ADAMAS UNIVERSITY

ADAMAS UNIVERSITY

END-SEMESTER EXAMINATION (DECEMBER 2019)

(Academic Session: 2019 – 20, Semester Term: Aug. 2019 – Dec. 2019)

Name of the Program: B.Tech.
PAPER TITLE: Engineering Physics
Maximum Marks: 40
Total No of questions: 5

Semester: I
PAPER CODE: SPH41109
Time duration: 3 Hours
Total No of Pages: 2

ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS (10 x 4=40)

1)

a) What do you mean by acceptance angle & acceptance cone of an optical fibre? Describe the construction of an optical fibre. $[1\frac{1}{2} + 1\frac{1}{2}]$

b) The numerical aperture of an optical fibre is 0.5 & the refractive index of the core is 1.54. Find the refractive index of the cladding. [2]

c) What do you mean by LASER? Mention the difference of Laser & ordinary light [2]

d) Describe briefly the working principle of LASER. [3]

2)

a) If the wave functions for the motion of the particle are:

$$\psi_n(x) = A \sin\frac{n\pi x}{a} \quad \text{in the region } 0 < x < a$$

$$\psi_n(x) = 0 \quad \text{in the region } x < 0; x > a$$

Then find out the expectation values of position $\langle \hat{x} \rangle$ and momentum $\langle \hat{p}_x \rangle$ operator. [3]

b) Explain physical significance of wave function (ψ). [1]

c) Show that, $[\hat{x}, \hat{p}_x]\psi = i\hbar\psi$. [2]

d) State Faraday's law and find its differential form. [2]

e) Write down Maxwell's field equations. What is Poyting vector? [2]

3)

a) Define Gauss's divergence theorem and Stockes theorem. [2]

b) Prove that $\vec{A}.(\vec{B}\times\vec{C}) = \vec{B}.(\vec{C}\times\vec{A}) = \vec{C}.(\vec{A}\times\vec{B})$. [2]

c) A cubical block of side L and density d is floating in a water of density ρ(ρ>d). The block is slightly depressed and released. Show that it will execute simple harmonic motion and hence determine the frequency of oscillation. [3]

d) What is forced vibration? Write down the differential equation of forced vibration and explain each of the terms appearing in this equation. [2]

e) Give a graphical comparison among the following four types of harmonic motion, (i) simple harmonic motion, (ii) underdamped harmonic motion, (iii) critically damped motion. [1]

4) .

a) Define polarization of light. Define plane of vibration and plane of polarization. [2]

b) State Brewster's law and prove that the tangent of polarization angle is equal to the refractive index of the medium. [2]

c) Describe the construction of Nicol prism. [2]

d) Show that intensity distribution for diffraction in a single slit is given by,

$$I = I_0 \frac{(\sin^2 \alpha)}{\alpha^2}$$

Where $\alpha = \frac{\pi a}{\lambda}\sin\theta$, a is the width of the slit, λ is the wavelength of light and θ is the angle of diffraction. [4]

5) Write short notes on the following topics:

a) Particle in a box (1-D). [$2\frac{1}{2}$]

b) Einstein's coefficients. [$2\frac{1}{2}$]

c) Maxwell's modification on Ampere's law. [$2\frac{1}{2}$]

d) MB, BE and FD statistics. [$2\frac{1}{2}$]

ADAMAS UNIVERSITY

ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY
END-SEMESTER EXAMINATION: DECEMBER 2019

(Academic Session: 2019 – 20, Semester Term: Aug 2019– Dec 2019)

Name of the Program: B.Tech
Stream: ME/CE/EE/ECE/Biotech
PAPER TITLE: Engineering Chemistry
Maximum Marks: 40
Total No of questions: 9

Semester: I

PAPER CODE: SCY41106
Time duration: 3 hours
Total No of Pages: 2

Answer all the Groups

Group A

(Answer all the questions)

$5 \times 1 = 5$

1. a) Define open system.
   b) What is the unit of rate constant of a zero order reaction?
   c) Write down the expression for half-life of a 1st order reaction.
   d) Give example of a hexadentate ligand.
   e) What is the unit of molar conductance?

