Question Booklet No.	Question Booklet Series : **A**

AUAT — 2024
2-Year M. Tech. in Electronics & Communication Engineering (P24)
(TEST BASED ON MCQ)

Full Marks : 100	Duration : 2 Hours

Roll No. of the Candidate : _____

Date of Examination : _____

Name of Examination Centre : _____

Signature of the Candidate : _____

Signature of the Invigilator on Verification

IMPORTANT INSTRUCTIONS

Candidates should read the below instructions carefully and follow them accordingly.

1. The Question Booklet has paper seal pasted on it. Please do **NOT** open the Question Booklet until you are asked to do so by the Invigilator.

2. The candidates must check immediately after breaking the seal that the Question Booklet contains **100 Multiple Choice Questions** in two parts (Part—I and Part—II).

3. Answer of questions of Part—I and Part—II both will have to be given on the **OMR Answer Sheet** provided for this purpose. Fill up the necessary fields that are intended for you by writing and/or shading appropriately. Otherwise the **OMR Answer Sheet *cannot*** be evaluated and will liable to be rejected. Question numbers progress from **1** to **100** continuously with alternative answers being shown as [A], [B], [C] and [D] for each question. Record your response by completely darkening the corresponding bubble. While responding, you should consider the best alternative answer and shade only one bubble with **black/blue ball point pen only**. For each correct response you will be awarded **1** mark. There will be negative marking for wrong responses. For each wrong response, **–0·25** mark will be awarded. Multiple responses against one **MCQ** will be treated as a wrong response.

4. On leaving the examination hall, candidates must submit the **OMR Answer Sheet**. They are allowed to keep the Question Booklet with them.

5. **OMR Answer Sheet** will be processed by electronic means. Any untoward/irrelevant remarks, folding or putting stray notes on the answer sheet, any damage to the answer sheet will lead to the rejection of the same and the sole liability shall remain with the candidate.

6. Rough Work may be done at the end of the Question Booklet.

7. No candidate will be allowed to leave the examination hall before completion of the examination.

8. Use of any Electronic device like Mobile, Programmable Calculator etc. is strictly prohibited.

DO NOT OPEN THE SEAL UNTIL INSTRUCTED TO DO SO

PART—I

(Core Subject)

1. The determinant of matrix A is 5 and the determinant of matrix B is 40. The determinant of matrix AB is

[A] 8

[B] 200

[C] 45

[D] 35

2. Let X be a random variable which is uniformly chosen from the set of positive odd numbers less than 100. The expectation $E[X]$ is

[A] 50

[B] 30

[C] 1

[D] 100

3. A fair coin is tossed 10 times. What is the probability that only the first two tosses will yield heads?

[A] $\left(\frac{1}{2}\right)^2$

[B] ${}^{10}C_2\left(\frac{1}{2}\right)^2$

[C] $\left(\frac{1}{2}\right)^{10}$

[D] ${}^{10}C_2\left(\frac{1}{2}\right)^{10}$

4. If the characteristic equation of the differential equation

$$\frac{d^2y}{dx^2} + 2\alpha\frac{dy}{dx} + y = 0$$

has two equal roots, then the values of α are

[A] $\pm j$

[B] 0, 0

[C] $\pm$ 1

[D] $\pm$ 1/2

5. The trigonometric Fourier series of an even function does not have the

[A] dc term

[B] sine terms

[C] cosine terms

[D] odd harmonic terms

6. Which one of the following is a property of the solutions to the Laplace equation $\nabla^2 f = 0$?

[A] The solutions have neither maxima nor minima anywhere except at the boundaries

