

SKILL ASSISTANT PROFESSOR

ELECTRONICS/ROBOTICS ENGG.

OMR Sr. No. _____

Booklet Sr. No.

100017

Time : 90 Minutes

Total Questions : 100

Max. Marks : 100

Roll No. (in Figure) _____

(in Words) _____

(Signature of the Candidate)

(Signature of the Invigilator)

IMPORTANT

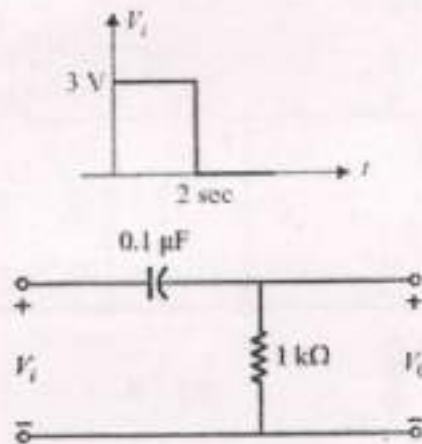
DO NOT OPEN THE BOOKLET UNLESS YOU ARE ASKED TO DO SO

FIRST READ FOLLOWING INSTRUCTIONS CAREFULLY.

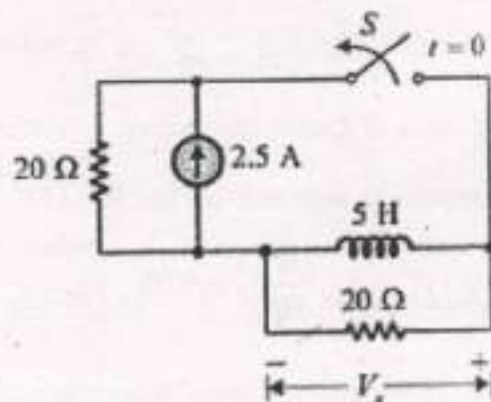
1. The candidate will fill up required particulars including his/her roll no. and signature on the OMR sheet with ball point pen (Black/Blue) in the appropriate boxes.
2. Ten minutes before the commencement of the test, question booklet and OMR sheet will be distributed to the candidates.
3. Immediately on opening the question-booklet, the candidate should check the booklet & OMR sheet and ensure himself/herself that it contains 100 multiple choice questions (Sr. No. 1 to 100). Discrepancy, if any, should be reported by the candidate to the invigilator within 5 (five) minutes of the opening of the question booklet and should ask the invigilator for replacement.
4. **For each question, four suggested answers A, B, C, D are given. The candidate is to choose only one answer which he/she considers the correct or the best one. If candidate darkens more than one circle or cutting/overwriting/erasing (by eraser, white fluid or any other chemicals) then such answer(s) shall not be evaluated.**
5. The answers should be marked by darkening appropriate circle provided in front of the concerned serial number on the OMR Sheet only with **black/blue pen**. Use of pencil is not allowed. For instance, while answering the Question No.26 of the question booklet, the correct answer A or B or C or D at serial No. 26 of OMR sheet should only be darkened.
6. The candidate should be careful in handling the question-paper and in darkening the answers on the OMR Sheet. **The second question booklet/OMR sheet will not be supplied in case there is no discrepancy in the booklet/OMR sheet already supplied.**
7. Bringing of incriminating materials/electronic gadgets/devices including cell phone in the premises of the examination centre is strictly prohibited. Possessing of incriminating materials electronic gadgets/ devices and any other aiding material in the examination room will be a serious offence and it will attract the cancellation of the candidature.
8. The candidate will not be permitted to leave the examination hall before the conclusion of the test. The candidate should make sure that question-booklet including OMR sheet is handed over to the invigilator before leaving the examination hall at the end of the test, failing which, a case of use of unfair-means/ misbehavior will be registered against him/her, in addition to lodging of an FIR with the police. Further, OMR sheet of such a candidate will not be evaluated.
9. The candidate can do rough-work on the back of the title cover of question booklet. Rough-work on OMR sheet is **prohibited**.
10. ***Mobile Phones are not at all allowed inside the Examination Hall.***
11. It is for the information that entire examination shall be recorded by video camera and impersonation shall lead to disqualification and registration of Police Case.
12. Programmable Calculator is not allowed.

SEAL

1. A square pulse of 3 volt amplitude is applied to a C-R circuit shown in the figure. The capacitor is initially uncharged. The output voltage V_0 at time $t = 2$ sec is:

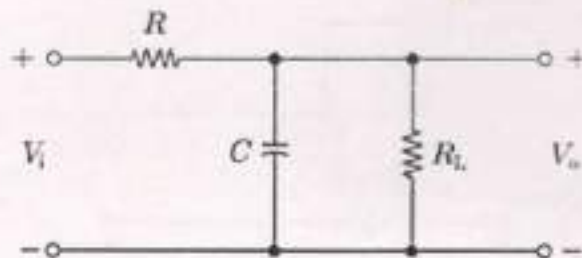


- (A) 3 V
(B) -3 V
(C) 4 V
(D) -4 V
2. In figure given below the switch was closed for a long time before opening at $t = 0$. The voltage V_x at $t = 0^+$ will be:



- (A) 25 V
(B) 50 V
(C) -50 V
(D) 0 V

3. If the transfer function of the following network is $\frac{V_o(s)}{V_i(s)} = \frac{1}{2 + sCR}$, the value of the load resistance R_L is :



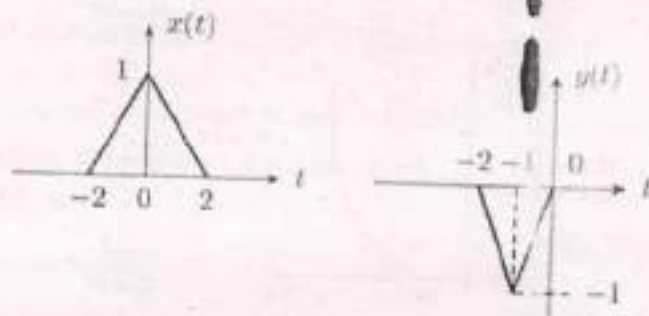
- (A) $2R$ (B) R
(C) $0.5R$ (D) $0.25R$
4. From the following choose the function $f(t)$, $-\infty < t < \infty$, for which a Fourier series cannot be defined :

