Q.1

.

In the circuit shown below, the effective resistance faced by the voltage source is

(A) 2 ohm	(B) 0.5 ohm
(C) 1 ohm	(D) 3 ohm

Marks   1

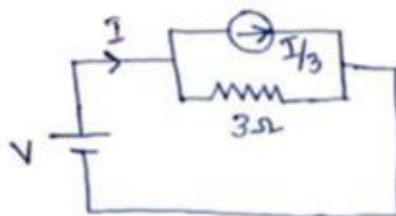| No	Options Details	Correct Option
1	A	✓

Q.1

In the circuit shown below, the effective resistance faced by the voltage source is

(A) 2 ohm   (B) 0.5 ohm
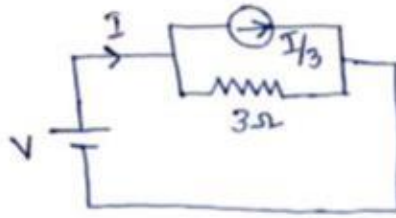
(C) 1 ohm   (D) 3 ohm

Marks   1

Question ID: 2206

No	Options Details	Correct Option
2	B	
3	C	
4	D	

Q.2   If a capacitor is energized by a symmetrical square wave current source then the steady state voltage across the capacitor will be

Marks   1

Question ID: 2207

No	Options Details	Correct Option
1	Square	
2	triangular	✔
3	step function	
4	impulse function	

Q.3

The current and voltage waveforms of an element are shown in figure below. The element name and its values are

current wave form

Voltage waveform

(A) R and 1 Ω

(B) C and 2μF

(C) L and 10 mH

(D) L 15 mH or C 10 μF

Marks   1

No		Options Details	Correct Option
1	A		
2	B		
3	C		✓
4	D		

Q.4

The value of current I_A for the circuit shown in figure below is

(A) 10.5 A

(B) −1.875 A

(C) 3 A

(D) −5.58 A

Marks   1

No		Options Details	Correct Option
1	A		
2	B		✓
3	C		
4	D		

Q.5 .

For an ac circuit, $v = V_m \sin(\omega t + \alpha)$ and $i = I_m \sin(\omega t + \beta)$. The phase angle between voltage and current waveforms is

(A) $\alpha + \beta$ or $\alpha - \beta$

(B) $\alpha - \beta$ or $\beta - \alpha$

(C) $\beta - \alpha$ or $\beta + \alpha$

(D) $\alpha - \beta$

Marks	1	Question ID: 2210

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.6 .

At lower half power frequency the current in a series RLC circuit has th phase relation with respect to supply voltage.

(A) 45° lead

(B) 45° lag

(C) 90° lead

(D) 90° lag

Marks	1	Question ID: 2211

No	Options Details	Correct Option
1	A	✔
2	B	
3	C	
4	D	

Q.7 For a three phase, three wire system, the two Wattmeter read 4000 Watts and 2000 Watts respectively. The power factor when both meters give direct reading is

Marks	1	Question ID: 2212

No	Options Details	Correct Option
1	1	
2	0.5	
3	0.866	✔
4	0.6	

Q.8

.

Given $I_1 = 2V_1 + V_2$ and $I_2 = V_1 + V_2$ then the Z-parameters are given by

(A) $\begin{bmatrix} 2 & 1 \\ 1 & 1 \end{bmatrix}$

(B) $\begin{bmatrix} 1 & 1 \\ 1 & 2 \end{bmatrix}$

(C) $\begin{bmatrix} 1 & -1 \\ -1 & 2 \end{bmatrix}$

(D) $\begin{bmatrix} 2 & -1 \\ 1 & 1 \end{bmatrix}$

Marks	1	Question ID: 2213

No		Options Details	Correct Option
1	A		
2	B		
3	C		✔
4	D		

Q.9

.

In the circuit shown in figure below switch SW1 is initially closed and SW2 is open. The inductor L carries a current of 10 A and the capacitor charged to 10 V with polarities as indicated. SW2 is closed at $t = 0$ and SW1 is opened at $t = 0$. The current through C and the voltage across L at $t = 0^+$ is
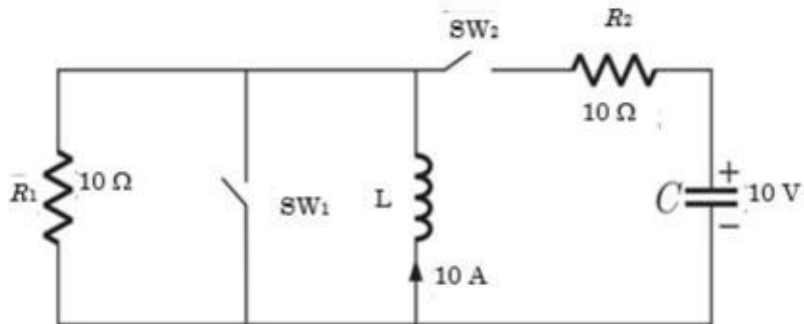
(A) 55 A, 4.5 V

(B) 5.5 A, 45 V

(C) 45 A, 5.5 V

(D) 4.5 A, 55 V

Marks	1	Question ID: 2214

No		Options Details	Correct Option
1	A		
2	B		
3	C		
4	D		✔

Q.10   The typical ratio of latching current to holding current in a 20 A thyristor is

