University of Rajshahi

Department of Computer Science and Engineering

B.Sc. in Engineering 1st Year 1st Semester Examination-2019

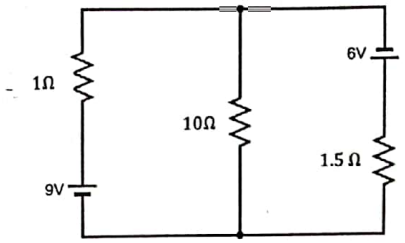
Course: **EEE 1131/APEE 1131 [Electrical Circuit and Electronics]**

Marks: 52½ [Answer any six (06) questions taking three (03) from each section.] Time: 3 Hours

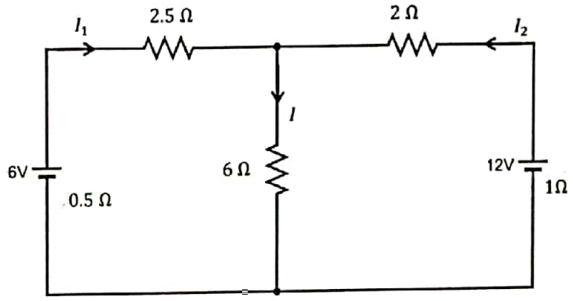
Section-A

1.a) Show that in any electrical network the incoming current is equal to outgoing current. 3

b) From the circuit shown below determine the current through 10 Ohm resistor using i) Thevenin's theorem and ii) Norton's theorem. 5¾

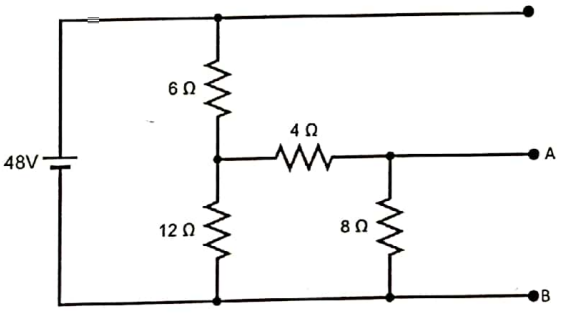


2.a) Determine the number of branches and nodes in the figure given below. Find out the current I_1 and I_2. 2



b) Define Thevenin's voltage and Thevenin's resistance with an example. 3

c) Calculate the value of V_{TH} and R_{TH} between terminal A and B of the following figure: 3¾



3.a) Why *Si* or *Ge* is not used to fabricate LEDs? 2¾

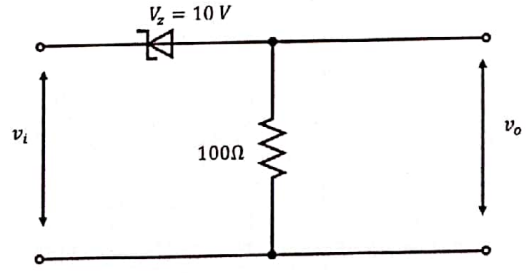
b) What is LCD? Why does it require extremely low power to operate LCDs? 3

c) Why P-N photodiode is known as one of the fastest photo-detector? What are the other uses of P-N photodiode except photo-detector? 3

4.a) What is a Zener diode? 1

b) Show the V-I characteristics of a Zener diode. 2¾

c) Calculate the value of v_0 for the given circuit for i) $v_i = 5V$ ii) $v_i = 10\ V$ and iii) $v_i = 15\ V$



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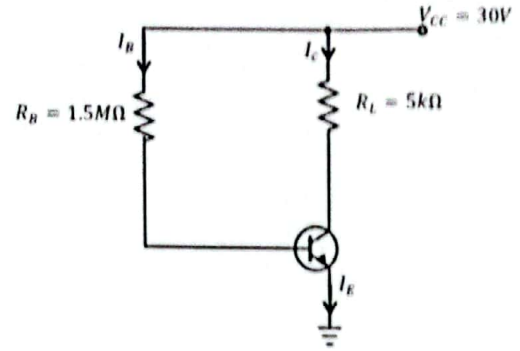
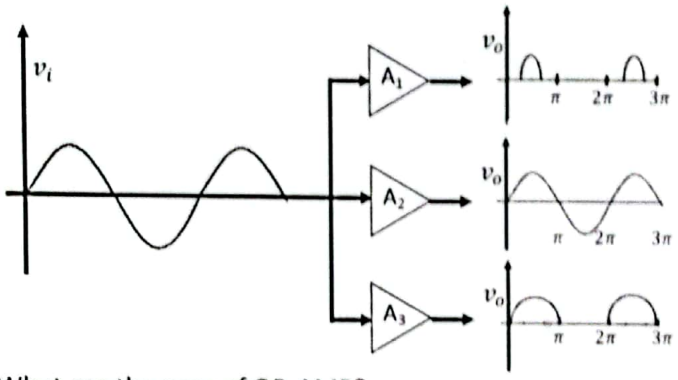
Section-B