- (A) $3\sin(25t)$
(B) $4\cos(20t + 3) + 2\sin(710t)$
(C) $\exp(-|t|)\sin(25t)$
(D) 1

5. Let $H(f)$ denote the frequency response of the RC-LPF. Let f_1 be the highest frequency such that $0 \leq |f| \leq f_1$; $\frac{H(f_1)}{H(0)} \geq 0.95$. Then f_1 (in Hz) is :

- (A) 327.8
(B) 163.9
(C) 104.4
(D) 52.2

6. Let $x(t)$ and $y(t)$ with Fourier transforms $X(f)$ and $Y(f)$, respectively be related as shown in the following figure. Then $Y(f)$ is :



- (A) $-\frac{1}{2}X\left(\frac{f}{2}\right)e^{-j2\pi f}$ (B) $-\frac{1}{2}X\left(\frac{f}{2}\right)e^{j2\pi f}$
 (C) $-X\left(\frac{f}{2}\right)e^{j2\pi f}$ (D) $-X\left(\frac{f}{2}\right)e^{-j2\pi f}$

7. A causal LTI system is described by the difference equation $2y[n] = \alpha y[n-2] - 2x[n] + \beta x[n-1]$. The system is stable only if :

- (A) $|\alpha| = 2, |\beta| < 2$ (B) $|\alpha| > 2, |\beta| > 2$
 (C) $|\alpha| < 2$, any value of β (D) $|\beta| < 2$, any value of α

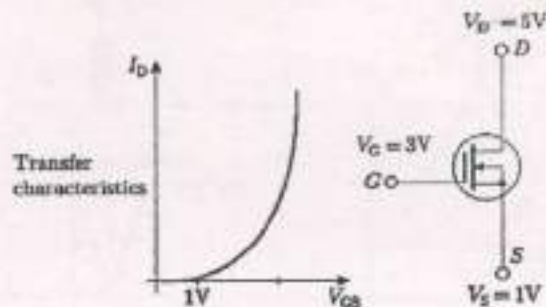
8. The impulse response of a continuous time LTI system is $h(t) = e^{2t}u(-1-t)$. The system is :

- (A) causal but not stable (B) stable but not causal
 (C) neither stable nor causal (D) both stable and causal

9. The resistivity of pure silicon at room temperature is 3000 ohm-m. The mobilities of electrons and holes in silicon are $0.14 \text{ m}^2\text{v}^{-1}\text{s}^{-1}$ and $0.05 \text{ m}^2\text{v}^{-1}\text{s}^{-1}$ respectively. The intrinsic carrier density of silicon at room temperature will be :

- (A) $2.109 \times 10^{16} \text{ m}^{-3}$ (B) $4.095 \times 10^{16} \text{ m}^{-3}$
 (C) $0.095 \times 10^{16} \text{ m}^{-3}$ (D) $1.095 \times 10^{16} \text{ m}^{-3}$

10. For an N-channel MOSFET and its transfer curve shown in the figure, the threshold voltage is :



- (A) 1 V and the device is in saturation region.
 (B) -1 V and the device is in saturation region.
 (C) 1 V and the device is in ohmic region.
 (D) -1 V and the device is in ohmic region.
11. Group I lists four different semiconductor devices. Match each device in Group I with its characteristic property in Group II.

Group-I

- P. BJT
 Q. MOS capacitor
 R. LASER diode
 S. JFET

Group-II

1. Population inversion
 2. Pinch-off voltage
 3. Early effect
 4. Flat-band voltage

- (A) P-3, Q-1, R-4, S-2
 (C) P-3, Q-4, R-1, S-2

- (B) P-1, Q-4, R-3, S-2
 (D) P-3, Q-2, R-1, S-4

12. For a silicon NPN transistor, the base-to-emitter voltage (V_{BE}) is 0.7 V and the collector-to-base voltage (V_{CB}) is 0.2 V, then the transistor is operating in the ;

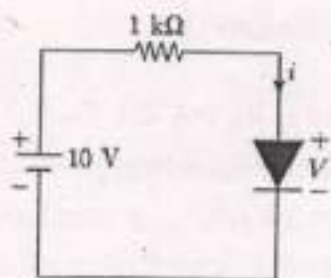
- (A) normal active mode (B) saturation mode
(C) inverse active mode (D) cut-off mode

13. For an N-channel enhancement-type MOSFET, if the source is connected at a higher potential than that of the bulk (i.e. $V_{SB} > 0$), the threshold voltage V_{Th} of the MOSFET will :

- (A) remain unchanged (B) decrease
(C) change polarity (D) increase

14. The I-V characteristic of the diode in the circuit given below is

$i = \frac{V - 0.7}{500} \text{ A}; V \geq 0.7 \text{ V}$. The current in the circuit is :

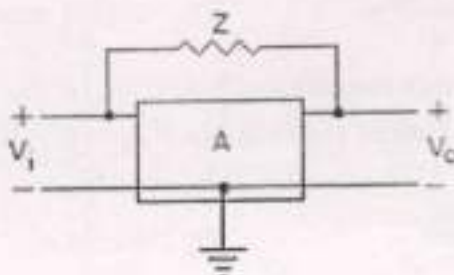


- (A) 10 mA (B) 9.3 mA
(C) 6.67 mA (D) 6.2 mA

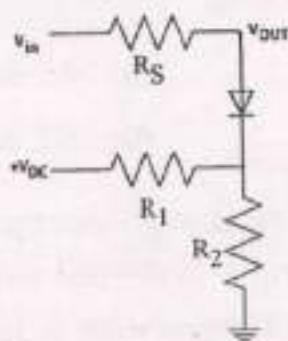
15. In an abrupt P-N junction, the doping concentrations on the P side and N side are $N_A = 9 \times 10^{16}/\text{cm}^3$ and $N_D = 1 \times 10^{16}/\text{cm}^3$ respectively. If the PN junction is reverse biased and the total depletion width is $3 \mu\text{m}$, then the depletion width on the P side is :

