



ವಿವೇಕಾನಂದ ತಾಂತ್ರಿಕ ಮಹಾ ವಿದ್ಯಾಲಯ  
**VIVEKANANDA INSTITUTE OF TECHNOLOGY**

AN INSTITUTE OF JANATHA EDUCATION SOCIETY  
Recognised by GOK, Affiliated to VTU & Approved by AICTE, New Delhi.

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

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PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalaguru Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074,



**JANATHA EDUCATION SOCIETY (R)**  
**VIVEKANANDA INSTITUTE OF TECHNOLOGY**



AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELGAUM (RECOGNISED BY AICTE, NEW DELHI)  
GUDIMAVU, KUMBALAGUDU POST, KENGERI HOBLI BENGALURU-560074

**ACADEMIC TOPPER**  
**CERTIFICATE**  
**ACADEMIC YEAR 2022 - 2023**

HEMAIATHA . P , IVK20IS014 - III - year

In Recognition of His/Her Academic Excellence in  
Department of Information Science & Engineering

Dr. Bhagyalakshmi.N  
Chief Co-ordinator

Dr. K M Ravikumar  
Principal

K.P.Muthaiah  
Chairman, VKIT

Principal  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalagudu Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.



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GUDIMAVU, KUMBALAGUDU POST, KENGERI HOBLI BENGALURU-560074

**ACADEMIC TOPPER**  
**CERTIFICATE**  
**ACADEMIC YEAR 2022 - 2023**

BHUVANA . K . S , IVK22IS009 - I year

In Recognition of His/Her Academic Excellence in  
Department of Information Science & Engineering

Bhagyalakshmi  
Dr. Bhagyalakshmi.N  
Chief Co-ordinator

Ravikumar  
Dr. K M Ravikumar  
Principal

K.P.Muthaiah  
K.P.Muthaiah  
Chairman, VKET

Ravikumar  
08/11/2023  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalagudu Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.



**JANATHA EDUCATION SOCIETY (R)**  
**VIVEKANANDA INSTITUTE OF TECHNOLOGY**

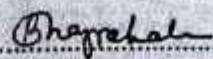


AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELGAUM (RECOGNISED BY AICTE, NEW DELHI)  
GUDIMAVU, KUMBALAGUDU POST, KENGERI HOBLI BENGALURU-560074


**ACADEMIC TOPPER**  
**CERTIFICATE**  
**ACADEMIC YEAR 2022 - 2023**

HEMALATHA . P , IVK20IS014 - III - year

In Recognition of His/Her Academic Excellence in  
Department of Information Science & Engineering

  
.....  
**Dr. Bhagyalakshmi.N**  
Chief Co-ordinator

  
.....  
**Dr. KM Ravikumar**  
Principal

  
.....  
**K.P.Muthaiah**  
Chairman, VKIT

  
.....  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalagudu Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.

*Janatha Education Society (R)*  
**INTER-OFFICE CORRESPONDENCE**

From: Secretary

To: The Manager  
Accounts, JES

Ref: No. JES/ 12.08.2023

Date: 23/08/23

Sub: Permission to the Manager Accounts, JES to transfer the following amount to the respective institutions of JES towards distribution of student-aid-fund scholarship for the academic year 2022-23.

Ref: Decision of the MC meeting held on 12.08.2023

In continuation to the decision of the MC meeting cited under reference above, permission is accorded to the Manager Accounts, JES to transfer student-aid-fund scholarship amount as recommended by the student-aid-fund committee for the AY 2022-23 in its meeting held on 19.07.2023 and approved by the MC in its meeting dated 12.08.2023.

In enclosing herewith the number of student-aid-fund beneficiaries along with the amount allocated to each institution, permission is accorded to the Manager Accounts, JES to transfer the said amount to the college account of the respective institutions.

*H.G. Balagopal*  
H.G. Balagopal  
Secretary

Copy to: The head of the institutions of JES - for information and to make arrangement to distribute the student-aid fund scholarships for the AY 2022-23.

*Handwritten notes and signature*

*Handwritten signature in green ink*

Principal  
VIVEKANANDA INSTITUTE OF TECHNOLOGY  
Bangalore - 560 074

*Handwritten signature in green ink*  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalagutta Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074



Members Present:

- 1) Sri. K.P Muthaiah, Director, VKIT
- 2) Dr. D.V Chandrashekhar, Principal, VKIT
- 3) Dr. Bhagyalakshmi N, HOD, ECE Dept.
- 4) Dr. Vidya A, HOD, ECE Dept.
- 5) Dr. P Vanajakshi, HOD, ISE Dept.
- 6) Dr. H.G Bheemanna, Prof. Chemistry Dept.
- 7) Dr. Dinesh S, HOD, AI & ML Dept.

A Meeting was held on 22.08.2023 at Board Room, VKIT at 11.00 a.m. for sanction of Student -Aid- Fund for A.Y 2022-23 under the Chairmanship of Sri. K.P Muthaiah, Director VKIT along with Principal and Concerned HOD's. In the meeting it is recommended for 15 numbers of students. Also recommended to sanction additional 5 students. The List are as follows:-

Sl. No.	Name of the Student	Annual Income in Rs.	USN	Year of Study	Academic Performance	Category	Remarks
<b>Computer Science &amp; Engg.</b>							
01	Deekshitha D A ✓	11,000	IVK22CS023	1 <sup>st</sup> year CSE	87%	3A(Vokkaliga)	Single Parent
02	Rakshitha H E ✓	11,000	IVK22CS058	1 <sup>st</sup> year CSE	93%	3A (Vokkaliga)	
03	Pavithra S ✓	90,000	IVK21CS053	2 <sup>nd</sup> year CSE	77.87%	3A (Vokkaliga)	
04	Tejaswini MJ ✓	13,000	IVK21CS084	2 <sup>nd</sup> year CSE	7.8 CGPA	3A (Vokkaliga)	Single Parent
05	Shivaram M ✓	25000	IVK20CS073	3 <sup>rd</sup> year CSE	8.08 CGPA	Arya vysha	Daily Labour
06	Gunasheela S ✓	44000	IVK20CS027	3 <sup>rd</sup> year CSE	78.08%	Vokkaliga 3A	
<b>Information Science &amp; Engg</b>							
07	Aakitha N V ✓	20,000	IVK22IS007	1 <sup>st</sup> year	89%	3B(lingayath)	
08	Karan B ✓	72,000	IVK21IS018	2 <sup>nd</sup> year	90%	3A(Vokkaliga)	Recommended Topper of the Class, 3 <sup>rd</sup> Semester and secured 63 <sup>rd</sup> Rank in VTU announced in VTU Connect Portal.
09	HEMALATHA P ✓	40,000	IVK20IS014	3 <sup>rd</sup> year	9.12 SGPA	2A Kumbara	Recommended Academic Records are Good and eligible for BE Honor's. Secured average of 9.38 SGPA from 1 <sup>st</sup> to 5 <sup>th</sup> Semester, Secured 25 <sup>th</sup> Rank in 5 <sup>th</sup> Semester. Announced in VTU Connect Portal and Topper of 3 <sup>rd</sup> Semester. Completed NPTEL Certification Programs on Cloud Computing and obtained Elite Grade.

Principal

VIVEKANANDA INSTITUTE OF TECHNOLOGY  
Bangalore - 560 074

Electronics & Communication Engineering						
10	Meena N	88,000	IVK22EC021	1 <sup>st</sup> year	81%	2A(Bajanthri)
11	Sandhya V R	45000	IVK21EC016	2 <sup>nd</sup> year	80	3A Vokkaliga
12	Bhagyamma B	80000	IVK20EC004	3 <sup>rd</sup> year	79.75	3B Veerashaiva Lingyath
Artificial Intelligence & Machine Learning						
13	Rangalakshmi R	18,000	IVK22AI032	1 <sup>st</sup> year	82%	3B(Lingayath)
14	SECHANA TV	25,000	IVK21AI019	2 <sup>nd</sup> year	89.2%	3A Vokkaliga
15	MANJUNATH R GOWDA	40,000	IVK20AI014	3 <sup>rd</sup> year	77.8%	3A Vokkaliga

Additional Students recommended for Student Aid-Fund A.Y 2022-23

Sl. No.	Name of the Student	Annual Income in Rs.	USN	Year of Study	Academic Performance	Category	Remarks
Computer Science & Engg.							
01	Manasa Y G	50,000	IVK22CS042	1 <sup>st</sup> year	96%	3A(Vokkaliga)	
02	Deepak U	50000	IVK21CS016	2 <sup>nd</sup> year	8.8 CGPA	2A Kumbara	Single Parent
Information Science & Engg.							
03	VISHAL V NAYAK	11,000	IVK21IS056	2 <sup>nd</sup> year	84.75%	GM	Recommended Done NPTEL Certification Course
Electronics & Communication Engineering							
04	Abhilash B A	48000	IVK21EC001	2 <sup>nd</sup> year	81.25%	3A Vokkaliga	
Artificial Intelligence & Machine Learning							
05	BHAVAN B	80,000	IVK21AI006	2 <sup>nd</sup> year	87%	3B Vaishnava	

15000 x 20 = 300,000 - in charge  
issued.

