KLS Gogte Institute of Technology, Belagavi

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

INTERNAL ASSESSMENT -1

Code: 21CS51 **Subject:**Operating System **Semester:** IV **Div:** A, B, C, D

Date:04/11/23 **Time:** : **Max. Marks:** 25

Instructions: **1. Answer any 1 question from PART A**
Answer any 2 questions from PART B
Answer any 1 question from PART C

Q. No.	PART A	CO	BL	PO	M
1.	Define an Operating System. Explain the different Set of services offered by an OS.	1	L2	1	5
2.	With a neat diagram, Explain the Process State diagram in detail.	2	L2	1,2,5	5
	PART B				
3.	<table><tr><th>Process</th><th>Arrival Time</th><th>Execute Time</th></tr><tr><td>P0</td><td>0</td><td>5</td></tr><tr><td>P1</td><td>1</td><td>3</td></tr><tr><td>P2</td><td>2</td><td>8</td></tr><tr><td>P3</td><td>3</td><td>6</td></tr></table> Consider the above set of processes, with the length of CPU burst to execute in milliseconds. i) Draw a Gantt Chart to illustrate the execution of these processes using **FCFS** and **SJF Non Preemptive** Algorithms. ii) Calculate the average waiting for each scheduling algorithm.	2	L3	1,2,5	7.5
4.	Consider the following set of processes, with the length of the CPU burst given in milliseconds. Consider a time Slice =4 ms <table><tr><th>Process</th><th>Burst Time</th></tr><tr><td>P1</td><td>10</td></tr><tr><td>P2</td><td>1</td></tr><tr><td>P3</td><td>2</td></tr><tr><td>P4</td><td>1</td></tr><tr><td>P5</td><td>5</td></tr></table> i)Draw the Gantt Chart by applying **FCFS** and **Round-robin** scheduling algorithms. ii)Compare the average waiting time for each scheduling algorithm. iii) calculate the average turnaround time.	2	L3	1,2,5	7.5

5.	Consider the set of 6 processes whose arrival time and burst time are given below- **If the CPU scheduling policy is Round Robin with time quantum = 3, calculate the average waiting time and average turnaround time.**	2	L3	1,2,5	

Process Id	Arrival time	Burst time
P1	0	4
P2	1	5
P3	2	2
P4	3	1
P5	4	6
P6	6	3

PART C

6.	***Analyze*** **the following scenario of the set of processes. Apply Round-robin scheduling algorithm.** **i)Find the number of context switches that occur with time quantum= 3ms** **ii)Find the no. of context switches in case if the time slice =5ms** **iii) Summarize how time slice plays an important role in context switching.**	2	L4	1,2,5	5

Process Id	Arrival time	Burst time
P1	0	5
P2	1	6
P3	2	7

7.	**Consider the following scenario and *analyse* which mode of operation the Operating system will switch to complete the tasks.** **i) VLC Player** **ii) Text Editor** **iii) A Document requesting for a printer to print the contents.** **iv) A C program requesting in-built library functions.** **v) MS PowerPoint to create a ppt.**	2	L4	1,2,5	5

Staff in Charge/Module Coordinator	IQAC Team (Name and Signature)	Scrutinizer (Name and Signature)
1. Prof. Ranjana Battur 29/11/23 2. Prof. Seena Kalghatgi 29/11 3. Prof Sonam Bhandurge	29/11/23	1. Dr. Sharada Kori 29/11/23

KLS Gogte Institute of Technology, Belagavi

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

INTERNAL ASSESSMENT -2

Code: 21CS51 **Subject:** Operating System **Semester:** V **Div:** A, B, C

Date: 08 /01/24 Time: : 10:15AM to 11:15AM Max. Marks: 25

Instructions: **1. Answer any 1 question from PART A**
Answer any 2 questions from PART B
Answer any 1 question from PART C