[B] The solutions are not separable in the coordinates

[C] The solutions are not continuous

[D] The solutions are not dependent on the boundary conditions

7. The divergence of the vector field $A = x\hat{a}_x + y\hat{a}_y + z\hat{a}_z$ is

[A] 0

[B] 1/3

[C] 1

[D] 3

8. Drift current in the semiconductors depends upon

[A] only the electric field

[B] only the carrier concentration gradient

[C] both the electric field and the carrier concentration

[D] both the electric field and carrier concentration gradient

9. The ratio of the mobility to the diffusion coefficient in a semiconductor has the unit

[A] V^{-1}

[B] V-sec

[C] $cm.V^{-1}$

[D] $V.cm^{-1}$

10. The band gap of silicon at room temperature is

[A] 1·3 eV

[B] 0·7 eV

[C] 1·4 eV

[D] 1·1 eV

11. Norton's theorem states that a complex network connected to a load can be replaced with an equivalent impedance

[A] in parallel with a voltage source

[B] in parallel with a current source

[C] in series with a current source

[D] in series with a voltage source

12. Generally, the gain of a transistor amplifier falls at high frequencies due to the

[A] internal capacitances of the device

[B] coupling capacitor at the input

[C] skin effect

[D] coupling capacitor at the output

13. Match the following and choose the correct combination :

Group—1	***Group—2***
E. Continuous and aperiodic signal	1. Fourier representation is continuous and aperiodic
F. Continuous and aperiodic signal	2. Fourier representation is discrete and aperiodic
G. Discrete and aperiodic signal	3. Fourier representation is continuous and periodic
H. Discrete and periodic signal	4. Fourier representation is discrete and periodic

[A] E – 3, F – 2, G – 4, H – 1

[B] E – 1, F – 3, G – 2, H – 4

[C] E – 1, F – 2, G – 3, H – 4

[D] E – 2, F – 1, G – 4, H – 3

14. If the unit step response of a network is $(1 - e^{-\alpha t})$, then its unit impulse response is

[A] $\alpha e^{\alpha t}$

[B] $\alpha^{-1} e^{-\alpha t}$

[C] $(1-\alpha^{-1}) e^{-\alpha t}$

[D] $(1-\alpha) e^{-\alpha t}$

15. Two systems with impulse responses $h_1(t)$ and $h_2(t)$ are connected in cascade. Then the overall impulse response of the cascaded system is

[A] product of $h_1(t)$ and $h_2(t)$

[B] sum of $h_1(t)$ and $h_2(t)$

[C] convolution of $h_1(t)$ and $h_2(t)$

[D] subtraction of $h_1(t)$ and $h_2(t)$

16. In a forward biased *p-n* junction diode, the sequence of events that best describes the mechanism of current flow is

[A] injection, subsequent diffusion and recombination of minority carries

[B] injection, subsequent drift and generation of minority carries

[C] extraction, subsequent diffusion and generation of minority carries

[D] extraction, subsequent drift and recombination of minority carries

17. A Zener diode, when used in voltage stabilization circuits, is biased in

[A] reverse bias region below the breakdown voltage

[B] forward bias region

[C] forward bias constant current mode

[D] reverse breakdown region

18. A silicon PN junction is forward biased with a constant current at room temperature. When the temperature is increased by 10 °C, the forward bias voltage across the PN junction

[A] decreases by 60 mV

[B] increases by 60 mV

[C] decreases by 25 mV

[D] increases by 25 mV

19. The effect of current shunt feedback in an amplifier is to

[A] increase the input resistance and decrease the output resistance

[B] increase both input and output resistances

[C] decrease both input and output resistances

[D] decrease the input resistance and increase the output resistance

20. If for a silicon *n-p-n* 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] cutoff mode

21. The full form of the abbreviations TTL and CMOS in reference to logic families are

[A] Triple Transistor Logic and Chip Metal Oxide Semiconductor

[B] Tristate Transistor Logic and Chip Metal Oxide Semiconductor

[C] Transistor Transistor Logic and Complementary Metal Oxide Semiconductor

[D] Tristate Transistor Logic and Complementary Metal Oxide Silicon

22. An ideal op-amp is an ideal

[A] voltage controlled current source

[B] voltage controlled voltage source

[C] current controlled current source

[D] current controlled voltage source

23. An increase in the base recombination of a BJT will increase

[A] the common emitter dc current gain β

[B] the transconductance g_m

[C] the unity-gain cut-off frequency f_r

[D] the breakdown voltage BV_{CEO}

24. The drain current of MOSFET in saturation is given by $I_D = K(V_{GS} - V_T)^2$ where K is a constant. The magnitude of the transconductance g_m is