- (A) $2.7 \mu\text{m}$ (B) $0.3 \mu\text{m}$
(C) $2.25 \mu\text{m}$ (D) $0.75 \mu\text{m}$

16. Gain of the amplifier is 'A'. Then the I/P impedance and O/P impedance of the closed loop amplifier shown below would be $Z_i = ZA/(A-1)$, $Z_o = ZA/(A-1)$:



- (A) $Z_i = ZA/(A-1)$, $Z_o = ZA/(A-1)$
 (B) $Z_i = ZA/(A-1)$, $Z_o = ZA/(A+1)$
 (C) $Z_i = Z/(1-A)$, $Z_o = ZA/(A-1)$
 (D) $Z_i = ZA/(A-1)$, $Z_o = ZA/(A+1/A)$
17. For the circuit shown below if $R_s = 4 \text{ k}\Omega$, $R_1 = 2 \text{ k}\Omega$, $R_2 = 3 \text{ k}\Omega$, $V_{DC} = 10\text{V}$, $V_{in} = 10 \text{ V}$ and the diode cut-in voltage is 0.7 V , the V_{OUT} is clamped at a maximum value of :

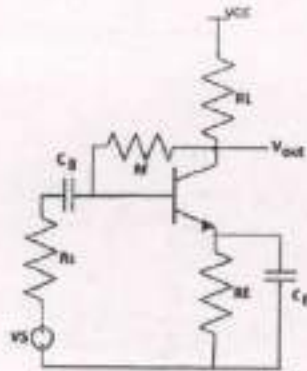


- (A) 2.7 V (B) 4.7 V
 (C) 6.7 V (D) 8.7 V

18. An amplifier's power at 5 kHz is 10 W and changes to 20 W at 50 kHz. The equivalent dB change is :

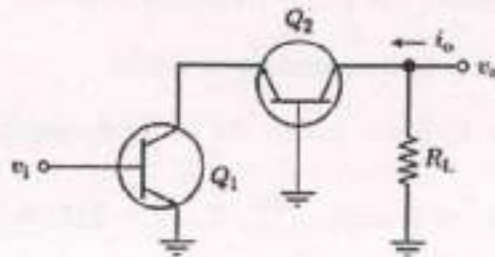
- (A) 3dB (B) 6dB
(C) -3dB (D) -6dB

19. The feedback amplifier shown below is :



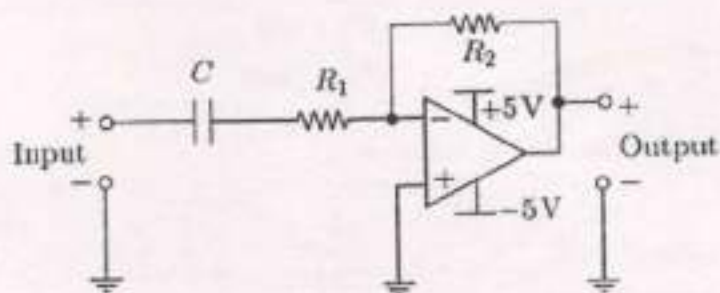
- (A) Series-Shunt Amplifier (B) Shunt-Shunt Amplifier
(C) Shunt-Series Amplifier (D) Series-Series Amplifier

20. In the cascade amplifier shown in the following figure, if the common-emitter stage (Q_1) has a transconductance, g_{m1} , and the common-base stage (Q_2) has a transconductance (g_{m2}), then the overall transconductance $g = (i_o/v_i)$ of the cascade amplifier is :



- (A) g_{m1} (B) g_{m2}
(C) $0.5g_{m1}$ (D) $0.5g_{m2}$

21. The circuit shown below is a :



(A) Low pass filter with $f_{3dB} = \frac{1}{(R_1 + R_2)C}$ rad/s

(B) High pass filter with $f_{3dB} = \frac{1}{R_1 C}$ rad/s

(C) Low pass filter with $f_{3dB} = \frac{1}{R_1 C}$ rad/s

(D) High pass filter with $f_{3dB} = \frac{1}{(R_1 + R_2)C}$ rad/s

22. According to the frequency stability criterion :

(A) higher $d\phi/d\omega$ means the higher frequency stability.

(B) higher $d\phi/d\omega$ means the lower frequency stability.

(C) frequency stability is independent of $d\phi/d\omega$.

(D) higher value of Q-factor means the lower frequency stability.

23. In the sum of products function $f(X, Y, Z) = \Sigma(2, 3, 5)$, the prime implicants are :

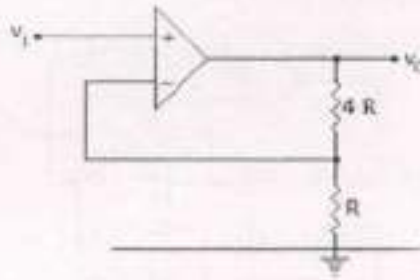
(A) $X'Y, XY'$

(B) $X'Y, XY'Z', XY'Z$

(C) $X'YZ', X'YZ, XY'$

(D) $X'YZ', X'YZ, XY'Z', XY'Z$

24. In the op-amp circuit of figure below the output V_0 is given by :



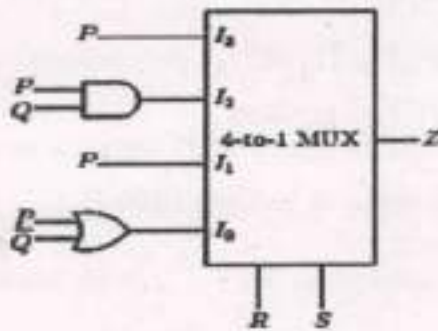
(A) $0.5V_i$

(B) V_i

(C) $3V_i$

(D) $5V_i$

25. For the circuit shown in the following figure, I_0 to I_3 are the inputs to the 4:1 multiplexer R (MSB) and S are control bits. The output Z can be represented by :