<table>
<tr><th>Q. No.</th><th>PART A</th><th>CO</th><th>BL</th><th>PO</th><th>M</th></tr>
<tr><td>1.</td><td>Explain the critical section problem? Explain its requirements along with the neat structure of a process.</td><td>2</td><td>L2</td><td>1</td><td>5</td></tr>
<tr><td>2.</td><td>Define deadlock. Explain the necessary condition for a deadlock to occur?</td><td>2</td><td>L2</td><td>1</td><td>5</td></tr>
<tr><td></td><td>PART B</td><td></td><td></td><td></td><td></td></tr>
<tr><td>3.</td><td>Construct Paging hardware with TLB?</td><td>3</td><td>L3</td><td>2</td><td>7.5</td></tr>
<tr><td>4.</td><td>Considering a system with following snapshot :
<table>
<tr><th></th><th colspan="4">Allocation</th><th colspan="4">Max</th><th colspan="4">Available</th></tr>
<tr><th></th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th></tr>
<tr><td>Po</td><td>0</td><td>0</td><td>1</td><td>2</td><td>0</td><td>0</td><td>1</td><td>2</td><td>1</td><td>5</td><td>2</td><td>0</td></tr>
<tr><td>P1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>7</td><td>5</td><td>0</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P2</td><td>1</td><td>3</td><td>5</td><td>4</td><td>2</td><td>3</td><td>5</td><td>6</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P3</td><td>0</td><td>6</td><td>3</td><td>2</td><td>0</td><td>6</td><td>5</td><td>2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>P4</td><td>0</td><td>0</td><td>1</td><td>4</td><td>0</td><td>6</td><td>5</td><td>6</td><td></td><td></td><td></td><td></td></tr>
</table>
Apply the following questions using Banker's algorithm.
a) What is the content of Matrix Need?
b) Is the system in a safe state? If yes give the safety sequence.
c) If a request from process P1 arrives for (0,4,2,0) can the request be granted immediately? And also give the new state snapshot.</td><td>2</td><td>L3</td><td>2</td><td>7.5</td></tr>
<tr><td>5.</td><td>Consider a single level paging scheme with a TLB. Assume no page fault occurs. It takes 20 ns to search the TLB and 100 ns to access the physical memory. If TLB hit ratio is 80%, Identify the effective memory access time . Also Explain the difference between Internal and external fragmentation .</td><td>3</td><td>L3</td><td>5</td><td>7.5</td></tr>
<tr><td></td><td>PART C</td><td></td><td></td><td></td><td></td></tr>
<tr><td>6.</td><td>Given memory partitions of 100k,500k, 200,300k and 600k, how would each of the first fit, best bit, and worst fit algorithms work to place processes of 212k,417k,112k and 426k. Analyse which algorithm makes the most efficient use of memory partitions.</td><td>3</td><td>L4</td><td>2</td><td>5</td></tr>
<tr><td>7.</td><td>Identify three real time examples of deadlocks that are not related to a computer-system environment.</td><td>3</td><td>L3</td><td>2, 5</td><td>5</td></tr>
</table>

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science and Engineering — Academic Year: 2023-24(ODDSEM)
Program: B.E (Computer Science and Engineering) — Semester: V (A, B, C) Div.

IA Test – I

Course Title:Computer Networks Code:21CS52
Max. Marks:25 — Duration: 1 Hr. Date: 04/12/2023

Instructions:	1.	**Part A (Understand) Ans any 1Q out of 2Qs**	**05Marks.**
	2.	**Part B (Apply) Ans any 2Q out of 3Qs**	**7.5Marks.**
	3	**Part C (Analyze) Ans any 1Q out of 2Qs**	**05Marks.**

Q. No.	PART A	[L]	[CO]	[PO]	[M]
1.	Explain the Internet with an appropriate figure for the same having IXP, ISP access nets.	2	1	1	5
2.	Compare the client server and P-to-P network architectures.	2	2	1	5

Q. No.	PART B	[L]	[CO]	[PO]	[M]
1.	Identify the key steps involved in routing and packet forwarding within a packet switching network. Evaluate the significance of each step in ensuring efficient and reliable data transmission. Compare and contrast the routing and forwarding processes.	3	1	1	7.5
2.	Analyze a real-world network implementation, detailing how each layer of the network model contributes to its functionality.	3	1	1	7.5
3.	Given a scenario where a non-persistent HTTP protocol is implemented, analyze and evaluate the step-by-step process involved. Assess the advantages and disadvantages of using a non-persistent HTTP protocol in specific web applications.	3	2	3	7.5

Q. No.	PART C	[L]	[CO]	[PO]	[M]
1.	Analyze in detail the structures of HTTP request and response messages in a basic web application.	4	2	3	5
2.	Evaluate and justify the interdependencies among the terms related to network performance, namely propagation delay, transmission delay, processing delay, and queuing delay and how they affect the throughput.	4	1	1	5

Staff Incharge	Module Coordinator	Scrutiny	IQAC members
Dr. U. M. Kulkarni(A div) **Asharani (B div)** **Dr. P. M. Pujar (C div)**	**Dr. P. M. Pujar**	5/12/23 Sharada Kori	

Gogte Institute of Technology, Belagavi

Department of Computer Science and Engineering | Academic Year: 2023-24(ODD SEM)

Program: B.E (Computer Science and Engineering) | Semester: V (A, B, C Div.)