5.a) What will happen if a transistor is not biased properly? 2

b) For the amplifier drawn below i) draw the load line and ii) mark the Q point. Assume ß=100 and neglect V_{BE}. 5



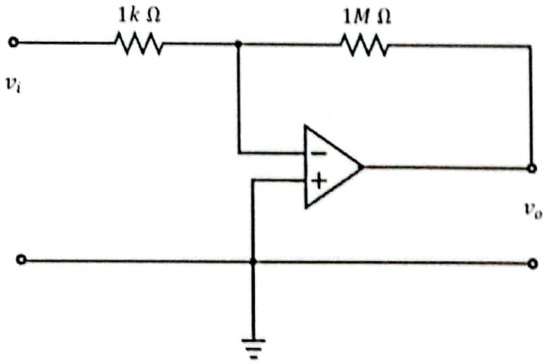
c) The inputs and outputs of three amplifiers A_1, A_2 and A_3 are shown below. Classify the amplifiers depending on their outputs. 1¼



6.a) What is an OP-AMP? What are the uses of OP-AMP? 2

b) Discuss the basic characteristics of an ideal OP-AMP. 1¼

c) For the following amplifier (assume the OP-AMP is ideal) determine the following - i) voltage gain ii) input resistance iii) output resistance 5



7.a) What is an oscillator? 1

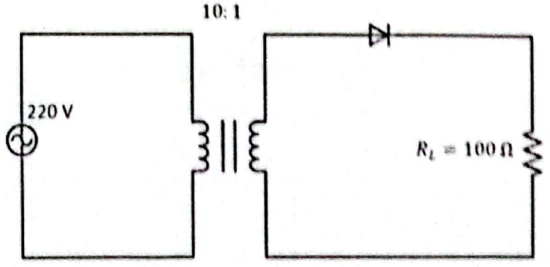
b) Discuss the conditions for oscillation. 2

c) Design a Hartley oscillator which has to be tunable over 500 kHz to 1000 kHz. The values of the two inductors are 50 μH each. Neglect the effect of mutual inductance. 5¼

8.a) What do you mean by Zener breakdown and avalanche breakdown? 2

b) Draw the circuit diagram of a full-wave bridge rectifier. 2¼

c) Consider R_L is the load resistance in the half-wave rectifier shown below, determine i) rms value of load voltage ii) power absorbed by the load and iii) efficiency of the rectifier. 4



University of Rajshahi

Department of Computer Science and Engineering

B.Sc. in Engineering 1st Year 1st Semester Examination-2019

Course: **ENG 1111**[Technical and Communication English]

Marks: 35 [Answer any four (04) questions taking two (02) from each section.] Time: 3 Hours

Section-A

1.a) Define three kinds of predicate with examples. 0.75

b) Complete the following conditional sentences (any four): 4

i) You would have gotten wet _____.

ii) I would have been happy _____.

iii) If I had worked harder _____.

iv) _____ I would have baked a cake.

v) _____, I would have written to you.

c) Change the following words as directed (any four): 4

i) Proper (change it into an adverb)

ii) Peril (change it into an adjective)

iii) Soothe (change it into an adjective)

iv) Assertion (change it into a verb)

v) Pilferage (change it into a verb)