Sri. K.P Muthaiah  
Director, VKIT

Ch no

to,

*Rasidhuma*

*Rasidhuma*  
Principal

Principal  
VIVEKANANDA INSTITUTE OF TECHNOLOGY  
Bangalore - 560 074

*Rasidhuma*  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudrunu, Kunkalagudi Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.

V Institute of Technology  
 Gudimavu, Kumbalagodu Post  
 Kengare (H), Bengaluru  
 Karnataka  
 560074  
 E-Mail : vkitprincipal@gmail.com

**Payment Voucher**

No. 278

Dated 31-Aug-23 ✓

Through : CANARA BANK - 4799101001830

Particulars	Amount
Account :	
Students Aid Scholarship - JES	3,00,000.00 ✓

On Account of :

Ch No 187718 to 187737 towards payment SAF  
 Scholarship for the year 2022-23 as per JES Order  
 No 621/23-24 dt 06.01.23

**Bank Transaction Details:**

DREKSHITA D A 1VK22CS031	Cheque 187718 ✓	1-Sep-23	15,000.00 ✓	Dekshitha, D. A	
RAKSHITA HE 1VK22CS058	Cheque 187719 ✓	1-Sep-23	15,000.00 ✓		Rakshita, H
PAVITRA S 1VK21CS053	Cheque 187720 ✓	1-Sep-23	15,000.00 ✓		Pavithra, S
TEJASHWINI M 1VK21CS084	Cheque 187721 ✓	1-Sep-23	15,000.00 ✓		Tejashwini, M
SHEVARAM M 1VK20CS074	Cheque 187722 ✓	1-Sep-23	15,000.00 ✓		Shevaram
GIRINAVATHI A S 1VK20CS077	Cheque 187723 ✓	1-Sep-23	15,000.00 ✓		
KARAN B 1VK21IS018	Cheque 187725 ✓	1-Sep-23	15,000.00 ✓		Karan
HEMALATHA P 1VK20IS014	Cheque 187726 ✓	1-Sep-23	15,000.00 ✓		Hemalatha P
MEENA N 1VK22EC021	Cheque 187727 ✓	1-Sep-23	15,000.00 ✓		Sandhya, V. R. Meena, N
SANDHYA V R 1VK21EC019	Cheque 187728 ✓	1-Sep-23	15,000.00 ✓		
BHAGYAMMA B 1VK20EC004	Cheque 187729 ✓	1-Sep-23	15,000.00 ✓	Bhagyamma B 5/9	
RANGALAKSHMI R 1VK22AL032	Cheque 187731 ✓	1-Sep-23	15,000.00 ✓	Rangalakshmi R	
SECHANA T V 1VK21A1019	Cheque 187730 ✓	1-Sep-23	15,000.00 ✓	Sechanat V	
MANJUNATH R GOWDA 1VK20AL014	Cheque 187732 ✓	1-Sep-23	15,000.00 ✓	Manasa, Y. G.	
MANASA Y G 1VK22CS042					

continued

*Ramesh*  
 PRINCIPAL  
 Vivekananda Institute of Technology  
 Gudimavu, Kumbalagodu Post, Kengeri (H),  
 Bangalore South, Bangalore - 560 074.

*Ramesh*  
 PRINCIPAL  
 VIVEKANANDA INSTITUTE OF TECHNOLOGY  
 Bangalore - 560 074



**V Institute of Technology**  
 Gudimavu, Kumbalagodu Post  
 Kengare (H) Bengaluru  
 Karnataka  
 560074  
 E-Mail - vkitprincipal@gmail.com

**Payment Voucher**

(Page 2)

No. : 278

Dated : 31-Aug-23

Through : CANARA BANK - 4799101001830

Particulars

Amount

Cheque	187733	1-Sep-23	15,000.00	
DEEPAK U	1VK21CS016			
Cheque	187734	1-Sep-23	15,000.00	
VISHAL V NAYAK	1VK21IS056			
Cheque	187735	1-Sep-23	15,000.00	
ABHICASH R A	1VK21EC001			
Cheque	187736	1-Sep-23	15,000.00	
BHAVANA B	1VK21AL006			
Cheque	187737	1-Sep-23	15,000.00	
ANKITHA N V	1VK22IS007			
Cheque	187724	1-Sep-23	15,000.00	

Amount (in words) :

INR Three Lakh Only

₹ 3,00,000.00

Receiver's Signature

Prepared by

Checked by

Authorised Signatory

Verified by



Principal  
**VEKANANDA INSTITUTE OF TECHNOLOGY**  
 Bangalore - 560 074

  
 PRINCIPAL  
 Veknanda Institute of Technology  
 Gudimavu, Kumbalagodu Post, Kengare (H),  
 Bangalore Distt, Bangalore - 560 074

**TO BE FILLED IN BLOCK LETTERS ONLY**



Name of the Student as mentioned in SSLC / CBSE OR Certificate

B H A G Y A M M A B

University Seat No.

I V K 2 0 E C 0 0 4

College ID No.

Date of Birth

2 4 1 2 2 0 0 2

nationality

I N D I A N

Religion

H I N D H U

Year in which admitted

1 2 0 1 2 0 2 1

Caste

Through Admission

CET  COMED-K  Management

Year

I Year  II Year  III Year  IV Year

Course Selected

Computer Science & Engg.

Electronics & commn. Engg.

Information Science & Engg.

Mechanical Engg.

Civil. Engg.

Bank Details

Bank Name S T A T E B A N K O F I N D I A

Branch K R P u r a m

A/c. No. 6 4 2 0 2 4 1 3 2 3 1

Languages know

K A N N A D A E N G L I S H T E L U G U

Parent's Details : Name of the Father as mentioned in SSLC / CBSE OR School Certificate

Qualification

Work Place

Annual Income

Phone Landline

PAN NO.

Mobile No.

Occupation

E-mail ID

Parent's Details : Name of the Mother as mentioned in SSLC / CBSE OR School Certificate

S U M A N G A L A

Qualification -

Work Place K R P U R A M

Annual Income 8 0 0 0 0

Phone Landline

PAN NO.

Mobile No. 8 9 5 1 2 6 0 3 8 9

Occupation

E-mail ID

Blood Group A<sup>+</sup>

Height

Weight 46 kg.

Mobile No. 8861077163

E-Mail I.D. Vishwasumatgala@gmail.com

## Address for Communication

Permanent

Sathyampet, Surapura town

Shorapura taluk - Gadgir

PIN

Phone

Present ( for correspondence )

opp govt school, Triveni

nagar, K.R. Puram

Bangalore East

PIN 560036

Phone

## Qualifying Examination

Exam Passed	Institute	Board / University	Register No.	Max Marks	Obtained Marks	%
10th Std.	HDRS Attibele Ankal (Crg) Bangalore	Karnataka	20180824990	625	577	92.32%
12th Std.	MDRPU Tadigekahalli Hosakote Bangalore	D-PUC	536613	600	569	94.8%
Diploma ( lateral entry )						

## 10th Std

	Maths	Science	Total
Marks Secured	78	83	161
Max. Marks	100	100	200

## 12th Std. ( ICSE/CBSE )

	Physics	Chemistry	Maths	Total	%
Marks Secured	92	95	100	287	95.6%
Max. Marks	100	100	100	300	

## Diploma ( Lateral Entry )

	I SEM	II SEM	III SEM	IV SEM	V SEM	VI SEM	Total	%
Marks Secured								
Max. Marks								

## Local Guardian

Name: VISHWARADHYA B

Address: opp govt school, Triveni Nagar, K.R. Puram Bangalore East - 56

Pin Code: 560036 Phone Landline:

Mobile: 8496099259 E-Mail:

Preparation Method for Examination : Combined Study / Self Study / Both

Do you communicate well in English ? : Yes / no ( If 'No' How you prepare yourself to improve )  
No. By watching English news or news with subtitles.

No. of Brothers / Sisters & their details

Brothers { Elders 1 Qualification 10<sup>th</sup>  
 Younger 1 Qualification 10<sup>th</sup>

Sisters { Elders \_\_\_\_\_ Qualification \_\_\_\_\_  
 Younger \_\_\_\_\_ Qualification \_\_\_\_\_

**Personal details**

Do you move freely with everyone in class ? : Yes

Personal problems, if any : \_\_\_\_\_

Health Condition : Good

Undergoing any Medical Treatment? : \_\_\_\_\_  
 If so, mention \_\_\_\_\_

Other areas of Interest : computer knowledge,

Hobbies : Listening songs, cooking, Reading Books.

Are you interested in Sports ? : Yes, Badminton  
 (Specify the name of the sports )

Have you won any prizes ? : NO  
 (District / National / International )

Mention any of your specific talents : \_\_\_\_\_

Future Plans & Ambition : To get succeed in life in any way & to make this world to recognize me

Reason for choosing this Branch & college : I'm too interested in EC and your college helped me to face financial problem.

