ROLL NUMBER: 160619735056

BRANCH/SEM/SEC: ECE/3rd/B

SUBJECT: ELECTRONIC DEVICES

DATE: 03/03/24

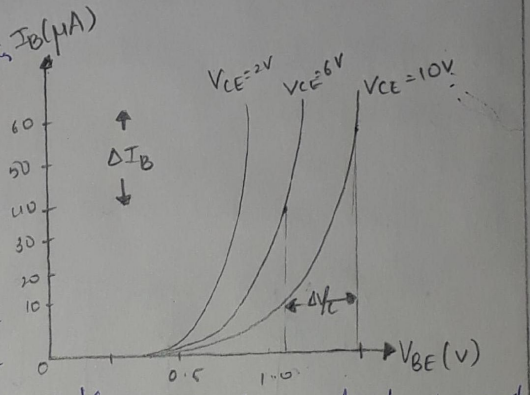
PART-A

1) The configuration in which the emitter is connected between the collector and base is known as common emitter configuration.

INPUT CHARACTERISTIC CURVE:

The curve between base current I_B and the base emitter voltage is V_{BE} is called Input characteristic curve. The reading of base current is taken through the ammeter on emitter voltage V_{BE} at constant collector-emitter current

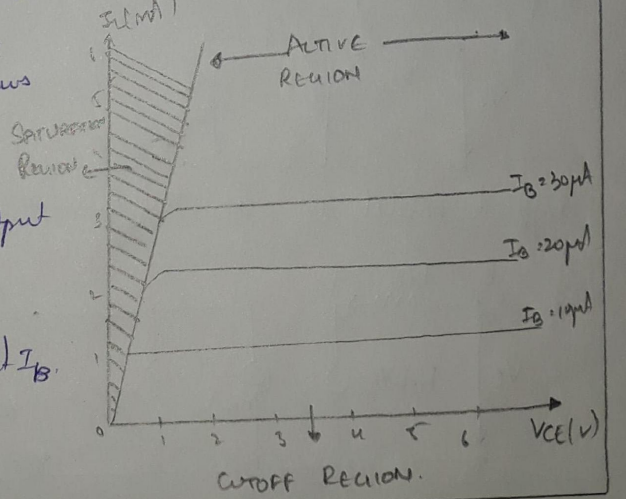
The curve for common emitter configuration is similar to forward characteristics. Current I_B increases with increase in emitter base voltage V_{BE}. Thus input resistance of CE is comparatively higher than that of CB configuration. The effect of CE doesnot cause a large deviation on the curve and hence the effect of a change in V_{ce} on input characteristics is ignored



Input resistance $r_i = \frac{\Delta V_{BE}}{\Delta I_B}$ at constant V.

OUTPUT CHARACTERISTIC CURVE

In CE configuration the curve drawn between collector current I_C and collector-emitter voltage V_{CE} at constant base current I_B is called output characteristics



Output resistance

$= r_o = \frac{\Delta V_{CE}}{\Delta I_C}$ at constant I_B.

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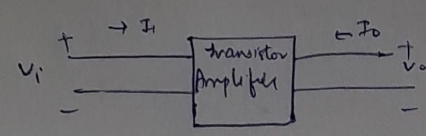
2) Transistor can be treated as a 2-port networks.



V_i = i/p voltage to amplifier
V_o = o/p voltage to amplifier
I_i = i/p current to amplifier
I_o = o/p current to amplifier

i/p current and o/p voltage are independent variables, and are defined as,

$$I_o = f_2(I_i, V_o)$$
$$V_i = f_1(I_i, V_o)$$

The h-parameters equation can be written as,

$$V_i = h_{11} I_i + h_{12} V_o \Rightarrow V_i = h_i I_i + h_r V_o$$
$$I_o = h_{21} I_i + h_{22} V_o \Rightarrow I_o = h_f I_i + h_o V_o$$

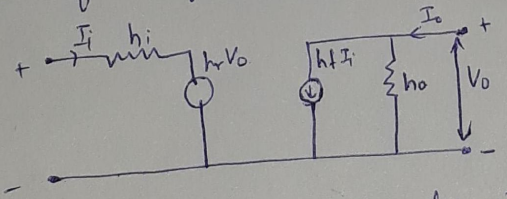
The h-parameters are given as,

$$h_{11} = h_i = \left.\frac{V_i}{I_i}\right|_{V_o=0} ; \quad h_{21} = h_f = \left.\frac{I_i}{I_o}\right|_{V_o=0} ; \quad h_{12} = h_r = \left.\frac{V_i}{V_o}\right|_{I_i=0} ; \quad h_{22} = h_o = \left.\frac{I_i}{V_o}\right|_{I_i=0}$$

BJT, h-parameter equation:

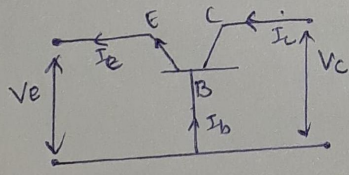
$$V_i = h_i I_i + h_r V_o$$
$$I_o = h_f I_i + h_o V_o$$

The equivalent circuit or hybrid model of the BJT is given by

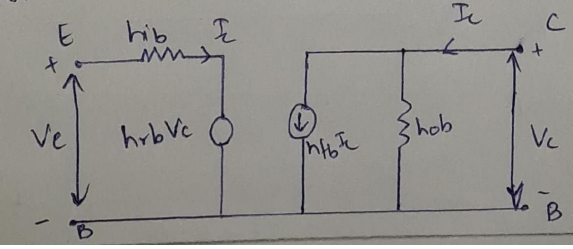


GENERAL MODEL

h-parameters of BJT in CB configuration



hybrid model in CB configuration



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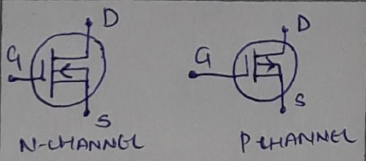
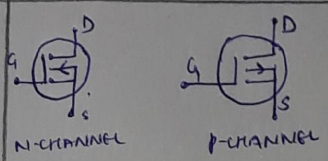
$V_c = h_{ib} i_c + h_{rb} V_c$

$I_c = h_{fb} i_c + h_{ob} V_c$

$h_{ib} = \frac{V_e}{I_c}\Big|_{V_c=0}$; $h_{fb} = \frac{I_e}{I_c}\Big|_{V_c=0}$

$h_{rb} = \frac{V_e}{V_c}\Big|_{I_c=0}$; $h_{ob} = \frac{I_e}{V_c}\Big|_{I_c=0}$

3).

S.No	Parameter	Depletion type	Enhancement Type
1.	Symbols		
2	Channel	Exists permanently	Channel is physically absent
3.	Operation	Can be operated in depletion mode as well as enhance mode	Can only be operated in enhance mode
4.	Current flow	Drain current flows on application of drain to source voltage, at ~~$V_{GS}=0$~~ $V_{GS}=0$	Practically no current flows on application of drain to source at $V_{GS}=0$. Current flows only when V_{GS} is above threshold level

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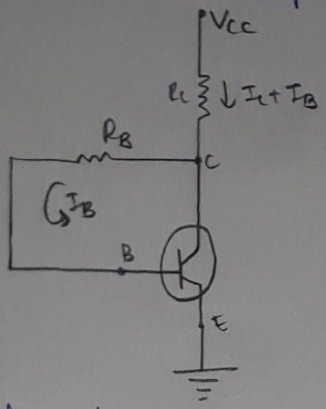
PART-B

4a) In this method, the biasing resistor is connected between the collector and the base of the transistor



Circuit analysis :-

- Bass circuit : Consider the base emitter circuit, applying KVL to the circuit we get,

$$V_{cc} - (I_B + I_c)R_c - I_B R_B - V_{BE} = 0$$

$$V_{cc} = I_B(R_c + R_B) + I_c R_c + V_{BE}$$

$$\Rightarrow I_B = \frac{V_{cc} - V_{BE} - I_c R_c}{R_c + R_B} \longrightarrow (1)$$

But $I_c = \beta I_B$

$$\Rightarrow \therefore I_c = \frac{\beta (V_{cc} - V_{BE})}{R_B + (1+\beta)R_c} \longrightarrow (2)$$

- Collector circuit :-

Applying KVL we get,

$$-V_{cc} + (I_B + I_c)R_c + V_{CE} = 0$$

$$V_{CE} = V_{cc} - (I_B + I_c)R_c \longrightarrow (3)$$

Stability factor:

$$S = \frac{1+\beta}{1-\beta \frac{\partial I_B}{\partial I_c}}$$

$$\text{If } I_B = \frac{V_{cc} - V_{BE} - I_c R_c}{R_B + R_c} = \text{constant}.$$

Diff w.r.t I_E we get

$$\frac{\partial I_B}{\partial I_C} = \frac{-R_C}{R_C+R_B}$$

$$\therefore S = \frac{1+\beta}{1+\beta\left(\frac{R_C}{R_C+R_B}\right)} \longrightarrow (4)$$

The stability factor S is smaller than value obtained in fixed bias circuit Also's' can be made smaller by making R_B small or R_C large

$$S' = \frac{\partial I_C}{\partial V_{BE}} = \frac{-\beta}{R_B+(1+\beta)R_C} \qquad \left(\because I_C = \frac{\beta(V_{CC}-V_{BE})}{R_B+(1+\beta)R_C}\right)$$

Diff I_C w.r.t V_{BE}

$$S' = \frac{-\beta}{R_B+(1+\beta)R_C}$$

$$S'' = I_C = \frac{\beta(V_{CC}-V_{BE})}{R_B+(1+\beta)R_C}$$

Diff w.r.t β

$$\frac{\partial I_C}{\partial \beta} = (V_{CC}-V_{BE})\left[\frac{(R_B+(1+\beta)R_C)1 - \beta(R_C)}{(R_B+(1+\beta)R_C)^2}\right]$$

$$S'' = \frac{I_B S}{1+\beta}$$

6b) Given Drain saturation current = $(I_{DSS}) = 6mA$

$V_{GS(off)} = -6V$

$I_{DS} = I_D = 4mA$

$$I_D = I_{DSS}\left[1-\frac{V_{GS}}{V_{GS(off)}}\right]^2$$

$$4\times10^{-3} = 6\times10^{-3}\left[\frac{1-V_{GS}}{(-6)}\right]^2$$

$$\frac{2}{3} = \left[\frac{1+V_{GS}}{6}\right]^2$$

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$$\frac{1+V_{GS}}{6} = \sqrt{\frac{2}{3}} \qquad I_D = I_{DSS}\left[1-\frac{V_{GS}}{V_{GS(off)}}\right]^2$$

$$\frac{V_{GS}}{6} = -1+0. \qquad 4\times10^{-3} = 6\times10^{-3}\left[1-\frac{V_{GS}}{-6}\right]^2$$

$$\frac{2}{3} = \left[1+\frac{V_{GS}}{6}\right]^2$$

$$1+\frac{V_{GS}}{6} = \sqrt{\frac{2}{3}}$$

$$\frac{V_{GS}}{6} = -1+0.816.$$

$$\frac{V_{GS}}{6} = -0.18.$$

$$V_{GS} = -1.1\,V$$

We know V_p, pinch off voltage

$$= V_p = |V_{GS(off)}|$$

$$V_p = |-6|$$

$$V_p = 6V$$

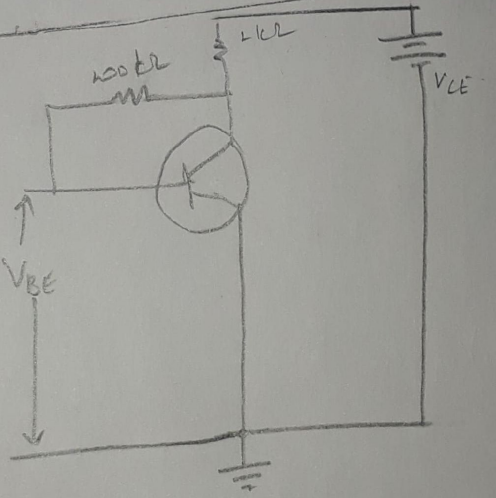
4b) Given $R_B = 200k\Omega$

$R_L = 2k\Omega$

$V_{CE} = 20V$

$50 < \beta < 200$

when $\beta = 50$



$$I_B = \frac{V_{CC}}{R_B+\beta R_L} = \frac{20}{200\times10^3+50\times2\times10^3}$$

