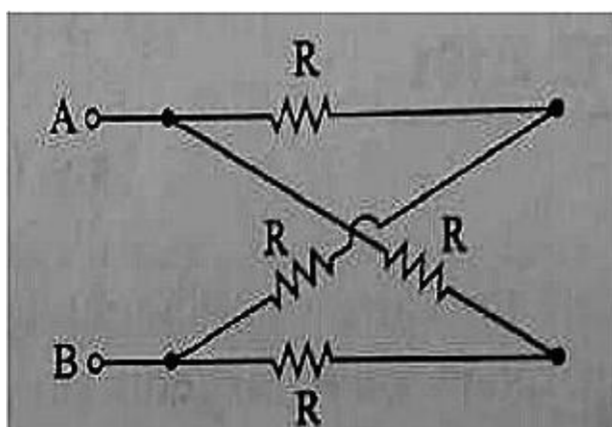
Question Number : 69 Question Id : 3405806429 Question Type : MCQ Option Shuffling :  
 Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
 Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Four resistances of equal value,  $R$  are connected as shown  
 below. What is the equivalent resistance between the terminals  
 A and B?



Options :

34058025713.

34058025714.

34058025715.

34058025716.

Question Number : 70 Question Id : 3405806430 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Power consumed by a pure inductor is

Options :

34058025717.  Infinite

34058025718.  Very high

34058025719. Zero

34058025720.  Very small

Question Number : 71 Question Id : 3405806431 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The product of voltage and current in an ac circuit is called

Options :

34058025721  Active power

Apparent power

34058025722.



✖ Average power  
34058025723.

34058025724. 8 Reactive power

Question Number : 72 Question Id : 3405806432 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In a series resonant circuit, a change in supply voltage will cause a change in

Options :

The current drawn 34058025725.

The Q-factor of the circuit

34058025726. 8

✖ The bandwidth of the circuit

34058025727.

✖ The resonant frequency

34058025728.

Question Number : 73 Question Id : 3405806433 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0 Which of the following conditions is true

for both series and parallel resonance

Options :

34058025729. Impedance is minimum

34058025730. ✓ Power factor is unity

Power factor is zero

34058025731.

Power is low

34058025732.

Question Number : 74 Question Id : 3405806434 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The width of the depletion layer of a junction will increase when

Options :

34058025733. 8

The  
p-n

34058025734. The p-n junction is reverse biased

The p-n junction is forward biased with a voltage which is higher than the

34058025735. ✘ nonnal rating

34058025736. The p-n junction is kept unbiased for a long time  
junction is forward biased

Question Number : 75 Question Id : 3405806435 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following statements is not true for a Zener diode

Options :

34058025737. A forward-biased Zener diode behaves identical to a forward-biased diode

Zener diode under the reverse-biased condition is used as a voltage regulator

34058025738. ✖

34058025739.

Zener diode under the forward-biased condition is used as a voltage regulator

34058025740. The operation of a reverse-biased Zener diode is different than that of reverse-biased diode.

Question Number : 76 Question Id : 3405806436 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Linear variable differential transducer is a

Options :

34058025741. Temperature-sensitive transducer

Pressure transducer

34058025742.

Displacement transducer

34058025743.

34058025744. ✖ Vibration measuring transducer

Question Number : 77 Question Id : 3405806437 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : O

Correct Marks : 1 Wrong Marks : O

16

For the system —  $AR(s) = \frac{16}{s^2 + 4s + 16}$  the nature of the time response will be

Options :

34058025745.  Over damped

Under  damped  
34058025746.

Critically damped  
34058025747.

Damping ratio is zero  
34058025748.

Question Number : 78 Question Id : 3405806438 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : O

Correct Marks : 1 Wrong Marks : O

The natural frequency of oscillations of the output for the equation

$\frac{d^2x}{dt^2} + 1.5 \frac{dx}{dt} + 4x = I$  is

Options :

34058025749.  0 rad/sec

1.5 rad/sec  
34058025750.  8

2 rad/sec  
34058025751.

4 rad/sec

34058025752.

Question Number : 79 Question Id : 3405806439 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Unit impulse response of a system in Laplace Transfonn gives

Options :

Transfer function

34058025753.

✖ System gain

34058025754.

✖ Unit step function

34058025755.