Group B

(Answer any three questions)

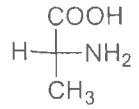
$5 \times 3 = 15$

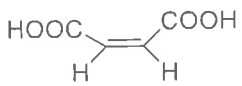
2. a) Total energy of the universe is constant. Explain on the basis of 1st law of thermodynamics. b) Explain what is meant by internal energy of the system. c) Discuss the concept of heat and work. 1.5+1.5+2

3. Describe the four steps involved in a Carnot cycle. Hence derive the expression for efficiency of a Carnot engine. 5

4. A 1st order reaction is 40% complete at the end of 1 hour. Find the value of rate constant for the reaction. Hence find the value of the half-life of the reaction. 2.5+2.5

5. Assign R/S or E/Z nomenclature for the following compounds: 2.5×2=5

(a) 

(b) 

6. a) Draw the d orbital splitting pattern of d^6 (low spin complex) in the light of CFT and calculate the CFSE.
   b) Give IUPAC nomenclature of the following complexes.

(i) $[Fe(H_2O)_6]Cl_3$ (ii) $K_3[Fe(C_2O_4)_3]$ (iii) $K_2[PtCl_4]$ 2+3

Group C

(Answer any two questions)

$2 \times 10 = 20$

7. a) The value of k observed for the reaction $2HI = H_2 + I_2$ at 356 °C and 443 °C are 3.02×10^{-5} $mol^{-1}Ls^{-1}$ and 4.2×10^{-3} $mol^{-1}Ls^{-1}$ respectively. Calculate the activation energy of the reaction. 5

b) Show that for an adiabatic process PV^{γ} = constant 5

8. a) Show the steps involved an S_N1 reaction indicating the rate determining step. What is the order and molecularity of a S_N1 reaction. Draw the energy profile for S_N1 reaction. From the energy profile diagram comment on the nature of solvent that prefers S_N1 reaction. 2+1+1+1

b) What are carbocations and carbanions? What are the state of hybridization of carbon atom in both carbocation and carbanion? Explain the order of stability of both carbocation and carbanion. 2+1+2

9. a) What is non-stoichiometric defects? How many kinds of non-stoichiometric defects are found in crystals? Give examples. What happens when Ge is doped with As? 1+2+2

b) Classify different types of polymer based on tacticity. 5

ADAMAS UNIVERSITY
PURSUE EXCELLENCE

ADAMAS UNIVERSITY

END-SEMESTER EXAMINATION: DECEMBER 2019

(Academic Session: 2019 – 20, Semester Term: Aug 2019 – Dec 2019)

Name of the Program: B.TECH - CSE
PAPER TITLE: Engineering Ethics, Values and the Laws
Maximum Marks: 40
Total No of questions: 9

Semester: I
PAPER CODE: HEN41119
Time duration: 3 hours
Total No of Pages: 2

Answer all the Groups

Group A

(Answer all the questions)

$5 \times 1 = 5$

1.

(a) Sustainable engineering is also called?

(i) Green engineering

(ii) Social engineering

(iii) Reverse engineering

(iv) Development engineering

(b) Which of the following is not an important element of safety and risk management?

(i) Selection of designs or materials that eliminate hazards

(ii) Assessment of the life-cycle of materials and products

(iii) Selection and installation of devices that provide early warning of impending hazards

(iv) Creation and maintenance of designs that amplify risk

(c) Which of the following is not a fundamental duty recognized under the Indian Constitution?

(i) To abide by the constitution and respect its ideals and institutions, the National Flag and the National Anthem.

(ii) To cherish and follow the noble ideals which inspired our national struggle for freedom.

(iii) To pay taxes as are levied by the respective governments.

(iv) To defend the country and render national service when called upon to do so.

(d) Which of the following writs means 'We Command?'

(i) Writ of Habeas Corpus

(ii) Writ of Habeas Mandamus

(iii) Writ of Quo Warranto

(iv) Writ of Habeas Prohibition

(e) Which of the following is not an alternative dispute resolution mechanism?'