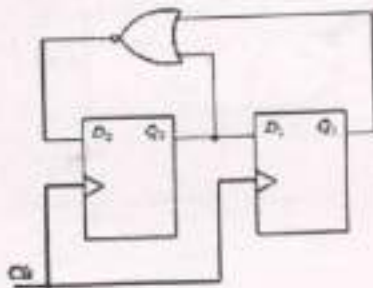
(A) $PQ + PQ'S + Q'R'S'$

(B) $PQ' + PQR' + P'Q'S'$

(C) $PQ'R' + P'QR + PQRS + Q'R'S'$

(D) $PQR' + PQRS' + PQ'R'S + Q'R'S'$

26. For the circuit shown in the following figure, the counter state Q_1Q_0 follows the sequence :



- (A) 00, 01, 10, 11, 00, ... (B) 00, 01, 10, 00, 01, ...
 (C) 00, 01, 11, 00, 01, ... (D) 00, 10, 11, 00, 10, ...
27. Two D-flip-flops are connected as a synchronous counter that goes through the following Q_BQ_A sequence 00→11→01→10→00. The connections to the inputs D_A and D_B and are :
- (A) $D_A = Q_B$, $D_B = Q_A$
 (B) $D_A = Q'_A$, $D_B = Q'_B$
 (C) $D_A = Q_BQ'_B + Q'_AQ_B$, $D_B = Q_A$
 (D) $D_A = Q'_AQ'_B + Q_AQ_B$, $D_B = Q'_B$
28. The following program starts at location 0100 H :

LXI SP, 00 FF

LXI H, 0107

MVI A, 20 H

SUB M

The content of accumulator when the program counter reaches 0109 H is :

- (A) 20 H (B) 02 H
 (C) 00 H (D) FFH

29. A binary ripple counter is to be constructed using J-K flip-flops with each flip having a propagation delay of 12 ns. The largest modulus counter that can be constructed using these flip-flops and still operate up to a clock frequency of 10 MHz is :
- (A) MOD-16 (B) MOD-64
(C) MOD-256 (D) MOD-8
30. A communication channel with AWGN operating at a signal-to-noise ratio (SNR) $\gg 1$ and band width B has capacity C_1 . If the SNR is doubled keeping B constant, the resulting capacity C_2 is given by :
- (A) $C_2 \approx 2C_1$ (B) $C_2 \approx C_1 + B$
(C) $C_2 \approx C_1 + 2B$ (D) $C_2 \approx C_1 + 0.3B$
31. In delta modulation, the slope overload distortion can be reduced by :
- (A) decreasing the step size (B) decreasing the granular noise
(C) decreasing the sampling rate (D) increasing the step size
32. The number of bits in a binary PCM system is increased from n to $n + 1$. As a result, the signal to quantization-noise ratio will :
- (A) remain independent of n (B) improve by a factor $2^{(n+1)/n}$
(C) improve by a factor $2^{2(n+1)/n}$ (D) improve by a factor $(n+1)$
33. In a BPSK signal detector, the local oscillator has a fixed phase error of 20° . This phase error deteriorates the SNR at the output by a factor of :
- (A) $\cos 20^\circ$ (B) $\cos^2 20^\circ$
(C) $\cos 70^\circ$ (D) $\cos^2 70^\circ$

34. A source generates three symbols with probabilities 0.25, 0.25, 0.50 at a rate of 3000 symbols/s. Assuming independent generation of symbols, the most efficient source encoder would have an average bit rate of :

- (A) 6000 bit/s (B) 4500 bit/s
(C) 3000 bit/s (D) 1500 bit/s

35. If $S(f)$ is the power spectral density of a real, wide sense stationary random process, then which of the following is always true ?

- (A) $S(0) \geq S(f)$ (B) $S(f) \geq 0$
(C) $S(-f) = -S(f)$ (D) $\int_{-\infty}^{\infty} S(f) df = 0$

36. A 1MHz sinusoidal carrier is amplitude modulated by a symmetric square wave of period $50\mu s$. Which one of the following frequencies will be present in the modulated signal ?

- (A) 1010 kHz (B) 1020 kHz
(C) 1030 kHz (D) 1040 kHz

37. The impulse response of a certain system is $\sin 2t$. Determine the system transfer function :

- (A) $\frac{1}{s^2+2}$ (B) $\frac{2}{s^2+2}$
(C) $\frac{2}{s^2+4}$ (D) $\frac{s}{s^2+4}$

38. A system described by the differential equation $\frac{d^2 y(t)}{dt^2} + 3 \frac{dy(t)}{dt} + 2y(t) = 2x(t)$

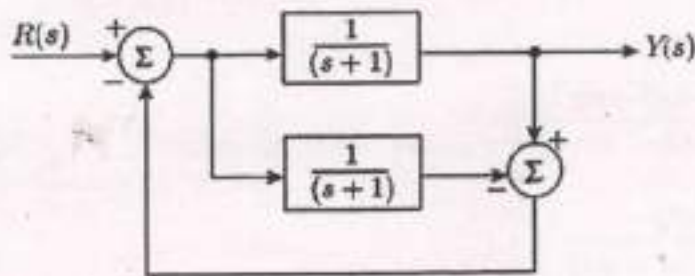
is initially at rest. For input $x(t) = 2u(t)$, the output $y(t)$ is :

- (A) $(1 - 2e^{-t} + e^{-2t})u(t)$
- (B) $(1 + 2e^{-t} - 2e^{-2t})u(t)$
- (C) $(0.5 + e^{-t} + 1.5e^{-2t})u(t)$
- (D) $(0.5 + 2e^{-t} + 2e^{-2t})u(t)$