2.a) Define compound-complex sentences with an example. 1.75

b) Make sentences according to the following structures (any four): 4

i) Subject + intransitive verb + adjunct

ii) Subject + passive verb

iii) Subject + transitive verb + indirect object + direct object + adjunct

iv) Subject + transitive verb + direct object

v) Subject + linking verb + complement + adjunct

c) Make sentences with the following idioms (any three): 3

i) An inside job

ii) In a fix

iii) Sine die

iv) Throw cold water

3.a) Define subordinate clauses with an example. 1.75

b) Use appropriate modals, according to the instructions in brackets, to complete the following sentences; use negatives where necessary (any four): 4

i) It ___ be raining in Sylhet now. (Indicate a guess)

ii) As the team has worked hard, it ___ expect success. (Indicate a logical possibility)

iii) The food is so tasty that I ___ lick my fingers while eating. (Indicate an unrealistic action)

iv) You ___ reach the station early. (Indicate an obligation)

v) She said that she ___ leave then. (Indicate future in a past event)

c) Form wh-questions, for the following sentences, the answers of which should be the underlined words (any three): 3

i) Farjana went to Australia <u>in 2018</u>.

ii) <u>The professor's</u> laptop was stolen.

iii) The team members admire <u>the captain</u>.

iv) He forgot <u>his name</u>.

Section-B

4.a) Read the passage and answer the following questions:

An Oxford professor who has studied existential threats ranging from nuclear war to superbugs says the biggest danger of all may be "superintelligence". It is any intellect that outperforms human intellect in every field, and Nick Bostrom thinks its most likely form will be a machine -- artificial intelligence (AI).

There are two ways artificial intelligence could go, Bostrom argues. It could greatly improve our lives and solve the world's problems, such as disease, hunger and even pain. Or, it could take over and possibly kill all or many humans. As it stands, the catastrophic scenario is more likely, according to Bostrom, who has a background in physics, computational neuroscience and mathematical logic.

"Superintelligence" could overcome extremely powerful and be able to shape the future according to its preferences, "Bostrom told me." If humanity was sane and had our act together globally, the sensible course of action would be to postpone development of superintelligence until we figure out how to do so safely."

Bostrom, the founding director of Oxford's Future of Humanity Institute, lays out his concerns in his new book, *Supeintelligence: Paths, Dangers, Strategies*. His book makes a harrowing comparison between the fate of horses and humans.

Horses were initially complemented by carriages and ploughs, which greatly increased the horse's productivity. Later, horses were substituted for by automobiles and tractors. When horse became obsolete as a source of labor, many were sold off to meatpackers to be processed into dog food, bone meal, leather, and glue. In the United States, there were about 26 million horses in 1915. By the early 1950s, 2 million remained. The same dark outcome, Bostrom said, could happen to humans once AI makes our labor and intelligence obsolete.

i) What is "superintelligence"? 1
ii) According to Bostrom, in which two ways can AI impact our lives? 1
iii) What is the name Bostrom's new book? 1
iv) With which animal does Bostrom compare the possible fate of humans? 1
v) Under what condition can human beings continue to develop AI, according to Bostrom? 2
vi) Suggests a suitable title for the passage and justify the title. 2.75

5.a) Write a letter to the editor of The Daily Star calling attention to the declining standard of English among the students today. 4

b) Answer any one of the following questions: 4.75
i) Write a contrast paragraph on "College life and University life".
ii) Write a listing paragraph on "Impacts of Global Warming".

6.a) Suppose you made an order to Asus Computers in the last week. For unavoidable reasons, you have to cancel this order now. Write a letter to its Director of Sales cancelling the order. 4

b) Suppose you work at Rahimafrooz Limited as its Director. You have noticed that some of the employees have formed a habit of coming late and leaving early. Write a memo to remind them of their obligations and to warn them of disciplinary measures if they continue this habit. 4.75

University of Rajshahi

Department of Computer Science and Engineering

B.Sc. Engg. Part 1 Odd Semester Examination 2019

Course: MATH 1111 (Algebra, Trigonometry and Vector)

Full Marks: 52.5 Time: 3 Hours

[N.B. Answer any three questions from each Section]

Section-A

1)

a) Define a union and intersection of two sets. Let $A = \{0,1,2,3,4\}$ and $B = \{3,5,6\}$. Find $A \cup B$ and $A \cap B$. 2.75

b) Let X and Y be two sets. Define a relation and a function from X to Y. Let $X = \{1,2,3,4\}$ and $Y = \{a, b, c\}$. Consider the following three subsets of $X \times Y$ $f = \{(1,a),(2,a),(3,b),(4,c)\}$, $g = \{(2,a),(2,b),(3,b),(4,b)\}$ and $h = \{(1,a),(2,b),(3,c)\}$, which are functions from X into Y? Why? 3

c) Let $f: \mathbb{R} \to \mathbb{R}$ be a function defined by $f(x) = 2x - 5$ and $g: \mathbb{R} \to \mathbb{R}$ defined by $g(x) = 5x^2 - 3$. Find fog and gof. 3