IA Test II

Course Title: Computer Networks | Code: 21CS52

Max. Marks: 25 | Duration: 1 Hr. | Date: 08/01/2024

Instructions:			
	1.	Part A (Understand) Ans any 1Q out of 2Qs	05Marks.
	2.	Part B (Apply) Ans any 2Q out of 3Qs	7.5Marks.
	3	Part C (Analyze) Ans any 1Q out of 2Qs	05Marks.

Q. No.	PART A	[L]	[CO]	[PO]	[M]
1.	Explain the different ways to resolve DNS Name Resolution.	2	2	1	5
2.	Explain with neat diagram Connection Oriented Multiplexing and Demultiplexing of data.	2	3	1	5
Q. No.	**PART B**	[L]	[CO]	[PO]	[M]
1.	Identify the different fields in the TCP segment structure and explain their significance in reliable and ordered data transmission in the network.	3	3	1	7.5
2.	Choose between Go-Back-N and Selective Repeat protocols for reliable data transmission in network and justify your selection by taking a suitable example in handling corrupted data packets.	3	3	1	7.5
3.	Illustrate with a scenario of file distribution in a P2P network. Explain the advantages and challenges associated with P2P file distribution systems.	3	2	1	7.5
Q. No.	**PART C**	[L]	[CO]	[PO]	[M]
1.	Assume a scenario were Ram wants to send an email to Sham analyze the procedure, how the mail is delivered to Sham.	4	2	1	5
2.	Assume a scenario were Ram is using the connectionless transport service for sending a data of two 16 bit' integers **1 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0** and **1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1**. Analyze the procedure that is followed at both ends for checking the reliability of data.	3	3	1	5

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science & Engineering — Academic Year: 2023-24 (ODD SEM)

Program: B.E (Computer Science & Engineering) — Semester: V

Internal Assessment Test - I

Course Title: Micro-Controllers and Embedded Systems — Code: 21CS53

Max. Marks: 25 — **Duration:** 1 Hr. — Date: 05/11/2023

Q.No.		[L]	[CO]	[PO]	[M]
PART A: ANSWER ANY ONE QUESTION					
1.	Define pipelining. Show the pipelined instruction sequence for the following instructions and explain. a. ADD R0, R1, R2 b. SUB R3, R4, R5 c. CMP R6,#1	1,2	1	1	5
2.	Draw the generic program status register of ARM 7. Comment on which flag bits are affected after executing the following instructions. a. SUBS R0, R1, R1 b.CMP R2,R3 (Where R2=0x20 and R3=0x50)	2	1	1	5
PART B: ANSWER ANY THREE QUESTIONS					
3.	Develop an Assembly Language Program(ALP) for ARM7 to read five 16-bit numbers from memory location BLOCK1 and store it in memory location BLOCK2.	3	2	2	5
4.	Develop an ALP for ARM7 to generate the sequence 3,5,7,9,11,13. Hint: Use MLA instruction.	3	2	2	5
5.	Develop an ALP for ARM7 to perform the logical operations: AND,OR,EX-OR operations on the contents of R1 and R2 and store the result in register R0.	3	2	2	5
6.	Develop an ALP for ARM7 to compute the factorial of a given 8-bit number and store the result in RAM location.	3	2	2	5
PART C: ANSWER ANY ONE QUESTION					
7.	Analyze the given piece of code and write down the expected output:	4	2	2	5

Note: L (Level), CO (Course Outcome), PO (Programme Outcome), M (Marks)

```
1       AREA T1, CODE, READONLY
2           ENTRY
3           MOV R0, #0XC0000003 ; Content of R0=?
4           MOV R1, #0XE0000001 ; Content of R1=?
5           MOVS R2, R0,ROR #1  ; Content of R2=? R0=?
6                               ; status of NZCV?
7           CMP R2,R1           ;Content of R2=? R1=?
8                               ; status of NZCV?
9   L       B L
10      END
```