39. Introduction of integral action in the forward path of a unity feedback system results in a :

- (A) Marginally stable system
- (B) System with no steady state error
- (C) System with increase stability margin
- (D) System with better speed of response

40. The transfer function $Y(s)/R(s)$ of the system shown in the following figure is :

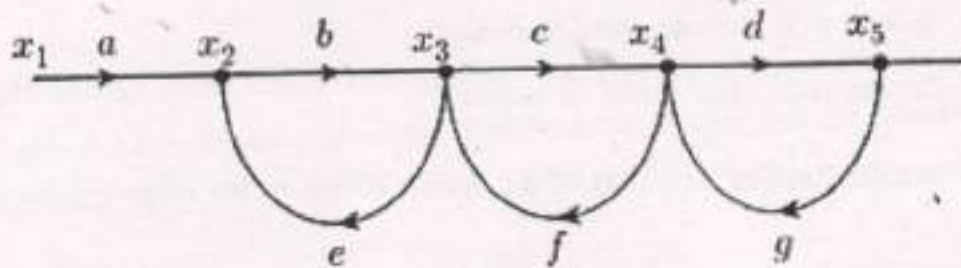


- (A) 0
- (B) $\frac{1}{s+1}$
- (C) $\frac{2}{s+1}$
- (D) $\frac{2}{s+3}$

41. A certain closed loop system with unity feedback has the transfer function given by $G(s) = \frac{k}{s(s+2)(s+4)}$ with the gain set at ultimate value. The system will oscillate at an angular frequency of :

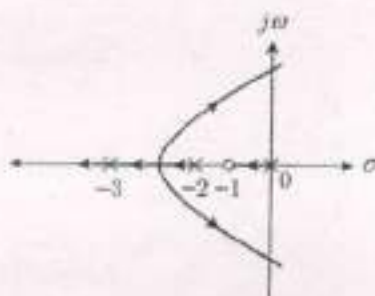
(A) 2 rad/s
 (B) 5 rad/s
 (C) 8 rad/s
 (D) $2\sqrt{2}$ rad/s

42. Consider the signal flow graph shown in the following figure. The gain x_5/x_1 is given by :



- (A) $\frac{1 - (be + cf + dg)}{abc}$
 (B) $\frac{bedg}{1 - (be + cf + dg)}$
 (C) $\frac{abcd}{1 - (be + cf + dg) + bedg}$
 (D) $\frac{1 - (be + cf + dg) + bedg}{abcd}$

43. The root locus plot for a system is given in the following figure. The open-loop transfer function corresponding to this plot is given by :



- (A) $G(s)H(s) = K \frac{s(s+1)}{(s+2)(s+3)}$
- (B) $G(s)H(s) = K \frac{s(s+1)}{s(s+2)(s+3)^2}$
- (C) $G(s)H(s) = K \frac{1}{s(s-1)(s+2)(s+3)}$
- (D) $G(s)H(s) = K \frac{(s+1)}{s(s+2)(s+3)}$
44. A plane EM wave is satisfying the equation $\frac{d^2 E_y}{dz^2} = c^2 \frac{dE_y}{dt^2}$, then the wave propagates in :
- (A) X direction
- (B) Y direction
- (C) Z direction
- (D) At angle depends on c in the XY plane

45. Match List I with List II and select the correct answer using the codes given below the lists :

List-I

(A) $\nabla \cdot \vec{H} = \vec{J}$

(B) $\oint_C \vec{E} \cdot d\vec{l} = - \oint_S \vec{B} \cdot d\vec{s}$

(C) $\nabla \cdot \vec{J} = - \frac{\partial \rho}{\partial t}$

List-II

1. Continuity equation

2. Faraday's Law

3. Ampere's Law

4. Gauss's Law

	(A)	(B)	(C)
(A)	3	2	1
(B)	2	1	3
(C)	2	3	1
(D)	1	2	3

46. Medium 1 has the electrical permittivity $\epsilon_1 = 1.5\epsilon_0$ F/m and occupies the region to the left of $x = 0$ plane. Medium 2 has the electrical permittivity $\epsilon_2 = 2.5\epsilon_0$ F/m and occupies the region to the right of $x = 0$ plane. If $\vec{E}_1$ in medium 1 is

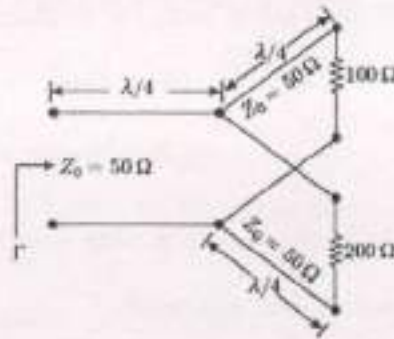
$\vec{E}_1 = 2\vec{u}_x - 3\vec{u}_y + 1\vec{u}_z$ V/m, then $\vec{E}_2$ in medium 2 is :

- (A) $2\vec{u}_x - 7.5\vec{u}_y + 2.5\vec{u}_z$ V/m (B) $2\vec{u}_x - 2\vec{u}_y + 0.6\vec{u}_z$ V/m
(C) $1.2\vec{u}_x - 3\vec{u}_y + 1\vec{u}_z$ V/m (D) $1.2\vec{u}_x - 2\vec{u}_y + 0.6\vec{u}_z$ V/m

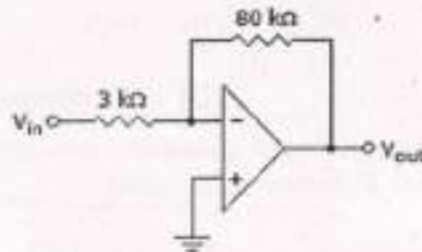
47. When a plane wave travelling in free space is incident normally on a medium having $\epsilon_r = 4$, the fraction of power transmitted into the medium is given by :

- (A) $\frac{8}{9}$ (B) $\frac{1}{2}$
(C) $\frac{1}{9}$ (D) $\frac{5}{6}$

48. The parallel branches of a two-wire transmission line are terminated in 100Ω and 200Ω resistors as shown in the following figure. The characteristic impedance of the line is $Z_0 = 50\Omega$ and each section has a length of $\lambda/4$. The voltage reflection coefficient Γ at the input is :



- (A) $-j\frac{7}{5}$ (B) $-\frac{5}{7}$
 (C) $j\frac{7}{5}$ (D) $\frac{5}{7}$
49. The dominant mode in a circular wave guide is :
 (A) TE_{10} (B) TE_{11}
 (C) TM_{10} (D) TM_{01}
50. Refer to the given figure. The op-amp has a unity-gain bandwidth of 3 MHz. Determine the BW of the circuit.