(i) Arbitration

(ii) Conciliation

(iii) Settlement through formal court system

(iv) Mediation

Group B

(Answer any three questions)

3 × 5 = 15

2. Write a note on sustainable development.

3. Conflict of interest requires immediate redress. Define the expression 'conflict of interest' and discuss its relevance in the engineering context.

4. In a recent incident, customers of Bank A unexpectedly came to know that a man named Parry cloned Bank A's website to amass sensitive financial information. The process of amassing the information was done so secretly that the Bank could not even alert its customers. Financial information of many of the customers of Bank A was thereby acquired by Parry through fraud.

   Did Parry commit any offence under the provisions of the IT Act or under the Indian Penal Code? If yes, what offence did he commit? What is the punishment for such an offence? What all defences are available to Parry in the given circumstances?

5. What is a contract? What are the essential elements of a contract?

6. What are intellectual property rights? How are they relevant in the present engineering context?

Group C

(Answer any two questions)

2 × 10 = 20

7. Discuss the six fundamental rights as guaranteed under the Indian Constitution?

8. Compare and contrast Kohlberg's and Gilligan's stage theory of moral development. Cite necessary examples in support of your argument(s).

9. Discuss the engineering and legal relevance of the Bhopal Gas Leak Tragedy in light of the environment protection laws.

ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY

END-SEMESTER EXAMINATION: DECEMBER 2019

(Academic Session: 2019 – 20, Semester Term: Aug 2019– Dec 2019)

Name of the Program: B.Tech.
Stream:
PAPER TITLE: HSSM I
Maximum Marks: 40
Total No of questions: 10

Semester: I

PAPER CODE: HEN 41117
Time duration: 3 hours
Total No of Pages: 3

Answer all the Groups

Group A

(Answer all the questions) **10 *Marks***

1. **Read the following passage and answer the questions that follow.**

A few countries already use powerful electromagnets to build high speed trains. These trains are called maglev trains. Maglev is the shortened form of magnetic levitation. Maglev trains work on the principles of magnetism and float over a guideway.

The maglev train is different from a conventional train in that it does not have an engine. At least it does not have the kind of engines that pull train cars along steel tracks. It does not consume fossil fuels either.

Since maglev trains float in the air, there is no friction between the train and the track. This lack of friction and the aerodynamic design of these trains allow them to reach speeds of over 500 kilometer per hour.

Japan and Germany pioneer research in the maglev train technology. They have already built their prototypes and are in the process of testing them. Transrapid is an electromagnetic suspension system developed by German engineers. The idea of maglev transportation has been in existence for over a century. The first commercial maglev train made its debut in Shanghai, China in 2002. This train was developed by a German company. Right now the Shanghai Transrapid line connects Longyang Road station and Pudong airport. China is planning to extend this line to Hangzhou by building a 99 miles guideway.

Several other countries are also planning to build their own maglev train system, but right now the Shanghai maglev train is the only commercial maglev line.

Complete the sentences: (2×5=10)

(a) The two main differences between maglev trains and conventional trains are:
....

(b) Maglev trains are environment friendly because .....

(c) The two nations that lead the research in maglev train technology are
.....

(d) The two factors that help maglev trains to achieve high speeds are

.....

(e) The first country to have a commercial version of the maglev train technology

.....

Group B

(Answer any three questions) $3 \times 5 = 15$

2. How do you differentiate between formal and informal communication?

3. Discuss the probable strategies to overcome interpersonal barriers of communication.

4. Fill in the blanks using suitable prepositions. Please copy the sentences given, while answering:

i. Where were you ___ 28 February, 2019?
ii. I often go away _____ the weekend.
iii. I must start ____ dawn to reach the station in time.
iv. He had spent his life ____ Kolkata.
v. Do you work _____ Saturdays?
vi. He has been ill _____ Monday last.
vii. I like to look at the stars ____ night.
viii. He killed two birds ____ one shot.
ix. Let us meet ____ 7:30 tomorrow evening.
x. Jane's Birthday is _____ December.