Marks   1

Question ID: 2215

No	Options Details	Correct Option
1	5	
2	2	✔
3	1	
4	0.5	

Q.11   A three phase bridge inverter, with 1800 gating scheme, delivers power to a resistive load from a 450 V dc source. For a star connected load of 10 ohm/phase, the rms value of load current is
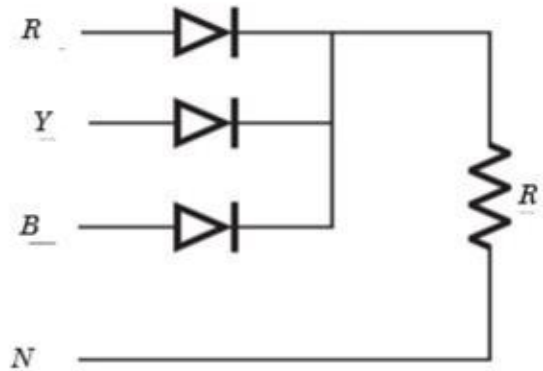
Marks   1

Question ID: 2216

No	Options Details	Correct Option
1	18.708 A	✔
2	20 A	
3	10.52 A	
4	5.55 A	

Q.12

.

The circuit in figure shows a 3-phase half-wave rectifier. The source is a symmetrical, 3-phase four-wire system. The line-to-line voltage of the source is 100 V. The supply frequency is 400 Hz. The ripple frequency at the output is

(A) 400 Hz

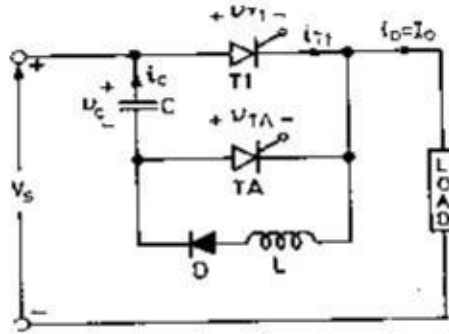(B) 800 Hz

(C) 1200 Hz

(D) 2400 Hz

| Marks | 1 | Question ID: 2217 |

No	Options Details		Correct Option
1	A		
2	B		
3	C		✔
4	D		

Q.13

For the circuit shown in figure below, with V_s= 230 V, C= 40 µF and L= 20 µH, for a constant load current of 120 A, the peak current through thyristor T1 is

(A) 100.25 A   (B) 50.85 A

(C) 445.22 A   (D) 335.42 A

Marks	1	Question ID: 2218

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	

Q.14

The sensitivity function for the overall transfer function M(s) w.r.t G(s), for the open loop control system is, where G(s) = C(s) / R(s)

(A) 1/G(s)   (B) G(s)

(C) R(s)   (D) 1

Marks	1	Question ID: 2219

No	Options Details	Correct Option
1	A	
2	B	
3	C	
4	D	✔

Q.15

The transfer function of a compensator is given as

$$G_c(S) = \frac{s+a}{s+b}$$

This compensator is a lead compensator if

(A) $a = 1$ and $b = 2$ (B) $a = 3$ and $b = 2$

(C) $a = 4$ and $b = 1$ (D) $a = 3$ and $b = 1$
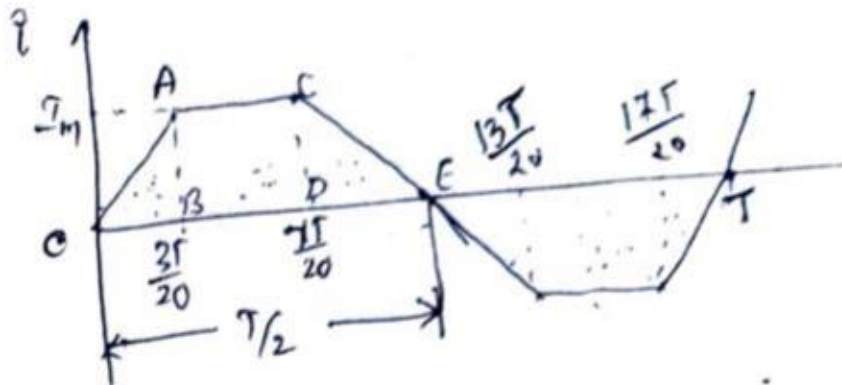
Marks   1

Question ID: 2220

No		Options Details	Correct Option
1	A		✔
2	B		
3	C		
4	D		

Q.16

For the trapezoidal current waveform shown in figure below, the average value of current is

(A) 0.7 Im A   (B) 0.55 Im A

(C) 0.8 Im A   (D) 0.752 Im A

Marks   1

Question ID: 2221

No		Options Details	Correct Option
1	A		✔
2	B		
3	C		
4	D		

Q.17 .

A system is defined by the following set of equations

$$x_2 = a_{12}x_1 + a_{32}x_3 + a_{42}x_4 + a_{52}x_5$$
$$x_3 = a_{23}x_2$$
$$x_5 = a_{35}x_3 + a_{45}x_4$$
$$x_4 = a_{34}x_3 + a_{44}x_4$$

From the signal flow graph, the number of forward paths is

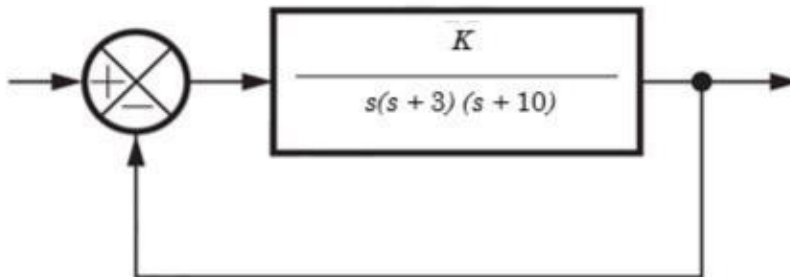(A) 1   (B) 2

(C) 3   (D) 4

Marks   1

Question ID: 2222

No		Options Details	Correct Option
1	A		
2	B		✓
3	C		
4	D		

Q.18 .