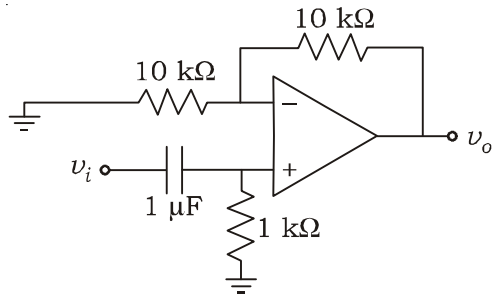
[A] $\frac{K(V_{GS} - V_T)^2}{V_{DS}}$

[B] $2K(V_{GS} - V_T)$

[C] $\frac{I_d}{V_{GS} - V_{DS}}$

[D] $\frac{K(V_{GS} - V_T)^2}{V_{GS}}$

25. The op-amp circuit shown in the figure is filter. The type of filter and its cut-off frequency are respectively



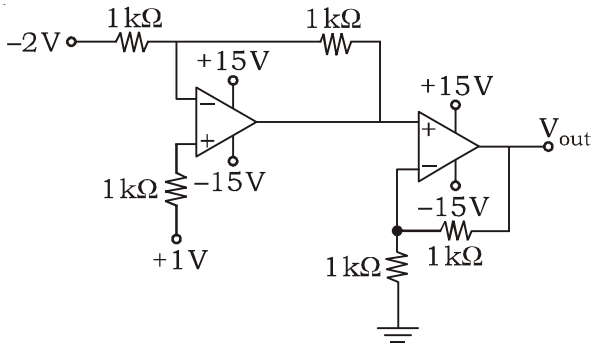
[A] high pass, 1000 rad/sec

[B] low pass, 1000 rad/sec

[C] high pass, 10000 rad/sec

[D] low pass, 10000 rad/sec

26. In the circuit shown below the op-amps are ideal. The V_{out} in volts is



[A] 4

[B] 8

[C] 6

[D] 10

27. The minimum number of comparators required to build an 8-bit flash ADC is

[A] 8

[B] 63

[C] 255

[D] 256

28. Consider a two-port network with the transmission matrix $T = \begin{pmatrix} A & B \\ C & D \end{pmatrix}$. If the network is reciprocal, then

[A] $T^{-1} = T$

[B] $T^2 = T$

[C] Determinant $(T) = 0$

[D] Determinant $(T) = 1$

29. Consider the Amplitude Modulated (AM) signal $A_c \cos \omega_c t + 2 \cos \omega_m t \cos \omega_c t$ For demodulating the signal using envelope detector, the minimum value of A_c should be

[A] 2

[B] 1

[C] 0·5

[D] 0

30. A transmission line of characteristic impedance 50 W is terminated in a load impedance Z_L. The VSWR of the line is measured as 5 and the first of the voltage maxima in the line is observed at a distance of $\frac{\lambda}{4}$ from the load. The value of Z_L is

[A] 250 W

[B] 10 W

[C] $(19{\cdot}23 + j46{\cdot}15)$W

[D] $(19{\cdot}23 - j46{\cdot}15)$W

31. Assuming $V_{CEsat} = 0{\cdot}2$ V and $\beta = 50$, the minimum base current (I_B) required to drive the transistor in the figure to saturation is

[A] 56 μA

[B] 140 mA

[C] 60 mA

[D] 3 mA

32. Consider sinusoidal modulation in an AM system. Assuming no overmodulation, the modulation index (μ) when the maximum and minimum values of the envelope, respectively, are 3 V and 1 V is

[A] 0·7

[B] 0·5

[C] 0·2

[D] 1

33. For a periodic signal $v(t) = 30 \sin 100t + 10 \cos 300t + 6 \sin (500t + \pi/4)$, the fundamental frequency in rad/s is

[A] 100

[B] 300

[C] 500

[D] 1000

34. For a message signal $m(t) = \cos(2\pi f_m t)$ and carrier of frequency f_c, which of the following represents a Single-Side-Band (SSB) signal?