8	Analyze the given piece of code and write down the expected output:	4	2	2	5

```
1       AREA T31,CODE,READONLY
2           ENTRY
3           MOV R0,#0XF0000007 ; content of R0=?
4           MOV R1,#0XE0000008 ; content of R1=?
5           AND R2,R0,R1       ; content of R2=?
6           ORR R3,R0,R1       ; content of R3=?
7           EOR R4,R0,R0       ; content of R4=?
8           TEQ R4,#00         ; content of R4=?
9                              ; comment on the status of N, Z, C, V flag bit
10  L       B   L
11      END
```

Faculty In Charge (Name and Signature)	Module Coordinator (Name and Signature)	IQAC Team (Name and Signature)	Scrutinizer (Name and Signature)
1. Prof. Shubhada S. Kulkarni 2. Dr. Sharada M. Kori	Dr. Sharada M. Kori	Arali S.	29/1

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science & Engineering | Academic Year: 2023-24 (ODD SEM)

Program: B.E (Computer Science & Engineering) | Semester: V

Internal Assessment Test – II

Course Title: Micro-Controllers and Embedded Systems | Code: 21CS53

Max. Marks: 25 | **Duration:** 1 Hr. | Date: 09/01/2024

Q. No.		[L]	[CO]	[PO]	[M]
PART A: ANSWER ANY ONE QUESTION					
1.	List and explain the basic 'C' data types of ARM7.	1,2	3	2	5
2.	Interpret the value to be loaded into the PINSEL and IODIR registers: a. To configure PORT 0 (P0.0-P0.15) pins as input? b. To configure PORT 0 (P0.16-P0.31) pins as output? c. To configure PORT 1 (P1.16-P1.31) pins as input? d. To configure PORT 1 (P1.16-P1.31) pins as output? e. whether the pins P1.0-P1.15 are available as GPIO?	2	3	2	5
PART B: ANSWER ANY THREE QUESTIONS					
3.	The 1st CIE score of Aditya is as shown in the table below: Develop an ARM7 Assembly Language Program to find the highest score and store it in internal RAM location.	3	2	3	5
4.	Build the traffic monitoring system with a 255 count cycle (i.e., count from 00 to 255). Develop an Embedded 'C' program to implement the count cycle on PORT 0 pins (P0.16-P0.23).	3	3	3	5
5.	Develop an Embedded 'C' program to interface Digital to Analog Converter (DAC) with ARM7 and generate the triangular waveform.	3	3	3	5
6.	Make use of suitable sensor and Arduino UNO to implement Automatic Solar Street Light. Develop an Embedded 'C' program to display the message "Light Not Detected" or "Light Detected" on the Serial Monitor of Arduino UNO based on the sensor output. Connect the sensor to Pin No. 5 of Arduino UNO.	3	3	3	5
PART C: ANSWER ANY ONE QUESTION					
7.	Analyze the given piece of codes ('C' code and compiler output) and answer the following:	4	3	3	5

Course Code	Marks Scored
21CS51	20
21CS52	22
21CS53	25
21CS541	23
21CS552	21

```
int checksum_v1(int *data)
{
  char i;
  int sum=0;

  for (i=0; i<64; i++)
  {
    sum += data[i];
  }
  return sum;
}
```

```
checksum_v1
        MOV     r2,r0           ; r2 = data
        MOV     r0,#0           ; sum = 0
        MOV     r1,#0           ; i = 0
checksum_v1_loop
        LDR     r3,[r2,r1,LSL #2] ; r3 = data[i]
        ADD     r1,r1,#1        ; r1 = i++
        AND     r1,r1,#0xff     ; i = (char)r1
        CMP     r1,#0x40        ; compare i, 64
        ADD     r0,r3,r0        ; sum += r3
        BCC     checksum_v1_loop ; if (i<64) loop
        MOV     pc,r14          ; return sum
```

a. What is the drawback of using char data type for declaring the local variables in ARM7 'C' program?

b. In the compiler output how can we avoid the instruction
AND R1, R1, #0XFF.

c. What is the use of BCC instruction?

d. Why PC is updated with R14 content?

e. Can we replace R14 by any other register?

8. Analyze the given piece of codes ('C' code and compiler output) and answer the following:

```
short add_v1(short a, short b)
{
  return a + (b>>1);
}
```

```
add_v1
        ADD     r0,r0,r1,ASR #1   ; r0 = (int)a + ((int)b>>1)
        MOV     r0,r0,LSL #16
        MOV     r0,r0,ASR #16     ; r0 = (short)r0
        MOV     pc,r14            ; return r0
```

a. Should the compiler assume that these 32-bit values are in the range of a short type, that is, –32,768 to +32,767?

b. Should the compiler force values to be in this range by sign-extending the lowest 16 bits to fill the 32-bit register?

c. State True or False: Either the *caller* or *callee* must perform the cast to a *short* type.

d. State True or False: Function arguments are passed *wide* if they are not reduced to the range of the type and *narrow* if they are.

e. State True or False: For ARMCC in ADS, function arguments are passed *narrow* and values returned *narrow*.