Figure shows a feedback system where $K > 0$

The range of K for which the system is stable will be given by

(A) $0 < K < 30$ (B) $0 < K < 39$

(C) $0 < K < 390$ (D) $K > 390$

Marks   1

Question ID: 2223

No		Options Details	Correct Option
1	A		
2	B		
3	C		✓
4	D		

Q.19

A unity feedback system has open loop transfer function $G(S) = \dfrac{K}{s(s^2 + 6s + 25)}$.

In the root locus plot for this system, the breakaway points are at

(A) $-1 \pm j1$

(B) $-2 \pm j1$

(C) $-2 \pm j2$

(D) no break away point

Marks	1	Question ID: 2224

No	Options Details	Correct Option
1	A	
2	B	
3	C	
4	D	✓

Q.20

If the loop gain K of a unity feedback system having a loop transfer function

$G(S) = \dfrac{K(s+3)}{(s+8)^2}$ is to be adjusted to induce a sustained oscillation then

(A) The frequency of this oscillation must be $4\sqrt{3}$ rad/s

(B) The frequency of this oscillation must be 4 rad/s

(C) The frequency of this oscillation must be 4 or $4\sqrt{3}$ rad/s

(D) Such a K does not exist

Marks	1	Question ID: 2225

No	Options Details	Correct Option
1	A	
2	B	✓
3	C	
4	D	

Q.21 .

The state space equation of a system is described by $\dot{X} = AX + Bu$, $Y = CX$, where X is state vector, u is input, Y is output. The transfer function of a system is $G(s) = \dfrac{(s+2)}{(s+3)(s+1)^2}$. The matrix C is given by

(A) $\begin{bmatrix} 1 & 1 & 1 \end{bmatrix}$

(B) $\begin{bmatrix} \dfrac{1}{2} & \dfrac{1}{4} & -\dfrac{1}{4} \end{bmatrix}$

(C) $\begin{bmatrix} \dfrac{1}{2} & 1 & \dfrac{1}{4} \end{bmatrix}$

(D) $\begin{bmatrix} \dfrac{1}{2} & \dfrac{1}{4} & 0 \end{bmatrix}$

Marks 1

Question ID: 2226

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.22 .

Out of the following plant categories

(i) Nuclear (ii) Run-of-river (iii) Pump Storage (iv) Diesel

The base load power plants are

(A) (i) and (ii)

(B) (ii) and (iii)

(C) (i), (ii) and (iv)

(D) (i), (iii) and (iv)

Marks 1

Question ID: 2227

No	Options Details	Correct Option
1	A	✔
2	B	
3	C	
4	D	

Q.23 Pin type insulators are generally not used for voltages beyond

Marks 1

Question ID: 2228

No	Options Details	Correct Option
1	22 kV	
2	33 kV	✔
3	11 kV	
4	1 kV	

Q.24 .

The insulation resistance of a single-core cable is 495 MΩ per km. If the core diameter is 2.5 cm and resistivity of insulation is $4.5 \times 10^{14}\,\Omega$ -cm, the insulation thickness is

(A) 1.5 cm (B) 1.25 cm

(C) 1.75 cm (D) 2 cm

Marks 1

Question ID: 2229

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.25

A coupling magnetic field must react with

1. electrical system in order to extract energy from mechanical system
2. mechanical system in order to extract energy from mechanical system
3. electrical system in order to extract energy from electrical system
4. mechanical system in order to extract energy from electrical system
5. both electrical and mechanical systems for electromechanical energy conversion
6. electrical or mechanical system for electromechanical energy conversion.

(A) 1, 2, 3, 4, 6   (B) 1, 4, 5

(C) 2, 3, 6   (D) 2, 3, 5

Marks 1

Question ID: 2230

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	

Q.26 Compensating windings are used in DC generators

Marks 1

Question ID: 2231

No	Options Details	Correct Option
1	To provide path for the circulation of cooling	
2	to neutralize the cross magnetizing effect of the armature reaction	✔
3	Mainly to reduce the eddy currents by providing local short Circuit	
4	to provide mechanical balance	

Q.27	A dc shunt generator builds up to a voltage of 220 V at no load while running at its rated speed. If the speed of the generator is raised by 25% keeping the circuit conditions unaltered, then the voltage to which the machine would build up will

Marks	1	**Question ID:** 2232

No	Options Details	Correct Option
1	not change and remain at 220 V	
2	increase to 1.25 times 220 V	✔
3	increase to value lying between 220 V and 1.25 times 220 V	
4	increase to a value greater than 1.25 times 220 V	

Q.28	A 220 V dc machine has an armature resistance of 1 Ω. If the armature current is 20 A, the difference in the induced voltages when the machine is running as a motor and as a generator is

Marks	1	**Question ID:** 2233

No	Options Details	Correct Option
1	20 V	
2	0 V	
3	40 V	✔
4	50 V	

Q.29	A 2200 / 220 V, 50 Hz single phase transformer has exciting current of 0.6 A and a core loss of 361 watts, when its HV side is energised at rated voltage. The core loss and magnetising components of current respectively are

Marks	1	**Question ID:** 2234

No	Options Details	Correct Option
1	0.5 A and 0.2 A	
2	0.164 A and 0.574 A	✔
3	0.52 A and 0.3 A	
4	0.6 A and 0 A	

Q.30   A transformer 2,000 KVA, 250 Hz is operated at 50 Hz. Its KVA rating should be revised to