Bhagyamma B  
18/01/21  
 Signature of the Student with date

[Signature]  
 Signature of the Mentor with date

[Signature]  
 Signature of the HOD with date

[Signature]  
 Signature of the Principal with date

## I SEMESTER

### Performance in Internal Assessment Test :

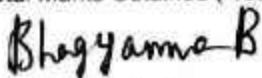
Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO			
1	18MAT11	Calculus and Linear Algebra	21	19	90	27	40	33	83	A	65	58	89	30		39	
2	18PHY12	Engineering Physics	23	21	48	24	37	22	59	A	51	24	86	25		27	
3	18ELE13	Basic Electrical Engineering	25	24	96	30	40	37	93	30	61	57	93	29		40	
4	18CIV14	Elements of Civil Engg & Mechanics	18	9	50	24	38	31	82	27	58	51	88	17		33	
5	18EGDL15	Engineering Graphics	10	9	90	30	24	18	75	30	44	38	86	26		40	
6	18PHY16	Engineering Physics Laboratory	3	1	50	-	8	5	63	-	13	10	92	-		38	
7	18ELE17	Basic Electrical Engineering	2	2	100	-	7	6	86	-	9	8	89	-		39	
8	18EGH18	Technical English - I	8	6	75	24	14	14	100	15	30	26	87	30		26	
<b>TOTAL</b>																	
Signature Of Student																	

### Performance in University Examination

Sub. Code	18MAT11			18PHY12			18ELE13			18CIV14			18EGDL15			18PHY16			18ELE17			18EGH18			Remarks
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	
	39	53	92	27	44	70	40	38	78	33	48	81	40	39	79	38	53	91	39	58	97	26	35	61	

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

Total Marks Obtained ( 1st Attempt )

**649**  
  
 Student

**81.12%**  
 Percentage

  
 Mentor

**PCD**  
 Class

  
 HOD

**Pass**  
 Result

  
 Principal

I SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	8/2/21	Regarding I A performance.	advised the student to continue her studies in the same phase.	Bhagyanne B	[Signature]
Counseling After 2nd I.A. Test	9/3/21	I A performance.	Asked the student not to remain absent for test.	Bhagyanne B	[Signature]
Counseling After 3rd I.A. Test	7/4/21	Exam preparation	Asked the student to perform well in the exam.	Bhagyanne B	[Signature]

5

Vivekananda Institute Of Technology



Bhagyanne B

Student

[Signature]

Mentor

[Signature]

HOD

[Signature]

Principal

## II SEMESTER

### Performance in Internal Assessment Test :

Sl. No.	Sub. Code.	Subject Name	J												Addl. Test Marks	Final Marks	Remarks
			IA Test - I				IA Test - II				IA Test - III						
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO			
1	18MAT21	Advanced calculus & N.M	20	17	85	30	38	35	92	30	55	49	89	29	40	89	
2	18CHE22	Engg. Chemistry	20	19	95	27	36	33	92	30	49	47	96	30	39	68	
3	18PCD23	C prog for problem Solving	21	18	86	38	36	33	92	40	50	47	94	39	39	88	
4	18ELN24	Basic Electronics	23	21	91	29	36	34	94	30	55	51	93	30	40	89	
5	18ME25	Elements of mechanical Engg	19	17	89	29	32	30	94	28	48	44	92	29	39	88	
6	18CHEL26	Chemistry lab				-								-	40	89	
7	18PCDL27	C prog - lab				-								-	-	88	
8	18EGH28	Technical English-II				16				26				29	34	82	
<b>TOTAL</b>																	
Signature Of Student																	

### Performance in University Examination

Sub. Code	18MAT21			18CHE22			18PCD23			18ELN24			18ME25			18CHEL26			18PCDL27			18EGH28			Remarks	
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO		
July	50	39	89	49	39	88	49	39	88	50	39	89	49	39	88	50	39	89	49	39	88	43	39	82		
Aug																										
2021																										

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage , MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

Total Marks Obtained ( 1st Attempt )

**301**  
Shayama B  
Student

**87.62**  
Percentage

*[Signature]*  
Mentor

**PCD**  
Class

*[Signature]*  
HOD

**Pass**  
Result

*[Signature]*  
Principal



**II SEMESTER**

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test				Bhagyame B	shij
Counseling After 2nd I.A. Test		online classes conducted and promoted to the third semester.		Bhagyame B	shij
Counseling After 3rd I.A. Test				Bhagyame B	shij

Bhagyame B  
Student



shij  
Mentor

*[Signature]*  
HOD

*[Signature]*  
Principal



## III SEMESTER

## Performance in Internal Assessment Test :

Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks			
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO						
1	18MAT31	Maths	20	19	100	23	42	40	81	66	48	48	100	30		39				
2	18EC32	NW	8	8	100	2	1	28	40	89	15	53	38	72	29		34			
3	18EC33	EP	20	20	100	6	49	100	200	23	48	48	100	24		37				
4	18EC34	DSP	25	19	76	27	46	38	83	23	58	49	84	27		38				
5	18EC35	COA	6	5	83	26	40	34	85	20	40	34	85	24		34				
6	18EC36	P21	35	30	86	19	55	48	87	24	65	57	84	23		37				
7	18EC37	ED Lab	9	8	89		13	12	92		16	15	94			38				
8	18EC38	DSP Lab	8	8	100		9	8	89		13	11	85			39				
		TOTAL														90				
		Signature Of Student	Bhagyame B																	

## Performance in University Examination

Sub. Code	18MAT31			18EC32			18EC33			18EC34			18EC35			18EC36			18EC37			18EC38			Remarks
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	
	30	35	65	34	33	67	34	39	73	36	33	69	32	21	53	32	30	62	38	44	82	36	52	88	

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

Total Marks Obtained ( 1st Attempt )  
440

Bhagyame B  
Student

Vivekananda Institute of Technology  
Gutturu, Kumbalangi Post, Bangalore 56  
Bangalore South, Bangalore - 560074

82.36%  
Percentage

Mentor




FCP  
Class

HOD

Pass  
Result

Principal

III SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	2/12/22	1A performance	advised to maintain the same level of performance.	Blagynne B	
Counseling After 2nd I.A. Test	5/12/22	1-A performance	advised to maintain the same level of performance.	Blagynne B	
Counseling After 3rd I.A. Test	4/1/23	1-A performance	advised to maintain same level of performance.	Blagynne B	

Blagynne B

Student



Mentor

PRINCIPAL  
Vivekananda Institute of Technology  
Custiansi, Kumbalangi, A1 Post, Kanganj 21,  
Bangalore South, Bangalore - 560 074.

  
HOD

  
Principal

### IV SEMESTER

#### Performance in Internal Assessment Test :

Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO			
1	18MAT41	MATHS	23	23	100	21	23	23	100	25	23	23	100	30		77	
2	18EC42	ARC	21	17	81	24	21	17	81	25	21	17	81	21		75	
3	18EC43	CS	17	12	71	30	17	12	71	25	17	12	71	25		77	
4	18EC44	ESLA	24	24	100	28	24	24	100	28	24	24	100	26		81	
5	18EC45	IS	22	14	64	28	22	14	64	21	22	14	64	25		88	
6	18EC46	MC	15	10	64	28	15	10	64	13	15	10	64	16		84	
7	18EC49	CIP	10	9	90	-	10	9	90	-	10	9	90			89	
8	18EC48	MC Lab	10	9	90	-	10	9	90	-	10	9	90			98	
	18EC49	ARC Lab TOTAL														80	
Signature Of Student			Bhegyome B														

#### Performance in University Examination

Sub. Code	18MAT41			18EC42			18EC43			18EC44			18EC45			18EC46			18EC47			18EC48			Remarks
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	
	35	36	71	34	21	55	37	33	70	37	27	64	34	29	63	29	37	66	39	58	97	38	30	68	

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

Total Marks Obtained ( 1st Attempt )

Bhegyome B  
Student

PRINCIPAL  
Vivekananda Institute of Technology  
Gubbi, Tumkur Dist. Post: Gubbi-75,  
Bangalore South, Bangalore - 562174

77.61  
Percentage

Mentor




PCR  
Class

HOD

PAS  
Result

Principal

IV SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	2/2/22	1A performance	advised for betterment.	Blagyanne B	
Counseling After 2nd I.A. Test	5/9/22	1.A performance	advised for better performance	Blagyanne B	
Counseling After 3rd I.A. Test	4/11/22	1.A performance	advised for better performance.	Blagyanne B	

Blagyanne B  
Student

  
Mentor



  
HOD

  
Principal



### V SEMESTER

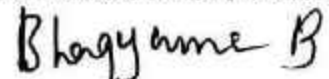
#### Performance in Internal Assessment Test :



Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks	
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO				
1	18EC51	TIME	20	15	71	30	27	24	98	30	15	13	95	30		46		
2	18EC52	DSP	30	27	96	30	26	21	92	28	22	20	98	30		39		
3	18EC53	PCS	39	27	84	28	23	20	86	30	24	24	100	30		40		
4	18EC54	ITC	25	14	82	22	22	22	24	89	17	20	16	85	29		38	
5	18EC55	EMD	20	19	86	22	22	24	22	80	29	22	14	80	30		40	
6	18EC56	VHDL	15	13	87	20	25	24	78	23	20	19	22	30		37		
7	18EC57	DSP Lab	8	7	100				10	10	100						36	
8	18EC58	HDL Lab	9	9	100				10	10	100						37	
<b>TOTAL</b>																	299	
Signature Of Student		Blagyanne B																

