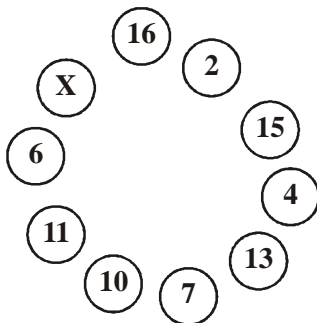


**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**LABORATORY TECHNICIAN-GSET - (RLTEC)**  
**EXAM DATE : 27/02/2024**  
**PROVISIONAL ANSWER KEY**

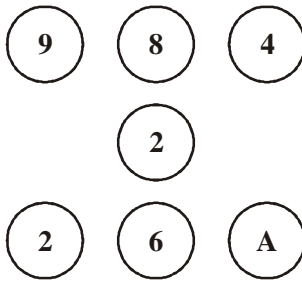
---

- 001 Find the error, if any  
(A) If you lend him a book  
(B) he will lend it to someone else  
(C) and never you will get it back  
(D) No error
- 002 Fill in the blank :- Success in this examination depends \_\_\_\_\_ hard work alone  
(A) at  
(B) over  
(C) for  
(D) on
- 003 Select proper synonyms for “Embezzle”  
(A) Misappropriate  
(B) Balance  
(C) Remunerate  
(D) Clear
- 004 Select proper antonyms for Expand  
(A) Convert  
(B) Condense  
(C) Congest  
(D) Conclude
- 005 Select one word for  
“A person of good understanding, knowledge and reasoning power”  
(A) Expert  
(B) Intellectual  
(C) Snob  
(D) Literate
- 006 Find the value of X



- (A) 1  
(B) 3  
(C) 11  
(D) 16

007 Find the value of "A"



- (A) 6
- (B) 7
- (C) 8
- (D) 9

008 The greatest four digit number that is divisible by 15, 25, 40 and 75

- (A) 9000
- (B) 9400
- (C) 9600
- (D) 9800

009 The present age of Mahesh and Dinesh are in the ratio of 5:4, three years later the ratio of their age will be 11:9. what is Dinesh present age?

- (A) 24 years
- (B) 26 years
- (C) 28 years
- (D) 30 years

010 Find the value of 8 in following equation.

$$\frac{x}{\sqrt{128}} = \frac{\sqrt{162}}{x}$$

- (A) 12
- (B) 14
- (C) 144
- (D) 196

011 Arrange the words in meaningful sequence

1. Key    2. Door    3. Lock    4. Room    5. Switch on light

- (A) 3, 2, 4, 5, 1
- (B) 2, 4, 5, 1, 3
- (C) 1, 3, 2, 4, 5
- (D) 4, 5, 1, 3, 2

012 Arrange the words in meaningful sequence

1. Police    2. Punishment    3. Crime    4. Judge    5. Punishment

- (A) 1, 4, 5, 2, 3
- (B) 3, 1, 4, 5, 2
- (C) 4, 5, 2, 3, 1
- (D) 5, 2, 3, 1, 4

- 013 Give meaning of idiom or phrase  
To have an axe to grind  
(A) To fail to arouse interest  
(B) To have no results  
(C) To work for both sides  
(D) A selfish aim or motive
- 014 589654237, 89654237, 8965423, 965423, \_\_\_\_\_  
(A) 58965  
(B) 65423  
(C) 89654  
(D) 96542
- 015 3, 10, 101, \_\_\_\_\_  
(A) 10101  
(B) 10201  
(C) 10202  
(D) 11012
- 016 In \_\_\_\_\_ a number of jobs are put to gather and executed as a group.  
(A) Single user operating system  
(B) Multi user operating system  
(C) Multi tasking operating system  
(D) Batch processing operating system
- 017 Server site operating system are also known as \_\_\_\_\_  
(A) Single user operating system  
(B) Network operating system  
(C) Multi tasking operating system  
(D) Batch processing operating system
- 018 In real time operating system which is most suitable scheduling scheme?  
(A) Round Robin  
(B) FCFS  
(C) Preemptive scheduling  
(D) Random scheduling
- 019 \_\_\_\_\_ is a type of synchronous interrupt typically caused by an exceptional condition (Ex: division by zero or invalid memory access) in a users process.  
(A) Thread  
(B) Call  
(C) Trap  
(D) None of above
- 020 \_\_\_\_\_ is a core of an operating system.  
(A) Thread  
(B) Kernel  
(C) Call  
(D) Trap