$$I_B = \frac{20}{2\times10^5+1\times10^5}$$

$$= \frac{20}{10^5(3)}$$

$$= \frac{20}{300000} = 0.0666\times10^{-3}$$

$$= 66.6\,\mu A$$

$I_C = \beta I_B = 50 \times 66.67 = 3.33mA \Rightarrow \boxed{I_C = 3.3\,mA}$

when $\beta = 200$

$$I_B = \frac{V_{cc}}{R_B + \beta R_C} = \frac{20}{200\times10^3 + 200\times2\times10^3}$$

$$= \frac{20}{600\times10^3} = 0.0333\times10^{-3}$$

$$\boxed{I_B = 33.3\,\mu A}$$

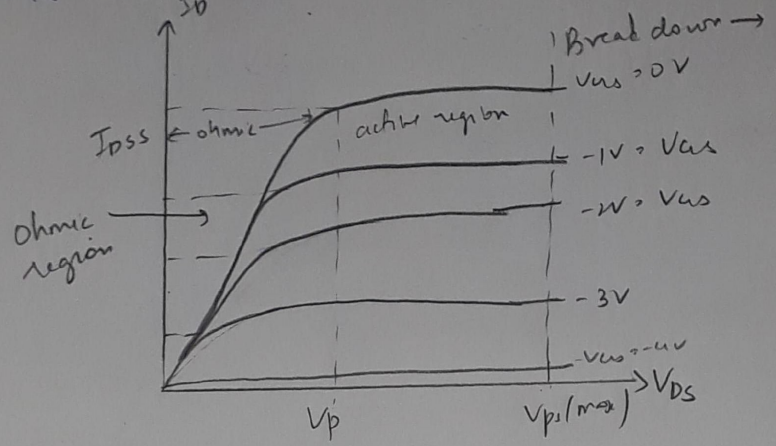
$$I_C = \beta I_B = 200 \times 33.3\times10^{-6} = 6.66\times10^{-3}$$

$$\boxed{I_C = 6.66\,mA}$$

as β increases, collector current increases

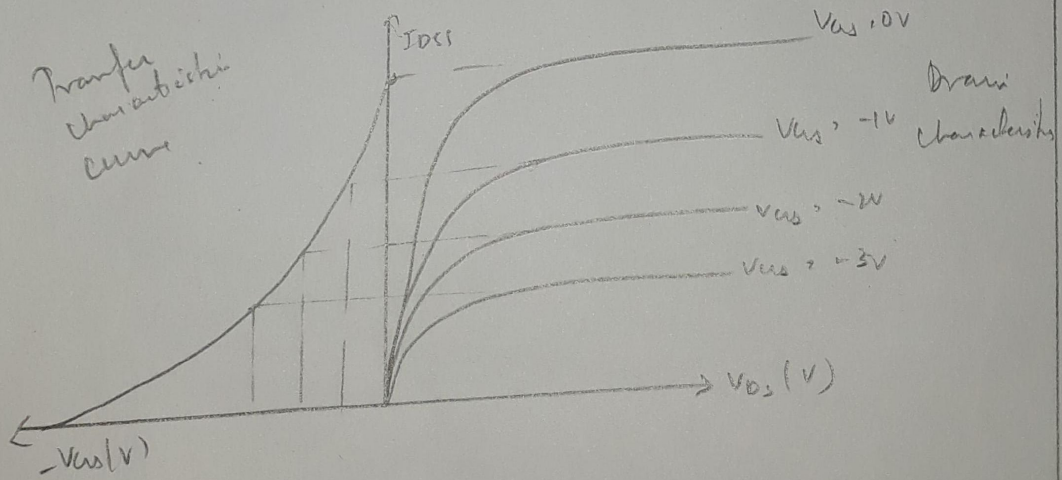
Maximum $I_C = 6.66mA$ at $\beta = 200$.

6a) DRAIN CHARACTERISTICS



- $V_p = |V_{GS(off)}|$
- $0 < V_{DS} < V_p$ – ohmic region, where V_{DS} is small or below pinch off
- $V_p < V_{DS} < V_{DS(max)}$ – active region (or) constant current region as I_D is independent of V_{DS}
- $V_{DS} > V_{DS(max)}$ – breakdown region

TRANSFER Characteristics

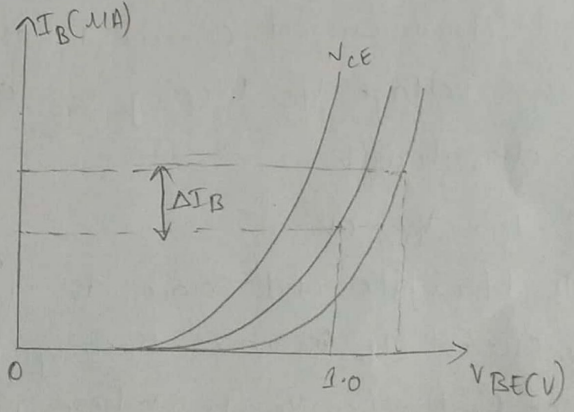


STANLEY COLLEGE OF ENGINEERING & TECHNOLOGY FOR WOMEN
MAIN ANSWER SHEET
Mid Examintion-2

Branch: ECE Sem: III Section: A Roll no(full): 160619735006 Subject: Electronic Devic Date: 03/02/2021

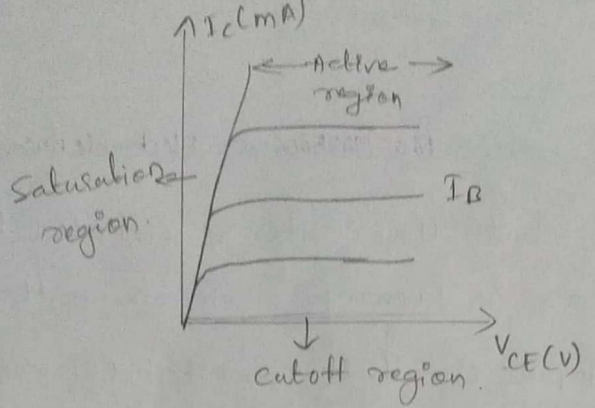
1) The configuration in which the emitter is connected between the collector and base is known as common emitter configuration. The input circuit is connected between emitter and base, and the output circuit is taken from the collector and emitter. Thus, the emitter is common to both the input and output circuit, and hence the name is common emitter configuration. The common emitter arrange ment can be done for NPN & PNP transistor.

Input chasacterisitic curve:-



The curve for common emitter configuration is similar to a forward characteristic current I_B increase with the increase in the emitter base voltage V_{BE}. Thus the input resistance of CE is comparatively higher that of CB configuration, $\eta = \frac{\Delta V_{BE}}{\Delta I_B}$ at constant V_{CE}

output characteristics curve! –



In CE configuration the curve draws between collector current I_c and collector-emitter voltage v_{ce} at constant base current I_B is called output characteristics.

output resistance = $r_o = \frac{\Delta V_{CE}}{\Delta I_C}$ at constant I_B

6a) Drain characteristics:-

1. A plot of drain current current I_D as a function of drawn source voltage V_{DS} keeping V_{GS} constant is known as drain characteristics.

2. case 1: For $V_{GS} = 0V$

* The volt b/w gate and source is short circuited.
* Initially, current I_D increases linearly with V_{DS} and becomes constant when $V_{DS} > V_P$, where V_P is the "pinch of voltage"
* when $V_{DS} = V_P$ the depletion layer almost touch each other, this punches off or prevents a further inverse in current, hence current is satusated (I_{DSS})

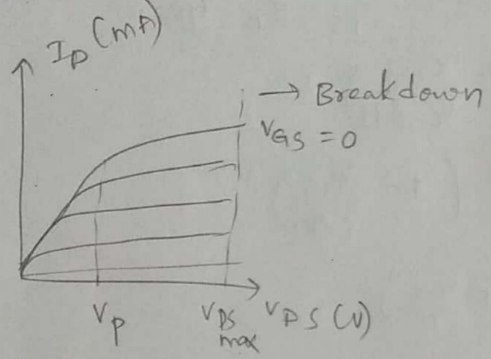
3. case 2: For V_{GS} = negative value.

* as V_{GS} becomes negative, the I_D decreases cross-sectional

area of channel decreases.

* At some value of V_{GS}, depletion layers extend completely across the channel and channel is cut-off, hence the current I_D becomes zero.

* $V_p = |V_{GS(off)}|$



* $0 < V_{DS} < V_p$ - ohmic region, where V_{DS} is small as below pinch off.

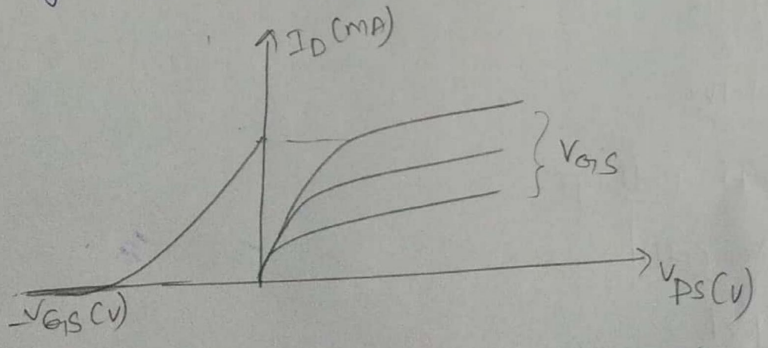
* $V_p < V_{DS} < V_{DS(max)}$ - active region (or) Inst current region as I_D is independent of V_{DS}

* $V_{DS} > V_{DS(max)}$ - breakdown region

Transfer characteristics:

* A plot of drain current I_D as the function of gate source voltage V_{GS} is called mutal (or) transfer characteristics.

*



Equation for parabolic curve is

$$I_D = I_{DSS}\left(1 - \frac{V_{GS}}{V_{GS(off)}}\right)^2$$

6(b) Drain saturation current = $(I_{DS}) = 6mA$

$V_{GS(off)} = -6V$

$I_{DS} = I_D = 4mA$

$$I_D = I_{DSS}\left(1 - \frac{V_{GS}}{V_{GS(off)}}\right)^2$$

$$4\times10^{-3} = 6\times10^{-3}\left(1 - \frac{V_{GS}}{(-6V)}\right)^2$$

$$4 = 6\left(1 + \frac{V_{GS}}{6}\right)^2$$

$$\frac{2}{3} = \left(1 + \frac{V_{GS}}{6}\right)^2$$

$$1 + \frac{V_{GS}}{6} = \sqrt{\frac{2}{3}}$$

$$1 + \frac{V_{GS}}{6} = 0.816$$

$$\frac{V_{GS}}{6} = 0.816 - 1$$

$$V_{GS} = \frac{-0.18}{6}$$

$$\boxed{V_{GS} = -1.1V}$$

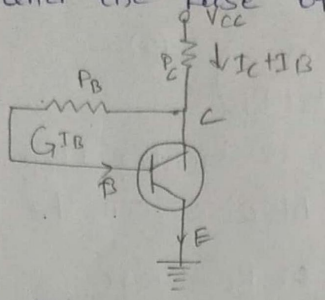
V_p = pinch off voltage.