Question ID: 2235

Marks   1

No	Options Details	Correct Option
1	400 KVA	✔
2	10000 KVA	
3	2000 KVA	
4	2500 KVA	

Q.31   Assume power factor of 0.8 lag at all loads. A 200 KVA transformer has an efficiency of 98 % at full load. If the maximum efficiency occurs at ¾ of full load, the % efficiency at half full load is

Question ID: 2236

Marks   1

No	Options Details	Correct Option
1	98.26	
2	96.22	
3	95.34	
4	97.92	✔

Q.32   A three-phase 440 V, 6 pole, 50 Hz, squirrel cage induction motor is running at a slip of 5%. The speed of stator magnetic field to rotor magnetic field and speed of rotor with respect of stator magnetic field are

Question ID: 2237

Marks   1

No	Options Details	Correct Option
1	zero, - 50 rpm	✔
2	zero, 950 rpm	
3	1000 rpm, -50 rpm	
4	1000 rpm, 950 rpm	

Q.33

A 3 phase squirrel cage induction motor has maximum torque equal to twice the full load torque. The per phase rotor resistance and per phase stand still reactance referred to stator are 0.2 ohm and 2 ohm respectively. Neglect stator impedance. The ratio of starting torque to full load torque with star delta starter is

Question ID: 2238

Marks   1

No	Options Details	Correct Option
1	0.313	
2	0.25	
3	0.496	
4	0.132	✔

Q.34

A three-phase synchronous motor connected to ac mains is running at full load and unity power factor. If its shaft load is reduced by half, with field current held constant, its new power factor will be

Question ID: 2239

Marks   1

No	Options Details	Correct Option
1	unity	
2	leading	✔
3	lagging	
4	dependent on machine parameters	

Q.35

.

A 200 MVA, 3 – phase, star connected 11 kV, 12 pole, 50 Hz salient pole synchronous motor with negligible armature resistance has per phase reactances $X_d = 5\ \Omega$ and $X_q = 3\ \Omega$. At full load, unity power factor and rated voltage, the value of excitation voltage per phase is

(A) 7035 V

(B) 8022 V

(C) 9588 V

(D) 8688 V

Question ID: 2240

Marks   1

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.36	In Swinburne's method of testing dc machines, the shunt machine is run as a

		Question ID:
Marks	1	2241

No	Options Details	Correct Option
1	motor at no load at rated speed and rated voltage	✔
2	generator at no load at near rated speed and rated voltage	
3	generator at full load at rated speed and rated voltage	
4	generator at no load at rated speed and rated terminal voltage	

Q.37 .

The potential field in free space is given by, $V = \frac{50}{r}$, $a \leq r \leq b$ (spherical). Then the energy stored in the region $a < r < b$ is

(A) $1.39 \times 10^{-7} \left[\frac{1}{a} - \frac{1}{b}\right] V$

(B) $1.39 \times 10^{-7} \left[\frac{1}{b} - \frac{1}{a}\right] V$

(C) $0.39 \times 10^{-7} \left[\frac{1}{b} - \frac{1}{a}\right] V$

(D) $0.39 \times 10^{-7} \left[\frac{1}{a} - \frac{1}{b}\right] V$

		Question ID:
Marks	1	2242

No	Options Details	Correct Option
1	A	✔
2	B	
3	C	
4	D	

Q.38 .

A coil of 300 turns is wound on non-magnetic core having a mean circumference of 300 mm and a cross-sectional area of 300 mm^2. The inductance of the coil corresponding to a magnetizing current of 3 A will be

(A) 37.68 μH

(B) 113.04 μH

(C) 3.768 μH

(D) 1.1304 μH

		Question ID:
Marks	1	2243

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.39

A circular loop has its radius increasing at a rate of 2 m/s. The loop is placed perpendicular to a constant magnetic field of 0.1 Wb/m². When radius of the loop is 2 m, the emf induced in the loop will be

(A) 0.8π V

(B) 0.4π V

(C) 0.2π V

(D) zero

Question ID: 2244

Marks 1

No	Options Details	Correct Option
1	A	✓
2	B	
3	C	
4	D	

Q.40

A point charge Q = 0.4 nC is located at the origin. The absolute potential of A (2,2,3) is

Question ID: 2245

Marks 1

No	Options Details	Correct Option
1	0.7819 V	
2	0.8719V	✓
3	1.7819V	
4	1.8719 V	

Q.41

When measuring Power with an electro dynamometer wattmeter in a circuit where the load current is large:

Question ID: 2246

Marks 1

No	Options Details	Correct Option
1	the current coil should be connected on the load side	
2	the pressure coil should be connected on the load side	✓
3	the pressure coil should be connected on the supply side	
4	it is immaterial whether the pressure coil or the current coil is on the load side	

Q.42	A Moving iron instrument can be used for current and voltage measurements	
Marks	1	**Question ID:** 2247

No	Options Details	Correct Option
1	In a.c. circuits only	
2	In d.c. circuits only	
3	In both a.c. and d.c. circuits for any value of frequency (in case of a.c. circuits)	
4	In both a.c. and d.c. circuits for frequencies upto about 125Hz (in case of a.c. circuits)	✔

Q.43	An energy meter, having meter constant of 1200 revolutions/kWh, makes 20 revolutions in 30 seconds for a constant load. The load, in kW, is	
Marks	1	**Question ID:** 2248

No	Options Details	Correct Option
1	1	
2	2	✔
3	1.5	
4	2.5	

| Q.44	A galvanometer with a full scale current of 10 mA has a resistance of 1000 Ω. The multiplying power of 100 Ω shunt with this galvanometer is	
Marks	1	**Question ID:** 2249

No	Options Details	Correct Option
1	110	
2	100	
3	11	✔
4	10	

Q.45 .