- 021 Faulty inputs lead to faulty results, this is known as  
(A) Diligence  
(B) Versatility  
(C) GIGO  
(D) None of above
- 022 Third generation computers were based on \_\_\_\_\_  
(A) IC  
(B) Vacuum tube  
(C) Transistors  
(D) None of above
- 023 ULSI stands for  
(A) Ultra Large Scale Integration  
(B) Ultimate Large Scale Integration  
(C) Upper Large Scale Integration  
(D) Ultra Large Scale Inter Generation
- 024 Graphical terminals are divided into :  
(A) text and dumb  
(B) dumb and intelligent  
(C) vector mode and raster mode  
(D) intelligent and vector mode
- 025 \_\_\_\_\_ is an artificial neural network with multiple hidden layers between the input and out put layers?  
(A) Deep neural network  
(B) Shallow neural net work  
(C) Both (A) and (B)  
(D) None of above
- 026 Who among the following receives subsidy from the government?  
(A) Sellers  
(B) Buyers  
(C) Manufacturers  
(D) All of the above
- 027 Railway services are which type of services in economy?  
(A) Primary sector  
(B) Secondary sector  
(C) Tertiary sector  
(D) Quaternary sector
- 028 Which of the statement is not correct for the Govt. Scheme “Pradhan Mantri Kisan Samman Nidhi”?  
(A) This Scheme is 100% C.S.S. Scheme.  
(B) Rupees 6000/- per annum paid to each eligible farmer.  
(C) Rupees 6000/- given in the form of Fixed Deposit Certificate.  
(D) Rupees 6000/- paid per annum through D.B.T.

- 029 G.C.C.I. has started “EXIM HELP DESK” in coordination with which bank for the purpose of Export-Import?  
(A) **S.B.I.**  
(B) B.O.B.  
(C) C.B.I.  
(D) U.B.I.
- 030 As per 2011 census what is the female literacy in Gujarat?  
(A) 87.23%  
(B) **70.73%**  
(C) 79.31%  
(D) 60.73%
- 031 If students are not satisfied with the order of the grievance redressal committee they are entitled to an appeal to the ombuds man of the university within \_\_\_\_\_ days.  
(A) 60  
(B) 15  
(C) 45  
(D) **30**
- 032 If a student withdraws his application within 15 days of admission, he is entitled to get refund of a fee to the tune of \_\_\_\_\_ as per UGC notification.  
(A) **100%**  
(B) 80%  
(C) 50%  
(D) No refund of fee
- 033 What are the Technical Education Regulatory (TER) charges for setting up a new technical institution set up exclusively for women? (as per AICTE 2023-24)  
(A) Rupees 8.80 Lakh  
(B) Rupees 2.20 Lakh  
(C) **Rupees 6.60 Lakh**  
(D) No charges
- 034 What was the theme of “National Pharmacovigilance week celebration (17 Sept. to 23rd Sept. 2023)?  
(A) Boosting public confidence in Pharmacists.  
(B) Boosting public confidence in Generic Medicines  
(C) Boosting public confidence in Pharmacopoeia  
(D) **Boosting public confidence in Pharmacovigilance**
- 035 Which of the following is an amount of renewal fee for (registration under C.O.A.) One time fee?  
(A) Rupees 600  
(B) **Rupees 6000**  
(C) Rupees 200  
(D) Rupees 1000
- 036 UGC Provides general development assistance to \_\_\_\_\_  
(A) Central universities only.  
(B) Only central & state universities.  
(C) Identified deemed universities and state universities.  
(D) **All of these universities.**