$\Rightarrow V_p = |V_{GS(off)}|$

$V_p = |-6|$

$\boxed{V_p = 6V}$

4(a) In this method, the biasing emitter is connected between the collector and the base of the transistor



Circuit analysis:-

*Base circuit:-

consider the base emitter circuit, applying KVL to the circuit, are get.

$$V_{CC} - (I_B + I_C) R_C - I_B R_B - V_{BE} = 0$$

$$\Rightarrow V_{CC} = I_B (R_C + R_B) + I_C R_C + V_{BE}$$

$$\Rightarrow I_B = \frac{V_{CC} - V_{BE} - I_C R_C}{R_C + R_B} \quad -(1)$$

But $I_C = \beta I_B$

$$\therefore I_C = \frac{\beta (V_{CC} - V_{BE})}{R_B + (1+\beta) R_C} \quad -(2)$$

collector circuit:-

Applying KVL we get,

$$-V_{CC} + (I_B + I_C) R_C + V_{CE} = 0 \Rightarrow V_{CE} = V_{CC} - (I_C + I_B) R_C \quad -(3)$$

Stability factor:-

$$S = \frac{1+\beta}{1 - \beta \frac{dI_B}{dI_C}}$$

$$I_B = \frac{V_{CC} - V_{BE} - I_C R_C}{R_B + R_C} = \text{constant}$$

Diff w.r.t I_C we get $\frac{dI_B}{dI_C} = \frac{-R_C}{R_C + R_B}$

$$\Rightarrow \therefore S = \frac{1+\beta}{1+\beta\left(\frac{R_C}{R_C + R_B}\right)} \quad \text{--- (3)}$$

The stability factor S is smaller than value obtained in fixed bias circuit. Also 'S' can be made smaller by making R_B small or R_C large.

$$S' = \frac{dI_C}{dV_{BE}} = \frac{-\beta}{R_B + (1+\beta)R_C} \quad \left(\because I_C = \frac{\beta(V_{CC} - V_{BE})}{R_B + (1+\beta)R_C}\right)$$

$$S' = \frac{-\beta}{R_B + (1+\beta)R_C}$$

$$S'' \Rightarrow I_C = \frac{\beta(V_{CC} - V_{BE})}{R_B + (1+\beta)R_C}$$

Diff w.r.t β

$$\frac{dI_C}{d\beta} = (V_{CC} - V_{BE})\left[\frac{(R_B + (1+\beta)R_C) \cdot 1 - \beta(R_C)}{(R_B + (1+\beta)R_C)^2}\right.$$

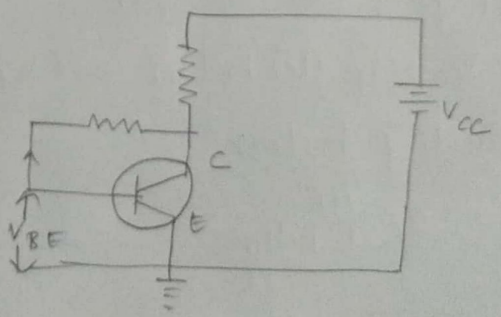
$$S'' = \frac{I_B S}{1+\beta}$$

4b) Given, $50 < \beta < 200$

$R_a = 200k\Omega$

$R_C = 2K\Omega$

$V_{CC} = 20V$



where

$R = 50$

$$I_A = \frac{V_{CC}}{R_a + \beta R_C}$$

$$= \frac{20}{200\times10^{3}+50\times2\times10^{3}}$$

$$= \frac{20}{300\times10^{3}}$$

$$= 0.066\times10^{-3}\ A$$

$$= 66.6\times10^{-6}\ A$$

$$\boxed{I_A = 66.6\,\mu A}$$

$$I_C = \beta I_A = 50\times66.6\,\mu A$$

$$= 3330\,\mu A$$

$$\boxed{I_C = 3.33\,mA}$$

where $R = 200$,

$$I_A = \frac{V_{CC}}{R_a+\beta R_C} = \frac{200}{200\times10^{3}+200\times2\times10^{3}}$$

$$= \frac{200}{600\times10^{3}}$$

$$= 0.333\times10^{-3}\ A$$

$$\boxed{I_A = 333\,\mu A}$$

$$I_C = \beta I_A = 200\times333\,\mu A$$

$$\boxed{I_C = 6.66\,mA}$$

as β increases, collector current increases.

maximum $I_C = 6.66\,mA$ at $\beta = 200$.

2) The h-parameters are given as

$$h_{11} = h_i = \frac{V_i}{I_i}\Big|_{V_o=0} \quad ; \quad h_{21} = h_f = \frac{I_i}{I_o}\Big|_{V_o=0}$$

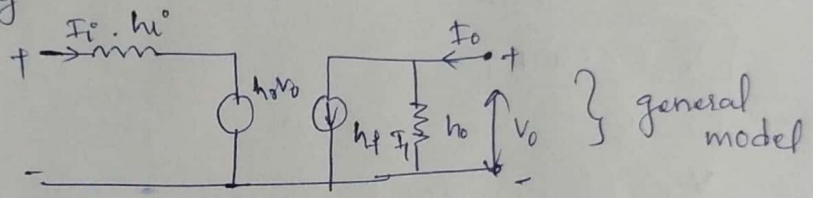
$$h_{12} = h_r = \frac{V_i}{V_o}\Big|_{I_i=0} \quad ; \quad h_{22} = h_o = \frac{I_i}{V_o}\Big|_{I_i=0}$$

BJT, h-parameters Equation:-

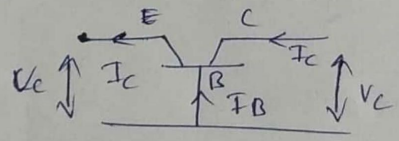
$$V_i = h_i I_i + h_r V_o$$

$$I_o = h_f I_i + h_o V_o$$

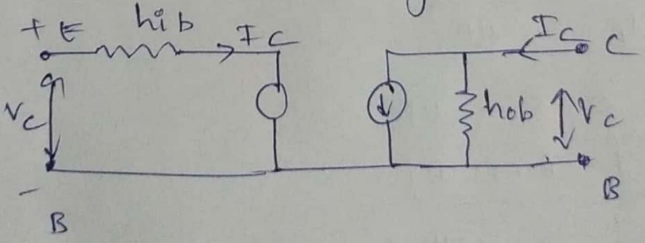
The equivalent circuit on hybrid model of BJT is given by



h-parameters of BJT in CB configuration.



hybrid model in CB configuration:-



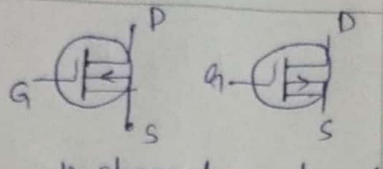
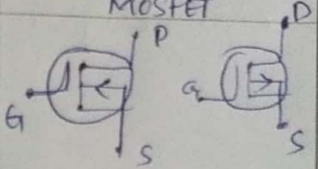
$$V_c = h_{ib} i_c + h_{rb} V_c$$

$$I_c = h_{fb} i_c + h_{ob} V_c$$

$$h_{ib} = \frac{V_c}{I_c}\Big|_{V_c=0} \quad ; \quad h_{fb} = \frac{I_c}{I_c}\Big|_{V_c=0}$$

$$h_{rb} = \frac{V_c}{V_c}\Big|_{I_c=0} \quad ; \quad h_{ob} = \frac{I_c}{V_c}\Big|_{I_c=0}.$$

4)

	Depletion MOSFET	Enhancement MOSFET
Symbol	 n-channel p-channel	 n-channel p-channel
channel	Exist permanently	Channel is physically absent.
Operation	Depletion mode as well as enhance mode	only enhance mode.
Circuit flow	Drain current flows to source voltage. $V_{GS}=0$	Particularly no-current flows. when V_{GS} is above threshold level current flows.

5) Given,

$h_{ie} = 1200\,\Omega$

$h_{re} = 2\times10^{-4}$

$h_{fe} = 60$

$h_{oe} = 25\,\mu A/V$

$R_L = 2k\Omega$, $R_S = 900\,\Omega$

$R_1 = 50k\Omega$, $R_2 = 1k\Omega$, $R_C = 1k\Omega$

for exact model

current gain $A_i = \dfrac{-h_{fe}}{1+h_{oe} \times R_L}$

$= \dfrac{-60}{1+25\times10^{-6}\times2\times10^{3}}$

$= -57.142$

$\therefore A_i = -57.142$

Input resistance $R_i = h_{ie} - \dfrac{h_{fe} \cdot h_{re}}{y_{c+h_{oe}}}$

$= 1200 - \dfrac{60\times2\times10^{-4}}{\frac{1}{2\times10^{3}} + 25\times10^{-6}}$

$= 1200 - \dfrac{24}{1+50\times10^{-3}}$

$R_i = 1177.4\Omega$, $Z_i = 0.00084$

voltage gain $A_V = A_i - \dfrac{R_L}{R_i}$

$= 57.14 \times \dfrac{2000}{1177.14}$

$A_V = 97.088$

Output resistance, $R_o = \dfrac{1}{Y_o}$

$Y_o = h_{ac} - \dfrac{h_{fe} \cdot h_{re}}{h_{ie}+R_s} = 25\times10^{-6} - \dfrac{60\times2\times10^{-4}}{1200+900}$

$= 19.3\times10^{-6}$

Stanley College of Engineering & Technology for Women

Chapel Road, Abids, Hyderabad.

2020-21

B.E - III Sem Consolidated Mid Marks List for the Academic Year 2018-19

Subject: Electronic Devices (Sec L) Branch: ECE

Date(Mid-I): 29/10/2020 Date(Mid-II): 21/12/2021

S No	Roll No	Mid-I (20)	Mid-II (20)	Avg (20)	Assignment (5)	Quiz / Seminar (5)	Total (30)	ED Lab(25)
1	160619773 5051	13	18	16	5	5	26	20
2	5052	16	20	18	5	5	28	22
3	5053	10	18	14	5	5	24	21
4	5054	14	17	16	5	4	25	20
5	5055	17	17	17	5	A	26	24
6	5056	17	18	18	5	5	28	25
7	5057	18	20	19	5	5	29	24
8	5058	17	19	18	5	5	28	22
9	5059	19	20	20	5	5	30	24
10	5060	18	19	19	5	5	29	24
11	5061	20	17	19	5	5	29	25
12	5062	19	19	19	5	5	29	25
13	5063	12	11	12	5	3	20	20
14	5064	16	19	18	5	5	28	21
15	5065	13	17	15	5	5	25	20
16	5066	19	20	20	5	5	30	24
17	5067	15	14	15	5	5	25	23
18	5068	20	20	20	5	5	30	25
19	5069	13	19	16	5	5	26	21
20	5070	18	19	19	5	5	29	24
21	5071	19	19	19	5	5	29	23
22	5072	13	16	15	5	5	25	20
23	5073	18	17	18	5	5	28	25
24	5074	19	19	19	5	5	29	21
25	5075	19	19	19	5	5	29	24
26	5076	18	A	9	5	A	18	10
27	5077	16	19	18	5	3	26	23
28	5078	16	17	17	5	5	27	24
29	5079	18	20	19	5	5	29	24
30	5080	19	18	19	5	5	29	25
31	5081	18	20	19	5	5	29	21
32	5082	10	17	14	5	5	24	20
33	5083	11	16	14	5	5	24	24
34	5084	20	20	20	5	5	30	25
35	5085	17	18	18	5	5	28	25
36	5086	14	17	16	5	5	26	23

Sl No	Roll No	Mid-I (20)	Mid-II (20)	Avg (20)	Assignment (5)	Quiz / Seminar (5)	Total (30)	(ES) Lab(25)
37	5087	17	17	17	5	5	27	21
38	5088	13	12	13	5	5	23	26
39	5089	19	17	18	5	3	26	22
40	5090	16	16	16	5	5	26	22
41	5091	18	19	19	5	5	29	25
42	5092	14	18	16	5	5	26	20
43	5093	14	20	17	5	5	28	25
44	5094	18	20	19	5	5	29	23
45	5095	19	18	19	5	5	29	25
46	1606 18 73 5073	14	15	15	5	4	24	20
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	MID- I	MID - II
Total No. of Students:	45+2	47
No. of Students Present:	45	
No.of Students Absent	NIL	
Faculty Name/Date:	T. Padmanna	T. Padmanna
Faculty Signature/Date:		
HOD Signature/Date:		

Stanley College of Engineering & Technology for Women

Chapel Road, Hyderabad

B.E. III SEMESTER (ECE – 1, 2 & 3) I - Mid Examination, 29th October 2020

ELECTRONIC DEVICES (SET-1)

Time: 1 Hour] *[Time: 9.00 A.M – 10.00 A.M]* *[Max. Marks: 20*

Note: 1) Answer all questions of Part-A

2) Answer any two questions from Part-B

PART – A (6 Marks)

1. Define (a) Mobility (b) Conductivity (c) Current density in a semiconductor [2M]
2. What is the need of bleeder resistor in LC filter & define critical inductance [2M]
3. Compare CB, CE and CC configurations. [2M]

PART – B (14 Marks)

4. (a)Differentiate diffusion and transition capacitance of a PN junction diode. [4M]
   (b) A Silicon diode has a reverse saturation current 7.12 nA at room temperature of 27^0c. Calculate the forward current if it is forward biased with a voltage of 0.7v. [3M]
5. (a) Explain working principle of Bridge Rectifier with input and output waveforms [4M]
   (b) In a bridge rectifier the transformer is connected to 220V, 60Hz mains and the turns Ratio of the step down transformer is 11:1. Assuming the diode to be ideal, find:
   i) Idc ii) Voltage across the l iii) PIV assume load resistance to be 1kΩ [3M]
6. Draw the input and output characteristics in CB configuration and mark different operating regions on it and define h-parameters. [7M]

Question	Q1	Q2	Q3	Q4		Q5		Q6
				a	b	a	b	
Course Outcome No	PC202EC.1	PC202EC.2	PC202EC.3	PC202EC.1	PC202EC.1	PC202EC.2	PC202EC.2	PC202EC.3
Bloom's Taxonomy Level	Remenbering(BLT 1)	Remembering(BLT 1)	Understanding(BLT 2)	Application(BLT 3)	Application(BLT 3)	Application(BLT 3)	Application(BLT 3)	Application(BLT 3)

Paper Set by T.Prasanna

Dr.G.Karthik

2.5.1

Stanley College of Engineering & Technology for Women

Chapel Road, Abids, Hyderabad

Date: 23.08.2021

Examination circular

1. The II Internal Examinations (online) for B.E- II, IV, VI sem are being scheduled from **01st to 04th SEP, 2021.**

2. The concerned faculty is requested to submit the question papers (hard and softcopies - 2 sets in which either of them will be selected) through HOD/dept. exams in-charges to the Exam branch on or before 26th Aug. **2021 before 02.30PM without fail in Pdf. format.**

3. The faculty is expected to follow the guidelines of University in setting the question paper.

4. Faculty should mention the new Blooms Taxonomy and CO, PO mapping on the Question paper in the tabular form. No deviation is entertained.