5. Fill in the blanks using suitable article. Please copy the sentences given, while answering:

i. He was ____ first man to arrive.
ii. Would you like to be _____ teacher?
iii. I am going to buy _____ hat.
iv. Picasso was ____ famous painter.
v. The Ganga is ____ sacred river.
vi. John got _____ best present.
vii. Making question paper is _____ tough job.
viii. He bought _____ umbrella yesterday.
ix. I bought _____ ink-pot today.
x. ____ sun shines brightly.

6. Fill in the blanks using suitable forms of the verbs given in the bracket. Please copy the sentences given, while answering:

i. Maria _____ four languages. (Speak)
ii. The shops in the city center usually _____ at 9 O'clock in the morning. (Open)
iii. I ____ a news paper. (Buy)
iv. I _____ the picture very much. (Like)
v. Water ____ at 100 degree Celsius. (Boil)
vi. The Earth _____ round the sun. (Revolve)
vii. It _____ a lot of money to build a hospital. (Cost)
viii. The children have _____ an egg in the nest. (Find)
ix. Siddharth ____ in Chandigarh. (Live)
x. I ___ home on time. (Leave)

Group C

(Answer any three questions)

$3 \times 5 = 15$

7. Draft a newspaper report on the growing pollution in metropolitan cities like Delhi.

8. Write an application to the Vice-Chancellor of your University (As the class representative of your respective class) requesting permission to organize a science exhibition in your department.

9. Write a paragraph within 300 words on Global Warming.

10. Attempt a description of this pictorial representation.

ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY
END-SEMESTER EXAMINATION: DECEMBER 2019

(Academic Session: 2019 – 20, Semester Term: Aug 2019– Dec 2019)

Name of the Program: B. Tech
Stream: SEC.-D (ECE+EE+ME+CE) + SEC.-F (Bio-Tech)
PAPER TITLE: Electrical & Electronics Technology
Maximum Marks: 40
Total No of questions:11

Semester: I
PAPER CODE: EEE 41102
Time duration: 3 hours
Total No of Pages: 03

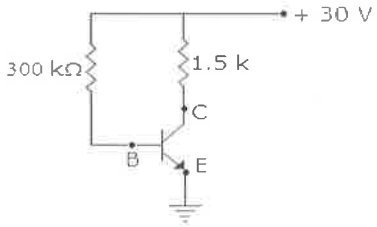
Note:
1. All parts of a Question should be answered consecutively. Each Answer should start from a fresh page.
2. Assumptions made if any, should be stated clearly at the beginning of your answer.
3. No Mobile Phones will be permitted in the Examination Hall.

Answer all the Groups

Group A

Answer any five of thefollowing questions **5 x 1 = 5**

1. **a)** In figure what is value of I_C if $\beta_{dc} = 100$. Neglect V_{BE}



b) Draw the symbol of p channel depletion type MOSFET and pnp transistor.
c) Convert the numbers: **i)** $(53.625)_{10} = (?)_2$, **ii)** $(A3B)_{16} = (?)_{10}$
d) What is susceptance?
e) A load draws a current $i(t) = 4 \cos (100\pi t + 10^o)$ A when the applied voltage is $v(t) = 120\cos (100\pi t - 20^o)$ V. Find the apparent power.
f) Current through a passive element is I = sin 4t when the applied voltage across the element is V = cos 4t. Identify the passive element.

GROUP –B

(Short Answer Type Questions)

Answer *any three* of the following **3x5 = 15**

2. **a)** Draw and explain the common base transistor circuit and output characteristics.
b) Define: **i)** Mass action law, **ii)** Mobility **[3+2]**

3. **a)** Discuss Early Effect in the transistor.
b) The Transistor has a base current I_B=150μA, I_{CO}= 10 μA and α =0.98. Calculate the collector current I_C and emitter current I_E
c) Write down the relation between Transconductance, Drain Resistance & Amplification Factorin JFET. **[2+2+1]**