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science Engineering Academic Year: 2023-24(ODD SEM)

Program: B.E (Computer Science Engineering) Semester: V (A, B, C)

IA Test - I

Course Title: Data Warehousing and Data Mining Code: 21CS543

Max. Marks: 25 Duration: 1 Hr. Date: 05/12/2023

Instructions: Answer any 1 question from Part A, 2 questions from Part B and 1 question from Part C

PART A

Q. No.	Answer any 1 question out of 2. Each question carries 5 marks	[L]	[CO]	[PO]	[M]
1.	What is Data Mining? Explain its applications.	2	1	1	5
2.	Describe KDD process with an example diagram.	2	1	1	5

PART B

	Answer any 2 questions out of 3. Each question carries 7.5 marks				
3.	What is the need of data pre-processing? Assume for a given agricultural dataset which contains some noisy and erroneous data. Identify the different data pre-processing techniques and explain the same.	3	1	1, 3	7.5
4.	Define Noise. For a given sorted data for price: 4,8,15,21,21,21,24,25,28,34. Apply the different binning method for data smoothing.	3	1	1, 3	7.5
5.	What is data reduction. Assume the set of attributes (A1-A6). Apply the different greedy(heuristic) methods for attribute subset selection and draw the figure for the same.	3	1	1, 3,4	7.5

PART C

	Answer any 1 question out of 2. Each question carries 5 marks				
6.	Define Data warehouse. Distinguish between OLTP vs OLAP systems with an example.	4	1	1, 2	5
7.	What is data cube. For the sales data warehouse analyse the required facts, dimensions and draw the snowflake schema for the sale data warehouse.	4	1	1, 2,4	5

Staff In Charge	Module Coordinator	Scrutinizer	IQAC Team
Dr. Prashant Niranjan	Dr. Prashant Niranjan	1/12 (CSVS)	11/12/23

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science Engineering Academic Year: 2023-24(ODD SEM)

Program: B.E (Computer Science Engineering) **Semester:** V (A, B, C)

IA Test - II

Course Title: Data Warehousing and Data Mining Code:21CS543 Max. Marks: 25

Duration: 1 Hr. Date: 09/1/2024

Instructions: Answer any 1 question from Part A, 2 questions from Part B and 1 question from Part C

PART A

Answer any 1 question out of 2. Each question carries 5 marks

Q. No.		[L]	[CO]	[PO]	[M]
1.	What is clustering? Explain its applications.	2	3	2	5
2.	Describe the typical requirements of clustering in data mining.	2	3	3	5

PART B

Answer any 2 questions out of 3. Each question carries 7.5 marks

3.	Describe K-means algorithms. Apply K-means algorithm to illustrate the forming of clusters for given K=3 and no. of objects.	3	3,4	3	7.5
4.	Explain Agglomerative and Divisive hierarchical clustering. Apply Agglomerative and Divisive hierarchical clustering to illustrate the forming of clusters for given n=5 data objects i,e a, b, c, d and e.	3	3,4	2, 3	7.5
5.	Define density based clustering. Apply chameleon algorithm process with a neat diagramto get the final clusters or quality clusters.	3	3,4	3,4	7.5

PART C

Answer any 1 question out of 2. Each question carries 5 marks

6.	Distinguish between Nominal , ordinal and ratio scaled variable with an example.	4	3	3	5
7.	What is Decision tree. Build a decision tree whether a student can play a football or not considering some climatic conditions.	3	2	3	5

KLS GOGTE INSTITUTE OF TECHNOLOGY, BELGAUM

Department of Civil Engineering

Internal Assessment Test II

Subject: Road Safety
Semester: V
Max. Marks: 25

Div: Common to all

Code: 21CV553
Date: 10 /01/24
Duration: 1 Hr.