Unit ramp function

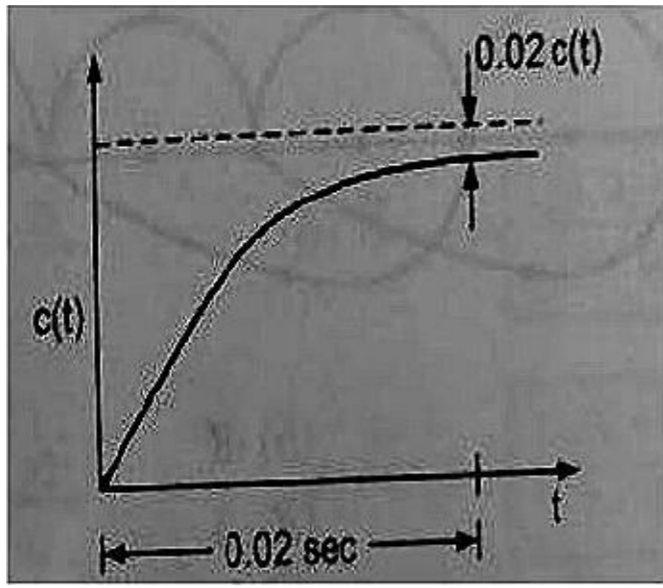
34058025756.

Question Number : 80 Question Id : 3405806440 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The unit step response of a first order system is shown below. The time constant of the system is\_\_\_\_\_



Options :

0.005 sec

34058025757.

✘ 2 sec

34058025758.

0.02 sec

34058025759.

34058025760. 8 0.5 sec

Question Number : 81 Question Id : 3405806441 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In nature, the source of Bioelectric potential is \_\_\_\_\_

Options :

34058025761. ✘ Electronic

34058025762. s: Electric

34058025763. Ionic

Mechanical

34058025764.

Question Number : 82 Question Id : 3405806442 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

After a cell is stimulated, the time required for the cell to return to its presynaptic  
state is known as \_\_\_\_\_

Options :

8 Restoration period

34058025765.

34058025766. ✖ Regain period

Refractory ✔ period 34058025767.

✖ Regenerative period

34058025768.

Question Number : 83 Question Id : 3405806443 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The superimposed wave of neuron potentials operating in a non-synchronized  
manner in a physical sense is known as \_\_\_\_\_

Options :

34058025769. 8 CG

ECG

34058025770.

34058025771. e EEG

34058025772. PCG

Question Number : 84 Question Id : 3405806444 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Amplitude Zone Time Epoch Coding contains digital logic, which is able to

detect

---

Options :

Baseline wander

34058025773.

QRS ✖ complex

34058025774.

34058025775. s, R-R interval

Motion

artefact

34058025776.

Question Number : 85 Question Id : 3405806445 Question Type : MCQ Option Shuffling :

Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0



\_\_\_\_\_ indicates Ventricular Muscle Depolarization

Options :

34058025777.  P wave

34058025778.  QRS complex

34058025779. T wave

34058025780.  PR interval

Question Number : 86 Question Id : 3405806446 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The non-invasive method used to measure the saturation of oxygen carried in

your red blood cells is

Options :

34058025781.  Ear Oximetry

34058025782. Pulse Oximetry

34058025783.  Skin-Reflectance Oximetry

34058025784.  Intravascular Oximetry

Type : MCQ Option Shuffling : Yes  
No Calculator None Response Time

Question Number : 87 Question Id : 3405806447 Question

Display Question Number : Yes Is Question Mandatory : :

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Electromagnetic Principle is used to measure blood flow because blood has a high

Options :

34058025785. s: Magnetic induction

34058025786. Electrical resistivity

34058025787. ✓Electrical conductivity

34058025788. ✗ Impedance

Question Number : 88 Question Id : 3405806448 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Bio-potential amplifier provides\_\_\_\_\_

Options :

Type : MCQ Option Shuffling : Yes

No Calculator None Response Time

: N.A Think Time : N.A Minimum Instruction Time : o

Correct Marks : 1 Wrong Marks : o

34058025789. High input impedance and high CMRR

Low input impedance and high CMRR

34058025790.

High input impedance and low CMRR 34058025791.

34058025792. Low input impedance and low CMRR

Question Number : 89 Question Id : 3405806449 Question

Display Question Number : Yes Is Question Mandatory :

Adams stokes attacks can be successfully treated with a

Options :

34058025793. 8 Defibrillator

34058025794. 8 Nerve stimulator

34058025795. Artificial heart valve

34058025796. Pacemaker

Question Number : 90 Question Id : 3405806450 Question Type : MCQ Option Shuffling :  
Yes

Type : MCQ Option Shuffling : Yes  
No Calculator None Response Time

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The major health concern with MRI is \_\_\_\_\_

Options :

Localized burns due to metallic implants

34058025797.

34058025798. Radiation dose

Reaction to applied dmgs

34058025799. 8

34058025800. Extreme cold

Question Number : 91 Question Id : 3405806451 Question

Display Question Number : Yes Is Question Mandatory :

•  
•

Type : MCQ Option Shuffling : Yes  
No Calculator None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

X- rays when passed through a strong uniform magnetic field, Then they

Options :

34058025801. Get deflected in the direction perpendicular to the field

34058025802. Get deflected in the direction of the field

34058025803. 8 Get deflected in the direction opposite to the field

34058025804.  Do not get deflected at all

Question Number : 92 Question Id : 3405806452 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The speed of ultrasound depends upon

Options :

Frequency

34058025805.