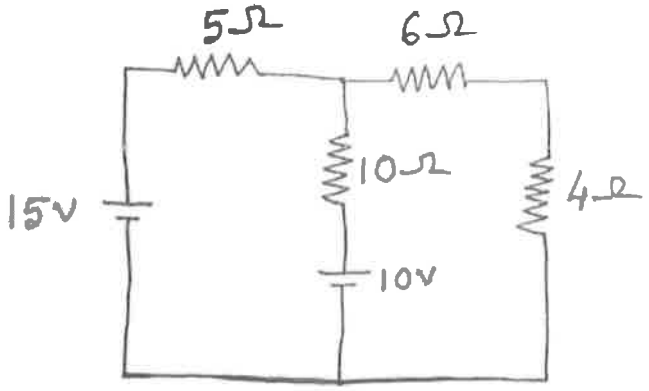
4. **a)** Explain why is a transistor called a switch.
b) Why NAND gate is called universal gate? Design and implement an AND gate using NOR gate. **[3+2]**

5. **a)** Define the following:
   - i) Active Power.
   - ii) Reactive Power.

   b) State Norton's Theorem. **[(1.5+1.5) +2]**

6. **a)** What is selectivity?
   b) Why series R-L-C circuit is called "Acceptor Circuit" at resonance? **[2+3]**

7. Find the current through the 10-ohm resistance in the following circuit. **[5]**



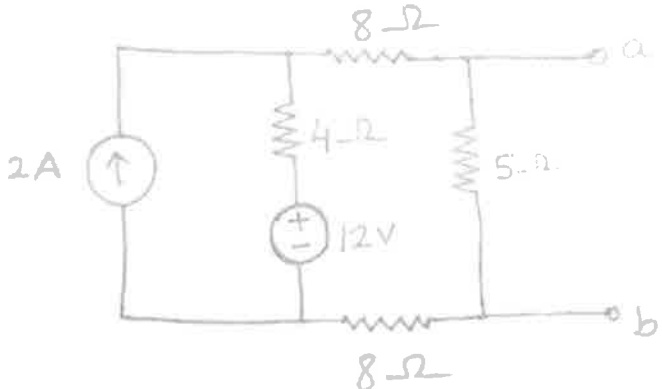
GROUP –C
(Long Answer Type Questions)
Answer *any two* of the following **2x10 = 20**

8. **a)** Explain the phenomenon of diffusion of current carriers in a semiconductor.
   b) Write down the differences between metal, insulator & semiconductor.
   c) In CE configuration, a silicon transistor with $\beta = 100$, $V_{cc} = 6v$, $R_C = 3k\Omega$ and $R_B = 530k\Omega$. Draw the dc load line and determine the operating point. **[3+3+4]**

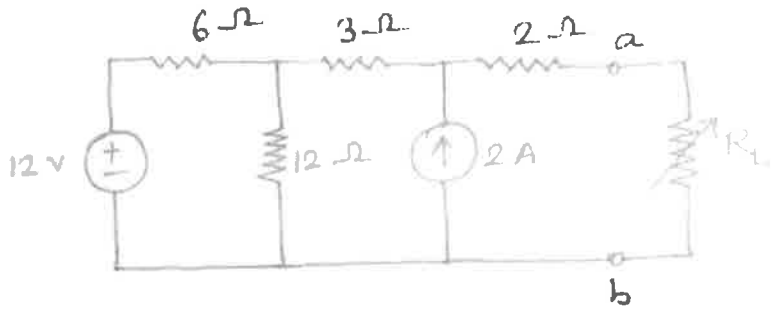
9. **a)** What are the differences between BJT & FET?
   b) An n-type Silicon bar 0.1 cm long and 100 μm^2 in cross-sectional area has a majority carrier concentration of 5×10^{20} /m^3 and the carrier mobility is 0.13 m^2/V-s at 300° k. If the charge of an electron is 1.6×10^{-19} C, then find the resistance of the bar.
   c)Explain the following terms:
   - **i)** Zener Breakdown
   - **ii)** Drain characteristics of FET

   [2+4+2+2]

10. **a)** Find the Norton's equivalent of the circuit shown in figure as seen from terminals a-b



b) Find the value of R_L for maximum power transfer in the circuit of figure. Find the maximum power.