2)

a) Prove that imaginary roots of an equation occur in pairs (the equation with real co-efficients) . 3

b) Find the nature of the roots of the polynomial $f(x) = x^7 - x^4 - x^2 - 1$. 3

c) If a, b, c are the roots of the equation $x^3 + px^2 + qx + r \equiv 0$, find the value of $\sum a^2$. 2.75

3)

a) Solve the cubic equation $x^3 + x - 2 = 0$ 3

b) Prove that $\begin{vmatrix} 1 & 1 & 1 \\ a & b & c \\ a^3 & b^3 & c^3 \end{vmatrix} = (b-c)(a-b)(c-a)(a+b+c)$ 3

c) Solve the following system of linear equations by using Cramer's rule: 2.75

$$x + y + z = 1, \quad x + 2y + z = 2, \quad x + y + 2z = 0.$$

4)

a) State De'Moivers Theorem. Find all the values of $(1+i)^{1/3}$. 3

b) If $x + \frac{1}{x} = 2cos\theta$, then show that $x^n + \frac{1}{x^n} = 2cosn\theta$. 3

c) Prove that $i^i = e^{-(4n+1)\pi/2}$. 2.75

Section B

5)

a) Prove that 3

$$\frac{\Pi}{8} = \frac{1}{1.3} + \frac{1}{5.7} + \frac{1}{9.11} + \cdots$$

b) Find the sum of the series 3

$$1 + x\cos\theta + x^2 cos2\theta + \cdots + x^{n-1}\cos(n-1)\theta$$

c) Separate into real and imaginary parts of the expression $\tan^{-1}(x+iy)$. 2.75

6)

a) Show that the vectors $\vec{A} = 3\vec{\imath} - 2\vec{\jmath} + k, \vec{B} = \vec{\imath} - 3\vec{\jmath} + 5\vec{k}, \vec{C} = 2\vec{\imath} + \vec{\jmath} - 4\vec{k}$ form a right angled triangle. 3

b) Prove that the area of a parallelogram with sides $\underline{A}$ and $\underline{B}$ is $|\underline{A}| \times |\underline{B}|$. 2.75

c) Prove that $\nabla \times \nabla\phi = 0$ and $\nabla.(\nabla \times A) = 0$ 3

7)

a) If $A = (3x^2 + 6y)i - 14yzj + 20xz^2k$, evaluate $\int_C A.dr$ from (0,0,0) to (1,1,1) along path $C: x = t, y = t^2, z = t^3$. 3

b) Evaluate $\iint \varphi nds$, where $\varphi = \frac{3}{8}xyz$ and S is the surface of the cylinder $x^2 + y^2 = 16$ included in the first octant between $z = 0$ and $z = 5$. 3

c) Find the volume of the region common to the intersecting cylinders $x^2 + y^2 = a^2$ and $x^2 + z^2 = a^2$. 2.75

8)

a) Verify Green's theorem in the plane for $\oint_C (xy + y^2)dx + x^2dy$ where C is the closed curve of the region bounded by $y = x$ and $y = x^2$. 3

b) If $v = w + r$, prove that $w = \frac{1}{2}Curl\ V$, where w is a constant vector. 3

c) Evaluate $\iint_s F.nds$, where $\vec{F} = 4x\vec{\imath} - y^2\vec{\jmath} + yzk$ and S is the surface of the cube bounded by $x = 0, x = 1, y = 0, y = 1, z = 0, z = 1$. 2.75

University of Rajshahi

Department of Computer Science and Engineering

B.Sc. in Engineering 1st Year 1st Semester Examination-2019

Course: **CHEM 1111 [Physical and Inorganic Chemistry]**

Marks: 52½ [Answer any six (06) questions taking three (03) from each section.] Time: 3 Hours