5. The HODs are requested to verify the submission of all subject Question papers on time.

6. The HOD/exam in-charges are requested to submit the list of online invigilators to the exam branch as per the request on or before 26th Aug. 2021 without fail.

COE Exams **Vice Principal** **Principal**

Copy to HOD's:

CSE **ECE** **EEE** **IT** **MBA** **H&S**

For circulation

Sem-I 2.5.1

STANLEY COLLEGE OF ENGINEERING AND TECHNOLOGY FOR WOMEN
DEPARTMENT OF HUMANITIES AND SCIENCES
MID-1 EXAMINATIONS 20-21 REPORT

DATE	TIME	SUBJECT	ROLLNOS	INVIGILATOR	Google link
18 -02-21 19-02-21 20-02-21	09:30 AM-10:30 AM	M-1 PHY BEE	**ECE A (1-23)**	P.ANUSHA	https://meet.google.com/rac-zfqp-jxb
			ECE-A (24-45)	B.VIJAYA	https://meet.google.com/mqi-fiik-zpy?hs=122&authuser=7
18 -02-21	1:00 PM-2:00 PM	IC	**ECE A (1-23)**	P.ANUSHA	https://meet.google.com/rac-zfqp-jxb
			ECE-A (24-45)	B.VIJAYA	https://meet.google.com/mqi-fiik-zpy?hs=122&authuser=7
18 -02-21 19-02-21 20-02-21	09:30 AM-10:30 AM	M-1 PHY BEE	**ECE-B (46-65)**	S.SNEHA	https://meet.google.com/mcz-wveu-jrm
			ECE-B (66-85)	J.P.PRAMOD	https://meet.google.com/iwn-rexo-jro
18 -02-21	1:00 PM-2:00 PM	IC	**ECE-B (46-65)**	S.SNEHA	https://meet.google.com/mcz-wveu-jrm
			ECE-B (66-85)	J.P.PRAMOD	https://meet.google.com/iwn-rexo-jro
18 -02-21 19-02-21 20-02-21	09:30 AM-10:30 AM	M-1 PHY BEE	**IT-A (1-23)**	K.RAJESH	https://meet.google.com/ybx-dkkc-vgu
			IT-A (24-45)	B.SRILATHA	https://meet.google.com/ygr-szjv-chr
18 -02-21	1:00 PM-2:00 PM	IC	**IT-A (1-23)**	K.RAJESH	https://meet.google.com/ybx-dkkc-vgu
			IT-A (24-45)	B.SRILATHA	https://meet.google.com/ygr-szjv-chr
18 -02-21 19-02-21 20-02-21	09:30 AM-10:30 AM	M-1 PHY BEE	**IT-B (46-65)**	Dr. VASUNDHARA	https://meet.google.com/zoe-fjkr-tfj
			IT-B (66-80)	G.SHIRISHA	https://meet.google.com/gmp-dsrw-pcw
18 -02-21	1:00 PM-2:00 PM	IC	**IT-B (46-65)**	Dr. VASUNDHARA	https://meet.google.com/zoe-fjkr-tfj
			IT-B (66-80)	G.SHIRISHA	https://meet.google.com/gmp-dsrw-pcw
18 -02-21 19-02-21 20-02-21	09:30 AM-10:30 AM	M-1 PHY BEE	**AIDS (1-28)**	V.MYTHREYE	https://meet.google.com/biy-kzce-vtz
			AIDS (29-53)	NASREEN SULTANA	https://meet.google.com/pag-oiyx-rah
18 -02-21	1:00 PM-2:00	IC	**AIDS**	V.MYTHREYE	https://meet.google.com

	PM		(1-28)		/biy-kzce-vtz
			AIDS (29-53)	NASREEN SULTANA	https://meet.google.com /pag-oiyx-rah
18 -02-21 19-02-21 20-02-21	11:00 AM-12:00 PM	M-1 CHEM PPS	CSE-A (1-30)	R.GANGADHARA	https://meet.google.com /paj-ymyq-dfs
			CSE-A (31-60)	M.VIDYA BHARGAVI	https://meet.google.com /fkr-yttk-vmd
18 -02-21 19-02-21	2.30 PM -3.30 PM	EITK ES	CSE-A (1-30)	R.GANGADHARA	https://meet.google.com /paj-ymyq-dfs
			CSE-A (31-60)	M.VIDYA BHARGAVI	https://meet.google.com /fkr-yttk-vmd
18 -02-21 19-02-21 20-02-21	11:00 AM-12:00 PM	M-1 CHEM PPS	CSE-B (61-90)	M.SHARADA DEVI	https://meet.google.com /bqk-prkz-dck
			CSE-B (91-120)	Dr. V. SRILATHA	https://meet.google.com /ajf-pmkj-axb
18 -02-21 19-02-21	2.30 PM -3.30 PM	EITK ES	CSE-B (61-90)	M.SHARADA DEVI	https://meet.google.com /bqk-prkz-dck
			CSE-B (91-120)	Dr. V. SRILATHA	https://meet.google.com /ajf-pmkj-axb
18 -02-21 19-02-21 20-02-21	11:00 AM-12:00 PM	M-1 CHEM PPS	CSE-C (121-150)	Mrs. RABBANI KAUSAR	https://meet.google.com /vyb-kwyc-kaw
			CSE-C (151-190)	B.SANTHOSHINI	https://meet.google.com /ptp-kmme-tkq
18 -02-21 19-02-21	2.30 PM -3.30 PM	EITK ES	CSE-C (121-150)	Mrs. RABBANI KAUSAR	https://meet.google.com /vyb-kwyc-kaw
			CSE-C (151-190)	B.SANTHOSHINI	https://meet.google.com /ptp-kmme-tkq
18 -02-21 19-02-21 20-02-21	11:00 AM-12:00 PM	M-1 CHEM PPS	CME (1-25)	Dr. S. RAJENDER	https://meet.google.com /ztg-dkke-fwx
			CME (26-50)	S .SNEHA	https://meet.google.com /mcz-wveu-jrm
18 -02-21 19-02-21	2.30 PM -3.30 PM	EITK ES	CME (1-25)	Dr. S. RAJENDER	https://meet.google.com /ztg-dkke-fwx
			CME (26-50)	S. SNEHA	https://meet.google.com /mcz-wveu-jrm
18 -02-21 19-02-21 20-02-21	11:00 AM-12:00 PM	M-1 CHEM PPS	EEE (1-24)	VIRGILIA RICHARDS	https://meet.google.com /sag-gfoq-avo
18 -02-21 19-02-21	2.30 PM -3.30 PM	EITK ES ENG	EEE (1-24)	VIRGILIA RICHARDS	https://meet.google.com /sag-gfoq-avo

Messages sent to Students and Invigilators:

Dear students

Good morning Students,

1.Keep your answer scripts ready .
2. Keep your device for online exam in full charge.
3.The meeting link will be shared to you at 9.15AM/10:45AM
4. You must join the link by 9.20AM/10:50AM
5. Join with camera "on " and mic in mute.
6. Attendance will be taken in 10 minutes by calling your names.
7. Question paper will be shared to you in whatsApp at 9.25AM/10:55AM
8. Stop writing examination at 10.30AM/12:00PM
9. Submit the scanned pdf file in moodle by 10.50AM/12:20PM in the Mid-1 sub name.
10. The session recording will be submitted to university.

Dear students

Good afternoon Students,

1. Keep your answer scripts ready .
2. Keep your device for online exam in full charge.
3. The meeting link will be shared to you at 12:45PM/2.15PM
4. You must join the link by 12:50PM/2.20PM
5. Join with camera " on " and mic in mute.
6. Attendance will be taken in 10 minutes by calling your names.
7. Question paper will be shared to you in whatsApp at 12:55PM/2.25PM
8. Stop writing examination at 2:00PM/3.30PM
9 Submit the scanned pdf file in moodle by 2:20PM/3.50PM in the Mid-1 sub name.
10. The session recording will be submitted to university.

Dear faculty

As we are all aware as per the instructions of OU we are conducting on line invigilation mid-1 examination. Your co-operation and co-ordination is required to conduct them in smooth way.

FN SESSION

LOG IN : 9.15AM/10:45AM CALL ATTENDANCE FROM 9.20 AM

09.30 AM/11:00AM : ANNOUNCE "START WRITING EXAM"

10.30 AM/ 12:00PM :STOP EXAM

SUBMIT PDF FILE BY 10.50 AM/12:20PM

ASK STUDENTS TO QUIT IF SUBMITTED.

CLOSE AT 10.50AM/12:20 PM

AN SESSION:

Sem - I

STANLEY COLLEGE OF ENGINEERING AND TECHNOLOGY FOR WOMEN
DEPARTMENT OF HUMANITIES AND SCIENCES
MID-2 EXAMINATIONS 20-21 REPORT

DATE	TIME	SUBJECT	ROLLNOS	INVIGILATOR	Google link
30-03-2021 31-03-2021 01-04-2021	09:30 AM-10:30 AM	M-1 PHY BEE	ECE A (1-23)	P.ANUSHA	https://meet.google.com/cks-wfro-ism
			ECE-A (24-45)	B.VIJAYA	https://meet.google.com/egp-umto-xja
30-03-2021	1:00 PM-2:00 PM	IC	ECE A (1-23)	P.ANUSHA	https://meet.google.com/cks-wfro-ism
			ECE-A (24-45)	B.VIJAYA	https://meet.google.com/egp-umto-xja
30-03-2021 31-03-2021 01-04-2021	09:30 AM-10:30 AM	M-1 PHY BEE	ECE-B (46-65)	G.PADMASREE	https://meet.google.com/ihn-uofd-qjh
			ECE-B (66-85)	J.P.PRAMOD	https://meet.google.com/vjq-dcyw-hnd
30-03-2021	1:00 PM-2:00 PM	IC	ECE-B (46-65)	G.PADMASREE	https://meet.google.com/ihn-uofd-qjh
			ECE-B (66-85)	J.P.PRAMOD	https://meet.google.com/vjq-dcyw-hnd
30-03-2021 31-03-2021 01-04-2021	09:30 AM-10:30 AM	M-1 PHY BEE	IT-A (1-23)	K.RAJESH	https://meet.google.com/ype-qefy-ekw
			IT-A (24-45)	B.SRILATHA	https://meet.google.com/yaa-wtcy-poa?hs=122&authuser=0
30-03-2021	1:00 PM-2:00 PM	IC	IT-A (1-23)	K.RAJESH	https://meet.google.com/ype-qefy-ekw
			IT-A (24-45)	B.SRILATHA	https://meet.google.com/yaa-wtcy-poa?hs=122&authuser=0
30-03-2021 31-03-2021 01-04-2021	09:30 AM-10:30 AM	M-1 PHY BEE	IT-B (46-65)	Dr. VASUNDHARA	https://meet.google.com/rjz-ocsu-cvp
			IT-B (66-80)	DR. K. NAGIREDDY	https://meet.google.com/fct-faxr-xce
30-03-2021	1:00 PM-2:00 PM	IC	IT-B (46-65)	Dr. VASUNDHARA	https://meet.google.com/rjz-ocsu-cvp
			IT-B (66-80)	DR. K. NAGIREDDY	https://meet.google.com/fct-faxr-xce
30-03-2021 31-03-2021 01-04-2021	09:30 AM-10:30 AM	M-1 PHY BEE	AIDS (1-28)	V.MYTHREYE	https://meet.google.com/hoh-mkxx-fhj
			AIDS (29-53)	NASREEN SULTANA	https://meet.google.com/tot-pdzb-tvy