[A] $\cos(2\pi f_m t)\cos(2\pi f_c t)$

[B] $\cos(2\pi f_c t)$

[C] $\cos[2\pi(f_c + f_m)t]$

[D] $[1 + \cos(2\pi f_m t)\cos(2\pi f_c t)]$

35. The ***Column—I*** lists the attributes and the ***Column—II*** lists the modulation systems. Match the attribute to the modulation system that best meets it.

Column—I	***Column—II***
P. Power efficient transmission of signals	1. Conventional AM
Q. Most bandwidth efficient transmission of voice signals	2. FM
R. Simplest receiver structure	3. VSB
S. Bandwidth efficient transmission of signals with significant dc component	4. SSB-SC

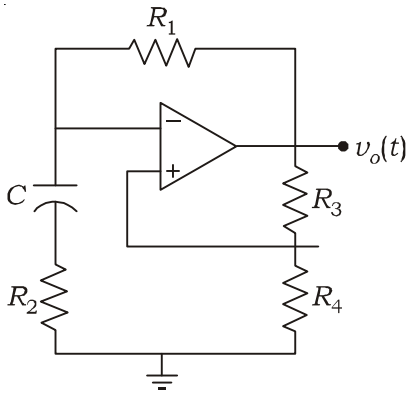
[A] P – 4, Q – 2, R – 1, S – 3

[B] P – 2, Q – 4, R – 1, S – 3

[C] P – 3, Q – 2, R – 1, S – 4

[D] P – 2, Q – 4, R – 3, S – 1

36. In the following a stable multivibrator circuit, which properties of $v_0(t)$ depend on R_2?



[A] Only the frequency

[B] Only the amplitude

[C] Both the amplitude and the frequency

[D] Neither the amplitude nor the frequency

37. A band-limited signal with a maximum frequency of 5 kHz is to be sampled. According to the sampling theorem, the sampling frequency which is not valid, is

[A] 20 kHz

[B] 12 kHz

[C] 15 kHz

[D] 5 kHz

38. A 0 to 6 counter consists of 3 flip-flops and a combination circuit of 2 input gates. The common circuit consists of

[A] one AND gate

[B] one OR gate

[C] one AND gate and one OR gate

[D] two AND gates

39. Let $x[n] = x[-n]$. Let $X(z)$ be the z-transform of $x[n]$. If $0{\cdot}5 + j0{\cdot}25$ is a zero of $X(z)$, which one of the following must also be a zero of $X(z)$?

[A] $0{\cdot}5 - j0{\cdot}25$

[B] $\dfrac{1}{0{\cdot}5 + j0{\cdot}25}$

[C] $\dfrac{1}{0{\cdot}5 - j0{\cdot}25}$

[D] $2 + j4$

40. The natural frequency of an undamped second-order system is 40 rad/s. If the system is damped with a damping ratio 0·3, the damped natural frequency in rad/s is

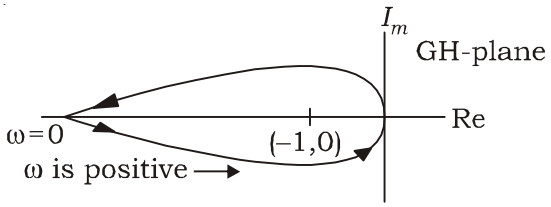
[A] 40·15

[B] 25

[C] 15·25

[D] 38·15

41. Figure shows the Nyquist plot of the open-loop transfer function $G(s)H(s)$ of a system. If $G(s)H(s)$ has one right-hand pole, then the closed-loop system is



[A] always stable

[B] unstable with one closed-loop hand pole

[C] unstable with two closed-loop right-hand poles

[D] unstable with three closed-loop right-hand poles

42. For parallel *R-L-C* circuit, which one of the following statements is ***not correct***?

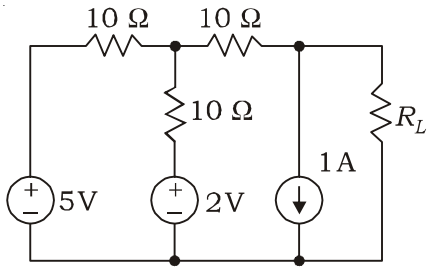
[A] The bandwidth of the circuit decreases if R is increased