- (A) 3 MHz (B) 112.4 kHz
 (C) 100 kHz (D) 30 kHz

51. Correlation coefficient values lies between :

- (A) -1 and +1
- (B) 0 and 1
- (C) -1 and 0
- (D) None of these

52. If two variables oppose each other then the correlation will be :

- (A) Positive
- (B) Zero
- (C) Perfect
- (D) Negative

53. For learner, education technology play a vital role for his :

- (A) Awareness, appreciative and equipped
- (B) Honest, wise and aware
- (C) Effective, honest and wise
- (D) Creative, appreciative and wise.

54. Broader in meaning is :

- (A) Aims
- (B) Objectives
- (C) Instructional objectives
- (D) Specific objectives

55. If 10% is added to each value of variable, the geometric mean of new variable is added by :

- (A) 90%
- (B) 10%
- (C) 110%
- (D) No change

56. A test measure, for what it is meant is called :

- (A) Correlation
- (B) Reliability
- (C) Variance
- (D) Validity

57. The major objective of learning education technology is to get :
(A) Oriented (B) Facilitated
(C) Integrated (D) Evaluated
58. Learning objectives are defined/written in terms of :
(A) Performance criterion (B) Action verb
(C) Intent of evaluation (D) Teaching method
59. The group approach is likely to be particularly effective for the students of vocational training because it :
(A) increases the students' overall learning efficiency and sense of contribution during the project
(B) enables students who usually achieve at varied levels to perform at a level similar to that of high-achieving peers in the class
(C) uses the students' interest in social interactions to enhance motivation and increase engagement in the learning process.
(D) prompts the students to use a greater variety of methods and approaches to pursue broader, more complex research topics.
60. In a distribution of 10, 20, 30, 40, 50, the x is 30, the sum of deviations from x will be :
(A) 0 (B) 30
(C) 60 (D) 15
61. Analyzing, the information, thinking creatively, problem solving, reasoning, evaluating are the above said skills of :
(A) Critical thinking (B) Creative thinking
(C) Problem solving (D) Decision making

✓ 62. For effective implementation of Cognitive Learning Theory (CLT) the teacher has to consider predominantly :

- (A) Behavioural factors of the learners
- (B) Behavioural as well as personal factors of the learners
- (C) Behavioural and environmental factors
- (D) Behavioural, personal and environmental factors

✓ 63. Reliability of a test means :

- (A) Corrected
- (B) Precision
- (C) Accuracy
- (D) Result oriented

✓ 64. Foundation of our learning is related to first hand experience due to :

- (A) Direct purposeful experience
- (B) Direct personal engagement
- (C) Direct educational engagement
- (D) Direct educational experience

✓ 65. Which of the following is a non-example of operant conditioning ?

- (A) Parents rewarding the student's excellent grades with some prize
- (B) Students copy a diagram drawn on the board
- (C) A school teacher awards points to those students who are the calmest and well-behaved
- (D) Students help each other

✓ 66.can be regarded as an outcome of cognitive process.

- (A) Problem solving
- (B) Decision making
- (C) Empathy
- (D) Critical thinking

✓ 67. In knowledge domain, top hierarchy order out of the following is :

- (A) knowledge
- (B) application
- (C) understanding
- (D) analysis

68. ✓ Involves the collection, organisation and analysis of numerical data :
- (A) Assessment (B) Measurement and evaluation
(C) Evaluation (D) Statistics
69. ✓ The goal of teaching is :
- (A) To give information
(B) To involve pupils in activities
(C) To impart knowledge
(D) Desirable change in behaviour
70. ✓ Heuristic means to :
- (A) investigate (B) show
(C) do (D) act
71. ✓ Considers the deviation each score is away from the mean of the distribution :
- (A) Minimum deviation (B) Mean deviation
(C) Medium deviation (D) Maximum deviation
72. ✓ Prof. Ramesh and Prof. Suresh collected data on the same set of students using the same test and find their data is almost exactly the same. This indicates test has :
- (A) Double reliability (B) Split half-reliability
(C) Alternate reliability (D) Inter-rater reliability
73. ✓ In the taxonomy of affective domain, which is at the top in hierarchy, out of the following ?
- (A) Valuing (B) Receiving
(C) Responding (D) Organising

74. The integrated (Science, Humanities and Entrepreneurship) instructional approach can be expected to enhance student learning primarily by :

- (A) connecting ideas for students in ways that make content more authentic and meaningful.
- (B) facilitating students' accelerated achievement of content standards in multiple subject areas.
- (C) presenting students with tasks that are responsive to their individual learning preferences.
- (D) promoting students' ability to apply a wide range of academic problem-solving strategies.