Section-A

1.a) What is meant by the equivalent conductance of an electrolyte? Explain why the equivalent conductance of a solution of a strong electrolyte gradually increases. 3

b) A first order reaction is 25% complete in 20 minutes. How long will it take to be 70% complete? 2

c) Make a clear distinction between an electrolytic cell and a galvanic cell. Write the cell reactions for the following electrochemical cells: 3
(i) $Zn|Zn^{2+} \| Cu^{2+}|Cu$; (ii) $Cd|Cd^{2+} \| Hg_2Cl_2 | Hg$;

d) What is transference number? ¾

2.a) What is ionic mobility? State and explain the 'Kohlrausch`s Law' of independent migration of ions. 3

b) Define the following terms: liquid junction potential, electrode potential, standard electrode potential and concentration cell. 3

c) Calculate the EMF of the following cell: $Zn|Zn^{2+}(0.001M) \| Ag^{+}(0.01) | Ag$ 2¾

Given that $E^{\circ}_{Ag^+/Ag} = 0.80V$ and $E^{\circ}_{Zn^{2+}/Zn} = -0.76V$.

3.a) What is meant by chemical equilibrium? Derive a relation between the equilibrium constants K_p and K_c. 3

b) What is rate constant of a reaction? Derive the integrated law for a first order reaction. 3

c) From the following data for decomposition of N_2O_5 and CCl_4 at 48°C, show that the reaction is of the first order: 2¾

t (min)	10	15	20	∞
Vol. of O_2 evolved (mL)	6.30	8.95	11.40	34.75

4.a) Distinguish between adsorption and absorption. Define the terms adsorbent and adsorbate giving suitable examples. 2

b) Explain the 'Freundlich adsorption isotherm'. How can you test the validity of this isotherm? 3¾

c) What are sols and emulsions? Give four important points of differences between lyophilic and lyophobic sols. 3

Section-B

5.a) Derive an expression for the radius of nth orbit of H-atom. 3¾

b) Calculate the radius of 2nd orbit of He^+ ion. Given that the Bohr radius is $0.529 \times 10^{-10}m$. 1½

c) Find out the frequency in terms of wavenumbers ($\bar{\nu}$) for the 2nd spectral line of Lyman series. Given that $R_H = 1.097 \times 10^7 m^{-1}$ 1½

d) State and explain the Pauli exclusion principal. 2

6.a) What are *s* and *p* block elements? Mention the main characteristics of s and p block elements. 3

b) Define electron affinity. The electron affinity of chlorine is higher than that of fluorine – explain why. 2¾

c) What is iconic bond? What are the conditions for the formation of ionic bonds? 3

7.a) Define covalent bond with example. What are the characteristics of covalent compounds? 2

b) Draw the MO energy level diagram of O_2^+ and O_2^- ions. Find out the bond orders and predict the stabilities of the ions. 3

c) What is hybridization of atomic orbitals? Mention the shapes of the following species: XeF_4, NH_3, SO_4^{2-} and PCl_5 2

d) Discuss important application of lanthanides in automobile and electronic industries. 1¾

8.a) Write the ground state electronic configuration of the following metals/ions: 2¾

Cr (24), Cu(29), Co^{2+}(27) and Ni^{2+}(28).

b) Explain the following **(Any Three)** 2 x 3

i) The melting point of MgO is much higher than that of NaF;

ii) Cu^{2+} complexes are colored while those of Zn^{2+} are colorless;

iii) Transition metals show variable oxidation states

iv) Fe^{3+} is more stable than Fe^{2+}.

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Dept. Computer Science and Engineering
University of Rajshahi

Semester Final Examination, B.Sc. Engg. 2019, 1st year, Odd semester

Course ID: CSE 1111 Course Title: Introduction to Computer Systems/Computer Fundamentals

Total Time 3 Hours Total Marks 52.5

(Answer any six questions taking three from each section)

Section A

1(a)	What do you mean by system boot up? Briefly discuss the PC's booting up process.	3
(b)	What is meant by computer generations? Explain different generations of computers.	3.75
(c)	Expand ABC, ENIAC, EDVAC and EDSAC.	2
2(a)	What is motherboard? Write the functions of it. Also mention the main components on a motherboard.	3
(b)	Briefly discuss how a keyboard works.	3
(c)	Explain the internal structure of CPU with diagram	2.75
3(a)	How does the control unit assist the CPU in carrying out its operations? Explain.	3
(b)	What do you understand by machine cycle? Explain the main operations those are accomplished during the machine cycle.	3
(c)	How does the bus width affect the overall speed of the computer system? Define the three types of I/O buses.	2.75
4(a)	Define printer. Explain the various criteria to evaluate a printer.	3
(b)	Describe the LCD monitor with its advantages.	3
(c)	Explain the four areas created on a magnetic disk during formatting.	2.75