#### Performance in University Examination


Sub. Code	18EC51			18EC52			18EC53			18EC54			18EC55			18EC56			18EC57			18EC58			Remarks
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	
	40	35	75	39	38	71	39	29	67	33	36	69	37	44	81	34	36	70	38	47	85	37	54	9	

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year




Total Marks Obtained ( 1st Attempt )  
**718**  
  
 Student

  
**86.56**  
 Percentage  
  
 Mentor

**PCD**  
 Class  
  
 HOD

**PASS**  
 Result  
  
 Principal

V SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	2/10/22	1. A performance	advised for betterment	Bhagyame B	
Counseling After 2nd I.A. Test	3/11/22	1. A performance	advised for betterment	Bhagyame B	
Counseling After 3rd I.A. Test	15/11/22	1. A performance	advised for betterment	Bhagyame B	

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Vivekananda Institute Of Technology

Bhagyame B

Student

  
Mentor

  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudalur, Karnataka Post, Bangalore  
Bangalore South, Bangalore- 560 075

  
HOD

  
Principal

## VI SEMESTER

## Performance in Internal Assessment Test :

Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO			
1	KES 61	PC	44	32	73	32	64	62	97	60	69	67	97	30		39	
2	ISEC 62	BS	32	27	84	24	51	45	88	23	56	50	89	18		34	
3	ISEC 63	MWA	42	34	81	30	56	53	95	30	62	59	95	30		39	
4	ISEC 64	PAP	32	26	81	23	49	43	88	25	54	48	89	20		38	
5	ISEC 65	TE	14	10	71	28	35	33	94	22	46	40	87	30		40	
6	ISEC 66	MPRJ	8	8	100	-	11	10	91	-	12	11	92	-		40	
7	ISEC 67	EB Lab	9	9	100	-	14	13	100	-	15	15	100	-		40	
8	ISEC 68	CM Lab														40	
		TOTAL														40	
Signature Of Student		Bhagyamma B															

## Performance in University Examination

Sub. Code	ISEC 61			ISEC 62			ISEC 63			ISEC 64			ISEC 65			ISEC 66			ISEC 67			ISEC 68			Remarks
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	
	37	36	73	32	33	65	40	34	74	33	43	76	39	34	73	40	51	91	38	55	94	39	37	96	

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

Total Marks Obtained ( 1st Attempt )

680  
Bhagyamma B  
Student

  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimuru, Kumbhagiri Post, Bengaluru-56  
Bengaluru South, Bengaluru - 56004

84.36  
Percentage

  
Mentor




FCP  
Class

  
HOD

Pass  
Result

  
Principal

VI SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	5/5/23	1.A performance	advised for improvement	Blagyanne B	
Counseling After 2nd I.A. Test	4/6/23	1.A performance	advised for improvement	Blagyanne B	
Counseling After 3rd I.A. Test	14/2/23	1.A performance	advised for improvement	Blagyanne B	

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Vivekananda Institute Of Technology

Blagyanne B


Student



Mentor

  
 VIVEKANANDA  
 Vivekananda Institute of Technology  
 Culture, Karnataka Post Degree  
 Bangalore South, Bangalore - 562124

  
 HOD

  
 Principal



## VII SEMESTER

## Performance in Internal Assessment Test :

Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO			
1	18EC71	Computer Networks	17	17	81	30	26	26	84	28	43	42	98	25	10	38	
2	18EC72	VLSI Design	16	13	81	30	26	20	77	16	41	38	93	26	16	34	
3	18EC733	Digital Image Processing	10	9	90	16	21	20	95	20	41	40	98	25	10	30	
4	18EC744	Cryptography	21	18	86	25	25	22	88	30	45	41	91	23	10	36	
5	18EC751	Energy & Environment	20	18	90	30	30	27	90	30	44	41	93	30	16	40	
6	18EC76	Computer Networks Lab	3	3	100	40	8	8	100	40	15	15	100	40	16	40	
7	18EC77	VSI Lab	3	2	67	40	5	5	100	40	15	14	93	40	10	38	
8	18EC78	Project Work Phase - I														99	
TOTAL																	
Signature Of Student		Khegyame B															

## Performance in University Examination

Sub. Code	18EC71			18EC72			18EC733			18EC744			18EC751			18EC76			18EC77			18EC78			Remarks	
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO		
	38	35	43	34	45	79	30	31	61	36	45	81	40	45	85	40	51	91	38	52	95	99	0	99		

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

664  
Total Marks Obtained ( 1st Attempt )

83.315  
Percentage

FCO  
Class

Pass  
Result

*Shreyame B*  
Student

*Shreyame B*  
Mentor

*Shreyame B*  
Mentor

*Shreyame B*  
HOD

*Shreyame B*  
Principal

VII SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	16/11/23	I.A performance	In IA exam you are not following the choice sent Q.P - you are writing all answers	Bhf	Q
Counseling After 2nd I.A. Test	12/12/23	I.A performance	you are writing one answer in 1st answer Half answer in 2nd part don't do	Bhf	Q
Counseling After 3rd I.A. Test	10/01/24	I.A performance	prepare SEE, prepare Timetable & follow.	Bhf	Q

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Vivekananda Institute Of Technology

PRINCIPAL  
Vivekananda Institute of Technology  
Gurgaon, F-11, Sector 14, Gurgaon (Haryana)  
Bengaluru, Bangalore - 560075

Bhf  
Student

Q  
Mentor

Bhf  
HOD

Kaushik  
Principal

VIII SEMESTER

Performance in Internal Assessment Test :

Sl. No.	Sub. Code.	Subject Name	IA Test - I				IA Test - II				IA Test - III				Addl. Test Marks	Final Marks	Remarks
			CH	CA	AP	MO	CH	CA	AP	MO	CH	CA	AP	MO			
1	18EC81	Wireless & Cellular Communication	14	8	57.18	18	38	30	83	27	48	42	90	24	10	39	
2	18EC81	Network Security	16	6	37.5	30	94	92	99	30	46	42	88	30	10	40	
3	18ECP83	Project Phase - II														38	
4	18ECS84	Technical Seminar														99	
5	18ECT85	Internship														39	
6																	
7																	
8																	
TOTAL																	
Signature Of Student			Bhagyamma B														

Performance in University Examination

Sub. Code	18EC81			18EC82			18ECP83			18ECT85			18ECS84									Remarks				
M/Y	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO	INT	EXT	MO		
	39	42	76	40	44	59	38	60	98	39	60	99		99	99											

Note : CH- Classes Held, CA - Classes Attended, AP- Attendance Percentage, MO - Marks Obtained, INT- Internal Marks, EXT - External Marks, M/Y - Month / Year

956  
Total Marks Obtained ( 1st Attempt )

Bhagyamma B  
Student



91.27  
Percentage







Mentor

FCD  
Class

HOD

P-25  
Result  
Principal

### VIII SEMESTER

Counseling	Date / Time	Topics Discussed / Suggestions	Action Taken	Signature	
				Student	Mentor
Counseling After 1st I.A. Test	18.03.2024	IA performance	Given assignments to her		
Counseling After 2nd I.A. Test	19.04.2024	IA performance	Given seminar topics		
Counseling After 3rd I.A. Test	14.05.2024	IA performance	Advised to prepare placements, already got 1 job. try to get more package		



Student



Mentor

  
 PRINCIPAL  
 Vivekananda Institute of Technology  
 Gurgaon, Haryana/India  
 Bangalore South, Bangalore - 560074

  
 HOD

  
 PRINCIPAL



ವಿವೇಕಾನಂದ ತಾಂತ್ರಿಕ ಮತ್ತು ವಿದ್ಯಾಲಯ  
**VIVEKANANDA INSTITUTE OF TECHNOLOGY**

AN INSTITUTE OF JANATHA EDUCATION SOCIETY  
Recognised by GOK, Affiliated to VTU & Approved by AICTE, New Delhi

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**REMEDIAL CLASSES 2023-24(ODD SEM)**

Sub with code: DATA STRUCTURES AND APPLICATIONS (BCS304)

Sem:3<sup>rd</sup> sem.

Number of lecturer hours/week:01

Staff in-charge: Prof. Deepthi T K

Academic year:2023-2024(odd sem)

**Work done statement:**

Week	Date	Day	Hours	Portions covered
1	27.11.2023	Monday	1	INTRODUCTION TO DATA STRUCTURES: Data Structures, Classifications (Primitive & Non-Primitive), Data structure Operations Review of pointers and dynamic Memory Allocation.
2	04.12.2023	Monday	1	ARRAYS and STRUCTURES: Arrays, Dynamic Allocated Arrays, Structures and Unions, Polynomials, Sparse Matrices, representation of Multidimensional Arrays, Strings.
3	11.12.2023	Monday	1	STACKS: Stacks, Stacks Using Dynamic Arrays, Evaluation and conversion of Expressions.
4	18.12.2023	Monday	1	QUEUES: Queues, Circular Queues, Using Dynamic Arrays, Multiple Stacks and queues.
5	08.01.2024	Monday	1	LINKED LISTS : Singly Linked, Lists and Chains, Representing Chains in C, Linked Stacks and Queues, Polynomials.
6	22.01.2024	Monday	1	LINKED LISTS : Additional List Operations, Sparse Matrices, Doubly Linked List
7	29.01.2024	Monday	1	TREES: Introduction, Binary Trees, Binary Tree Traversals, Threaded Binary Trees.