75. The product derived after going through knowledge and skills of a course is called :

- (A) Programme Specific Outcomes
- (B) Course Outcomes
- (C) Programmes Outcomes
- (D) Session Outcomes

76. Example of psychomotor domain is that student :

- (A) Demonstrates awareness to environmental pollution
- (B) Performs an experiment
- (C) Can compute results of two experiments
- (D) Can narrate a story

77. The subject which is meant for scientific and organised teaching-learning process and or a product :

- (A) Instructional Technology
- (B) Audio, Video and Media Technology
- (C) Educational Technology
- (D) Educational Media

78. Teacher performs practically and explains in :
✓ (A) Lecture method (B) Discovery method
(C) Demonstration method (D) Problem solving method
79. The standard error is a statistical measure of :
✓ (A) The normal distribution of scores
(B) The extent to which a sample mean is likely to differ from the population mean
(C) The clustering of scores at each end
(D) Accuracy of stratified sample
80. A self-instructional is a form of learning which works as strategy to promote :
✓ (A) Problem solving method
(B) Group dynamics strategy
(C) Focussed group learning
(D) Learning to learn attitude
81. Which is vast in scope :
✓ (A) Teaching tactic (B) Teaching technique
(C) Teaching strategy (D) Teaching method
82. Trait of characteristic that can assume more than one value :
✓ (A) Variable data (B) Unground data
(C) Population (D) Discrete Data
83. Micro teaching focuses on the competency over :
✓ (A) Method (B) Skills
(C) Content (D) None of these

✓ 84. To assess achievement at the end of instructions is :

- (A) Placement assessment (B) Formative assessment
- (C) Summative assessment (D) Diagnostic assessment

✓ 85. Process of measuring, evaluating, identifying and prescribing. Using result to identify performance and problems and then prescribing a solution :

- (A) Observation (B) Assessment
- (C) Marking (D) Testing

✓ 86. Vast of all in scope :

- (A) Test (B) Measurement
- (C) Assessment (D) Evaluation

✓ 87. Direct Instructional Model gives priority to :

- (A) Mastery Learning (B) Global Learning
- (C) Analytical Learning (D) Critical Learning

✓ 88. Projective techniques are used to measure :

- (A) Aptitude (B) Intelligence
- (C) Knowledge (D) Personality

✓ 89. A well-structured curriculum is comprises of :-

- (A) Curriculum, content and study notes
- (B) Content outline, teaching methods and lab work
- (C) Instructional strategies, learning experiences and performance assessment
- (D) Content, instructional strategies and study references.

90. The number of score lying in a class interval is :
✓ (A) Mid point (B) Quartiles
(C) Class boundaries (D) Frequencies
91. A type of diagram that is used to cluster complex apparently unrelated data into natural and meaningful groups :
✓ (A) Dogbone diagram (B) Natural diagram
(C) Fishbone diagram (D) Affinity diagram
92. Positive reinforcement works as base for learning opportunities for the students.
✓ This can be achieved by :
(A) Providing stimulus and feedback
(B) Through observation
(C) Evaluation of reports related to performance
(D) Punishment for non-performance
93. Part of the subgroup of the given population in which every member has an equal chance of being included in the sample :
✓ (A) Continuous sample (B) Random sample
(C) Ungrouped sample (D) Grouped sample
94. CALL stands for :
✓ (A) Computer Advancement for Language Learner
(B) Computer Aided Language Learning
(C) Computer Aided Linguistic Learner
(D) Computer Aided Lab Lecture

✓ 95. Proportionate replica of real objects are called :

- (A) Real
- (B) Mock-up
- (C) Model
- (D) Replica

✓ 96. In which, question marking will be more reliable ?

- (A) Completion
- (B) Short answer
- (C) Multiple choice questions
- (D) Essay

✓ 97. The right sequence is :

- (A) Test assessment, evaluation, measurement
- (B) Assessment, measurement, evaluation, test
- (C) Test, measurement, assessment, evaluation
- (D) Evaluation, test, measurement, assessment

✓ 98. Case study helps in :

- (A) Development of problem solving skills
- (B) Simplifying complex phenomena's
- (C) Understanding life issues
- (D) Development of cognitive skills of higher order

✓ 99. Permanent difficulties in learning are investigated in :

- (A) Summative evaluation
- (B) Diagnostic evaluation
- (C) Formative evaluation
- (D) None of these

✓ 100. An assessment tools namely Rubrics :

- (A) Requires lot of time to develop exact performance statement
- (B) Need to be continuously revised for better results
- (C) Helps faculty grade/score more accurately, fairly and reliably
- (D) Clarifies quality expectations to students regarding their projects

SVSU Recruitment Examination 2019

Loaded Key Sheet for : 34 - Skill Assistant Professor (Electronics/ Robotics Engg.) , Set Code : A

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	B ✓	21	B ✓	41	D ✓	61	A ✓	81	C ✓
2	C ✓	22	A ✓	42	C ✓	62	D ✓	82	A ✓
3	B ✓	23	A ✓	43	B ✓	63	C ✓	83	B ✓
4	C ✓	24	D ✓	44	B ✓	64	A ✓	84	C ✓
5	D ✓	25	A ✓	45	A ✓	65	B ✓	85	B ✓
6	B ✓	26	B ✓	46	C ✓	66	B ✓	86	D ✓
7	C ✓	27	D ✓	47	A ✓	67	D ✓	87	A ✓
8	B ✓	28	C ✓	48	D ✓	68	D ✓	88	D ✓
9	D ✓	29	C ✓	49	B ✓	69	D ✓	89	C ✓
10	A ✓	30	B ✓	50	C ✓	70	A ✓	90	D ✓
11	C ✓	31	D ✓	51	A ✓	71	B ✓	91	D ✓
12	A ✓	32	A ✓	52	D ✓	72	D ✓	92	A ✓
13	D ✓	33	B ✓	53	A ✓	73	D ✓	93	B ✓
14	D ✓	34	B ✓	54	A ✓	74	A ✓	94	B ✓
15	B ✓	35	B ✓	55	B ✓	75	B ✓	95	C ✓
16	C ✓	36	B ✓	56	D ✓	76	B ✓	96	C ✓
17	C ✓	37	C ✓	57	C ✓	77	C ✓	97	C ✓
18	A ✓	38	A ✓	58	B ✓	78	C ✓	98	D ✓
19	B ✓	39	A ✓	59	C ✓	79	B ✓	99	B ✓
20	A ✓	40	B ✓	60	A ✓	80	D ✓	100	C ✓