Section B

5(a)	What are difference between SRAM and DRAM? Why is a refreshing circuit needed for DRAM?	3
(b)	Write the characteristic of cache memory. What do you mean by L1, L2 and L3 cache?	2
(c)	Explain how data is stored on the surface of magnetic and optical disk	3.75
6(a)	Define the software. List and explain the types of software. Give two exaples of each category.	3
(b)	Explain three categories of operating systems with examples.	2.75
(c)	Define utility program. List a few names of utility programs with their tasks.	2
(d)	What is kernel?	1
7(a)	What is a computer network? Illustrate advantages of computer networks.	2.75
(b)	Explain the advantages and disadvantages of client-server and-peer-to-peer networks	3
(c)	Define network topology. Write down the advantages and disadvantages of bus, ring and star topologies.	3
8(a)	Define computer virus. How does computer virus work? Mention some notable computer viruses.	3
(b)	What is data processing? Define data and information.	2
(c)	Define Database Management System (DBMS). Explain the limitations of file based systems and write the advantages of DBMS.	3.75

University of Rajshahi
Dept. Computer Science and Engineering
University of Rajshahi

Semester Final Examination, B.Sc. Engg. 2019, 1st year, Odd semester

Course ID: CSE 1121 Course Title: : Structural Programming Language

Total Time 3 Hours Total Marks 52.5

(Answer any six questions taking three from each section)

1. (a) Why do we get "segmentation fault" message in C programming? 02
   (b) What will be the value of c and d if 03
   int a=10; int b=3; float c,d; c=a/b; d=a/2.0;
   (c) Can the following program sum all the numbers in the array num[ ]? If not, modify only one variable or a value so that you can sum first ten numbers in the array. 3.75

```
#include<stdio.h>
int main()
{
   int num[11]={5,10,15,20,0,30,35,40,45,50,0};
   int i=0,sum=0;
   while(num[i%5])
   {
      sum=sum+num[i];
      i=i+1;
   }
   printf("%3d",sum);
   return 0;
}
```

2. (a) What is recursive function? What is its limitation? 02
   (b) Write a C program for the following problem: 6.75

The student association of the dept. of CSE of Rajshahi University arranged a game in their last picnic. In that game; one student, X from 1st year and another student, Y from 2nd year were asked to pick up balls as many as possible from a basket within 2 minutes. The basket contained many balls having three different colors; red (R), green (G) and blue (B). The winner was decided based on earned points (P), as calculated by the formula; P = (RX-RY)*7 + (GX-GY)*5 + (BX-BY)*3, where RX and RY are the number of red colored balls picked up by X and Y, respectively and so on. The positive value of P indicated that the winner was X; otherwise, the winner was Y.

Input: The input will have two lines; the first line is for X and the second line is for Y. Each line will have three integers separated by spaces; describing the number of red, green and blue balls picked up by the respective student. The inputs will be given in such a way that the value of P will either be positive or negative.

Example:
17 24 30
15 25 25
Output: The output will have a single line that shows the name of the winning year. For example, the output for the above input set will be:
1st year

3. (a) Find out the output of the following program. 4.75

```
#include<stdio.h>
#include<conio.h>

void pointer(int *p, int *q, int *r, int *s);

main() {
    int a,b,c,d,*x,*y;
    a=10; b=20; x=&c; y=&d; c=30; d=40;
    printf("Before calling  %d %d %d %d \n",a,b,*x,*y);
    pointer(&c,&d,&a,&b);
    printf("After calling  %d %d %d %d\n",a,b,*x,*y);
}
```

```
void pointer(int *p, int *q, int *r, int *s)
{
   *p=100; *q=200; *r=300; *s=400;
}
```

(b) Find out the output of the following program: 04

```
#include<stdio.h>
void pointer(int *point)
{
   int i;
   for (i=0;i<10;i++)
   {
      printf("%3d",*point);
      point++;
   }
}
int main()
{
   int i;
   int num[10]={0,1,2,3,4,5,6,7,8,9};
   pointer(num);
   printf("\n");
   for(i=0;i<10;i++)
   printf("%3d",num[i]);
   return 0;
}
```

4. (a) Write a program to toggle a bit of a number at nth position using bit-wise operator? 03
   (b) Explain 'the name of array can be considered as pointer'. Give an example how you can pass an array to a function. 03
   (c) Can the following program sum the three numbers? If not, why? 2.75

```
#include<stdio.h>

int main()
{
   int a,b,c,sum=0;
   if(scanf("%d%d%d",&a,&b,&c)==3)
   {
      sum=a+b+c;
   }
   printf("%3d",sum);
   return 0; }
```

Section **B**

Answer any **THREE** questions.