- 037 Eligibility for “Travel Grant” is available as financial assistance to a person for international travel on \_\_\_\_\_ basis.
- (A) Once in a year on 50%  
(B) Once in two year on 75%  
(C) Once in three year on 100%  
(D) None of these
- 038 What is the validity of UGC NET E-Certificate for Assistant Professor?
- (A) Lifetime  
(B) Four years  
(C) Ten years  
(D) Five years
- 039 \_\_\_\_\_ of AICTE promotes quality in technical education through training, research, scholarship through several schemes.
- (A) Academic Bureau  
(B) University Bureau  
(C) Quality Assurance Bureau  
(D) RIFD Bureau
- 040 What is full form of ‘NEQIP’? (Under AICTE)
- (A) North East Quickly Improvement Program  
(B) North East Quality Improvement Program  
(C) Nation Education Quality Improvement Program  
(D) National Educational Qualitative Improvement Program
- 041 ‘પરમાત્મા’ કયો સમાસ છે ?
- (A) મધ્યમપદલોપી  
(B) તત્પુરુષ  
(C) કર્મધારય  
(D) રૂપક
- 042 નીચેનામાંથી કયા શબ્દની જોડણી સાચી નથી ?
- (A) પત્થર  
(B) પ્રિયવંદા  
(C) આહ્વાદક  
(D) બધા જ શબ્દની
- 043 વ્યાકરણની દૃષ્ટિએ કયું વાક્ય અશુદ્ધ છે ?
- (A) મેં આ પત્ર કે ઠરાવ વાચ્યાં નથી.  
(B) કાજલ અથવા મહેશ આવ્યો હશે.  
(C) જેટલું વહેલું તેટલું સારું.  
(D) તેમણે ગૃહકાર્ય કર્યું.
- 044 આપેલ વાક્યમાં કઈ અર્થવ્યવસ્થા છે ?
- (A) આજ્ઞાર્થ  
(B) નિર્દેશાર્થ  
(C) સંભાવનાર્થ  
(D) ક્રિયાતિપત્યર્થ

- 045 “રાતોરાત વનપટ પડખું બદલી લે છે.” - કયો અલંકાર ?  
(A) રૂપક  
(B) સજ્જવારોપણ  
(C) વર્ણસંગાઈ  
(D) ઉત્પ્રેક્ષા
- 046 Which tiger reserve has got the title of India's first “Dark Sky Park”?  
(A) Kaziranga Tiger Reserve  
(B) Pench Tiger Reserve  
(C) Namdapha Tiger Reserve  
(D) Kamlang Tiger Reserve
- 047 Which bank has recently launched “Samman” Rupay Credit Card?  
(A) State Bank of India  
(B) Punjab National Bank  
(C) Axis Bank  
(D) Indusind Bank
- 048 Who has become the first female athlete to win the Arjun Award for equestrian sports ?  
(A) Divyakriti Singh  
(B) Divya Rana  
(C) Diya Mirza  
(D) Bhavna Parmar
- 049 10th January is celebrated as which day in the world?  
(A) UN English Language Day  
(B) World Braille Day  
(C) World Hindi Day  
(D) World Pulses Day
- 050 Gabriel Atal became the Prime Minister of which country recently?  
(A) Australia  
(B) Canada  
(C) France  
(D) Germany
- 051 When we forward bias an ideal diode, it acts like a/an  
(A) Open Circuit  
(B) Short Circuit  
(C) Resistor  
(D) Capacitor
- 052 A silicon diode is forward biased so that its anode is 0.5V positive compared to its cathode. The current through the diode is  
(A) 0.5 A  
(B) 0 A  
(C) not known  
(D) enough to burn out the diode

- 053 Avalanche breakdown is normally produced by
- (A) reverse voltage  $> 5\text{ V}$
  - (B) reverse voltage  $< 5\text{ V}$
  - (C) forward voltage  $> 5\text{ V}$
  - (D) forward voltage  $< 5\text{ V}$
- 054 A voltage multiplier circuit is constructed using
- (A) Resistors and Inductors
  - (B) Capacitors and Inductors
  - (C) Diodes and Capacitors
  - (D) Diodes and Transistors
- 055 In the common-emitter configuration, if the transistor is in the saturation region, then
- (A)  $I_C > I_E$
  - (B)  $I_C < \beta I_B$
  - (C)  $I_E < I_B$
  - (D)  $I_B > \beta I_C$
- 056 To operate the transistor in the saturation region
- (A) both emitter and collector junctions shorted
  - (B) emitter junction forward biased, collector junction reverse biased
  - (C) both emitter and collector junctions reverse biased
  - (D) both emitter and collector junctions forward biased
- 057 The Q-point in transistor biasing indicates
- (A)  $V_{BE}, I_B$
  - (B)  $V_{BE}, V_{CE}$
  - (C)  $V_{CC}, V_{BE}$
  - (D)  $V_{CE}, I_C$
- 058 The most important advantage of FET over BJT is
- (A) very high current gain
  - (B) very high input resistance
  - (C) very high noise level
  - (D) very high input capacitance
- 059 The following truth table belongs to