A CRO probe has an impedance of 500kΩ in parallel with a capacitance of 10 pF. The probe is connected to CRO to measure the voltage as shown in figure. The measured voltage is
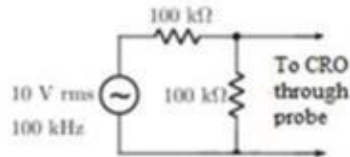
(A) 3.53 V   (B) 4.38 V

(C) 4.54 V   (D) 5.00 V

Marks   1

Question ID: 2250

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.46 The breaking current of a circuit breaker rated at 1500 amps, 2000 MVA, 33 KV, 3 sec, 3-phase, oil circuit breaker is

Marks   1

Question ID: 2251

No	Options Details	Correct Option
1	89.22 KV	
2	34.99 KV	✔
3	33 KV	
4	66 KV	

Q.47 The insulation strength of an EHV transmission line is mainly governed by

Marks   1

Question ID: 2252

No	Options Details	Correct Option
1	load power factor	
2	switching over-voltages	✔
3	harmonics	
4	corona	

Q.48

Incremental fuel costs (in some appropriate unit) for a power plant consisting of three generating units are :

$IC_1 = 20 + 0.3 P_1$, $IC_2 = 30 + 0.4 P_2$, $IC_3 = 30$

Where P_i is the power in MW generated by unit i for i = 1,2 and 3. Assume that all the three units are operating all the time. Minimum and maximum loads on each unit are 50 MW and 300 MW respectively. If the plant is operating on economic load dispatch to supply the total power demand of 700 MW, the power generated by each unit is

(A) $P_1 = 242.856$ MW ; $P_2 = 157.14$ MW and $P_3 = 300$ MW

(B) $P_1 = 157.14$ MW; $P_2 = 242.856$ MW and $P_3 = 300$ MW

(C) $P_1 = 300$ MW; $P_2 = 300$ MW and $P_3 = 100$ MW

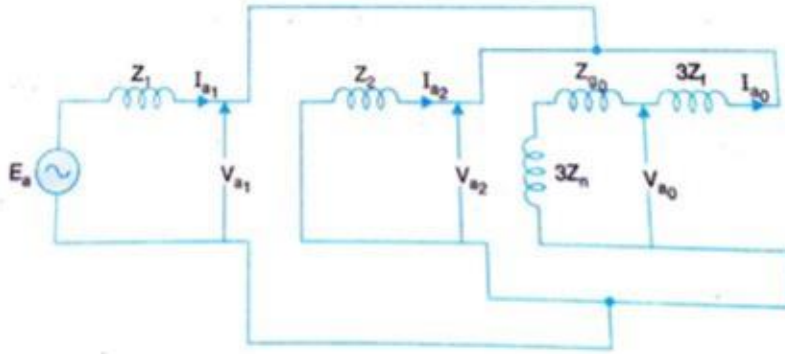(D) $P_1 = 233.3$ MW ; $P_2 = 233.3$ MW and $P_3 = 233.4$ MW

Marks   1

Question ID: 2253

No	Options Details	Correct Option
1	A	✔
2	B	
3	C	
4	D	

Q.49

The connection diagram of sequence networks for a particular fault on a power system network is given in the figure. The type of the fault is

(A) single line to ground fault   (B) double line to ground fault

(C) line to line fault   (D) open circuit

Marks   1

Question ID: 2254

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.50

The bus admittance matrix of a power system is given as

$$\begin{array}{ccc} 1 & 2 & 3 \end{array}$$
$$\begin{bmatrix} -j50 & +j10 & +j5 \\ +j10 & -j30 & +j10 \\ +j5 & +j10 & -j25 \end{bmatrix}$$

The impedance of the line between bus 1 and 3 will be equal to

(A) +j 0.1   (B) −j 0.1

(C) +j 0.2   (D) −j 0.2

Marks   1

Question ID: 2255

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	

Q.51

.

A 3-phase generator rated at 110 MVA, 11 kV is connected through circuit breakers to a transformer. The generator is having direct axis sub-transient reactance X''_d = 19%, transient reactance X'_d = 26% and synchronous reactance = 130%. The generator is operating at no load and rated voltage when a three phase short circuit fault occurs between the breakers and the transformer. The magnitude of initial symmetrical rms current in the breakers will be

(A) 4.44 kA   (B) 22.20 kA

(C) 30.37 kA   (D) 38.45kA

Marks   1

Question ID: 2256

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	

Q.52   Amplifiers, motors, filters etc. are examples for which type of system?

Marks   1

Question ID: 2257

No	Options Details	Correct Option
1	Distributed parameter systems	
2	Unstable systems	
3	Discrete time systems	
4	Continuous time systems	✔

Q.53

An analog signal is band-limited to 4 kHz, sampled at the Nyquist rate and the samples are quantized into 4 levels. The quantized levels are assumed to be independent and equally probable. If we transmit two quantized samples per second, the information rate is _____ bits / second.

Marks   1

Question ID: 2258

No	Options Details	Correct Option
1	1	
2	2	
3	3	
4	4	✔

Q.54 If we amplify an ECG signal before digitizing it, which one of these probably improves

Marks 1

Question ID: 2259

No	Options Details	Correct Option
1	frequency resolution	
2	time resolution	
3	voltage resolution	✔
4	angular resolution	

Q.55 .