5. (a) Write a program to display A to Z and a to z using ASCII code. 4.75
   (b) Sample input and a program are given. Find out the output of the following program. 04

Sample Input: Happy Coding!

```
#include<stdio.h>
#include<string.h>
void func(char str[])
{
   for (int i=0; str[i]!='\0'; i++)
   {
      if (str[i]>='A' && str[i]<='Z')
         str[i] = str[i] + 'a' - 'A';
      else if (str[i]>='a' && str[i]<='z')
         str[i] = str[i] + 'A' - 'a';
   }
}
```

```
int main()
{
   char str[20];
   gets(str);
   func(str);
   printf("\n%s",str);
   return 0;
}
```

6. (a) What is header file? 02
   (b) 100 small letters are written in a file named input.txt. In each line, 10 letters are written. All the letters are separated by a single space. Determine the frequency of the letters and write into another file named output.txt. 4.75
   (c) What are the differences between compiler and interpreter? 02
7. (a) How can you optimize a program? Give an example. 03
   (b) How can you extend memory allocation during execution of a program? 2.75
   (c) What will be output of the following program? 3.75

```
#include<stdio.h>
#include<conio.h>
int x[5][5]={   {1, 4, 3, 6, 8},
                {2, 9, 0, 5, 7},
                {5, 9, 6, 7, 6},
                {9, 0, 2, 6, 8},
                {3, 6, 0, 1, 7} };

int i,j,k,l, tmp,big,p;

main() {

 for (i=0;i<=4;i++)
 {
   for(j=0; j<=4; j++)
   {
     for(k=j; k<=4; k++)
     {
       for(l=k ; l<=4; l++)
       {
       x[k][l]=x[k][l]+1;
       }
     }
   }
 }

for (i=0;i<=4;i++)
 {
   for(j=0; j<=4; j++)
   {
     printf ("%d ",x[i][j]);
   }
   printf ("\n ");
 }
getch(); }
```

8. (a) What is the difference between an array and a structure? How can you determine the number of bytes allocated for an array and a structure? 2.75
   (b) Google is one of the most famous Internet search engines which hosts and develops a number of Internet based services and products. In the website, an interesting button 'I'm feeling lucky' attracts our eyes. This feature could allow the user skip the search result page and go directly to the first ranked page. Amazing! It saves a lot of time. 06

   The question is, when one types some keywords and presses 'I'm feeling lucky' button, which web page will appear? Google does a lot and comes up with excellent approaches

to deal with it. In this simplified problem, let us just consider that Google assigns every web page an integer-valued relevance.

The most related page will be chosen. If there is a tie, all the pages with the highest relevance are possible to be chosen. Your task is simple, given 10 web pages and their relevance. Just pick out all the possible candidates which will be served to the user when 'I'm feeling lucky'.

Input: The input contains multiple test cases. The number of test cases T is in the first line. For each test case, there are 10 lines, describing the webpage and the relevance. Each line contains a character string without any blank characters denoting the URL of this webpage and an integer Vi denoting the relevance of this web page. The length of the URL is between 1 and 100 inclusively. ($1 < Vi < 100$)

Output: For each test case, output several lines which are the URLs of the web pages which are possible to be chosen. The order of the URLs is the same as the input. Please look at the sample output for further information of output format.

Sample Input
2
www.youtube.com 1
www.google.com 2
www.google.com.hk 3
www.alibaba.com 10
www.taobao.com 5
www.bad.com 10
www.good.com 7
www.fudan.edu.cn 8
www.university.edu.cn 9
acm.university.edu.cn 10
www.youtube.com 1
www.google.com 2
www.google.com.hk 3
www.alibaba.com 11
www.taobao.com 5
www.bad.com 10
www.good.com 7
www.fudan.edu.cn 8
acm.university.edu.cn 9
acm.university.edu.cn 10
Sample Output
Case #1:
www.alibaba.com
www.bad.com
acm.university.edu.cn
Case #2:
www.alibaba.com