34058025806. Amplitude

Phase

34058025807.

34058025808. Matelial

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Question Number : 93 Question Id : 3405806453 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time In nuclear imaging PET and SPECT are so unique because

Options :

34058025809. They show the metabolic functions

They give more details about the imaged organ/tissue

34058025810.

✘ They do not require dyes

34058025811.

They do not require X — Rays

34058025812. 8

Question Number : 94 Question Id : 3405806454 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

For imagmg purposes \_\_\_\_\_ radiations are used

Options :

Gamma

34058025813.

34058025814. 8 Alpha

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Beta

34058025815.

34058025816. Delta

Question Number : 95 Question Id : 3405806455 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

Process done with CT to visualize the flow of blood in the renal arteries is  
known as

\_\_\_\_\_

Options :

34058025817. 8 CT Cardiology

34058025818. 8 Simple CT

34058025819. ✓ CT Angiography

34058025820. ✗ CT Angioplasty

Question Number : 96 Question Id : 3405806456 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In direct current defibrillator, a pulse with a duration of about 5 ms is generated by means of a

Options :

34058025821. Monostable multivibrator

34058025822. Clock IC 555

34058025823.  Capacitor discharge

34058025824. Astable multivibrator



Question Number : 97 Question Id : 3405806457 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The mode of ventilation which allows the patient to breathe spontaneously at  
his/her own respiratory rate and depth between the ventilator breaths is

Options :

34058025825. 8 Pressure Control Mode

Assist Control Mode

34058025826.

34058025827.  Synchronous Intermittent Mandatory Ventilation

Controlled Mandatory Ventilation

34058025828. 8

Question Number : 98 Question Id : 3405806458 Question Type : MCQ Option Shuffling :  
Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In a spirometer the volume of air that can forcibly be blown out after full  
expiration is known as

\_\_\_\_\_

Options :

34058025829. Forced vital capacity

34058025830.  Forced expiratory volume in 1 second

34058025831. 8 Peak expirat01Y flow

34058025832. s: Maximum voluntary ventilation

Question Number : 99 Question Id : 3405806459 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

What is the compression ratio of AZTECH coded delta is given as

[-3, -100. 5, 55, -2, -120, 10, 10]

Options :

1:10

34058025833.

34058025834. .

34058025835. .

34058025836. 3 7

Question Number : 100 Question Id : 3405806460 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The range of wavelength for the near IR spectrometer is\_\_\_\_\_

Options :

34058025837. 0.8-250 um

34058025838. 8 2.5-25 gm

34058025839. ✖ 25-1000 gm

34058025840. s: 250-1000 pm

Question Number : 101 Question Id : 3405806461 Question Type : MCQ Option

Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The distal row of the carpal bones consists of

Options :

34058025841. 8 Scaphoid

Lunate

34058025842.

34058025843. 8 Triquetrum

Trapezium

34058025844.

Question Number : 102 Question Id : 3405806462 Question Type : MCQ Option

Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The joint between first and second cervical vertebrae

Options :

34058025845. Gliding joint

✘ Saddle joint

34058025846.

34058025847. Pivot joint

Question Id : 3405806463 Question Type : MCQ Option Shuffling

: Yes

Yes Is Question Mandatory : No Calculator : None

Response Time

34058025848. ✖ Hind joint

Question Number : 103

Display Question Number :

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The life span of RBCs is approximately days

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Options :

34058025849. 8 20

34058025850.

34058025851. 1200

34058025852. 8 2

Question Number : 104 Question Id : 3405806464 Question Type : MCQ Option Shuffling

: Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Sarcolemma is the membrane which covers

Options :

Nerve fibre

34058025853.

34058025864.

Question Number      Question Id : 3405806467 Question Type : MCQ Option Shuffling :  
Yes

Yes IS Question Mandatory : No Calculator : None

Response Time

Muscle fibre

34058025854.

Visceral                      fibre

34058025855.

34058025856. s: Spinal cord

Question Number : 105

Display Question Number :

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Intercostal muscles are present in

Options :

34058025857. e Ribs

34058025858. Thigh

Diaphragm

34058025859.

Abdomen

34058025860. 8

Question Id : 3405806463 Question Type : MCQ Option Shuffling

: Yes

Yes Is Question Mandatory : No Calculator : None

Response Time

Question Number : 106 Question Id : 3405806466 Question Type : MCQ Option Shuffling  
: Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Formation of corpus luteum takes place under the influence of

Options :

34058025861.

34058025862. TSH

34058025863. Progesterone

s: Estrogen

: 107

Display Question Number :

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

In which part of the respiratory system, gaseous exchange takes place

Options :

Alveoli

34058025865.