[B] The bandwidth of the circuit remains same if L is increased

[C] At resonance, input impedance is a real quantity

[D] At resonance, the magnitude of input impedance attains its minimum values

43. In the circuit shown below, the value of R_L such that the power transferred R_L is maximum, is



[A] 5 W

[B] 10 W

[C] 15 W

[D] 20 W

44. Calculate the Nyquist rate for sampling when a continuous time signal is given by

$$x(t) = 5\cos 100\pi t + 10\cos 200\pi t - 15\cos 300\pi t$$

[A] 100 Hz

[B] 150 Hz

[C] 300 Hz

[D] 600 Hz

45. Which of the following analog modulation schemes requires the minimum transmitted power and minimum channel bandwidth?

[A] VSB

[B] DSB-SC

[C] AM

[D] SSB

46. A closed-loop control system is stable if the Nyquist plot of the corresponding open-loop transfer function

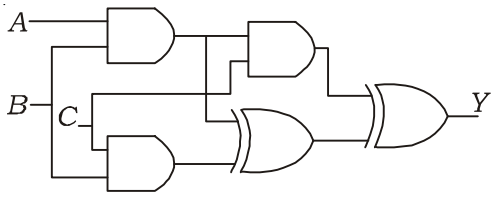
[A] encircles the s-plane point $(-1 + j0)$ in the counterclockwise direction as many times as the number of right-half s-plane poles

[B] encircles the s-plane point $(0 - j1)$ in the clockwise direction as many times as the number of right-half s-plane poles

[C] encircles the s-plane point $(-1 + j0)$ in the counterclockwise direction as many times as the number of left-half s-plane poles

[D] encircles the s-plane point $(-1 + j0)$ in the counterclockwise direction as many times as the number of right-half s-plane zeros

47. The output of the combinational circuit given below is



[A] $A(B + C)$

[B] $A + B + C$

[C] $B(C + A)$

[D] $C(A + B)$

48. In a half-subtractor circuit with X and Y as inputs, the Borrow (M) and Difference ($N = X - Y$) are

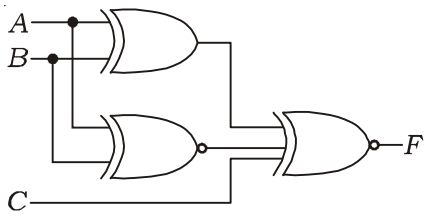
[A] $M = X \oplus Y,\ N = XY$

[B] $M = XY,\ N = X \oplus Y$

[C] $M = \bar{X}Y,\ N = X \oplus Y$

[D] $M = XY,\ N = \overline{X \oplus Y}$

49. For the output F to be 0 in the logic circuit shown, the input combination should be



[A] $A = 1,\ B = 1,\ C = 0$

[B] $A = 1,\ B = 0,\ C = 0$

[C] $A = 0,\ B = 1,\ C = 0$

[D] $A = 0,\ B = 0,\ C = 1$

50. Decimal 43 in Hexadecimal and BCD number system is respectively

[A] B2, 0100 011

[B] 2B, 0100 0011

[C] 2B, 0011 0100

[D] B2, 0100 0100

51. What are the minimum number of 2-to-1 multiplexers required to generate a 2-input AND gate and a-2-input Ex-OR gate?

[A] 1 and 2

[B] 1 and 3

[C] 1 and 1

[D] 2 and 2

52. If $X = 1$ in logic equation $[X + Z\{\bar{Y} + (\bar{Z} + X\bar{Y})\}][\{\bar{X} + \bar{Z}(X + Y)\}] = 1$ then

[A] $Y = \bar{Z}$

[B] $Y = Z$

[C] $Z = 1$

[D] $Z = 0$

53. A system is defined by its impulse response $h(n) = 2^n u(n-2)$. The system is

[A] stable and causal

[B] causal but not stable

[C] stable but not causal

[D] unstable and non-causal

54. A sequence $x(n)$ with the $z-$transform $X(z) = z^4 + z^2 - 2z + 2 - 3z - 4$ is applied as an input to a linear, time-invariant system with the impulse response $h(n) = 2\delta(n-3)$ where