*Deepthi T K*  
29/1/2024

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Vivekananda Institute of Technology

Gudimavu, Kanbaligoda,

BENGALURU 560 074

8	05.02.2024	Monday	1	TREES(Cont.): Binary Search trees, Selection Trees, Forests, Representation of Disjoint sets, Counting Binary Trees.
9	12.02.2024	Monday	1	GRAPHS: The Graph Abstract Data Types, Elementary Graph Operations.
10	19.02.2024	Monday	1	HASHING: Introduction, Static Hashing, Dynamic Hashing.
11	26.02.2024	Monday	1	PRIORITY QUEUES: Single and double ended Priority Queues, Leftist Trees.
12	04.03.2024	Monday	1	INTRODUCTION TO EFFICIENT BINARY SEARCH TREES: Optimal Binary Search Trees.

  
Co-ordinator

  
03/11/2024

  
HOD CSE

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Vivekananda Institute of Technology  
Gudimavu, Kumbalgeru,  
BENGALURU 560 074.



# ವಿವೇಕಾನಂದ ತಾಂತ್ರಿಕ ಮತ್ತು ವಿದ್ಯಾಲಯ VIVEKANANDA INSTITUTE OF TECHNOLOGY

AN INSTITUTE OF JANATHA EDUCATION SOCIETY  
Recognised by GOK, Affiliated to VTU & Approved by AICTE, New Delhi.

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Odd Sem Remedial Class

Student's Attendance 2023-24

DATA STRUCTURES AND APPLICATION			Sub.Code:BCS304											
SL NO	DATE		27.11.2023	04.12.2023	11.12.2023	18.12.2023	08.01.2024	22.01.2024	29.01.2024	05.02.2024	12.02.2024	19.02.2024	26.02.2024	04.03.2024
	USN	Names of the Students.												
1	1VK22CS012	Balaji C N	1	2	3	4	5	6	7	A	8	9	10	11
2	1VK22CS018	Chinmay B M	A	1	2	3	4	5	6	7	8	9	10	11
3	1VK22CS022	Devacharya	1	2	3	4	A	5	6	7	8	9	10	11
4	1VK22CS056	Pratham R	1	2	3	4	5	6	7	8	9	10	11	12
5	1VK22CS087	Varun R	1	2	3	4	5	6	7	8	9	10	11	12

*[Signature]*  
Co-ordinator

*[Signature]* 04/05/2024  
PRINCIPAL  
Vivekananda Institute of Technology  
Gulimavu, Kumbalagodu Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.

*[Signature]*  
H.O.D 04/05/2024



ವಿವೇಕಾನಂದ ತಾಂತ್ರಿಕ ಮತ್ತು ವಿದ್ಯಾಲಯ  
**VIVEKANANDA INSTITUTE OF TECHNOLOGY**  
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**REMEDIAL CLASS 2023-24(EVEN SEM)**

Sub with code: FULLSTACK DEVELOPMENT (21CS62)

Sem:6<sup>th</sup> sem

Number of lecturer hours/week:01

Staff Incharge: Prof. Sijin P

Academic year:2023-2024(even sem)

**Work done statement:**

Week	Date	Day	Hours	Portions covered
1	02.05.2024	Thursday	1	Web framework, MVC Design Pattern, Django Evolution, Views, Mapping URL to Views,
2	09.05.2024	Thursday	1	Working of Django URL Confs and Loose Coupling, Errors in Django, Wild Card patterns in URLs.
3	16.05.2024	Thursday	1	Template System Basics, Using Django Template System, Basic Template Tags and Filters, MVT Development Pattern.
4	23.05.2024	Thursday	1	Template Loading, Template Inheritance, MVT Development Pattern. Configuring Databases, Defining and Implementing Models, Basic Data Access.
5	30.05.2024	Thursday	1	Adding Model String Representations, Inserting/Updating data, Selecting and deleting objects, Schema Evolution
6	06.06.2024	Thursday	1	Activating Admin Interfaces, Using Admin Interfaces, Customizing Admin Interfaces, Reasons to use Admin Interfaces.
7	13.06.2024	Thursday	1	Form Processing, Creating Feedback forms, Form submissions, custom validation, creating Model Forms, URLConf Ticks, Including Other URI.Confs.

*Prof. Sijin P*  
**PRINCIPAL**

Vivekananda Institute of Technology

Gudimava, Kumbhagiri,

BENGALURU 560 074



8	20.06.2024	Thursday	1	Using Generic Views, Generic Views of Objects, Extending Generic Views of objects, Extending Generic Views.
9	27.06.2024	Thursday	1	MIME Types, Generating Non-HTML contents like CSV and PDF.
10	04.07.2024	Thursday	1	Syndication Feed Framework, Sitemap framework, Cookies, Sessions, Users and Authentication.
11	11.07.2024	Thursday	1	Ajax Solution, Java Script, XMLHttpRequest and Response, HTML, CSS, JSON, iFrames.
12	18.07.2024	Thursday	1	Settings of Java Script in Django, jQuery and Basic AJAX, jQuery AJAX Facilities, Using jQuery UI Autocomplete in Django

  
18/3/24  
CO-ORDINATOR

  
23/11/2024

**PRINCIPAL**  
Vivekananda Institute of Technology  
Gudimayya, Malindi - 56,  
BENGALURU 560015

  
HOD CSE. 12/11/2024



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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

Even Sem Remedial Class

Student's Attendance 2023-24

Subject : FULLSTACK DEVELOPMENT			Sub. Code:21CS62											
SL NO	DATE		02.05.2024	09.05.2024	16.05.2024	23.05.2024	30.05.2024	06.06.2024	13.06.2024	20.06.2024	27.06.2024	04.07.2024	11.07.2024	18.07.2024
	USN	Names of the Students.												
1	IVK21CS006	Atharva Srivastava	1	A	2	3	4	5	6	A	7	8	9	10
2	IVK21CS019	Divya R	1	2	3	4	5	6	7	8	9	10	11	12
3	IVK21CS037	Likith B S	A	1	2	3	4	5	6	7	8	9	10	11
4	IVK21CS046	Mujtaba Ali	1	2	3	4	A	5	6	7	8	9	10	11
5	IVK21CS087	Varun V	1	2	3	4	5	A	6	7	8	A	9	10
6	IVK21CS088	Vilas U	1	2	3	4	5	6	7	8	9	10	11	12

Co-ordinator  
 18/07/24

PRINCIPAL  
 Vivekananda Institute of Technology  
 Gudimavu, Kumbalaguda Post, Kengeri (H),  
 Bangalore South, Bangalore - 560 074.  
 18/07/2024

H.O.D  
 18/07/24



**Department of Electronics and Communication Engineering**

**QUESTION BANK - CBCS Scheme**

**AY (2023-24) - EVEN Sem**

**Subject with Code: MICROCONTROLLERS (BEC405A)**

**Sem: 4<sup>th</sup>**

**Staff Incharge: Dr. Bhagyalakshmi.N, Professor and HOD, Dept of ECE**

**Module-1:**

**Microcontroller**

1. With a neat diagram explain the architectural features of 8051 Microcontroller. (MQP 2019, June/July 2022, Feb/March 2022, June/July 2023) 08M L1
2. Bring out the difference between Microprocessor and Microcontroller with a block diagram. (MQP 2019, Jan/Feb 2021, July/August 2021, Feb/March 2022, June/July 2022) 06M L1
3. With Diagrams explain the internal RAM structure of 8051 Microcontroller. (MQP 2019, July/August 2021, June/July 2023) 08M L2
4. Interface 4K bytes RAM and 8K bytes ROM to 8051 Microcontroller in such a way that starting address of RAM is 1000H and ROM is C000H. (MQP 2019) 08M L2
5. Write a note on Embedded Microcontrollers. (MQP 2019) 04M L1
6. Write an interfacing diagram of 8051 microcontroller interfaced to 8K bytes of ROM and 8K bytes of RAM. (MQP 2019) 08M L2
7. With neat diagram explain programming model of 8051 Microcontroller. (MQP 2019) 08M L1
8. Write an interfacing diagram of 8051 microcontroller interfaced to 8K bytes of ROM and 16K bytes of RAM. (MQP 2019) 08M L2
9. Explain internal ROM organisation and SFR of 8051 Microcontroller. (Jan/Feb 2021, July/August 2021) 08M L1
10. With necessary sketches, explain i) Flags and Program Status Word ii) Stack Operation (Jan/Feb 2021, July/August 2021, Feb/March 2022, June/July 2023,). 10M L2
11. Explain the timing associated with external memory. (Jan/Feb 2021) 06M L2
12. Explain the importance of register A and B. (July/August 2021) 06M L1
13. How many pins are present in 8051 Microcontroller and explain the function of each pin. (July/August 2021) 08M L1
14. Find the status of the conditional flags if number AB and FF are added in the accumulator. (July/August 2021) 06M L2
15. Write an interfacing diagram of 8051 microcontroller interfaced to 8K bytes of ROM and 4K bytes of RAM and explain. (July/August 2021) 08M L2