Inputs		Output
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

- (A) OR gate
- (B) AND gate
- (C) Ex-OR gate
- (D) NOT gate



- 060 The Boolean expression for Ex-NOR gate is
- (A)  $y = A + B$
  - (B)  $y = \overline{A} + \overline{B}$
  - (C)  $y = \overline{A}B + A\overline{B}$
  - (D)  $y = AB + \overline{A}\overline{B}$
- 061 Single input NAND is a \_\_\_\_\_ gate.
- (A) NOT
  - (B) AND
  - (C) OR
  - (D) Ex-OR
- 062 Number of 2-input NAND gates required to implement 2-input Ex-NOR logic are
- (A) 2
  - (B) 3
  - (C) 4
  - (D) 5
- 063 The most important advantage of CMOS logic family is its
- (A) extremely small power dissipation
  - (B) extremely small switching time
  - (C) extremely low fan-out capability
  - (D) extremely complex geometry
- 064 The supply voltage for TTL digital IC is typically
- (A)  $-5V$
  - (B)  $+5V$
  - (C)  $-3V$
  - (D)  $+2V$
- 065 The fastest-saturating logic circuit is the
- (A) DTL
  - (B) TTL
  - (C) ECL
  - (D) CMOS
- 066 In the TTL gate, the input diodes of a DTL gate are replaced by a
- (A) multi-emitter transistor
  - (B) multi-collector transistor
  - (C) multi-base transistor
  - (D) zener diode
- 067 In an 8085 microprocessor, the purpose of using ALE signal is to
- (A) connect the memory to the processor
  - (B) connect the I/O devices to the processor
  - (C) demultiplex the address and data bus
  - (D) disable the address bus

- 068 In an 8085 microprocessor, which register pair is used as a memory pointer?
- (A) PC
  - (B) SP
  - (C) BC
  - (D) HL
- 069 HLDA signal in an 8085 microprocessor is a/an
- (A) input signal
  - (B) output signal
  - (C) bidirectional signal
  - (D) address bus signal
- 070 Which one of the following is NOT a machine control instruction in an 8085 processor?
- (A) NOP
  - (B) HLT
  - (C) RIM
  - (D) RET
- 071 The clock frequency of an 8085 microprocessor is 5 MHz. If the time required to execute an instruction is 1.4  $\mu$ s, then the number of T-states needed is
- (A) 1
  - (B) 6
  - (C) 7
  - (D) 8
- 072 Which of the following is NOT a flag in the 8085 microprocessor?
- (A) Overflow flag
  - (B) Carry flag
  - (C) Zero flag
  - (D) Parity flag
- 073 The major difference between microprocessors and microcontrollers is
- (A) higher speed of microcontrollers
  - (B) on chip RAM and ROM in microprocessors
  - (C) timers and counters in microprocessors
  - (D) on chip ADC and DAC in microprocessors
- 074 Which one of the following is NOT a characteristic of an embedded system?
- (A) it contains hard ware
  - (B) it contains software embedded in hard ware
  - (C) it is real-time computing system
  - (D) it is a general-purpose computer
- 075 Photodiode is an example of
- (A) light sensor
  - (B) pressure sensor
  - (C) temperature sensor
  - (D) force sensor