[5+5]

11. **a)** Prove that the energy stored in the inductor is, $E_L = \frac{1}{2} Li^2$(where, 'L' is the inductance and 'i' is the current through inductor)

b) What is resonance? Derive expression of resonance frequency for series R-L-C circuit.

c) Define the following with suitable example:

i) Unilateral Element.

ii) Bilateral Element. **[3+(1+2)+(2+2)]**

(BEST OF LUCK)

ADAMAS UNIVERSITY

ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY
END-SEMESTER EXAMINATION: DECEMBER 2019

(Academic Session: 2019 – 20, Semester Term: Aug 2019– Dec 2019)

Name of the Program: B.Tech. Semester: I
Stream: CSE/ME/CE/EE/ECE/Biotech
PAPER TITLE: **Engineering Mathematics- I** PAPER CODE: **SMA41101**
Maximum Marks: 40 Time duration: 3 hours
Total No of questions: 9 Total No of Pages: 2

Answer all the Groups

Group A

*(Answer **all** the questions)* $5 \times 1 = 5$

1. **a)** Find the value of constant d, such that $(2\hat{\imath} - \hat{\jmath} + \hat{k})$, $(\hat{\imath} + 2\hat{\jmath} - 3\hat{k})$, and $(3\hat{\imath} + d\hat{\jmath} + 5\hat{k})$ are coplanar.

   b) When is a vector called solenoidal and irrotational?

   c) Define a Type I improper integral?

   d) Check whether the following differential equation is exact:

   $$2y^2x\,dx + 2x^2y\,dy = 0$$

   e) Consider two sets $A = \{2, 4, 6\}$ and $B = \{6, 9, 12\}$. Find $A\,\Delta B$ and $A \times B$

Group B

*(Answer **any three** questions)* $3 \times 5 = 15$

2. Obtain the reduction formula for $\int_0^{\frac{\pi}{2}} cos^n x\ dx$, where $(n > 1)$. Hence evaluate $\int_0^{\frac{\pi}{2}} cos^7 x\ dx$ **5**

3. **a)** Show that the improper integral $\int_0^{\infty} \frac{dx}{(1+x)\sqrt{x}}$ is convergent. Hence find its value. **2**

   b) Given the function $f(x,y) = \begin{cases} \frac{x^3 - y^3}{x^2 + y^2}, (x,y) \neq (0,0) \\ 0, (x,y) = (0,0) \end{cases}$ find $f_x(0,0)$ and $f_y(0,0)$. **3**

4. Find $div\vec{F}$ and $curl\vec{F}$, where $\vec{F} = grad\,(x^3 + y^3 + z^3 - 3xyz)$ **5**

5. **a)** State the Euler's theorem of homogeneous functions. **1**

   b) Determine the degree of the homogeneous function $u(x,y) = \sin^{-1}(y/x)$ **1**

   c) Verify Euler's theorem for the function $f(x,y) = (ax + by)^{\frac{1}{3}}$ **3**

6. Solve the differential equation $\frac{dy}{dx} + 6y = 18e^{3x}$ **5**

Group C

*(Answer **any two** questions)* $2 \times 10 = 20$

7. **a)** Examine the convergence of the following series,

(i) $\sum_{n=1}^{\infty} n^4 e^{-n^2}$, (ii) $\frac{1}{3} + (\frac{2}{5})^2 + (\frac{3}{7})^3 + \cdots$ **(2.5+2.5)**

b) Show that $[\vec{a} + \vec{b}\vec{b} + \vec{c}\vec{c} + \vec{a}] = 2[\vec{a}\vec{b}\vec{c}]$, where $\vec{a}, \vec{b}, \vec{c}$ are any three vectors **5**

8. **a)** Show that $\int_0^{\frac{\pi}{2}} \sqrt{tanx}\, dx = \frac{\pi}{\sqrt{2}}$. **5**

b) (i) Given the function $f(x,y) = \begin{cases} \frac{x^2y^2}{x^2+y^2}, (x,y) \neq (0,0) \\ 0, (x,y) = (0,0) \end{cases}$ find $f_{xy}(0,0)$ and $f_{yx}(0,0)$ from definition and verify whether they are equal.