16. Write the starting address and ending address of internal RAM used in 8051 and how it is classified.  
(June/July 2022) 06M L1
17. Show how 8K RAM and 8K EPROM can be interfaced to 8051 Microcontroller in such a way that starting address of EPROM is 0000H. (June/July 2022) 08M L2
18. How many ports are present in 8051 Microcontroller and explain the functions of each port.  
(June/July 2022) 06M L1
19. Write and explain pin diagram of 8051 Microcontroller. (June/July 2023) 10M L1 Same as 13
20. Explain the external interfacing of 16KB ROM and 32KB of RAM to 8051 Microcontroller in such a way that starting address of ROM is 0000H and RAM is 8000H. (June/July 2023) 10M L2
21. Compare RISC and CISC Architecture. (Feb/March 2022) 04M L1
22. Compare Harvard and Princeton Architecture. 04M L1
23. Interface 4K bytes ROM and 2K bytes RAM to 8051 Microcontroller with relative Memory Mapping  
(Feb/March 2022) 08M L2
24. Sketch the register organization of Intel 8051 and briefly explain. (Feb/March 2022) 08M L1

*R. Prasad*  
03/11/2024  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalaguda Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074,



Department of Electronics and Communication Engineering

ASSIGNMENT QUESTIONS - CBCS Scheme

AY (2023-24) - EVEN Sem

Subject with Code: MICROCONTROLLERS (BEC405A)

Sem: 4<sup>th</sup>

Staff Incharge: Dr.Bhagyalakshmi.N, Professor and HOD, Dept of ECE

Module-1:

Microcontroller

1. With a neat diagram explain the architectural features of 8051 Microcontroller. (MQP 2019, June/July 2022, Feb/March 2022, June/July 2023) 08M L1
2. Bring out the difference between Microprocessor and Microcontroller with a block diagram. (MQP 2019, Jan/Feb 2021, July/August 2021, Feb/March 2022, June/July 2022) 06M L1
3. With Diagrams explain the internal RAM structure of 8051 Microcontroller. (MQP 2019, July/August 2021, June/July 2023) 08M L2
4. Explain internal ROM organisation and SFR of 8051 Microcontroller. (Jan/Feb 2021, July/August 2021) 08M L1
5. With necessary sketches, explain i) Flags and Program Status Word ii) Stack Operation (Jan/Feb 2021, July/August 2021, Feb/March 2022, June/July 2023,). 10M L2
6. How many pins are present in 8051 Microcontroller and explain the function of each pin. (July/August 2021, June/July 2023) 08M L1
7. Write an interfacing diagram of 8051 microcontroller interfaced to 8K bytes of ROM and 4K bytes of RAM and explain. (July/August 2021) 08M L2
8. Write the starting address and ending address of internal RAM used in 8051 and how it is classified. (June/July 2022) 06M L1
9. Show how 8K RAM and 8K EPROM can be interfaced to 8051 Microcontroller in such a way that starting address of EPROM is 0000H. (June/July 2022) 08M L2
10. How many ports are present in 8051 Microcontroller and explain the functions of each port. (June/July 2022) 06M L1
11. Explain the external interfacing of 16KB ROM and 32KB of RAM to 8051 Microcontroller in such a way that starting address of ROM is 0000H and RAM is 8000H. (June/July 2023) 10M L2
12. Compare RISC and CISC Architecture. (Feb/March 2022) 04M L1
13. Compare Harvard and Princeton Architecture. 04M L1

14. Interface 4K bytes ROM and 2K bytes RAM to 8051 Microcontroller with relative Memory Mapping  
(Feb/March 2022) **08M L2**
15. Sketch the register organization of Intel 8051 and briefly explain. (Feb/March 2022)  
**08M L1**

  
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Vivekananda Institute of Technology  
Gudmavu, Kumbalaguru Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.



**Module-2:**

**Instruction Set**

1. Write a note on branching instructions defining their range. (MQP-2019, Jan/Feb 2021, July/Aug 2021)  
08M L1
2. Write an assembly language program to add two 16 bit numbers loaded in R1R0 and R3R2. Store the result in R6, R5 and R4 from MSB to LSB. (MQP-2019) 08M L2
3. Write a note on bit manipulation instructions. (MQP-2019, July/Aug 2021) 06M L1
4. Explain how the instructions work: 1. JMP @A+DPTR  
2. XCHD A, @RI  
3. JBC bit, rel8  
4. MOVC A, @A+PC (MQP-2019) 08M L2
5. Write an assembly language program to multiply a 16-bit number loaded in R1R0 (multiplicand) with an 8-bit number loaded in R2 (multiplier). Store the resultant product in R6, R5 and R4 from MSB to LSB.  
(MQP-2019) 08M L2
5. What is the use of Stack? Explain PUSH and POP instructions with a help of example program. (MQP-2019, July/Aug 2021, July/Aug 2022, Feb/March 2022) 08M L2
7. 3 eight bit numbers X, NUM1 and NUM2 are stored in internal data RAM locations 20h, 21h and 22H respectively. Write an assembly language program to compute the following: IF X=0; then NUM1 (AND) NUM2, IF X=1; then NUM1 (OR) NUM2, IF X=2; then NUM1 (XOR) NUM2, ELSE RES =00, RES is 23H RAM location.  
(MQP-2019) 08M L2
8. Explain different addressing modes of 8051 with examples. (MQP-2019, July/Aug 2022, Feb/March 2022, June /July 2023) 10M L1
9. Check the correctness of the following instruction. If wrong correct them:  
1. CJNE @RI, #D\_ADDRESS, REL8  
2. ADDC @RI, A  
3. DJNZ #DATA, REL8  
4. MOVX @DPTR, R1 (MQP-2019) 08M L2
10. Write an ALP to convert a packed BCD number into two ASCII numbers. Store the result in R5 and R6 respectively. (MQP-2019) 04M L2

11. Explain the following instructions:

1. DJNZ Rn, R\_ADDRESS
2. JNC R\_ADDRESS
3. DA A
4. MOVX A, @A+<BASE-REG (MQP-2019) 08M L2

12. Write an ALP to convert a Binary number to packed BCD number (hexadecimal to decimal). The binary number is stored at 40h location. Store the converted packed BCD number at 50h and 51h internal RAM location.

(MQP-2019, July/Aug 2021, Feb/March 2022) 08M L2

13. With diagrammatical representation explain how stacks plays its role in subroutine operations.

(MQP-2019, July/Aug 2022) 04M L1

14. Write an assembly language program to sort an array of n= 5 bytes of data in ascending order stored from location 30h. (Use bubble sort algorithm). (MQP-2019) 08M L2

15. Write an assembly language program to count the number of 1's and 0's in an 8-bit data in R1. Store the count of 1's and 0's in 30h and 31h. (MQP-2019, July/Aug 2022) 08M L2

16. Write a note on subroutine instructions. (MQP-2019) 04M L1

17. Write an assembly language program to sort an array of n= 5 bytes of data in descending order stored from location 30h. (Use bubble sort algorithm). (MQP-2019) 08M L2

18. With the block diagram, explain the instructions used for accessing external memory RAM and specify its range of address. (Jan/Feb 2021) 08M L2

19. Write an assembly Language program to swap the contents of registers R7 and R6 in register bank 0 using  
i) direct address mode moves ii) Using PUSHes and POPS iii) using XCHes (Jan/Feb 2021) 06M L2

20. List bit level logical instructions and explain them. Specify their range of addresses for these instructions. (Jan/Feb 2021) 06M L1, L2

21. Identify the addressing mode for the for the following instructions. Explain the instructions and their addressing modes: i) MOV C A, @, A+DPTR ii) MUL AB iii) MOV B, #0FFh iv) SUBB A, 45h.  
(Jan/Feb 2021) 12M L2

22. The number A6 is placed in external RAM between locations 0100h and 0200h. Write an assembly language program to find the address of that location and place that address in R6 and R7.  
(Jan/Feb 2021) 04M L2

23. Show the stack contents, SP contents and Contents of register affected after each step of the following sequence of operations:

```
MOV SP, # 70h
MOV R5, #30h
MOV A, #44h
ADD A, R5
MOV R4, A
PUSH 4
PUSH 5
POP 4
```

  
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Bangalore South, Bangalore - 560 074.

(Jan/Feb 2021) 08M L2

24. Differentiate between CALL and JUMP. Explain the types of CALLS and specify their ranges. (Jan/Feb



2021) 08M L1

25. Explain with diagram, the sequence of events for storing and retrieving the return addresses on stack.

(Jan/Feb 2021) 06M L1

26. Write an assembly language program to reverse the contents of array of size 10 in internal RAM and store the reversed array in the same location. Show the result and write comments. (Jan/Feb 2021) 08M L2

27. Explain the working of following instructions with an example:

i) MOVX A, @DPTR

ii) CJNE @R0, #data, address

iii) RETi

iv) XRL dataaddress, A

v) RL A

vi) JZ codeaddress

(July/Aug 2021) 06M L2

28. Write an assembly level program to realize the function  $Y = \bar{A} B + C$  and store the result obtained in carry flag.