30-03-2021 31-03-2021	1:00 PM-2:00 PM	IC	**AIDS (1-28)**	V.MYTHREYE	https://meet.google.com/hoh-mkxx-fhj
			AIDS (29-53)	NASREEN SULTANA	https://meet.google.com/tot-pdzb-tvy
30-03-2021 31-03-2021 01-04-2021	11:00 AM-12:00 PM	M-1 CHEM PPS	**CSE-A (1-30)**	R.GANGADHARA	https://meet.google.com/hgf-ombc-npf
			CSE-A (31-60)	M.VIDYA BHARGAVI	https://meet.google.com/bfc-crbt-kvb
30-03-2021 31-03-2021	2.30 PM -3.30 PM	EITK ES	**CSE-A (1-30)**	R.GANGADHARA	https://meet.google.com/hgf-ombc-npf
			CSE-A (31-60)	M.VIDYA BHARGAVI	https://meet.google.com/bfc-crbt-kvb
30-03-2021 31-03-2021 01-04-2021	11:00 AM-12:00 PM	M-1 CHEM PPS	**CSE-B (61-90)**	E.LATHA DEVI	https://meet.google.com/kef-rdaq-gzf
			CSE-B (91-120)	Dr. V. SRILATHA	https://meet.google.com/ayp-yrrp-csh
30-03-2021 31-03-2021	2.30 PM -3.30 PM	EITK ES	**CSE-B (61-90)**	E.LATHA DEVI	https://meet.google.com/kef-rdaq-gzf
			CSE-B (91-120)	Dr. V. SRILATHA	https://meet.google.com/ayp-yrrp-csh
30-03-2021 31-03-2021 01-04-2021	11:00 AM-12:00 PM	M-1 CHEM PPS	**CSE-C (121-150)**	ARSHIYA TANVEER	https://meet.google.com/gje-ptto-bhy?hs=224
			CSE-C (151-190)	B.SANTHOSHINI	https://meet.google.com/pdd-gmrb-vfx
30-03-2021 31-03-2021	2.30 PM -3.30 PM	EITK ES	**CSE-C (121-150)**	ARSHIYA TANVEER	https://meet.google.com/gje-ptto-bhy?hs=224
			CSE-C (151-190)	B.SANTHOSHINI	https://meet.google.com/pdd-gmrb-vfx
30-03-2021 31-03-2021 01-04-2021	11:00 AM-12:00 PM	M-1 CHEM PPS	**CME (1-25)**	Dr. S. RAJENDER	https://meet.google.com/syo-wajy-hat
			CME (26-50)	S .SNEHA	https://meet.google.com/bns-qphh-jby
30-03-2021 31-03-2021	2.30 PM -3.30 PM	EITK ES	**CME (1-25)**	Dr. S. RAJENDER	https://meet.google.com/syo-wajy-hat
			CME (26-50)	S. SNEHA	https://meet.google.com/bns-qphh-jby
30-03-2021 31-03-2021 01-04-2021	11:00 AM-12:00 PM	M-1 CHEM PPS	**EEE (1-24)**	VIRGILIA RICHARDS	https://meet.google.com/gii-ygsj-atv
30-03-2021 31-03-2021	2.30 PM -3.30 PM	EITK ES ENG	**EEE (1-24)**	VIRGILIA RICHARDS	https://meet.google.com/gii-ygsj-atv

Messages sent to Students and Invigilators:

Dear students

Good morning Students,

1.Keep your answer scripts ready .

2. Keep your device for online exam in full charge.

3.The meeting link will be shared to you at 9.15AM/10:45AM

4. You must join the link by 9.20AM/10:50AM

5. Join with camera "on " and mic in mute.

6. Attendance will be taken in 10 minutes by calling your names.

7. Question paper will be shared to you in whatsApp at 9.25AM/10:55AM

8. Stop writing examination at 10.30AM/12:00PM

9. Submit the scanned pdf file in moodle by 10.50AM/12:20PM in the Mid-1 sub name.

10. The session recording will be submitted to university.

Dear students

Good afternoon Students,

1. Keep your answer scripts ready .

2. Keep your device for online exam in full charge.

3. The meeting link will be shared to you at 12:45PM/2.15PM

4. You must join the link by 12:50PM/2.20PM

5. Join with camera " on " and mic in mute.

6. Attendance will be taken in 10 minutes by calling your names.

7. Question paper will be shared to you in whatsApp at 12:55PM/2.25PM

8. Stop writing examination at 2:00PM/3.30PM

9 Submit the scanned pdf file in moodle by 2:20PM/3.50PM in the Mid-1 sub name.

10. The session recording will be submitted to university.

Dear faculty

As we are all aware as per the instructions of OU we are conducting on line invigilation mid-1 examination. Your co-operation and co-ordination is required to conduct them in smooth way.

FN SESSION

LOG IN : 9.15AM/10:45AM CALL ATTENDANCE FROM 9.20 AM

09.30 AM/11:00AM : ANNOUNCE "START WRITING EXAM"

10.30 AM/ 12:00PM :STOP EXAM

SUBMIT PDF FILE BY 10.50 AM/12:20PM

ASK STUDENTS TO QUIT IF SUBMITTED.

CLOSE AT 10.50AM/12:20 PM

AN SESSION:

STANLEY COLLEGE OF ENGINEERING AND TECHNOLOGY FOR WOMEN
DEPARTMENT OF HUMANITIES AND SCIENCES
SEM-II MID-1 EXAMINATIONS 20-21 REPORT

DATE	TIME	SUBJECT	ROLLNOS	INVIGILATOR	Google link
28 -06-21 29-06-21 30-06-21	09:30 AM-10:30 AM	M-1 CHEM PPS	ECE A (1-23)	P.ANUSHA	https://meet.google.com/nat-qzxo-jtw
			ECE-A (24-45)	B.VIJAYA	https://meet.google.com/sca-wmxk-fpp
28 -06-21	1:00 PM-2:00 PM	EITK ES ENG	ECE A (1-23)	P.ANUSHA	https://meet.google.com/nat-qzxo-jtw
			ECE-A (24-45)	B.VIJAYA	https://meet.google.com/sca-wmxk-fpp
28 -06-21 29-06-21 30-06-21	09:30 AM-10:30 AM	M-1 CHEM PPS	ECE-B (46-65)	M.SHARADA	https://meet.google.com/jii-pbfe-wyw
			ECE-B (66-85)	J.P.PRAMOD	https://meet.google.com/frn-hxct-kkd
28 -06-21	1:00 PM-2:00 PM	EITK ES ENG	ECE-B (46-65)	M.SHARADA	https://meet.google.com/jii-pbfe-wyw
			ECE-B (66-85)	J.P.PRAMOD	https://meet.google.com/frn-hxct-kkd
28 -06-21 29-06-21 30-06-21	09:30 AM-10:30 AM	M-1 CHEM PPS	IT-A (1-23)	K.RAJESH	https://meet.google.com/ygf-hpqp-emq
			IT-A (24-45)	B.SRILATHA	https://meet.google.com/haa-uoey-hsw
28 -06-21	1:00 PM-2:00 PM	EITK ES ENG	IT-A (1-23)	K.RAJESH	https://meet.google.com/ygf-hpqp-emq
			IT-A (24-45)	B.SRILATHA	https://meet.google.com/haa-uoey-hsw
28 -06-21 29-06-21 30-06-21	09:30 AM-10:30 AM	M-1 CHEM PPS	IT-B (46-65)	SUDHA.K	https://meet.google.com/qwt-pvce-uuo
			IT-B (66-80)	Dr.K. NAGIREDDY	https://meet.google.com/rfk-ghje-hbs
28 -06-21	1:00 PM-2:00 PM	EITK ES ENG	IT-B (46-65)	SUDHA.K	https://meet.google.com/qwt-pvce-uuo
			IT-B (66-80)	Dr.K. NAGIREDDY	https://meet.google.com/rfk-ghje-hbs
28 -06-21 29-06-21 30-06-21	09:30 AM-10:30 AM	M-1 CHEM PPS	AIDS (1-28)	V.MYTHREYE	https://meet.google.com/dsb-otrg-nuq
			AIDS (29-53)	S.NIHARIKA	https://meet.google.com/akn-mryj-ecz
28 -06-21	1:00 PM-2:00 PM	EITK ES	AIDS (1-28)	V.MYTHREYE	https://meet.google.com/dsb-otrg-nuq

			AIDS (29-53)	S.NIHARIKA	https://meet.google.com/akn-mryj-ecz
28 -06-21 29-06-21 30-06-21	11:00 AM-12:00 PM	M-1 PHY BEE	CSE-A (1-30)	R.GANGADHARA	https://meet.google.com/avd-mmgj-srp
			CSE-A (31-60)	M.VIDYA BHARGAVI	https://meet.google.com/wgr-pmzd-iox
28 -06-21 29-06-21	2.30 PM -3.30 PM	IC ENG	CSE-A (1-30)	R.GANGADHARA	https://meet.google.com/avd-mmgj-srp
			CSE-A (31-60)	M.VIDYA BHARGAVI	https://meet.google.com/wgr-pmzd-iox
28 -06-21 29-06-21 30-06-21	11:00 AM-12:00 PM	M-1 PHY BEE	CSE-B (61-90)	E. LATHA DEVI	https://meet.google.com/mhi-pwik-txh
			CSE-B (91-120)	Dr. V. SRILATHA	https://meet.google.com/kcx-afym-sga
28 -06-21 29-06-21 30-06-21	2.30 PM -3.30 PM	IC ENG	CSE-B (61-90)	E. LATHA DEVI	https://meet.google.com/mhi-pwik-txh
			CSE-B (91-120)	Dr. V. SRILATHA	https://meet.google.com/kcx-afym-sga
28 -06-21 29-06-21 30-06-21	11:00 AM-12:00 PM	M-1 PHY BEE	CSE-C (121-150)	SABA FATIMA	https://meet.google.com/fkb-cfvw-uga
			CSE-C (151-190)	ARSHIYA TANVEER	https://meet.google.com/crr-wahg-ogr?hs=224
28 -06-21 29-06-21	2.30 PM -3.30 PM	IC ENG	CSE-C (121-150)	SABA FATIMA	https://meet.google.com/fkb-cfvw-uga
			CSE-C (151-190)	ARSHIYA TANVEER	https://meet.google.com/crr-wahg-ogr?hs=224
28 -06-21 29-06-21 30-06-21	11:00 AM-12:00 PM	M-1 PHY BEE	CME (1-25)	AARTI	https://meet.google.com/ngh-stsp-jpw
			CME (26-50)	G.SHIRISHA	https://meet.google.com/bcz-njgd-wur
28 -06-21 29-06-21	2.30 PM -3.30 PM	IC ENG	CME (1-25)	AARTI	https://meet.google.com/ngh-stsp-jpw
			CME (26-50)	G.SHIRISHA	https://meet.google.com/bcz-njgd-wur
28 -06-21 29-06-21 30-06-21	11:00 AM-12:00 PM	M-1 PHY BEE	EEE (1-24)	P.AMARNADH	https://meet.google.com/kcr-epgi-fjh
28 -02-21 29-02-21	2.30 PM -3.30 PM	IC	EEE (1-24)	P.AMARNADH	https://meet.google.com/kcr-epgi-fjh

Messages sent to Students and Invigilators:

Dear students
Good morning Students,
1.Keep your answer scripts ready .
2. Keep your device for online exam in full charge.
3.The meeting link will be shared to you at 9.15AM/10:45AM
4. You must join the link by 9.20AM/10:50AM
5. Join with camera "on " and mic in mute.
6. Attendance will be taken in 10 minutes by calling your names.
7. Question paper will be shared to you in whatsApp at 9.25AM/10:55AM
8. Stop writing examination at 10.30AM/12:00PM
9. Submit the scanned pdf file in moodle by 10.50AM/12:20PM in the Mid-1 sub name.
10. The session recording will be submitted to university.