The ROC (Region of Convergence) of the z-transform of a discrete-time signal is represented by the shaded region in the z-plane. If the signal $x[n] = (2.0)^{|n|}$, $-\infty < n < +\infty$ then the ROC of its z-transform is represented by
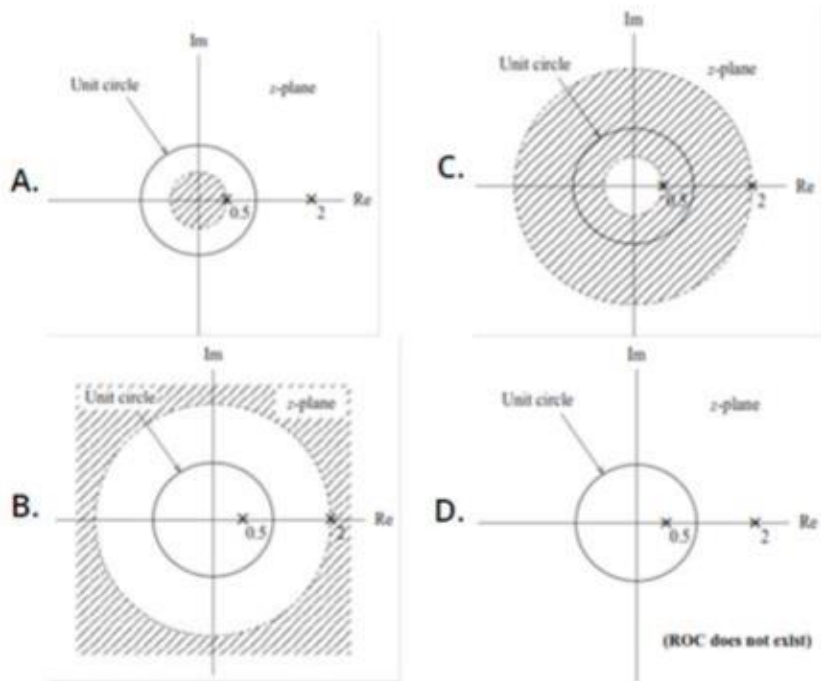
Marks 1

Question ID: 2260

No	Options Details	Correct Option
1	A	
2	B	
3	C	
4	D	✔

Q.56 .

For the circuit shown below, identify the output wave form

A)

B)

C)

D)
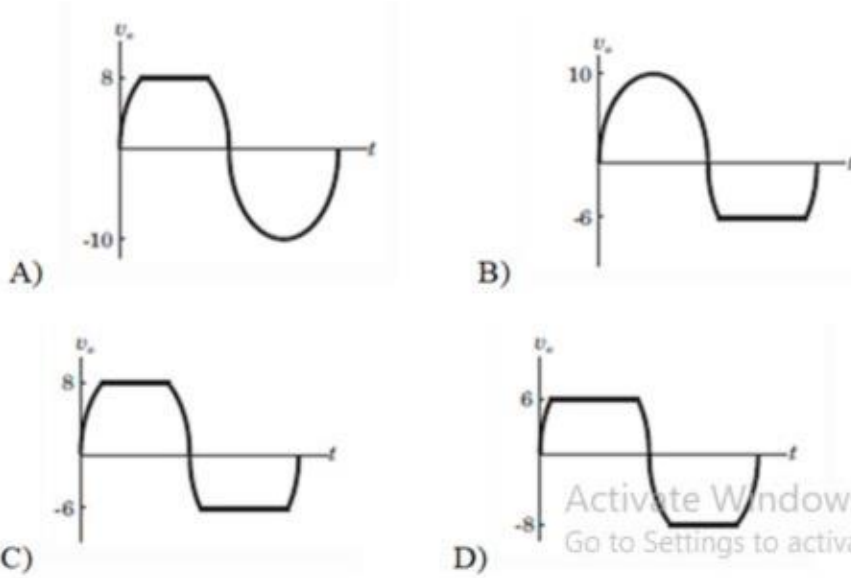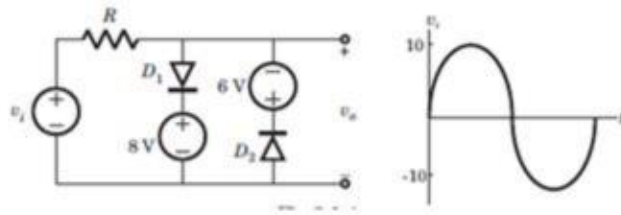
	Question ID:
Marks 1	2261

No	Options Details	Correct Option
1	A	
2	B	
3	C	✓
4	D	

Q.57 Internal transistor junction capacitances affect the high-frequency response of amplifiers by

	Question ID:
Marks 1	2262

No	Options Details	Correct Option
1	increasing the amplifier's gain	
2	introducing phase shift as the signal frequency decreases	
3	having no effect	
4	reducing the amplifier's gain and introducing phase shift as the signal frequency increases	✓

Q.58   Which device is used for diagnostic purposes and for recording?

Marks   1

No	Options Details	Correct Option
1	Band pass filter	
2	Amplifier	
3	Voltage Controlled Oscillator	✔
4	Both (A) and (B)	

Q.59   .

Consider the following statements

(i) Schmitt trigger circuit can be emitter coupled bi-stable circuit

(ii) Schmitt trigger circuit exhibits hysteresis phenomenon

(iii) The output of Schmitt trigger will be triangular if the input is a square wave.

Which of these statements are correct?

(A) (i), (ii) and (iii)   (B) (i) and (ii) only

(C) (ii) and (iii) only   (D) (i) and (iii) only

Marks   1

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.60   With the use of an electronic counter six capsules are to be filled in bottles automatically. In such a counter what will be the number of flip-flops required?

Marks   1

No	Options Details	Correct Option
1	3	✔
2	12	
3	6	
4	8	

Q.61 .