(ii) Evaluate $\underset{x \to \frac{\pi}{2}}{Lt} (\sin(x))^{\tan(x)}$ **(3+2)**

9. **a)** Find the order and degree of the differential equation $\left(\frac{d^4y}{dx^4}\right)^2 + 5x\left(\frac{d^3y}{dx^3}\right)^5 + 10y = 0$ **1**

b) Check whether the following differential equation is exact and then solve it.

$$(x^3 + xy^4)dx + 2y^3dy = 0$$ **4**

c) Write the general form of the Bernoulli's equation **1**

d) Solve the differential equation $xy - \frac{dy}{dx} = y^3e^{-x^2}$ **4**

ADAMAS UNIVERSITY
SCHOOL OF ENGINEERING AND TECHNOLOGY
END-SEMESTER EXAMINATION: DECEMBER 2019
(Academic Session: 2019 – 20, Semester Term: Aug 2019– Dec 2019)

Name of the Program: B.Tech
Stream: CSE
PAPER TITLE: Introduction to Programming
Maximum Marks: 40
Total No of questions: 9

Semester: I
PAPER CODE: ECS41101
Time duration: 3 hours
Total No of Pages: 2

Answer all the Groups

Group A

(Answer all the questions)

$5 \times 1 = 5$

1.

a. What is the output of the undermentioned code?

```
float n=17.19;
int num=n-(int) n;
printf("%d",num);
```

b. Write a name of any one input function in C Programming Language?

c. Correct the syntax error (if any) in the code mentioned under?

```
int main1();
int main()
{
        int main1();
}
```

d. What will be the output of the following code:

```
int num=50;
int *p=num;
printf("%d",*p);
```

e. What will be the output of the following code:

```
int recr(int n);
int main()
{
        int n;
        n=recr(5);
        printf("%d",n);
}
int recr(int n)
{
        return n*(n-1);
}
```

Group B

(Answer any three questions)

$3 \times 5 = 15$

2. Answer the questions given as under:
   a) Explain how "for" loop can be used for infinite iteration using an example.
   b) Write a program in C to read positive integer array in such a loop until a negative integer is input.
   c) Convert the the program in question no. 2.b. using while loop.

1+2+2

3. Write a program in C to
   a) Read a positive integer.
   b) Store its digits in an array with the higher significant digits occupying lower significant array index position, e.g. if the integer number is 4379 it is stored as 4379 ->

4	3	7	9

   c) Print the size of the array and then the print array.

1+2+2

4. Answer the questions given as under:
   a) Write a program in C to count the number of vowels in a string.
   b) Write a function to change the lowercase letter of a string (passed as argument) to uppercase and uppercase to lowercase letter.

2+3

5. How many types of user defined function definition are possible and state their syntaxes? Is it possible to return more than one value by an user defined function? If yes/no, state reason. If no, indicate how to write a function that returns more than one value.

2+1+2

6. Answer the questions given as under:
   a) Write a program in C to convert lowercase to upper case and uppercase to lowercase character input provided by the user in the same program.
   b) Write a program in C to define structure that has student_name, student_roll_no, total_marks, enroll_no as structure members. Create 10 students and display their average marks and grade according to the under mentioned grade structure:
      i. 100 – 90: GRADE A
      ii. 80 – 89: GRADE B
      iii. 70 – 79: GRADE C
      iv. 60 – 69: GRADE D
      v. 50 – 59: GRADE E
      vi. 40 – 49: GRADE F
      vii. <40: FAIL

2+3

Group C

(Answer any two questions)

$2 \times 10 = 20$

7. Write a program in C to find Gram Matrix. Hint: Gram Matrix is the Matrix obtained by $A^T X A$, A is Matrix.
8. Write a program in C using user defined function that receives an integer array and returns each pair of numbers from that integer array for which GCD is 1.
9. Write a program in C to find abbreviation of a string (specially a name). For example: Kartar Singh Sarabha is abbreviated to K. S. Sarabha.