$$\delta(n) = \begin{cases} 1, & n = 0 \\ 0, & \text{otherwise} \end{cases}$$

The output at $n = 4$ is

[A] –6

[B] 0

[C] 2

[D] –4

55. The 4-point Discrete Fourier Transform (DFT) of a discrete time sequence {1, 0, 2, 3} is

[A] $[0, -2 + 2j, 2, -2 - 2j]$

[B] $[2, 2 + 2j, 6, 2 - 2j]$

[C] $[6, 1 - 3j, 2, 1 + 3j]$

[D] $[6, -1 + 3j, 0, -1 - 3j]$

56. The unit of $\nabla \times H$ is

[A] ampere

[B] ampere/meter

[C] ampere/meter^2

[D] ampere-meter

57. Match items in ***Group—1*** with items in ***Group—2***, most suitably.

Group—1	***Group—2***
P. LED	1. Heavy doping
Q. Avalanche photo diode	2. Coherent radiation
R. Tunnel diode	3. Spontaneous emission
S. LASER	4. Current gain

[A] P – 1, Q – 2, R – 4, S – 3

[B] P – 2, Q – 3, R – 1, S – 4

[C] P – 3, Q – 4, R – 1, S – 2

[D] P – 2, Q – 1, R – 4, S – 3

58. In an 8085 microprocessor, which one of the following instructions changes the content of the accumulator?

[A] MOV B, M

[B] PCHL

[C] RNZ

[D] SBI BEH

59. In a microprocessor, the service routine for a certain interrupt starts from a fixed location of memory which cannot be externally set, but the interrupt can be delayed or rejected. Such an interrupt is

[A] non-maskable and non-vectored

[B] maskable and non-vectored

[C] non-maskable and vectored

[D] maskable and vectored

60. For 8085 microprocessor, the following program is executed

```
    MVI A, 05H;
    MVIB, 05H;
PRT: ADD B;
    DCR B;
    JNZ PTR;
    ADI 03H;
    HLT;
```

At the end of program, accumulator contains

[A] 17 H

[B] 20 H

[C] 23 H

[D] 05 H

61. An analog voltage is in the range of 0 to 8 V is divided in eight equal intervals for conversion to 3-bit digital output. The maximum quantization error is

[A] 0 V

[B] 0·5 V

[C] 1 V

[D] 2 V

62. For a Hertz dipole antenna, the Half Power Beam Width (HPBW) in the *E*-plane is

[A] 360°

[B] 180°

[C] 90°

[D] 45°

63. If a vector field $\vec{V}$ is related to another vector field $\vec{A}$ through $\vec{V} = \nabla \times \vec{A}$, which of the following is ***true***? (Note : *C* and *S* refer to any closed contour and any surface whose boundary is *C*)

[A] $\oint_C \vec{V} \cdot \vec{d}\, l = \int_S \int_C \vec{A} \cdot \vec{d}\, S$

[B] $\oint_C \Delta \times \vec{V} \cdot \vec{d}\, l = \int_S \int_C \Delta \times \vec{A} \cdot \vec{d}\, S$

[C] $\oint_C \vec{A} \cdot \vec{d}\, l = \int_S \int_C \vec{V} \cdot \vec{d}\, S$

[D] $\oint_C \Delta \times \vec{V} \cdot \vec{d}\, l = \int_S \int_C \vec{V} \cdot \vec{d}\, S$

64. The modes in a rectangular waveguide are denoted by $\frac{TE_{mn}}{TM_{mn}}$ where m and n are the eigen numbers along the larger and smaller dimensions of the waveguide respectively. Which one of the following statements is ***true***?