34058025866. Pharynx

34058025864.

Question Number : 108 Question Id : 3405806467 Question Type : MCQ Option Shuffling :  
Yes

Yes Is Question Mandatory : No Calculator : None  
Response Time

34058025867. Lawnx

Trachea

34058025868. 8

Question Number : 108 Question Id : 3405806468 Question Type : MCQ Option Shuffling  
: Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time  
: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Asphyxia occurs due to

Options :

34058025869. ✖ Deficient supply of CO<sub>2</sub>

34058025870. Extreme supply of CO<sub>2</sub>

34058025871. 8 Sufficient supply of oxygen

34058025872.



Id : 3405806469 Question Type : MCQ Option

Shuffling : Yes

Question Mandatory : No Calculator : None Response  
Time

Deficient supply of oxygen

Question Number : 109 Question

Display Question Number : Yes Is

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

What is the colour code of O<sub>2</sub> supply in an ICU of a hospital

Options :

34058025873. Blue

Red

34058025874.

34058025875. 8

Green

34058025876.

Question Number : 110 Question Id : 3405806470 Question Type : MCQ Option

Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator :  
None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0 part of  
\_\_\_\_\_ neuron is sometimes myelinated.

Options :

34058025880.

Question Number

Id : 3405806471 Question Type : MCQ Option Shuffling : Yes

Question Mandatory : No Calculator : None Response  
Time

34058025877. Dendrite

34058025878. on

34058025879. Soma

8 Axon hillock

: 111 Question

Display Question Number : Yes Is

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

For a biomaterial measurement of is done by Constant stress test

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Options :

34058025881. Ductility

34058025882. 8 Toughness

Creep

34058025883.

34058025884. 8 Fatigue

34058025880.

Question Number                      Id : 3405806471 Question Type : MCQ Option Shuffling : Yes

Question Mandatory : No Calculator : None Response  
Time

Question Number : 112 Question Id : 3405806472 Question Type : MCQ Option Shuffling  
: Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None  
Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Diamond and conundum are examples of \_\_\_\_\_ ceramics

Options :

34058025885. 8 Glass

Abrasives

34058025886.

34058025887. 8 Refractories

Stone

: 113 Question

Display Question Number : Yes Is

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Which of the following statement is correct with regard to the mechanical  
valves

Options :

34058025880.

Question Number                      Id : 3405806471 Question Type : MCQ Option Shuffling : Yes

Question Mandatory : No Calculator : None Response  
Time

✘ Have very good Biocompatibility  
34058025889.

34058025890. Reliability is very Low

34058025891. ✓ Long term anticoagulant therapy required

Minimise the natural heart valve function  
34058025892.

Question Number : 114 Question Id : 3405806474 Question Type : MCQ Option Shuffling  
: Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The frequency of operation of ultrasonic wave diathermy is

Options :

17-27 MHz

34058025893.

8 20-102 MHz

34058025894.

34058025880.

Question Number

Id : 3405806471 Question Type : MCQ Option Shuffling : Yes

Question Mandatory : No Calculator : None Response  
Time

0.5-25 MHz

34058025895. s:

34058025896.

Question Number

8 30-1000 MHz

: 115 Question Id : 3405806475 Question Type : MCQ Option Shuffling : Yes  
Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

The repair and reconstruction of the joint is called

Options :

Althrodesis

34058025897.

✘ Althrotomy

34058025898.

34058025899. Althroplasty

Amputation

34058025900. 8

Question Number : 116 Question Id : 3405806476 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Approximate number of neurons present in an adult are \_\_\_\_\_

Options :

34058025901 , 8 10 million

100 million

34058025902.

8 10 billion

34058025903.

100 billion

34058025904.

Question Number : 117 Question Id : 3405806477 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks

: 0 Deficient salivation is known

as Options :

34058025905. Xerophthalmia

34058025906. Xerostomia

34058025907. Ptyalism

34058025908. 8 Halitosis

Question Number : 118 Question Id : 3405806478 Question Type : MCQ Option Shuffling :  
Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response  
Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

Extensor muscle on back of ann is called

Options :

34058025909. Biceps

34058025910. Triceps

34058025912.

3405802591 1 . 8 Brachialis

8 Flexor

Question Number : 119 Question Id : 3405806479 Question Type : MCQ Option Shuffling : Yes

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0 uses creation of negative pressure for its function

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Options :

34058025913. Ventilator

34058025914. ✘ Aspirator

34058025915. ✔ Suction aspirator

34058025916. ✘ Syringe pump

Question Number : 120 Question Id : 3405806480 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time

: N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

A ECG Bio-amplifier is designed with a gain of 2048. What is the peak voltage of the ECG signal

Options :

34058025917. 1.28 v

34058025918. 2.45 V



34058025919. s, 1.96 v

34058025920. 2.57 v

34058025912.

•s

rm