Assume that bit A is present at 30H, Bit B is present at 40H and bit C is present at 50H. (July/Aug 2021) 08M L2

29. Explain the working of MUL and DIV instruction of 8051 with an example. (July/Aug 2021) 06M L2

30. Write a program to count the number of 1's and 0's of 8 bit data stored in external RAM 8000H.

(July/Aug 2021) 08M L2

31. Write an ALP to find Factorial of a given number and store the result in Register R3. (July/Aug 2021) 06M L2

32. Write a program to multiply two 8 bit numbers stored in external memory 800AH and 8050H. Store the

lower byte of result in R0 and higher byte in R1. (July/Aug 2022) 08M L2

34. Explain the different rotate instructions present in 8051 microcontroller with an example. Also explain the working of SWAP instruction. (July/Aug 2022) 08M L2

35. Explain the working of each instruction:

i) MOVC A, @A+PC

ii) XCHD A, @R1

iii) ADDC A, R5

iv) DIV AB

(July/Aug 2022) 08M L2

36. Write an assembly language program to set the bits 1,4,6,7 of port 0. Use bit level instructions. (July/Aug 2022)

04M L2

37. What is the need of subroutine. (July/Aug 2022) 02M L1

38. Write an assembly language program to mutually exchange 10 bytes of data stored in external memory location starting from 8000H and 8020H. (July/Aug 2022) 06M L2

39. Explain the arithmetic instructions of 8051 microcontroller. (Feb/March 2022) 08M L2

40. Write an assembly language program to transfer block of data from external RAM to internal RAM. (Feb/March 2022) 08M L2

41. Identify the addressing mode in the following instructions:

i) ADD A, @R0

ii) MOVC A, @A+PC

  
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Vivekananda Institute of Technology  
Gubbi, Kuvempu Post, Ranganatha,  
Bangalore Dist, Bangalore - 560 074

- iii) CLR C
- iv) SWAP A (Feb/March 2022) 04M L2
42. Write a note on subroutines using CALL and RET instructions. (Feb/March 2022, June/July 2023) 10M L1
43. Develop an ALP to load accumulator with value 55h and complement the contents of accumulator 900 times.  
(Feb/March 2022) 08M L2
44. Write an assembly language program along with flowchart to divide the data in RAM location 41H by data in 20H.  
Store the quotient in 70h and remainder in 71h. (June/July 2023) 10M L2
45. Explain the following instructions with example:
- i) DJNZ Rn, rel
  - ii) MOVC A, @A+DPTR
  - iii) RRC A
  - iv) PUSH 02
  - v) DAA (June/July 2023) 10M L1
46. Write a program segment to copy the value 55h into RAM memory locations 40h to 44h using i) Direct addressing mode ii) Register indirect addressing mode without a loop iii) and with a loop. (June/July 2023) 10M L2
47. Write an ALP along with flow chart to find smallest number in an array of 10 bytes of data stored in external memory location starting with 3000h. Store the result in internal memory 30h. Show the results with sample data.  
(June/July 2023) 10M L2
48. Write a program to find factorial of given number using subroutine. (Feb/March 2022) 08M L2

  
PRINCIPAL  
Vivekananda Institute of Technology  
Gulbarga, Mumukshupada Post, Kargal (H),  
Bangalore South, Bangalore - 560 074.



**Department of Electronics and Communication Engineering**

**ASSIGNMENT - CBCS Scheme**

**AY (2023-24) - EVEN Sem**

**Subject with Code: MICROCONTROLLERS (BEC405A)**

**Sem: 4<sup>th</sup>**

**Staff Incharge: Dr.Bhagyalakshmi.N, Professor and HOD, Dept of ECE**

**Module-2:**

**Instruction Set**

1. Write a note on branching instructions defining their range. (MQP-2019, Jan/Feb 2021, July/Aug 2021) 08M L1
2. Write a note on bit manipulation instructions. (MQP-2019, July/Aug 2021) 06M L1
3. Explain how the instructions work:
  1. JMP @A+DPTR
  2. XCHD A, @Ri
  3. JBC bit, rel8
  4. MOVCA, @A+PC (MQP-2019) 08M L2
4. What is the use of Stack? Explain PUSH and POP instructions with a help of example program. (MQP-2019, July/Aug 2021, July/Aug 2022, Feb/March 2022) 08M L2
5. Explain different addressing modes of 8051 with examples. (MQP-2019, July/Aug 2022, Feb/March 2022, June/July 2023) 10M L1
6. Check the correctness of the following instruction. If wrong correct them:
  1. CJNE @RI, #D\_ADDRESS, REL8
  2. ADDC @RI, A
  3. DJNZ #DATA, REL8
  4. MOVX @DPTR, R1 (MQP-2019) 08M L2
7. Explain the following instructions:
  1. DJNZ Rn, R\_ADDRESS
  2. JNC R\_ADDRESS
  3. DA A
  4. MOVX A, @A+<BASE-REG (MQP-2019) 08M L2
8. Write an ALP to convert a Binary number to packed BCD number (hexadecimal to decimal). The binary number is stored at 40h location. Store the converted packed BCD number at 50h and 51h internal RAM location. (MQP-2019, July/Aug 2021, Feb/March 2022) 08M L2
9. With diagrammatical representation explain how stacks plays its role in subroutine operations. (MQP-2019, July/Aug 2022) 04M L1
10. Write a note on subroutines using CALL and RET instructions. (Feb/March 2022, June/July 2023) 10M L1



Department of Electronics and Communication Engineering

QUESTION BANK - CBCS Scheme

AY (2023-24) - EVEN Sem

Subject with Code: MICROCONTROLLERS (BEC405A)

Sem: 4<sup>th</sup>

Staff Incharge: Dr.Bhagyalakshmi.N, Professor and HOD, Dept of ECE

Module-3:

Timers/Counters and Serial Port Programming

1. Assume a push button witch is connected to port pin P1.2. write an assembly language program to monitor the switch and turn ON the LED's connected to port P2 as long as the switch is pushed. (MQP 2019) 08M L3
2. Explain the bit contents of TCON and TMOD Registers. (MQP 2019, Jan/Feb 2021, July/August 2022, Feb/March 2022, June/July 2023) 08M L1
3. Write an assembly language program to transfer multi-byte data serially with 9600 baud rate. (MQP 2019) 08M L3
4. Explain how Timers are programmed in Mode-1. (MQP 2019, Jan/Feb 2021, June/July 2023) 06M L2
5. Explain the bit contents of SCON and PCON Registers. (MQP 2019, Jan/Feb 2021, Feb/March 2022, June/July 2023) 08M L1
6. Write an ALP (Assembly Language Program) to generate a square wave on port pin P1.2 of frequency 5KHz, show all the calculations. (MQP 2019, Jan/Feb 2021, June/July 2023) 08M L3
7. Write a note on Asynchronous Serial Communication and data framing. (MQP 2019, July/August 2022) 04M L2
8. Explain RS232 standard and 9 pin DB Connector by connecting to 8051 microcontroller. (MQP 2019, Jan/Feb 2021, July/August 2022) 08M L2
9. Explain the Mode-2 operation of timers and mention the steps involved in programming timers in mode-2. (MQP 2019) 08M L2
10. Write a C Program for 8051 to transfer "YES" serially at 9600 baud-rate, 8-bit data, 1 stop bit, do this continuously. (MQP 2019, June/July 2023) 08M L3
11. Explain the importance of MAX232 IC with its pin details. (MQP 2019) 04M L1
12. Explain how timers are used as counters, explain the counters operation. (MQP 2019) 08M L2
13. Assume XTAL = 11.0592 MHz, write an assembly language program to generate a square wave of 50Khz frequency on pin P2.3. (MQP 2019) 08M L3

14. A switch is connected to pin1.1. write a flowchart and assembly language program to check the status of SW and perform the following operation.
- If SW =0, decimal up counter
  - If SW =1, decimal down counter.
- Display the count on Port 2 using delay subroutine. (with 100 $\mu$ s delay and crystal frequency of 12MHz). **(Jan/Feb 2021) 06M L3**
15. Write an assembly language program to blink all the LED's connected to Port P1 at  $\frac{1}{2}$  second. Assume Crystal is 22MHz. show all the calculations necessary. **(Jan/Feb 2021) 06M L3**
16. Write the block diagram to show Mode-2 operation of timer-1 as a counter and also write the programming steps to program timer-1 on Mode-2. **(Jan/Feb 2021, July/August 2022) 06M L2**
17. Assume XTAL = 22MHz. Use Timer-1 in Mode-1. Write an ALP to generate a pulse train of 2 seconds period on P2.4. **(Jan/Feb 2021) 07M L3**
18. Explain i) Simplex, Half and full Duplex transmission. ii) Serial Control Register. **(Jan/Feb 2021, Feb/March 2022) 07M L2**
19. Write a C Program for 8051 to transfer the letter 'A' serially at 4800 baud-rate, 8-bit data, 1 stop bit, do this continuously. **(Jan/Feb 2021) 06M L3**
20. Write a program to check the status of the switch connected to P1.3, if the switch is ON toggle the bits of port P3 else toggle the bit of Port 2. To toggle the bits, use a subroutine program. **(Jan/Feb 2021) 08M L3**
21. Write a program to for counter-1 in mode-2 to count the pulse and display the state of TLI Count on Port-2. Assume that the clock is connected to pin 3.5. **(Jan/Feb 2021) 06M L3**
22. Write a C Program for 8051 to transfer the message "ECE" serially at 4800 baud-rate, 8-bit data, 1 stop bit. **(Jan/Feb 2021) 06M L3**
23. Find the delay produced in the 8051 Program:
- ```

Delay: MOVR3, #200
      HERE: NOP
          NOP
          DJNZ R3, HERE
          RET