Dear students
Good afternoon Students,
1. Keep your answer scripts ready .
2. Keep your device for online exam in full charge.
3. The meeting link will be shared to you at 12:45PM/2.15PM
4. You must join the link by 12:50PM/2.20PM
5. Join with camera " on " and mic in mute.
6. Attendance will be taken in 10 minutes by calling your names.
7. Question paper will be shared to you in whatsApp at 12:55PM/2.25PM
8. Stop writing examination at 2:00PM/3.30PM
9 Submit the scanned pdf file in moodle by 2:20PM/3.50PM in the Mid-1 sub name.
10. The session recording will be submitted to university.

Dear faculty

As we are all aware as per the instructions of OU we are conducting on line invigilation mid-1 examination. Your co-operation and co-ordination is required to conduct them in smooth way.

FN SESSION

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ASK STUDENTS TO QUIT IF SUBMITTED.

CLOSE AT 10.50AM/12:20 PM

2.5.1

Stanley college of Engineering & Technology for Women

Chapel Road, Abids, Hyderabad.

Affiliated to Osmania University & Recognized by AICTE

Accredited by NBA & NAAC 'A' Grade

B.E. - I Sem Consolidated Mid Marks List for the Academaic Year 20-21

Subject : Physics Branch : AI & DS

Date (Mid - I): 19/2/2021 Date (Mid - II) : 31/3/2021

Sl.	Roll No	Mid - I (20)	Mid - II (20)	Avg (20)	Assign(5)	Quiz (5)	Total (30)	Physics Lab(25)
1	1606 20 747001	19	19	19	4	4	27	20
2	1606 20 747 002	15	17	16	5	4	25	22
3	1606 20 747 003	16	13	15	4	5	24	21
4	1606 20 747 004	19½	19	20	5	4	29	23
5	1606 20 747 005	19½	18	19	4	4	27	21
6	1606 20 747006	18	18	18	4	3	25	22
7	1606 20 747007	19½	19½	20	4	4	28	17
8	1606 20 747 008	19½	19	20	5	4	29	23
9	1606 20 747 009	19	18	19	4	5	28	23
10	1606 20 747 010	18½	18	18	4	5	27	22
11	1606 20 747 011	19½	19	20	4	4	28	21
12	1606 20 747 012	16	11	14	3	3	20	17
13	1606 20 747 013	16½	17	17	3	5	25	23
14	1606 20 747 014	17	15	16	3	4	23	17
15	1606 20 747 015	17½	17	18	4	4	26	21
16	1606 20 747 016	18	18	18	5	5	28	23
17	1606 20 747 017	19½	18	19	4	5	28	20
18	1606 20 747 018	19½	17	18	5	4	27	23
19	1606 20 747019	17½	17	18	4	3	25	20
20	1606 20 747020	19	15	17	3	4	24	18
21	1606 20 747 021	19	19	19	5	3	27	19
22	1606 20 747 022	19	18	19	4	4	27	18
23	1606 20 747023	19½	19½	20	5	5	30	24
24	1606 20 747 024	19	18	19	4	3	26	22
25	1606 20 747 025	19	19	19	4	3	26	23
26	1606 20 747 026	17½	18	18	3	3	24	22
27	1606 20 747 027	18	16	17	3	4	24	19
28	1606 20 747 028	19½	17	18	4	4	26	22
29	1606 20 747 029	17	17	17	4	4	25	18
30	1606 20 747 030	17	17	17	3	3	23	17

Sl. No.	Roll No	Mid - I 20	Mid - II 20	Avg 20	Assign 5	Quiz/ 5	Total 30	Lab(25)
31	1606 20 747 031	18½	16	17	4	3	24	17
32	1606 20 747 032	19	17	18	4	4	26	21
33	1606 20 747 033	17½	17	18	4	4	26	20
34	1606 20 747 034	19½	18	19	4	4	27	22
35	1606 20 747 035	18½	18	19	4	4	27	21
36	1606 20 747 036	18	19	19	3	4	26	18
37	1606 20 747 037	20	19½	20	5	4	29	24
38	1606 20 747 038	17	13	15	3	4	22	17
39	1606 20 747 039	19	16	18	4	3	25	19
40	1606 20 747 040	16½	18	17	4	3	24	21
41	1606 20 747 041	19½	18	19	4	4	27	22
42	1606 20 747 042	18	19	19	4	4	27	23
43	1606 20 747 043	19½	16	18	4	4	26	22
44	1606 20 747 044	19	19	19	5	4	28	20
45	1606 20 747 045	19	17	18	5	4	27	21
46	1606 20 747 046	18½	18	19	5	4	28	23
47	1606 20 747 047	18	17	18	4	4	27	23
48	1606 20 747 048	19½	18	19	4	4	27	19
49	1606 20 747 049	18	15	17	4	3	24	17
50	1606 20 747 050	18½	17	18	4	4	26	22
51	1606 20 747 051	20	18	19	4	5	28	23
52	1606 20 747 052	18½	17	18	4	4	26	22
53	1606 20 747 053	17	18	18	4	4	26	18
54								
55								
56								
57								
58								
59								
60								

Total No. of Students:	52+01 = 53	52+01 = 53
No. of Students present:	52+1 = 53	52+1 = 53
No. of Students absent:	NIL	NIL
Faculty Name / Date:	J.P. Pramod 5/4/2021	J.P. Pramod 5/4/2021
Faculty Signature / Date:		
HOD Signature / Date:	Dr. V. Anuradha 9/4/2021	Dr. V. Anuradha 9/4/2021

Stanley college of Engineering & Technology for Women

Chapel Road, Abids, Hyderabad.(Autonomous)

Affiliated to Osmania University & Recognized by AICTE

Accredited by NBA & NAAC 'A' Grade

B.E SEM II Consolidated Marks List for the Academaic Year 2020 - 2021

Subject : Physics Branch : CME SEM-II

Sl. No.	Roll No	Mid - I 20	Mid - II 20	Avg 20	Assign 5	Quiz 5	Total 30	Lab 25
1	1606 20 740 001	14	14	14	5	4	23	21
2	1606 20 740 002	10	15	13	5	3	21	20
3	1606 20 740 003	14	19	17	5	3	25	24
4	1606 20 740 004	18	19	19	5	4	28	24
5	1606 20 740 005	19	14	17	5	3	25	23
6	1606 20 740 006	18	19½	19	5	5	29	24
7	1606 20 740 007	15	14	15	5	5	25	20
8	1606 20 740 008	13	17	15	5	4	24	21
9	1606 20 740 009	11	16	14	5	5	24	21
10	1606 20 740 010	11	17	14	5	5	24	22
11	1606 20 740 011	12	19	16	5	4	24	22
12	1606 20 740 012	14	11	13	5	3	25	21
13	1606 20 740 013	16	16	16	5	3	21	22
14	1606 20 740 014	19	19	19	5	5	24	24
15	1606 20 740 015	10	13	12	5	5	29	18
16	1606 20 740 016	17	17	17	5	5	22	23
17	1606 20 740 017	15	19	17	5	5	27	22
18	1606 20 740 018	12	17	15	5	5	27	22
19	1606 20 740 019	12	17	15	5	4	25	17
20	1606 20 740 020	12	18	15	5	3	24	23
21	1606 20 740 021	17	19	18	5	5	23	23
22	1606 20 740 022	19	19	19	5	5	28	24
23	1606 20 740 023	19	20	20	5	5	30	24
24	1606 20 740 024	17	14	16	5	4	25	23
25	1606 20 740 025	16	17	17	5	3	25	18
26	1606 20 740 026	17	17	17	5	5	27	24
27	1606 20 740 027	15	18	12	5	4	21	22
28	1606 20 740 028	10	16	13	5	5	23	22
29	1606 20 740 029	15	19	17	5	5	27	23
30	1606 20 740 030	11	15	13	5	3	21	21

Sl. No.	Roll No	Mid - I 20	Mid - II 20	Avg 20	Assign 5	Quiz/ 5	Total 30	LAB 25
31	1606 20 740 031	12	11	12	5	4	21	20
32	1606 20 740 032	12	18	15	5	5	25	23
33	1606 20 740 033	14	16	15	5	3	23	23
34	1606 20 740 034	12	15	14	5	5	24	19
35	1606 20 740 035	14	18	16	5	4	25	20
36	1606 20 740 036	19	19	19	5	5	29	24
37	1606 20 740 037	14	16	15	5	5	25	21
38	1606 20 740 038	14	19	17	5	4	26	23
39	1606 20 740 039	11	18	15	5	3	23	22
40	1606 20 740 040	08	13	11	5	3	19	20
41	1606 20 740 041	15	11	13	5	3	21	21
42	1606 20 740 042	14	12	13	5	5	23	21
43	1606 20 740 043	09	15	12	5	4	21	21
44	1606 20 740 044	12	17	15	5	4	24	21
45	1606 20 740 045	16	19	18	5	3	26	23
46	1606 20 740 046	19	19	19	5	5	29	23
47	1606 20 740 047	18	19	19	5	5	29	24
48	1606 20 740 048	19	18	19	5	5	29	24
49	1606 20 740 049	13	17	15	5	3	23	22
50	1606 20 740 050	14	15	15	5	5	25	23

Total No. of Students:	50
No. of Students present:	50
No. of Students absent:	NIL
Faculty Signature / Date:	Mr. T.P. Pramod. 19/9/2024
HOD Signature/date	Dr. V. Anuradha. 19/9/2024

Stanley College of Engineering & Technology for women (Autonomous)

Affiliated to O.U. & Approved by AICTE
Accredited by NBA & NAAC 'A' Grade
Chapel Road, Abids - Hyderabad - 01.

Question wise marks list - CO Mapping

CME SEM - II AY - 2020 - 2021

Dept. : H&S
Sub : Physics BS104PH
Yr / Sem: Sem-II. Mid-I
Date of Exam: 29/06/2021
Section : Mid-II
Date of Exam : 02/09/2021

SL. NO.	ROLL NO	MID I							MID II						
		Q1							Q1						
		A	B	C	Q2	Q3	Q4	TOTAL	A	B	C	Q2	Q3	Q4	TOTAL
1	160620740001	2	2	2	2+5	1+0	–	14	2	1½	1½	5	–	3+1	14
2	160620740002	2	0	2	1+4	1+0	–	10	2	1	1	5	–	4+2	15
3	160620740003	2	1	2	1+4	1+3	–	14	2	1½	2	7	–	5+1½	19
4	160620740004	2	2	2	2+5	4+1	–	18	2	1½	2	7	–	4½+2	19
5	160620740005	2	2	2	2+5	2+4	–	19	2	2	1	4	–	3+2	14
6	160620740006	2	2	2	2+5	1+4	–	18	2	2	2	7	–	5+1½	19½
7	160620740007	1	1	0	2+5	4+2	–	15	1	1	1	7	4+0	–	14
8	160620740008	1	1	1	2+3	–	2+3	13	2	1	2	5	–	5+2	17
9	160620740009	1	1	1	–	4+1	2+1	11	1	1	1	7	2+4	–	16
10	160620740010	1	0	1	2+4	2+1	–	11	2	2	2	5	–	4+2	17
11	160620740011	2	1	1	2+5	0+1	–	12	2	2	2	7	6	–	19
12	160620740012	2	2	2	2+5	0+1	–	14	1	1½	1½	4	–	3+0	11
13	160620740013	2	1	1	2+5	–	1+4	16	2	2	2	–	4+2	2+2	16
14	160620740014	2	2	2	2+5	–	1+5	19	2	2	2	7	–	4+2	19
15	160620740015	2	0	0	2+5	1+0	–	10	2	1	1	5	–	2+2	13
16	160620740016	2	1	1	2+5	–	1+5	17	2	2	2	6	–	5	17
17	160620740017	1	1	1	2+5	4+1	–	15	2	2	2	7	–	4+2	19
18	160620740018	1	1	1	2+4	2+1	–	12	2	1½	1½	6	–	4+2	17
19	160620740019	2	1	1	2+5	–	1+0	12	2	2	2	7	4+0	–	17
20	160620740020	2	1	1	2+5	–	1+0	12	2	2	2	6	4+2	–	18
21	160620740021	2	2	2	2+5	3+1	–	17	2	2	2	7	–	5+1	19
22	160620740022	2	2	2	2+5	–	2+4	19	2	2	2	7	4+2	–	19
23	160620740023	2	2	2	–	5+2	1+4	19	2	2	2	7	–	5+2	20
24	160620740024	2	2	2	2+5	3+1	–	17	1½	2	1½	5	–	4+0	14
25	160620740025	2	2	2	2+5	2+1	–	16	2	2	2	7	–	3+1	17
26	160620740026	1	1	1	1+4	2+1	–	11	1½	2	1½	7	3+2	–	17
27	160620740027	1	2	1	2+4	2+3	–	15	2	2	2	6	2+4	–	18
28	160620740028	1	1	1	1+4	1+1	–	10	1+1	1+1	2	–	2+2	2+2+1	16
29	160620740029	2	1	1	1½+4½	–	1+4	15	2	1½	1½	7	–	5+2	19
30	160620740030	2	1	1	2+1	–	1+3	11	2	1	2	5	–	4+1	15