Note: Answer Any 1 Question from Part A & C and any 2 questions from part B

Q. No	PART A	[L]	[CO]	[PO]	[M]
1	Discuss the commitment made by Government to promote and improve Road safety	Un	2	6	5
2	List the steps involved in Accident Investigation.	Un	2	1	5
	PART B				
3	Explain the various promotional activities for voluntary blood donation.	Un	2	6	7.5
4	Explain the preventive measures of accident.	Un	2	6	7.5
5	Explain the regulations concerning vehicles and drivers.	Un	3	6	7.5
	PART C				
6	With a neat sketch explain Collision diagram.	Un	4	1	5
7	With a neat sketch explain On-street parking.	Un	1	1	5

Module Co-ordinator

IQAC Co-Ordinator

KLS GOGTE INSTITUTE OF TECHNOLOGY, BELGAUM

Department of Civil Engineering

Internal Assessment Test I

Subject: Road Safety Engineering
Semester: V
Max. Marks: 25

Div: Open Elective-I

Code: 21CV553
Date: 06 /12/23
Duration: 1 Hr.

Note: Answer Any 1 Question from Part A & C and any 2 questions from part B

Q. No.	PART A	[L]	[CO]	[PO]	[M]
1	Explain the recommendations and implementations of Jayakar committee.	Un	1	1	5
2	List the various types of geometric features of roads. Explain any 1 in details.	Un	1	1	5
	PART B				
3	With a neat sketch, explain the PIEV Theory of reaction time.	Un	1	1	7.5
4	Compare and analyse the Motor Vehicle Act of 1988 and 2019 for the following conditions a. Safety Of Children During Commute b. Stringent Punishment For Faulty Road Design, Engineering And Maintenance c. Offences By Juveniles	Un	3	1	7.5
5	Broadly classify and explain the various types of traffic signs.	Un	1	1	7.5
	PART C				
6	Draw a typical cross section and label the cross sections with dimensions for National Highway or State Highway (NH or SH) in rural area	Un	1	1	5
7	Appraise the importance of pedestrian safety and facilities.	Un	3	1	5

Faculty Incharge

IQAC Co-ordinator

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science Engineering — Academic Year: 2023-24(ODD SEM)

Program: B.E (Computer Science Engineering) — Semester: V (A, B, C)

IA Test - I

Course Title: Research Methodology & Intellectual property rights — Code: 21CS57

Max. Marks: 20 — Duration: 1 Hr. — Date: 06/12/2023

Instructions: Each question carries 1 mark. No negative marking.

1. Research means to observe the phenomena again and again from different _____.
   a. Options b. angles c. dimensions d. directions.
2. In a research study conclusions are based on
   a. Related literature b. Data collected c. Analysis of data d. b & c
3. What is the name of the conceptual framework in which the research is carried out?
   a. Research hypothesis b. Synopsis of Research c. Research paradigm d. Research design
4. Research is directed towards the _____ of a problem.
   a. Need b. Knowledge c. Solution d. Query
5. Surveys and fact-finding enquiries is _____ research
   a. Descriptive b. Analytical c. Applied d. Conceptual
6. Qualitative research uses _____ data collection method.
   a. semi-structured b. structured c. un-structured d. none of these
7. Who was the author of the book named "Research Methodology- Methods & techniques"?
   a. Kerlinger b. CR Kothari c. Goode & Hatt d. Wilkinson
8. Concerned with generalizations and formulation of a theory is _____ research
   a. Fundamental b. Analytical c. Conceptual d. Empirical
9. Qualities of a good research study is it should be_____
   a. replicable b. negotiable c. taxable d. frozen
10. Lack of scientific training in the methodology of research is the problem encountered by researchers
    a. TRUE b. FALSE
11. The term "data" came from the Latin root term _____
    a. Detem b. Datam c. Datum d. Data
12. Which one is the true example of primary data from the following options?
    a. Journal b. Book c. Census Report d. Newspaper
13. Primary data is also known as first-hand or original data. This statement is _____
    a. True b. False c. partially false d. partially true
14. The primary data is gathered through _____.
    a. Survey b. Experiment c. Both a & b d. None a & b
15. Data collected from an archive or the records of an organization is called _____ data.
    a. Internal b. Secondary c. External d. Primary
16. A telephonic interview takes less time than a mailed questionnaire. This statement is_____
    a. Partially true b. Completely True c. Completely false d. Partially false
17. Sources of Secondary data is _____.
    a. Observation b. Telephonic Method c. Interview Method d. Books
18. Information of research is called _____
    a. Qualitative b. Quantitative c. Both a & b d. None a & b
19. What comes right before the formulation of the hypothesis in the research?
    a. Collection of data b. Analysis of data c. Selection of tool d. None of these
20. Solving a social problem can be done with _____ method
    a. Survey b. Panel d. Case Study d. None of these

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science Engineering — Academic Year: 2023-24(ODD SEM)

Program: B.E (Computer Science Engineering) — Semester: V (A, B, C)

IA Test – II

Course Title: Research Methodology & Intellectual property rights — Code: 21CS57

Max. Marks: 20 — Duration: 1 Hr. — Date: 10/1/2024

Instructions: Each question carries 1 mark. No negative marking.