[A] The TM_{10} mode of the waveguide does not exist

[B] The TE_{10} mode of the waveguide does not exist

[C] The TM_{10} and TE_{10} modes both exist and have the same cut-off frequencies

[D] The TM_{10} and TE_{01} modes both exist and have the same cut-off frequencies

65. The return loss of a device is found to be 20 dB. The Voltage Standing Wave Ratio (VSWR) and magnitude of reflection coefficient are respectively

[A] 1·22 and 0·1

[B] 0·81 and 0·1

[C] –1·22 and 0·1

[D] 2·44 and 0·2

66. The refractive indices of core and cladding of an optical fiber are 1·40 and 1·14 respectively. What is the value of numerical aperture?

[A] 0·312

[B] 0·812

[C] 0·646

[D] 0·552

67. LASER is

[A] a light source

[B] a light detector

[C] both light source and light detector

[D] None of the above

68. If a wave is having group velocity of 2×10^8 m/s, then what is phase velocity?

[A] $4{\cdot}5 \times 10^8$ m/s

[B] $5{\cdot}5 \times 10^8$ m/s

[C] 9×10^8 m/s

[D] $1{\cdot}5 \times 10^8$ m/s

69. In QAM, both _____ and _____ of a carrier frequency are varied.

[A] frequency, amplitude

[B] phase, amplitude

[C] phase, frequency

[D] None of the above

70. If one of the code words of a Hamming (7, 4) code is 0001011, which of the following can not be the valid codeword in the same group?

[A] 0011101

[B] 0101100

[C] 0011010

[D] 1110100

PART—II

(Islamic History and Culture, General English & General Knowledge)

71. As-salamu alaykum means
আস-সালামু আলাইকুম-এর অর্থ
[A] How are you?
[B] Peace be upon you
[C] Wish you good luck
[D] Glory be to Allah

72. Which of the following is/are ***true***?
নিম্নের কোনটি/কোনগুলি **সঠিক**?
[A] Muhammad (PBUH) is the last Prophet of Islam
[B] Islam existed since the beginning
[C] All Prophets practiced and propagated Islam
[D] All of the above

73. The *Holy Qur'an* can be read by
'পবিত্র কুরআন' পড়তে পারেন
[A] only scholars
[B] only rich people
[C] only men
[D] everybody

74. The prayer at the evening is called
সন্ধ্যাবেলার নামাযকে বলা হয়
[A] Asr
[B] Maghrib
[C] Tahajjud
[D] None of the above

75. The number of most notable companions of Prophet Muhammad (PBUH) is
নবী মুহাম্মদ (সা.)-এর বিশেষভাবে উল্লেখযোগ্য সাহাবীর সংখ্যা হল
[A] 1
[B] 4
[C] 40
[D] 313

76. One who receives revelation in the form of message but not book is called a
বার্তা আকারে যিনি ঐশী প্রত্যাদেশ পান, অথচ গ্রন্থাকারে নয়, তিনি হলেন একজন
[A] Prophet but not messenger
[B] messenger but not Prophet
[C] Prophet as well as messenger
[D] neither Prophet nor messenger

77. The name of the second last Prophet is
দ্বিতীয় শেষ নবীর নাম হল
[A] David
[B] Moses
[C] Jesus
[D] Ahmad

78. Who is called the 'Father of Kitten'?
'ছোট বিড়ালের পিতা' কাকে বলা হয়?
[A] Abu Hurairah
[B] Abu Ubaida
[C] Talha
[D] Zubair

79. The first martyr in Islam is
ইসলামের প্রথম শহীদ হলেন
[A] Hasan
[B] Husain
[C] Sumayya
[D] Yasir

80. The meal taken for breaking the fast is called
রোযা সমাপ্ত করতে যে খাবার খাওয়া হয় তাকে বলা হয়
[A] Shari
[B] Iftar
[C] Lunch
[D] Dinner

81. A Prophet is called _____ in Arabic.

একজন নবীকে আরবীতে _____ বলা হয়।

[A] Nabi

[B] Rasul

[C] Wahi

[D] None of the above

82. Which gates are opened during the month of Ramadan?

রমজান মাসে কোন্ দরজাগুলো খোলা হয়?