- 076 Which one of the following is NOT a temperature sensor?
- (A) RTD
  - (B) Thermistor
  - (C) Thermocouple
  - (D) LVDT
- 077 Linear Variable Differential Transducer (LVDT) is used to measure
- (A) Temperature
  - (B) Displacement
  - (C) Light
  - (D) pH
- 078 LM 135 is an example of
- (A) Thermocouple
  - (B) RTD
  - (C) Semiconductor temperature sensor
  - (D) Thermistor
- 079 Spectrum analyzer displays
- (A) Amplitude of the frequency components
  - (B) Time domain representation of the signal
  - (C) Energy of the waveform
  - (D) Power gain of the amplifier
- 080 Input impedance of a digital multimeter (DMM) is typically
- (A) a few Mega Ohms
  - (B) a few Kilo Ohms
  - (C) a few Ohms
  - (D) a few Milli Ohms
- 081 In an oscilloscope, the sweep generator is basically
- (A) a sinewave generator
  - (B) a pulse generator
  - (C) a ramp generator
  - (D) a triangular waveform generator
- 082 In a function generator, the square and triangular waveform can be generated using
- (A) Differentiator
  - (B) Integrator and Schmitt Trigger
  - (C) Analog multiplier
  - (D) Logarithmic amplifier
- 083 IEEE 802.15.1 bluetooth physical layer modulation scheme is specified as
- (A) FM
  - (B) PSK
  - (C) ASK
  - (D) GFSK

- 084 In the piconet, each of the slave devices has an assigned active device address of  
(A) 3-bit  
(B) 4-bit  
(C) 5-bit  
(D) 6-bit
- 085 In GPS, we need to receive signals from at least \_\_\_\_\_ satellites to accurately determine receiver position.  
(A) 5  
(B) 2  
(C) 4  
(D) 12
- 086 Gyroscope is used for measuring  
(A) inclination  
(B) force  
(C) displacement  
(D) pressure
- 087 A Micro-Electro-Mechanical Sensor (MEMS) can detect  
(A) flux  
(B) acceleration  
(C) torque  
(D) light
- 088 Which one of the following CANNOT be used for drone communication system?  
(A) WiFi  
(B) Bluetooth  
(C) 2G cellular  
(D) 4G cellular
- 089 Which one of the following types of sensors is used in Touchscreens?  
(A) Capacitive  
(B) Inductive  
(C) LASER  
(D) LED
- 090 Sensors suitable for difficult-to-reach biological and industrial systems are  
(A) Thermal sensors  
(B) Nano sensors  
(C) Resistive sensors  
(D) Piezoelectric sensors
- 091 The final framing of information signal and synchronization is provided by \_\_\_\_\_ layer in OSI model.  
(A) Network  
(B) Physical  
(C) Data-link  
(D) Transport

- 092 In which topology, adjacent devices are interconnected through direct, point-to-point-connections  
(A) **Ring**  
(B) Bus  
(C) Star  
(D) Tree bus
- 093 Repeaters and hubs operate at \_\_\_\_\_ of the OSI protocol hierarchy.  
(A) layer 2  
(B) layer 3  
(C) **layer 1**  
(D) upper protocol layer
- 094 In the TCP header, the source and destination port addresses are specified by \_\_\_\_\_ address.  
(A) 8-bit  
(B) 32-bit  
(C) **16-bit**  
(D) 4-bit
- 095 Which part of the UNIX operating system interacts with the hardware?  
(A) **Kernel**  
(B) Shell  
(C) Vi editor  
(D) Application Program
- 096 The two modes in which the windows operating system runs programs are  
(A) Real Mode and Virtual Mode  
(B) **User Mode and Kernel Mode**  
(C) Protected Mode and Free Mode  
(D) Memory Mode and I/O Mode
- 097 In TCP/IP, IP version 4 (IPv4) has address length of  
(A) 16 bits  
(B) 8 bits  
(C) **32 bits**  
(D) 64 bits
- 098 Routers operate at the  
(A) Data-link layer  
(B) Physical layer  
(C) Transport layer  
(D) **Network layer**
- 099 IP address 192.168.0.0 is  
(A) class A address  
(B) class B address  
(C) **class C address**  
(D) class D address

**100 In Linux operating system, an interface between the kernel and the user is provided by**

- (A) environment**
- (B) file structure**
- (C) processor**
- (D) memory**