1. The term "WIPO" stands for
   a). World Investment policy organization
   b). World intellectual property organization
   c). Wildlife Investigation and Policing organization
   d). World institute for Prevention of organized crime
2. A company wishes to ensure that no one else can use their logo.
   a). Copy rights b). Trade mark c). Patent d). Industrial designs
3. A new way to process milk so that there is no fat in any cheese made from it.
   a). Copy rights b). Trade mark c). Patent d). Industrial designs
4. In measures of skewness, the absolute skewness is equal to
   a) mean+mode b) mean-mode c) mean-median d) mean+median
5. What is the arrangement of data in rows and columns known as?
   a) Frequency distribution b) Cumulative frequency distribution c) Tabulation
   d) Classification
6. Which of these is simply the difference between the maximum and minimum values given in a data set?
   a) Range b) Mean Deviation c) Standard Deviation (d) All of these
7. Mode refers to the value within a series that occurs _____ number of times.
   a) Maximum b) Minimum c) Zero d) Infinite
8. Data Analysis is a process of____
   a) Inspecting data b) Data Cleaning c) Transforming of data d) All of the mentioned above
9. A cross tabulation is _____
   a) A frame of analysis b) A distribution of frequencies for one variable
   c) Analysis of two variables to ascertain a relationship between them d) None of the above
10. Data processing involves the following steps
    a) Editing b) Coding c) Classification d) All the above
11. The measure of central tendency indicates
    a) Measure of asymmetry b) Measure of average c) Measure of variables d) None of the above
12. A hypothesis which is tested for possible rejection is known as:
    a) Positive hypotheses b) Absolute hypotheses c) Null hypotheses d) Hybrid Hypotheses
13. A new way to process milk so that there is no fat in any cheese made from it?
    a) Copy rights b) Trade mark c) Patent d) Industrial designs
14. Symbol of Maharaja of Air India is
    a) Copyright b) Patent c) Trademark d) All of the above

KLS Gogte Institute of Technology, Belagavi

Department of Computer Science Engineering — Academic Year: 2023-24(ODD SEM)

Program: B.E (Computer Science Engineering) — Semester: V (A, B, C)

IA Test – II

Course Title: Research Methodology & Intellectual property rights — Code: 21CS57

Max. Marks: 20 — Duration: 1 Hr. — Date: 10/1/2024

15. What is the subject matter of a patent?
    a) Art b) Invention c) Goods d) Ideas
16. Which of the following can you copyright?
    a) Literary work b) Ideas c) Choreographic work d) Fashion
17. In which article is intellectual property rights outlined?
    a) Article 15 b) Article 27 c) Article 13 d) Article
18. The rights of a patentee are
    a). Sell or distribute b). License c). Assign the property to others d). All of the above
19. The term of copyright for an author lasts how long?
    a). The life of the author b). The life of the author plus 70 years c). 95 years
    d). 75 years
20. A singer wishes to assign the rights to reproduce a video she has made of her concert.
    a). Copy rights b). Trade mark c). Patent d). Industrial designs

KLS Gogte Institute of Technology, Belagavi

Department of Civil Engineering | Academic Year: 2023-24 (Odd Sem)

Program: B.E. | Semester: V (Common to all branches)

IA – I

Course Title: Environmental Studies | Code: 21CS59

Max. Marks: 15 | Duration: 30 Min | Date: 06/12/2023

Note: 1. Answer all the Questions (each question carries 1 mark)
2. Clearly mention question number and option (Example: 1. a Energy)
3. Multiple answers for the same question will be allotted with zero marks

[LI] [CO 1, 4] [PO 6, 7]

1. Which of the following components of the environment are effective transporters of matter?
   a) Atmosphere and Hydrosphere b) Atmosphere and Lithosphe re
   b) Hydrosphere and Lithosphere d) Biosphere and Lithosphere