```
- Assume XTAL used 11.0592 MHz. **(July/August 2022) 06M L3**
24. A switch is connected to pin 2.0. monitor the status of the switch if SW = 0. Write an 8051 C program to send the message ' READ' and if SW =1,send the message 'WRITE'. XTAL frequency = 11.0592 MHz. **(July/August 2022) 08M L3**
25. Compare parallel and serial data transfer. **(July/August 2022) 04M L1**

26. Develop a subroutine to find the time delay of  $\frac{1}{2}$  second using 8051 to blink the LED's connected to port0, Show all the calculations. **(Feb/March 2022) 08M L3**
27. Write an assembly language program to toggle all the bits of P0,P1 and P2 every  $\frac{1}{4}$ <sup>th</sup> of a second. Assume Crystal frequency of 11.0592 MHz. **(June/July 2023) 10M L3**
28. Write the steps required for programming 8051 to transmit and receive the data serially and what is the role of PCON register in serial communication. **(June/July 2023) 10M L1**

*R. Srinivasan*  
*Principal*  
PRINCIPAL  
Vivekananda Institute of Technology  
Gudimavu, Kumbalagutta Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074.



Department of Electronics and Communication Engineering

ASSIGNMENT QUESTIONS - CBCS Scheme

AY (2023-24) - EVEN Sem

Subject with Code: MICROCONTROLLERS (BEC405A)

Sem: 4<sup>th</sup>

Staff Incharge: Dr.Bhagyalakshmi.N, Professor and HOD, Dept of ECE

Module-3:

Timers/Counters and Serial Port Programming

1. Explain the bit contents of TCON and TMOD Registers. (MQP 2019, Jan/Feb 2021, July/August 2022, Feb/March 2022, June/July 2023) 08M L1
2. Explain how Timers are programmed in Mode-1. (MQP 2019, Jan/Feb 2021, June/July 2023) 06M L2
3. Explain the bit contents of SCON and PCON Registers. (MQP 2019, Jan/Feb 2021, Feb/March 2022, June/July 2023) 08M L1
4. Write an ALP (Assembly Language Program) to generate a square wave on port pin P1.2 of frequency 5KHz, show all the calculations. (MQP 2019, Jan/Feb 2021, June/July 2023) 08M L3
5. Write a note on Asynchronous Serial Communication and data framing. (MQP 2019, July/August 2022) 04M L2
6. Explain RS232 standard and 9 pin DB Connector by connecting to 8051 microcontroller. (MQP 2019, Jan/Feb 2021, July/August 2022) 08M L2
7. Write an assembly language program to blink all the LED's connected to Port P1 at ½ second. Assume Crystal is 22MHz. show all the calculations necessary. (Jan/Feb 2021) 06M L3
8. Write the block diagram to show Mode-2 operation of timer-1 as a counter and also write the programming steps to program timer-1 on Mode-2. (Jan/Feb 2021, July/August 2022) 06M L2
9. Explain i) Simplex, Half and full Duplex transmission. ii) Serial Control Register. (Jan/Feb 2021, Feb/March 2022) 07M L2
10. Write a C Program for 8051 to transfer the letter 'A' serially at 4800 baud-rate, 8-bit data, 1 stop bit, do this continuously. (Jan/Feb 2021) 06M L3
11. Write a C Program for 8051 to transfer the message "ECE" serially at 4800 baud-rate, 8-bit data, 1 stop bit. (Jan/Feb 2021) 06M L3
12. Find the delay produced in the 8051 Program:  
Delay: MOV R3, #200  
HERE: NOP

NOP

DJNZ R3, HERE

RET

Assume XTAL used 11.0592 MHz. (July/August 2022) 06M L3

*Raveendra SH*  
*03/11/2022*

**PRINCIPAL**  
**Vivekananda Institute of Technology**  
Gudimavu, Kumbalaguru Post, Kengeri (H),  
Bangalore South, Bangalore - 560 074,





Department of Electronics and Communication Engineering

QUESTION BANK/ASSIGNMENT - CBCS Scheme

AY (2023-24) - EVEN Sem

Subject with Code: MICROCONTROLLERS (BEC405A)

Sem: 4<sup>th</sup>

Staff Incharge: Dr.Bhagyalakshmi.N, Professor and HOD, Dept of ECE

Module-4:

Interrupt Programming

1. Explain the bit contents of IE Register. (MQP 2019, July/August 2021, June/July 2023) 04M L1
2. Explain how interrupt priority can be changed using IP register. Also explain the default priorities assigned to interrupts in 8051 microcontroller. (MQP 2019) 05M L1
3. Explain the Interrupt Vector Table of 8051 microcontroller. (MQP 2019,Jan/Feb 2021,July/August 2021, July/August 2022) 08M L2
4. Explain how multiple interrupts are handled in 8051 microcontroller. (MQP 2019) 05M L2
5. List the steps involved in executing the interrupts in 8051 microcontroller. (MQP 2019) 05M L1
6. Explain i) Interrupt ii) ISR (Jan/Feb 2021) 05M L1
7. List the types of interrupts. (Jan/Feb 2021, July/August 2022) 08M L1
8. Write instructions to
  - i) Enable Serial , Interrupt, Timer0 interrupt and external hardware interrupt1.
  - ii) Disable the Timer0 interrupt.
  - iii) Disable all interrupts with a single instruction.Use bit manipulation instructions for all the cases. (Jan/Feb 2021) 03M L2
9. What is the use of IP register in 8051 Microcontroller? If interrupts serial communication, timer0 and timer1 are activated at the same time and if IP contains 10H, then how the service will be provided to the interrupts. (July/August 2021) 06M L2
10. Write a program to read data from port P1 and send to P2 continuously, while incoming data from serial port is sent to P0. Assume XTAL = 11.0592 MHz. set the baud rate at 2400. (July/August 2022) 06M L3
11. Write a program in which the 8051 reads data from P1 and writes it to P2 continuously, while giving a copy of it to serial COM port to be transferred serially. Assume that XTAL = 11.0592 MHz. Set the baud rate at 9600. (June/July 2023) 05M L3
12. Explain the structure of Interrupt Priority(IP) register. (June/July 2023) 05M L1



**Department of Electronics and Communication Engineering**

**QUESTION BANK/ASSIGNMENT - CBCS Scheme**

**AY (2023-24) - EVEN Sem**

**Subject with Code: MICROCONTROLLERS (BEC405A)**

**Sem: 4<sup>th</sup>**

**Staff Incharge: Dr. Bhagyalakshmi.N, Professor and HOD, Dept of ECE**

**Module-5:**

**I/O Port Interfacing and Programming**

1. Explain stepper motor interface with diagram and also write C program to monitor the status of switch and rotate clockwise if status is zero and anticlockwise if status is one. **(June/July 2023) 10M L3**
2. LEDs are connected to bits P1 and P2. Write an 8051 C program that shows the count from 0 to FFH (0000 0000 to 1111 1111 in binary) on the LEDs.
3. Write an 8051 C program to get a byte of data from P1, wait ½ second, and then send it to P2.
4. Write an 8051 C program to toggle only bit P2.4 continuously without disturbing the rest of the bits of P2.
5. Write an 8051 C program to monitor bit P1.5. If it is high, send 55H to P0; otherwise, send AAH to P2.
6. A door sensor is connected to the P1.1 pin, and a buzzer is connected to P1.7. Write an 8051 C program to monitor the door sensor, and when it opens, sound the buzzer. You can sound the buzzer by sending a square wave of a few hundred Hz.
7. Write an 8051 C program to toggle all the bits of P0, P1, and P2 continuously with a 250 ms delay. Use the sfr keyword to declare the port addresses.
8. Write an 8051 C program to send letters 'M', 'D', and 'E' to the LCD using delays by using the busy flag method.
9. Write an 8051 C program for ADC0804 interfacing.
10. Interface DAC0808 with 8051 to generate a sine wave.
11. Add a switch to pin P2.7. Write a program to monitor the status of SW and perform the following
  - a) If SW = 0, the DC motor moves clockwise. (b) If SW = 1, the DC motor moves counterclockwise.
12. Two switches are connected to pins P2.0 and P2.1. Write a C program to monitor the status of both switches and perform the following:
 

| SW2(P2.7) | SW1(P2.6) |                                             |
|-----------|-----------|---------------------------------------------|
| 0         | 0         | DC motor moves slowly (25% duty cycle).     |
| 0         | 1         | DC motor moves moderately (50% duty cycle). |
| 1         | 0         | DC motor moves fast (75% duty cycle).       |
| 1         | 1         | DC motor moves very fast (100% duty cycle). |