Choose the correct alternative that will continue the same pattern and fill in the blank space.

3, 10, 27, 4, 16, 64, 5, 25, 125 ....?

(A) 3   (B) 4

(C) 10   (D) 27

Question ID: 2266

Marks   1

No		Options Details	Correct Option
1	A		
2	B		
3	C		✔
4	D		

Q.62 .

Choose the correct alternative that will continue the same pattern and fill in the blank space.

1, 3, 7, 15, 27, 63, 127 ....?

(A) 7   (B) 15

(C) 27   (D) 63

Question ID: 2267

Marks   1

No		Options Details	Correct Option
1	A		
2	B		
3	C		✔
4	D		

Q.63 .

Choose the correct alternative that will continue the same pattern and fill in the blank space.

1, 5, 9, 16, 25, 37, 19 ....?

(A) 9   (B) 15

(C) 25   (D) 37

Marks   1

Question ID: 2268

No	Options Details	Correct Option
1	A	
2	B	
3	C	
4	D	
5	Error in question / Answer options. Grace marks will be awarded.	✔

Q.64 .

Choose the correct alternative that will continue the same pattern and fill in the blank space.

6, 14, 30, 64, 126 ....?

(A) 6   (B) 14

(C) 64   (D) 124

Marks   1

Question ID: 2269

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	

Q.65	Growth: Death:: Increase : ?	
Marks	1	**Question ID:** 2270

No	Options Details	Correct Option
1	Ease	
2	Decrease	✔
3	Tease	
4	Cease	

Q.66	Dog : Bark :: Goat : ?	
Marks	1	**Question ID:** 2271

No	Options Details	Correct Option
1	Bleat	✔
2	Howl	
3	Grunt	
4	Bray	

Q.67	Rupee : India :: Yen : ?	
Marks	1	**Question ID:** 2272

No	Options Details	Correct Option
1	Turkey	
2	Bangladesh	
3	Pakistan	
4	Japan	✔

Q.68	Oceans : Deserts :: Waves :?	
Marks	1	**Question ID:** 2273

No	Options Details	Correct Option
1	Sea	
2	Dust	
3	Sand dunes	✔
4	Ripples	

Q.69

Choose the word which is least like the other words in the group :

(A)   Morarji Desai   (B)   Jawarharlal Nehru

(C)   S. Radha Krishnan   (D)   Lal Bahadur Sastri

Marks   1

Question ID:
2274

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	
5	E	

Q.70

Choose the word which is least like the other words in the group :

(A)   King   (B)   Queen

(C)   Bishop   (D)   Minister

Marks   1

Question ID:
2275

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	

Q.71

Choose the word which is least like the other words in the group :

(A) Giraffe

(B) Hyena

(C) Deer

(D) Rhinoceros

| Marks | 1 | | Question ID: 2276 |

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.72

Choose the word which is least like the other words in the group :

(A) Gloomy

(B) Calm

(C) Distress

(D) Tense

| Marks | 1 | | Question ID: 2277 |

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	
5	E	

Q.73

Choose missing letter out of the given letters :

U, O, I, ?, A

(A) E

(B) C

(C) S

(D) G

Marks   1

Question ID: 2278

No	Options Details	Correct Option
1	A	✔
2	B	
3	C	
4	D	

Q.74

Choose missing letter out of the given letters :

R, M, ? F, D, ?

Marks   1

Question ID: 2279

No	Options Details	Correct Option
1	C, B	
2	I, C	✔
3	D, H	
4	H, C	
5	E	

Q.75

Choose missing letter out of the given letters :

CAT, FDW, IGZ, ?

(A) KJA

(B) KTC

(C) LHD

(D) LJC

Marks   1

Question ID: 2280

No	Options Details	Correct Option
1	A	
2	B	
3	C	
4	D	✔

Q.76

If TRAIN is written as WUDLQ then BUS world be written has_____

Marks 1

Question ID: 2281

No	Options Details	Correct Option
1	EXU	
2	DWU	
3	EXV	✔
4	VXE	

Q.77

Primary emotions include all except

Marks 1

Question ID: 2282

No	Options Details	Correct Option
1	Love	✔
2	Delight	
3	Anger	
4	Fear	

Q.78

Factors theory of emotion was developed by

Marks 1

Question ID: 2283

No	Options Details	Correct Option
1	Cannon - Bard	
2	Schacheter	✔
3	James - Longe	
4	Karl Jung	

Q.79

Trait theory of personality was proposed by

Marks 1

Question ID: 2284

No	Options Details	Correct Option
1	Allport	✔
2	Erikson	
3	Eysenk	
4	Sheldon	

Q.80 Normal IQ Range is

Marks 1

Question ID: 2285

No	Options Details	Correct Option
1	70 – 79	
2	90 – 109	✔
3	80 – 89	
4	All of the above	

Q.81 Who is the First Woman Registrar of Assam High Court

Marks 1

Question ID: 2286

No	Options Details	Correct Option
1	B.S. Bhanumathi	✔
2	Rumi Kumari Phukan	
3	R. Pankaja Mohan	
4	Savithri Roy	

Q.82 Louis Braille Day is celebrated on which date

Marks 1

Question ID: 2287

No	Options Details	Correct Option
1	January 4	✔
2	February 6	
3	March 8	
4	April 6	

Q.83 South Indian Actress who got Best Actress Award in 2018 National Film Awards

Marks 1

Question ID: 2288

No	Options Details	Correct Option
1	NayanaTaara	
2	Anushka	
3	Keerthy Suresh	✔
4	Anupama Parameswaran	

Q.84

What is the position of Andhra Pradesh in "Swaccha Sundar Samudaya Sauchalay"

Marks 1

Question ID: 2289

No	Options Details	Correct Option
1	1	
2	2	✔
3	3	
4	4	

Q.85

"A Passage to India" was written by

Marks 1

Question ID: 2290

No	Options Details	Correct Option
1	Chetan Bhagath	
2	E.M. Forster	✔
3	Morcopolo	
4	Nelson Mandela	

Q.86

Shikha Tandon is related to which sport

Marks 1

Question ID: 2291

No	Options Details	Correct Option
1	Swimming	✔
2	Shooting	
3	Chess	
4	Golf	

Q.87 'Ball Point Pen' was invented by whom?