2. The word 'Environment' is derived from
   a) Greek b) French c) Spanish d) English

3. The major atmospheric gas layer in stratosphere is
   a) Hydrogen b) Carbon dioxide c) Ozone d) Helium

4. Eutrophication is
   a) An improved quality of water in lake b) A process in carbon cycle
   c) The result to accumulation of plant nutrients in water bodies d) A water purification technique

5. 'Earth Day' is held every year on
   a) June 5th b) November 23rd c) April 22nd d) January 26th

6. Cholera & typhoid are caused by
   a) Worms b) Virus c) Bacteria d) Fungus

7. What is the permissible range of pH for drinking water as per the Indian Standards?
   a) 6 to 9 b) 6.5 to 7.5 c) 6 to 8.5 d) 6.5 to 8.5

8. Excess fluorides in drinking water is likely to cause
   a) Blue babies b) Fluorosis c) Taste and odour d) intestinal irritation

9. Nitrogen fixing bacteria exists in _____ of plants.
   a) Leaf b) Roots c) Stem d) Flower

10. The most important fuel used by nuclear power plant is
    a) U – 235 b) U- 238 c) U – 245 d) U – 248

11. Which of the following is not a renewable source of energy?
    a) Thermal power energy b) Solar energy c) Tidal wave energy d) Wind energy

12. Direct conversion of solar energy is attained by
    a) Solar photo voltaic system b) Solar diesel hybrid system
    c) Solar thermal system d) Solar air heater

13. Which is the source of energy that can be replaced at the same rate at which it is used?
a) Coal b) petroleum c) Oil d) Biomass

14. Nuclear wastes are active for
a) 5 years b) 10 years c) 50 years d) centuries

15. Thermal power plant in Karnataka is located at
a) Bhadravathi b) Sandur c) Raichur d) Kaiga

IQAC Coordinator

Course In-charge

KLS Gogte Institute of Technology, Belagavi

Department of Civil Engineering
Program: B.E.

Academic Year: 2023-24(ODD Semester)
Semester: V (Common to all branches)

IA – II

Course Title: Environmental Studies
Code: 2159**
Date: 10 /01/2024

Max. Marks: 15

Note: 1. Answer all the Questions (each question carries 01 mark)
2. Clearly mention question number and option (Example: 1. a Energy)
3. Multiple answers for the same question will be allotted with zero marks

[L1] [CO 2, 3, 5] [PO 6, 7]

1. The Bhopal gas tragedy occurred during the year
a)1984 b)1982 c)1981 d)1985

2. The National Policy on Disaster Management was approved by the Union Cabinet in?
a) 2008 b) 2009 c) 2007 d) 2010

3. Which of the following is a disaster mitigation strategy?
a) Constructing cyclone shelters b) Giving loans from banks
c) Providing cheap electricity d) Providing school uniforms to children

4. The National Civil Defense college was founded in 1957 at
a) Bombay b) Nagpur c) Cochin d) Hyderabad

5. Minamata disease in Japan was caused by .....
a) Mercury poisoning b) Lead poisoning c) Cobalt poisoning d) All of these

6. Which of the following is the source of fly ash
a) Vehicular exhaust b) sewage c) Thermal power plant d) all

7. Which of the following is defined as "the propensity to incur loss"?
a) Exposure b) Risk c) Vulnerability d) Resilience

8. Which Central Minister in India is the Nodal Ministry for coordinating disaster management activities?
a) Minister of Home affairs b) Ministry of Environment
b) Minister of Trade and Commerce d) Minister of Food

9. Possible risk reduction measures for Landslides
a) Hazard mapping b) Retaining Walls
c) Surface Drainage Control Works d) All of the above

10. NIDM observes "Disaster Reduction Day" on
a) 12 th December b) 21 st July c) 9 th October d) 26 th November

11. Possible risk reduction measures for Tsunami
a) Site Planning and Land Management b) Flood Management
c) Both a and b d) None of the above

12. Disaster Management Team should include?
a) Awareness generation team b) First aid team
c) Search and Rescue team d) All of the above

13. Acid rain can be controlled by
a) Reducing SO_2 and NO_2 emissions. c) Reducing oxygen emission.
b) Increasing number of lakes. d) Increasing the forest cover.

14. Major compound responsible for the destruction of stratospheric ozone layer is
a) Oxygen b) CFC c) Carbon dioxide d) Methane

15. The Air (Prevention & Control of Pollution) Act was enacted in the year
a) 1981 b) 1996 c) 2000 d) 1974