SL. NO.	ROLL NO	MID I							MID II						
		Q1							Q1						
		A	B	C	Q2	Q3	Q4	TOTAL	A	B	C	Q2	Q3	Q4	TOTAL
31	160620740031	–	–	–	2+5	–	2+3	12	2	0	2	–	2+4	1+0	11
32	160620740032	2	2	1	2+4	–	1+0	12	2	2	2	6	–	4+2	18
33	160620740033	2	2	–	2+4	3+1	–	14	2	0	2	6	3+3	–	16
34	160620740034	2	1½	1½	1+4	1+1	–	12	1½	1	1½	6	–	3+2	15
35	160620740035	1	1	1	2+5	–	1+3	14	2	2	2	7	–	3+2	18
36	160620740036	2	2	2	2+5	–	1+5	19	2	2	2	7	–	4+2	19
37	160620740037	1	1	1	2+4	4+1	–	14	2	2	2	3	–	5+2	16
38	160620740038	1	1	2	2+4	3+1	–	14	2	2	2	6	–	5+2	19
39	160620740039	1	1	1	2+5	–	1+0	11	1	1	2	7	–	5+2	18
40	160620740040	1	1	1	1+2	–	1+1	08	1	1	2	6	–	2+1	13
41	160620740041	1	1	1	2+5	3+2	–	15	1½	1	1½	3	–	3+1	11
42	160620740042	2	1	1	2+4	3+1	–	14	1½	1½	1	4	–	3+2	12
43	160620740043	1	1	1	1+3	1+1	–	09	1	2	2	4	–	4+2	15
44	160620740044	1	1	1	1+4	3+1	–	12	1½	1½	2	7	–	3+2	17
45	160620740045	2	2	1	1+5	3+2	–	16	2	2	2	7	–	5+1	19
46	160620740046	2	2	2	2+5	5+1	–	19	2	2	2	6	–	5+2	19
47	160620740047	2	2	2	2+4	–	2+4	18	2	2	2	7	2+4	–	19
48	160620740048	2	2	2	2+5	4+1	–	19	1	2	2	7	2+4	–	18
49	160620740049	1	1	0	2+5	–	1+3	13	2	2	2	–	2+4	5+0	17
50	160620740050	1	1	1	2+5	–	2+2	14	1	1½	1½	4	5+2	–	15

Faculty Name & Signature	15/7/2021 J.P. PRAMOD.	Faculty Name & Signature	9/9/2021 J.P. Pramod
HOD Signature / Date	15/7/2021 Dr.V.ANURADHA.	HOD Signature / Date	9/9/2021 Dr.V.Anuradha

Stanley College of Engineering & Technology for Women
Chapel Road, Abids, Hyderabad

Date: 18.02.2021

Examination circular

All the B.E III & V semester students are informed that, online **II - Internal examinations** are scheduled from **March 01st 2021.** The detailed time table will be displayed on notice boards and the students are requested to note the same. **Mid exams are conducted online and No Re-test will be conducted for the Absentee students.**

C of Exams

Principal

opy to HOD's:

SE ECE EEE IT H&S MBA

Stanley College of Engineering & Technology for Women

Abids, Hyderabad.

B.E. - III & V Sem - II - INTERNAL EXAMINATION TIME TABLE for the A.Y - 2020 - 2021

Date: 18.02.2021

Date	Day	CSE III Sem		ECE III Sem		EEE III Sem		IT III Sem		CME III Sem	
		09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM
1.3.2021	Monday	BE	DE	PTSP	ETCE	IP	BIO-E	BE	MFIT	BEE	LST
2.3.2021	Tuesday	DSA	DST	NT	DE	E Mechanics	ESE	DE	M-III	DS	DSML
3.3.2021	Wednesday	OR	PL	ED	F&A	ECA	EMF	DS	ETCE	OR	P&S
4.3.2021	Thursday		Bio E			AE		F & A			Bio E

Date	Day	CSE V Sem		ECE V Sem		EEE V Sem		IT V Sem	
		09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM	09:30 AM - 10:30 AM	2:30 PM - 3:30 PM
1.3.2021	Monday	SE	OS	MPMC	AWP	EM-II	PS-I	WAD	OS
2.3.2021	Tuesday	ALC	AI	DSP	AC	LCS	MPMC	T(A)	CN
3.3.2021	Wednesday	WT	CG	ACS		S&S	RES	SE	AI

I/Charge Exams

Principal

Copy to HODs: CSE ECE EEE IT

Class room Circulation

Set-2

Stanley College of Engineering & Technology for Women

Chapel Road, Hyderabad

B. E. VIII SEM (IT) I-Mid Examination, 17th April 2021

Machine Learning (PE833 CS)

[Time: 1 Hour] [Time: 12:30 PM- 01:30 PM] [Max. Marks: 20]

Note: 1) Answer all questions of Part – A.
2) Answer any two questions from Part – B.

PART – A **(Marks: 3×2 =6)**

1. Describe briefly the different types of learning. (2)
2. Define version space. (2)
3. What are drawbacks of linear perceptron? (2)

PART – B **(Marks: 2×7 =14)**

4. Write the candidate elimination algorithm and apply the algorithm to obtain the final version space for the training example below. (7)

Example	Sky	AirTemp	Humidity	Wind	Water	Forecast	EnjoySport
1	Sunny	Warm	Normal	Strong	Warm	Same	Yes
2	Sunny	Warm	High	Strong	Warm	Same	Yes
3	Rainy	Cold	High	Strong	Warm	Change	No
4	Sunny	Warm	High	Strong	Cool	Change	Yes

5. Explain decision tree learning algorithm and demonstrate with a classification example. (7)
6. Write the perceptron learning algorithm and demonstrate it for OR function. (7)

Q. NO	Q1	Q2	Q3	Q4	Q5	Q6
COs	CO1	CO1	CO2	CO1	CO2	CO2
Taxonomy Level	Understand	Remember	Remember	Apply	Apply	Apply

Prepared by Mr. T Sandeep

Stanley college of Engineering & Technology for women

MAIN ANSWER SHEET

Mid Examination-1

Branch: CT Sem: VIII sem Section:- Roll No: 1604173304 Subject: ML

PART-B

a) Candidate elimination algorithm:

The candidate elimination algorithm incrementally builds the version space given a hypothesis space H and a set E of examples the examples are added one by one; each example possibly shrinks the version space by removing the hypothesis that are inconsistent with the example

Terms used:

Concept learning: concept learning is basically learning task of the machine.

General hypothesis: Not specifying features to learn the machine.

G={'?', '?', '?', '?', '?'...}: No of attributes

Specific hypothesis: specifying features to learn machine

S = {'ϕ', 'ϕ', 'ϕ'...}; No of ϕ depends on no of attributes

version space: It is intermediate of general hypothesis and specific hypothesis.

Given Example:

Example	Sky	AirTemp	Humidity	Wind	Water	Forecast	EnjoySport
1	Sunny	Warm	Normal	Strong	Warm	Same	Yes
2	Sunny	Warm	High	Strong	Warm	Same	Yes
3	Rainy	Cold	High	Strong	Warm	Change	No
4	Sunny	Warm	High	Strong	Cool	Change	Yes

⇒ Consider this as an Extended form of Find-S algorithm

⇒ Consider both positive and negative Examples

⇒ Actually, positive examples are used here as Find-S algorithm

⇒ while the negative example is specified form generalize form

Algorithmic steps to solve given Examples:

Initially:

G= [[?,?,?,?,?,?], [?,?,?,?,?,?], [?,?,?,?,?,?], [?,?,?,?,?,?], [?,?,?,?,?,?], [?,?,?,?,?,?]]

S= [Null, Null, Null, Null, Null, Null]

For Example 1: <'Sunny', 'Warm', 'normal', 'strong', 'warm', 'same'> and positive output.

G1 = G

S1 = ['Sunny', 'Warm', 'normal', 'strong', 'warm', 'same']

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Additional sheet No: 1

Roll No: 160619737004

For Example2:

<'sunny', 'warm', 'high', 'strong', 'warm', 'same'> and positive output.

G2 = G1

S2 = ['sunny', 'warm', ?, 'strong', 'warm', 'same']

For Example3:

<'rainy', 'cold', 'high', 'strong', 'warm', 'change'> and negative output

G3 = [['sunny', ?, ?, ?, ?, ?], [?, 'warm', ?, ?, ?, ?], [?, ?, ?, ?, ?, ?], [?, ?, ?, ?, ?, ?], [?, ?, ?, ?, ?, ?], [?, ?, ?, ?, ?, 'same']]

S3 = S2

For Example4:

<'sunny', 'warm', 'high', 'strong', 'cool', 'change'> and positive output.

G4 = G3

S4 = ['sunny', 'warm', ?, 'strong', ?, ?]

At last, by synchronising the G4 and S4 algorithm Produce the output.

output:

G = [['sunny', ?, ?, ?, ?, ?], [?, 'warm', ?, ?, ?, ?]]

S = ['sunny', 'warm', ?, 'strong', ?, ?]

6) Perception learning algorithm:

learning algorithm for perception steps are used in the training process they are:

1) Initially random weights are assigned to input variables in the range -0.5 and +0.5

2) Training data is presented to perception and its output is observed

3) If output is incorrect, the weights are adjusted according to using following formula.

$W_i = W_i + (A * X_i * E)$ where, E = Error produced

A ($0 < A < 1$) = Learning rate.

The learning rate A can be defined as,

i) If output is correct, then A = 0

ii) If output is too high, then A = some positive number

iii) If output is too high low, then A = some negative number.

4) After modification of weights, the next training

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Additional sheet No: 2

Roll No: 160619933004

data is applied with modified weights and the weights are further adjusted accordingly

5) When we are applied for training data, In that case the process starts again until all weights are zero and all errors are zero.

6) Each iteration of this process is known as an epoch.

Perception for OR function:

Construction of Perception steps are:

1) Initialize weights as $w_1 = -0.2$ and $w_2 = 0.4$

2) Consider first training data, $x_1=0$, $x_2=0$. The expected output is 0.

3) Compute $Y = \text{step}(w_1 * x_1 + w_2 * x_2) = 0$

4) Since, $y=0$, out is correct and therefore no change in weights is required

5) Consider another training data,

$x_1=0$, $x_2=1$ output = 1

6) Compute $Y = \text{step}(w_1 * x_1 + w_2 * x_2)$

$= \text{step}(0 + 0.4) = 0.4 = 1$

The output is again correct so that weights are not changed.

7) Next training data $x_1=1$ and $x_2=0$ and output = 1

8) Compute $Y = \text{step}(w_1 * x_1 + w_2 * x_2) = (-0.2 + 0) = -0.2 = 0$

9) Now since, $Y=0$ and desired output is 1, hence, weights are to be changed

i) Here, Error is 1 i.e, $E=1$ Assume learning rate $\alpha = 0.2$ $(0 < \alpha < 1)$.

ii) Updated weights are computed using $w_i = w_i + (\alpha * x_i * E)$

iii) $w_1 = -0.2 + (0.2 * 1 * 1) = 0$ and $w_2 = 0.4 + (0.2 * 1 * 1) = 0.4$

10) With $w_1=0$ and $w_2=0.4$, Consider the next input training data $x_1=1$, $x_2=1$ and output = 1

11) Compute $y = \text{step}(w_1 * x_1 + w_2 * x_2) = 0.4 = 1$

12) The output is correct, so, weights are not changed

13) Now, repeat the process for all training data with modified weights till we obtain stable results we can use this method for any linearly separable Boolean functions.

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Additional sheet No: 3

Roll No: 160617737004

PART-A

① There are 3 types of learning:

① Supervised Learning: It describes a class of problem that involves using a model to learn a mapping between input examples and the target values

② Unsupervised learning: It describes a class of problems that involves using a model to describe or extract relationships in data.

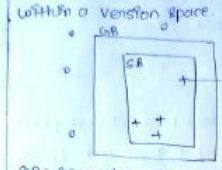
③ Reinforcement learning: It describes a class of problems where an agent operates in an environment and must learn to operate using feedback.