SVSU Recruitment Examination 2019

Loaded Key Sheet for : 34 - Skill Assistant Professor (Electronics/ Robotics Engg.) , Set Code : B

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	C ✓	21	B ✓	41	B ✓	61	D ✓	81	A ✓
2	C ✓	22	C ✓	42	C ✓	62	D ✓	82	B ✓
3	A ✓	23	A ✓	43	B ✓	63	A ✓	83	B ✓
4	B ✓	24	A ✓	44	D ✓	64	B ✓	84	C ✓
5	A ✓	25	B ✓	45	A ✓	65	B ✓	85	C ✓
6	B ✓	26	D ✓	46	C ✓	66	C ✓	86	C ✓
7	A ✓	27	C ✓	47	A ✓	67	C ✓	87	D ✓
8	A ✓	28	B ✓	48	D ✓	68	B ✓	88	B ✓
9	D ✓	29	B ✓	49	D ✓	69	D ✓	89	C ✓
10	A ✓	30	A ✓	50	B ✓	70	C ✓	90	A ✓
11	B ✓	31	C ✓	51	D ✓	71	A ✓	91	D ✓
12	D ✓	32	A ✓	52	C ✓	72	B ✓	92	A ✓
13	C ✓	33	D ✓	53	A ✓	73	C ✓	93	A ✓
14	C ✓	34	B ✓	54	B ✓	74	B ✓	94	B ✓
15	B ✓	35	C ✓	55	B ✓	75	D ✓	95	D ✓
16	D ✓	36	B ✓	56	D ✓	76	A ✓	96	C ✓
17	A ✓	37	C ✓	57	D ✓	77	D ✓	97	B ✓
18	B ✓	38	B ✓	58	D ✓	78	C ✓	98	C ✓
19	B ✓	39	C ✓	59	A ✓	79	D ✓	99	A ✓
20	B ✓	40	D ✓	60	B ✓	80	D ✓	100	A ✓

SVSU Recruitment Examination 2019

Loaded Key Sheet for : 34 - Skill Assistant Professor (Electronics/ Robotics Engg.) , Set Code : C

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	B ✓	21	C ✓	41	C ✓	61	C ✓	81	A ✓
2	D ✓	22	A ✓	42	C ✓	62	B ✓	82	B ✓
3	C ✓	23	D ✓	43	A ✓	63	D ✓	83	D ✓
4	C ✓	24	B ✓	44	B ✓	64	A ✓	84	C ✓
5	B ✓	25	C ✓	45	A ✓	65	D ✓	85	B ✓
6	D ✓	26	B ✓	46	B ✓	66	C ✓	86	C ✓
7	A ✓	27	C ✓	47	A ✓	67	D ✓	87	A ✓
8	B ✓	28	B ✓	48	A ✓	68	D ✓	88	A ✓
9	B ✓	29	C ✓	49	D ✓	69	A ✓	89	D ✓
10	B ✓	30	D ✓	50	A ✓	70	B ✓	90	C ✓
11	B ✓	31	B ✓	51	A ✓	71	B ✓	91	A ✓
12	C ✓	32	C ✓	52	B ✓	72	C ✓	92	B ✓
13	A ✓	33	B ✓	53	B ✓	73	C ✓	93	B ✓
14	A ✓	34	D ✓	54	C ✓	74	C ✓	94	D ✓
15	B ✓	35	A ✓	55	C ✓	75	D ✓	95	D ✓
16	D ✓	36	C ✓	56	B ✓	76	B ✓	96	D ✓
17	C ✓	37	A ✓	57	D ✓	77	C ✓	97	A ✓
18	B ✓	38	D ✓	58	C ✓	78	A ✓	98	B ✓
19	B ✓	39	D ✓	59	A ✓	79	D ✓	99	D ✓
20	A ✓	40	B ✓	60	B ✓	80	A ✓	100	D ✓

SVSU Recruitment Examination 2019

Loaded Key Sheet for : 34 - Skill Assistant Professor (Electronics/ Robotics Engg.) , Set Code : D

Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key	Q.No.	Key
1	D ✓	21	C ✓	41	D ✓	61	B ✓	81	A ✓
2	C ✓	22	A ✓	42	A ✓	62	C ✓	82	B ✓
3	B ✓	23	D ✓	43	B ✓	63	C ✓	83	B ✓
4	B ✓	24	D ✓	44	B ✓	64	C ✓	84	D ✓
5	A ✓	25	B ✓	45	B ✓	65	D ✓	85	D ✓
6	C ✓	26	C ✓	46	B ✓	66	B ✓	86	D ✓
7	A ✓	27	C ✓	47	C ✓	67	C ✓	87	A ✓
8	D ✓	28	A ✓	48	A ✓	68	A ✓	88	B ✓
9	B ✓	29	B ✓	49	A ✓	69	D ✓	89	D ✓
10	C ✓	30	A ✓	50	B ✓	70	A ✓	90	D ✓
11	B ✓	31	B ✓	51	C ✓	71	A ✓	91	A ✓
12	C ✓	32	A ✓	52	B ✓	72	B ✓	92	B ✓
13	B ✓	33	A ✓	53	D ✓	73	D ✓	93	B ✓
14	C ✓	34	D ✓	54	A ✓	74	C ✓	94	C ✓
15	D ✓	35	A ✓	55	D ✓	75	B ✓	95	C ✓
16	B ✓	36	B ✓	56	C ✓	76	C ✓	96	B ✓
17	C ✓	37	D ✓	57	D ✓	77	A ✓	97	D ✓
18	B ✓	38	C ✓	58	D ✓	78	A ✓	98	C ✓
19	D ✓	39	C ✓	59	A ✓	79	D ✓	99	A ✓
20	A ✓	40	B ✓	60	B ✓	80	C ✓	100	B ✓