Marks 1

Question ID: 2292

No	Options Details	Correct Option
1	J.J. Loud	✔
2	Carrier	
3	N.J. Lumiere	
4	R. Gatling	

Q.88 Expansion of 'LOC' is

Marks 1

Question ID: 2293

No	Options Details	Correct Option
1	Lion of Combodia	
2	Line of Commerce	
3	Line of Control	✔
4	Lane of Command	

Q.89 Citizenship Amendment Act came into existence on which date

Marks 1

Question ID: 2294

No	Options Details	Correct Option
1	1 Jan 2020	
2	10 Jan 2020	✔
3	18 Jan 2020	
4	26 Jan 2020	

Q.90 New Toll Free Number of COVID-19 is

Marks 1

Question ID: 2295

No	Options Details	Correct Option
1	1044	
2	1066	
3	1075	✔
4	1078	

Q.91 .

Given below a word in capital letters is followed by four words or groups of words. Select the word or groups of words that is most similar in meaning to the word in capital letters.

WHOLESOME

(A) Wholehearted   (B) Healthy

(C) Widespread   (D) Handsome

Marks   1

Question ID: 2296

No		Options Details	Correct Option
1	A		
2	B		✔
3	C		
4	D		

Q.92 .

Given below a word in capital letters is followed by four words or phrases as [A], [B], [C] and [D]. Select the word or phrase which is nearly opposite to the meaning of the original word and mark the correct response as [A], [B], [C] or [D] as the case may be.

REBUT

(A) Disprove   (B) Accept

(C) Oppose   (D) Retort

Marks   1

Question ID: 2297

No		Options Details	Correct Option
1	A		
2	B		✔
3	C		
4	D		

Q.93 .

In the given below sentence the parts have been jumbled. These parts have been labelled P, Q, R and S. You are required to re-arrange the jumbled parts of the sentence and mark your response accordingly.

your career / to/ further / study

　　　P　　　Q　　　R　　　S

(A) SRQP

(B) SQPR

(C) PRQS

(D) QSRP

| Marks | 1 | | Question ID: 2298 |

No		Options Details	Correct Option
1	A		
2	B		✔
3	C		
4	D		

Q.94 .

Complete the given sentence by choosing the most appropriate word/s from the given alternatives.

A careful ——————— of the records showed mismanagement of funds.

(A) exploration

(B) scrutiny

(C) scansion

(D) quest

| Marks | 1 | | Question ID: 2299 |

No		Options Details	Correct Option
1	A		
2	B		✔
3	C		
4	D		

Q.95

Find out the correct meaning of the idiom/ phrase underlined from the options given below.

Govind had to <u>eat his words</u> when the team won the cup.

(A) admit that he was wrong   (B) speak to the team

(C) sing the praises of the team   (D) deny victory for the team

Marks   1

Question ID: 2300

No	Options Details	Correct Option
1	A	✔
2	B	
3	C	
4	D	

Q.96   Given are parts of the sentence. One of the parts may have a mistake. Spot the error part.

Marks   1

Question ID: 2301

No	Options Details	Correct Option
1	How did he cope up	✔
2	with all those	
3	stressful moments	
4	of life?	

Q.97

Improve the given sentence finding the mistake(s) if any.

She doesn't know to sing and dance.

(A) knows how to   (B) know how to

(C) knows to   (D) knew to

Marks   1

Question ID: 2302

No	Options Details	Correct Option
1	A	
2	B	✔
3	C	
4	D	

Q.98 .

Choose appropriate word to fill in the blank in the below given sentence.

The award ——————— to her for her contributions to the field of dance.

(A) was given   (B) given

(C) been given   (D) gave

Marks	1	Question ID: 2303

No	Options Details		Correct Option
1	A		✔
2	B		
3	C		
4	D		

Q.99 .

Read the following passage and answer the questions that follows it.

As a consequence of the exponential growth of science, most mathematics has developed since the 15th century CE, and it is a historical fact that, from the 15th century to the late 20th century, new developments in mathematics were largely concentrated in Europe and North America. For these reasons, the bulk of this article is devoted to European developments since 1500.

What is the passage about?

(A) History of Science

(B) Europe and North America

(C) History of 15th Century Europe

(D) History of mathematics

Marks	1	Question ID: 2304

No	Options Details		Correct Option
1	A		
2	B		
3	C		
4	D		✔

Q.100

Read the following passage and answer the questions that follows it.

As a consequence of the exponential growth of science, most mathematics has developed since the 15th century CE, and it is a historical fact that, from the 15th century to the late 20th century, new developments in mathematics were largely concentrated in Europe and North America. For these reasons, the bulk of this article is devoted to European developments since 1500.

Which factor triggered the growth of mathematics since the 15th century?

(A) increased interest in numbers
(B) growth of trade and commerce
(C) growth of science
(D) exponential growth of population

Marks 1

Question ID: 2305

No	Options Details	Correct Option
1	A	
2	B	
3	C	✔
4	D	