⑧ Version space:

Version space is a hierarchical representation of knowledge that enables you to keep track of all the useful information supplied by a sequence of learning examples without remembering any of the examples

The version space method is a concept learning process accomplished by managing multiple models

within a version space.



GB = general positive hypothesis boundary

SB = Specific positive hypothesis boundary

⑤ drawbacks of linear Perception:

⇒ The output values of a perception can take on only one of two values (0 or 1) due to the hard-limit transfer function.

⇒ Perception can only classify linearly separable set of vectors.

⇒ one can train the perception to act as a binary logic unit. It can compute or approximate most 2-ip Boolean functions. However, a problem arises when trying to train perception on the XOR function.

STANLEY COLLEGE OF ENGINEERING AND TECHNOLOGY FOR WOMEN
MAIN ANSWER SHEET
MAIN EXAMINATION-2

Branch: IT Sem: VIII Section: Roll no: 160617 [illegible] Sub: ML Date: [illegible]

PART-A

1.
Ans In statistics and machine leaning, the bias-Variance trade off is the property of a model that the Variance of the parameter estimates across samples can be reduced by increasing the bias in the estimated parameters

2.
Ans a) Crossover technique.
In genetic algorithms and evolutionary computation, crossover, also called recombination, is a genetic operator used to combine the genetic information of two parents to generate new offspring. The method chosen depends on Encoding Method.

Mutation.
Mutation is a genetic operator used to maintain genetic diversity from one generation of a population of genetic algorithm chromosomes to the next. A common method of implementing the mutation operator involves generating a random variable for each bit in a sequence. Genetic Algorithm is used can reach an improved solution solely through the mutation operator

3
Ans Principle Component Analysis.
Principle component Analysis, (or PCA) is a dimensionality-reduction method that ~~is often used to reduction method that is~~ often used to reduce the dimensionality of large used data sets, by transforming a large set of Variables into a smaller one that still contains most of the information in the the large set.

PART-B:

4)
Ans Genetic Algorithm:
→ Genetic Algorithms provide a learning method motivated by an analogy to biological evolution. GAs generate successor hypothesis by repeatedly mutating and recombining parts of the best currently known hypothesis. At each step, collection of hypothesis called the current population is updated by replacing some fraction of the population by offspring of the most fit current hypothesis.
→ The process forms a generate-and-test beam search of hypothesis, in which variants of the current best hypothesis are most likely to be considered next. The popularity of GAs is motivated

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by a number of F factors including:

- Evolution is known to be a successful robust method for adaptation within biological systems
- GAs can search spaces of hypotheses containing complex interacting parts where the impact of each part on overall hypothesis fitness may be difficult to model

→ In GA the "best hypothesis" is defined as the one that optimize a predefined numerical measure for the problem at hand, called the hypothesis fitness

→ The algorithm operates by iteratively updating a pool of hypothesis, called the population. On each iteration, all members of the population is then generated by probabilistically selecting the most fit individuals from the current population. Some of these individuals are carried forward into the next generation population intact. Others are used as the basis for creating new offspring individuals by applying genetic operations such as crossover and mutation

→ GA (Fitness, Fitness_threshold, P, r, m)

Fitness: A function that assigns an evaluation score, given a hypothesis

Fitness_threshold: A threshold specifying the termination criterion.

P: The number of hypotheses to be included in the population

r: The fraction of the population to be replaced by Crossover at each step.

m: The mutation rate

- Initialize population: P ← Generate p hypotheses at random
- Evaluate: For each h in P, compute Fitness(h)
- While [$\max_h$ Fitness(h)] < Fitness_threshold do.

Create a new generation, P_s:

1. Select: Probabilistically select (1-r) p members of P to add to P_s. The probability $P_r(h_i)$ of selecting hypothesis h_i from P is given by

$$P_r(h_i) = \frac{\text{Fitness}(h_i)}{\sum_{j=1}^{p} \text{Fitness}(h_j)}$$

2. Crossover: Probabilistically select $\frac{r \cdot p}{2}$ pairs of hypotheses from P_s, according to $P_r(h_i)$ given above. For each pair, (h_1, h_2), produce two offspring by applying the Crossover operator. Add all offspring to P_s.
3. Mutate: Choose m percent of the members of P_s with uniform probability. For each invert one randomly selected bit in its representation.
4) Update: $P \leftarrow P_s$
5) Evaluate: for each h in P compute Fitness(h).

- Return the hypothesis from P that has the highest fitness.

5 Ans Naive Bayesian classifier Algorithm:

- Naive Bayes algorithm is a supervised learning algorithm which is based on Bayes theorem and used for solving classification problems.
- It is mainly used in text classification that include a high-dimensional training dataset.
- It is one of the simplest and most effective classification algorithm which helps in building the fast machine learning models that can make quick predictions.
- It is a probabilistic classifier, which means it predicts on the basis of probability of an object.
- Some popular example of it is spam filtration, Sentimental analysis and classifying articles.

Why it is Called Naive Bayes?

The Naive Bayes algorithm is comprised of two words Naive and Bayes, which can be described as:

- Naive: It is called Naive because it assumes that the occurance of a certain feature is independent of the occurances of other factors. Here each feature contributes individually without depending on each other.

Bayes: It is called as Bayes because it depends on Baye's Theorem.

$$V_{NB} = \underset{v_j \in V}{\operatorname{argmax}}\, P(v_j) \prod_i P(a_i / v_j)$$

where V_{NB} denotes the target value output by the naive Bayes classifier. Notice that in a naive Bayes classifier the no. of distinct $P(a_i/v_j)$ terms that must be estimated from training data is just the no. of distinct attribute values times the no. of distinct target value.

Working of Naive Bayes classifier:

Working of Naive Bayes classifier can be understood with the help of an example given below.

Example:

Suppose we have a dataset of weather conditions and corresponding target variable 'Play'. So using play (or not) on a particular day according to those weather conditions, to solve this we need to follow the steps.

1. Convert given dataset into frequency tables.
2. Generate likehood table by finding the probabilities of given features.
3. Now use the Bayes theorem to calculate the posterior probability.

Roll no: 160617737008

Problem: If the weather is sunny, then the player should play (or) not?

Solution: To solve this we consider the below dataset.

	Outlook	play
0	Rainy	Yes
1	Sunny	Yes
2	Overcast	Yes
3	Overcast	Yes
4	Sunny	Yes
5	Rainy	Yes
6	Sunny	Yes
7	Overcast	Yes
8	Rainy	No
9	Sunny	No
10	Sunny	Yes
11	Rainy	No
13	Overcast	Yes
14	Overcast	Yes

Frequency table for weather conditions:

Weather	Yes	No
Overcast	5	0
Rainy	2	2
Sunny	3	2
Total	10	5

Likelihood table weather conditions:

weather	No	Yes	
Overcast	0	5	$5/14 = 0.65$
Rainy	2	2	$4/14 = 0.29$
Sunny	2	3	$5/14 = 0.35$
	$4/14 = 0.29$	$10/14 = 0.71$	

Applying Bayes Theorem:

$P(Yes/Sunny) = P(Sunny/Yes) * P(Yes)/P(Sunny)$

$P(Yes/Sunny/Yes) = 3/10 = 0.3$

$P(Sunny) = 0.35$

$P(Yes) = 0.71$

So $P(Yes/Sunny) = 0.3 * 0.71/0.35 = 0.60$

$P(No/Sunny) = P(Sunny/No) * P(No)/P(Sunny)$

Roll no 160619737009

P(Sunny/No) = 2/4 = 0.5

P(No) = 0.29

P(Sunny) = 0.35

So P(No/Sunny) = 0.5 * 0.29/0.35 = 0.41

So as we can see from above Calculation that P(Yes/Sunny) > P(No/Sunny)

Hence on Sunny day player can play the game

Stanley College of Engineering & Technology for Women
Department of Information Technology
B.E- Mid- I Question wise marks list

Dept. : ___IT_____ Sem: _VII Section : _____

Sub :NETWORK SECURITY & CRYPTOGRAPHY Date of Exam :28-10-20

SL NO	ROLL NO	MID I						
		Q1	Q2	Q3	Q4	Q5	Q6	TOTAL
1	160617737001	2	2	2	7	7		20
2	160617737003	2	2	1.5	7	5.5		18
3	160617737004	2	2	2	7	7		20
4	160617737005	2	2	2	7	7		20
5	160617737006	2	2	2	7	7		20
6	160617737007	2	2	2	7	7		20
7	160617737008	2	2	2	7	7		20
8	160617737009	2	2	2		6	4	16
9	160617737010	2	2	2	7	7		20
10	160617737011	2	2	2	7	7		20
11	160617737012	2	2	2	7	7		20
12	160617737013	2	2	2		7	7	20
13	160617737014	2	2	2	7	7		20
14	160617737015	2	2	2	7	7		20
15	160617737017	2	2	2	6		7	19
16	160617737018	2	2	2	7	7		20
17	160617737019	2	2	2	4		4	14
18	160617737020	2	2	2		7	7	20
19	160617737021	2	2	2	7	7		20
20	160617737022	2	2	2	7	4		17
21	160617737023	2	2	2	7	7		20
22	160617737024	2	2	2		7	7	20
23	160617737025	2	2	2	7	7		20
24	160617737026	2	2	2	7	7		20
25	160617737027	2	2	2	7	7		20
26	160617737028	2	2	1	7	5		17
27	160617737029	2	2	2		7	7	20
28	160617737030	2	2	2	7	7		20
29	160617737031	2	2	2	7	5		18
30	160617737032	2	2	2		7	7	20
31	160617737033	2	2	2	7	7		20
32	160617737034	2	2	2	7	7		20
33	160617737035	2	2	2	7	7		20
34	160617737036	2	2	2	6	7		19
35	160617737037	2	2	2	7	7		20
36	160617737038	2	2	2	7	7		20
37	160617737039	2	2	2	7	7		20
38	160617737040	2	2	2	7		7	20
39	160617737041	2	2	2	7	7		20
40	160617737042	2	2	2	7	7		20

		MID1						
SL NO	ROLL NO	Q1	Q2	Q3	Q4	Q5	Q6	TOTAL
41	160617737043	2	2	2	7	7		20
42	160617737044	2	2	2	7	6		19
43	160617737045	2	2	2	7	7		20
44	160617737046	2	2	2	7	6		19
45	160617737047	2	2	2	7	6		19
46	160617737048	2	2	2	7	7		20
47	160617737049	2	2	2	7	7		20
48	160617737051	2	2	2	4.5	7		18
49	160617737053	2	1	1.5	5	5		15
50	160617737054	2	2	2	6.5	5		18
51	160617737055	2	2	2	5	7		18
52	160617737056	2	2	2	7	7		20
53	160617737057	2	2	2	7	7		20
54	160617737058	2	2	2	7	7		20
55	160617737501	2	2	2	7	7		20
56	160613737013	2	2	2	5		6	17
57	160616737033	2	2	2	7	6		19

Faculty Name & Signature	Mrs.Afreen Fatima Mohammed
HOD Signature/Date	

Stanley College of Engineering & Technology for Women

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IBA- IV Sem Consolidated Mid Marks List for the Academic Year 2019-2

Subject: TKM

Date(Mid-I): 14-03-2020 **Date(Mid-II):23-06-2020**

Sl No.	Roll No	Mid-I (15)	Mid-II (15)	Avg (15)	Assignment	Total (20)
1	16061872007	15	15	15	5	**20**
2	160618672009	14	14	14	5	**19**
3	160618672010	14	14	14	5	**19**
4	160618672011	15	15	15	5	**20**
5	160618672012	15	15	15	5	**20**
6	160618672013	13	14	14	5	**19**
7	160618672015	12	14	13	5	**18**
8	160618672028	15	15	15	5	**20**
9	160618672029	14	14	14	5	**19**
10	160618672041	11	13	12	5	**17**
11	160618672044	13	14	14	5	**19**
12	160618672047	14	14	14	5	**19**
13	160618672051	13	14	14	5	**19**
14	160618672054	12	13	13	5	**18**
15	160618672056	15	15	15	5	**20**
16	160618672057	14	15	15	5	**20**
17	160618672059	15	15	15	5	**20**

	MID- I	MID - II
Total No. of Students:	**17**	**17**
No. of Students Present:	**17**	**17**
No.of Students Absent	**NIL**	**NIL**
Faculty Name/Date:	**M.Amala Kumari**	**M.Amala Kumari**