[A] Gates of Hell

[B] Gates of Heaven

[C] Gates of Light

[D] Gates of Mosque

83. What Muslims must perform before offering salah (prayers)?

সালাত (নামায) পড়ার আগে মুসলমানদের কি করতে হয়?

[A] Wearing of skull-cap

[B] Wearing of perfume

[C] Wudu (ablution)

[D] Clipping of nails

84. Allah (s.w.t.) has _____.

আল্লাহ (সুবহানাহু ওয়া তায়ালা)-এর _____ আছে।

[A] a son

[B] a partner

[C] no partner

[D] a daughter

85. What did the Prophet Muhammad (SAW) mention about the status of a Mother?

নবী মুহাম্মদ (সা.) মায়েদের মর্যাদা সম্পর্কে কী উল্লেখ করেছেন?

[A] Mothers are not important at all

[B] Paradise is beneath the feet of a mother

[C] Mothers are bad women

[D] None of the above

86. The Islamic Calendar is based on the _____.

ইসলামিক ক্যালেন্ডার _____-এর উপর ভিত্তি করে।

[A] planets

[B] solar

[C] moon

[D] sun

87. When will the Day of Judgement occur?

বিচার দিবস কখন ঘটবে?

[A] Year 7000

[B] Year 2050

[C] Year 2060

[D] Only Allah knows

88. What is dry ablution called?

শুকনো ওযুকে কি বলে?

[A] Wudhu

[B] Tayammum

[C] Ghusl

[D] None of the above

89. What is one unit of prayer called?

নামাযের একককে কী বলা হয়?

[A] Fard

[B] Rakah

[C] Juz'

[D] Sunnah

90. What is the name of the cloth worn by men for Hajj and Umrah?

হজ ও ওমরার জন্য পুরুষদের পরিধান করা কাপড়ের নাম কী?

[A] Haram

[B] Ihram

[C] Qamis

[D] Izaar

91. Choose the correct alternative :

[A] Oats is a healthier alternative

[B] Oats is a healthier alternatives

[C] Oats is healthier alternatives

[D] Oats are healthier alternatives

92. Fill in the blank with the ***correct*** alternative.

The ____ young neighbour greeted my parents.

[A] amicable

[B] amiable

[C] inimical

[D] enviable

93. Identify the antonym of the word 'GARRULOUS'.

[A] Innocuous

[B] Loquacious

[C] Jabbering

[D] Reticent

94. Choose the noun form of the word 'GLORIOUS'.

[A] Glory

[B] Glorify

[C] Glorified

[D] Glorifying

95. Fill in the blank with the ***correct*** alternative.

The boys failed to achieve a _____ victory in the match.

[A] decided

[B] decisive

[C] deceived

[D] divisive

96. Which State is called the 'Rice Bowl of India'?

কোন্ রাজ্যকে 'ভারতের চালের বাটি' বলা হয়?

[A] Kerala

[B] Karnataka

[C] Andhra Pradesh

[D] Tamil Nadu

97. When was the Battle of Haldighati fought?

হলদিঘাটির যুদ্ধ কবে হয়েছিল?

[A] 1550

[B] 1576

[C] 1650

[D] 1701

98. Which among the following is the first national park in India?

নিচের কোনটি ভারতের প্রথম জাতীয় উদ্যান?

[A] Dachigam National Park

[B] Rohila National Park

[C] Pench National Park

[D] Jim Corbett National Park

99. Which of the following is the highest award for literature in West Bengal?

নিচের কোনটি পশ্চিমবঙ্গের সাহিত্যের সর্বোচ্চ পুরস্কার?

[A] Rabindra Puraskar

[B] Nazrul Puraskar

[C] Bankim Puraskar

[D] Ananda Puraskar

100. Who was the first Chief Justice of the Calcutta High Court?

কলকাতা হাইকোর্টের প্রথম প্রধান বিচারপতি কে ছিলেন?

[A] Phani Bhushan Chakravartti

[B] William Hunter

[C] Barnes Peacock

[D] Romesh Chandra Mitra

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