

## ASSIGNMENT QUESTIONS (COMMON TO ALL BRANCHES)

### Communicative English:

Sl. No.	Assignment questions
1	Your cousin wants to join a computer course during the summer vacation and she has requested you to guide in this regard. write a letter of advice/guidance to her regarding the same.
2	Write a letter to a friend congratulating on her success in the final examination.
3	Write a letter to your friend, thanking him on presenting you a gift on your birthday.
4	Write a letter to your friend inviting him to your house.
5	Uncle to niece from abroad describing about the places he has visited
6	Write a letter to your friend describing a visit to the museum.
7	Write a letter to your friend congratulating him for winning a scholarship. You are vivek and you live in 45, valmiki nagar, cheenai.
8	Write a personal letter to your cousin offering good suggestions to spend his/her ensuing summer vacation usefully so as to enable him/her to be well prepared for higher collegiate.education.
9	Write a personal letter to your cousin, who would like to join a computer course in the ensuing summer vacation, advising her to take up right course and the right institute
10	Write a personal letter to your cousin, who would like to join a computer course in the summer vacation, advising her to take up right course and the right institute
11	Write a letter to your friend expressing the joy you experienced while reading a science fiction. Mention all its important features.
12	Your friend is leaving for UK for higher studies on a British Council Scholarship write a letter congratulating him and advising him to make the best use of the opportunity
13	Your uncle has offered to sponsor you for a three-week activity holiday with some training you have to choose between mountaineering and trekking write a letter to your uncle thanking him for sponsoring you and explain your reasons for choosing either mountaineering or trekking.
14	Your father has brought a personal computer, but he is not sure how useful it would be for him at home. Write a letter to him telling him how best and useful it can be in his daily life.
15	Write a letter to your cousin advising him/her to take up a computer software course during the vacation in December . In your letter, explain the benefits of enrolling for such a course. Your letter should not exceed 200 words
16	Imagine that you have got an internet facility at home . write a letter to your friend explaining the advantages of having an internet facility at home. Your letter should not exceed 200 words
17	Write a letter to the editor of a local newspaper in your town about water scarcity in your locality and suggest ways to solve it.
18	Assume that the residents of your town experience frequent power failures the children preparing for the examination suffer a lot write a letter to the editor of a news paper explaining the problems of school going children.
19	Write a letter to the editor of a leading English newspaper about the sufferings of office goers and school children who use the public transport.

20	Assume yourself to be the chairman of a social welfare association you are appalled by the television programmes, where various channels show programmes replete with violence write a letter to the editor of a news paper, expressing your concern over the impact of these programmes on young, impressionable children.
21	Write a letter to the editor of a leading English newspaper about the nuisance created by loudspeakers in your locality.
22	Write a letter to the editor of a newspaper in your region about the ragging menace in educational institutions and suggest ways to prevent them
23	Write a letter to the editor of a newspaper highlighting any four faced by commuters in city buses .suggest suitable solution for each one of the problem highlighted.
24	You happen to live in an area where political meeting are held frequently. Write a letter to the editor of a newspaper highlighting the problems experienced on account of noise pollution and suggest the steps that must be taken to solve the problem.
25	Write a letter of complaint to the editor of a popular newspaper about the increasing petrol price suggesting suitable remedial measures for the same.
26	Write a letter of the editor of a popular newspaper (highlighting) the traffic problems in a cosmopolitan city like Chennai, and also offering suitable solution to solve them.
27	Write a letter to the editor of a leading English newspaper about the sufferings of office goers and school children who use the public transports
28	Write a letter of the editor of a newspaper highlighting the importance of ‘rain water harvesting’ also suggest ways to use water economically.
29	Write a letter of the editor of a popular newspaper suggesting how transport services in metropolitan cities could do a better service to the people concerned
30	Write a letter of the editor of a newspaper highlighting any four serious problems related to traffic in a metropolitan city like Chennai.
31	Write a letter of the editor of a newspaper explaining the need for providing bright street lamps in your street where there is no adequate lighting for most part of the street.
32	Write a dialogue between a shopkeeper and a customer who wishes to get his defective watch exchanged.
33	Write a dialogue between a teacher and a student regarding the student’s future plans.
34	Write a dialogue between a customer and bank manager regarding opening a new account.
35	Sarathy visits the doctor, complaining of a head ache and fever. Build conversation between the doctor and Sarathy.
36	Write a dialogue describing the features of Tanjore Big Temple. Build a conversation between two friends.
37	Write a dialogue conversation between a student and workshop superintendent (W.S.) about practical.
38	Write a dialogue conversation between an F.Y and S.Y student about the library.
39	Write a dialogue conversation between teacher and student in language laboratory.
40	Write a dialogue conversation between Saurabh Joshi (candidate) and CEO (interviewer) during an interview.
41	Imagine that you are an Assistant Executive Engineer in TWAD Board. There is a proposal to build a new drainage system in the main locality in the town. The way the drainage system is to be built, its length and direction, how collected waste fluid is to be dealt with and the approximate cost of the project are the main points you have to discuss with the Executive Engineer. Covering all these aspects write a dialogue between the A Assistant Executive

	Engineer and the Executive Engineer.
42	Imagine that you are the commissioner of the municipality of a town. You have received a number of complaints over the unhygienic condition and disorderly maintenance of the main vegetable market. You call in the municipal Civil Engineer and the Sanitary Inspector and hold a conversation with them on what can be done to improve the condition of the market. End the conversation with a suggestion that the market be visited and the conditions there be directly seen.
43	Suppose that you are the student representative of the III year Mechanical Engineering class. You meet your professor to discuss an industrial visit. You have in mind certain places to visit and specific purposes for such a visit. Write a dialogue between you and the principal.
44	Imagine that you are the superintendent in th Electrical Engineering Laboratory in an engineering college. A new laboratory assistant has been appointed. He has come to meet you. You have to explain to him hw to handle instruments and equipments in the lab. The lab assistant has some doubts. He seeks information and helpful tips from you. A conversation follows. Write the dialogue that might have taken place between the superintendent and the lab assistant.
45	Imagine that you are the chairman of the college students union. The college union day celebration will be held on the 7 <sup>th</sup> of next month. It has been decided to invite Mahalakshmi, the computer engineer and creative writer as the chief guest to deliver speech. Imagine that you are with Mahalakshmi, at the present moment. You have conversation with her. Write down the dialogues that took place between you and Mahalakshmi.
46	Write a dialogue for one of the following situations: Share with Akash, your thoughts and pollution in the water bodies and ways to keep them clean. Write out this dialogue. The first exchange is given for you to start the dialogue.
47	Write a dialogue for one of the following situations: Your younger brother likes only junk food. So you decide to have a chat and make him understand the ill effects. Write out this dialogue. The first exchange is given for you to start the dialogue.
48	Write an E- mail to the principal of your college requesting him to arrange a charitable show to help the blind and deaf.
49	Write an E-mail to a friend or a relative congratulating him on getting a job.
50	Write an E-mail to a the manager, ford company seeking permission to visit the factory.
51	Write an e-mail to your professor requesting him to allow you to work in a project work in Chennai.
52	Write an e-mail to the green peace organization regarding the environment concern in your locality.
53	Write an e-mail to your friend suggesting him to apply to your company.
54	Write an e-mail to the manager, State Bank of India requesting him to send the details of your educational loan.
55	Write an e-mail to the principal of your college requesting him to give permission to arrange a charitable show to help the blind and deaf people through college student committee.
56	Write an e-mail to a friend or a relative congratulating him on getting a job.
57	Write an e-mail to the programme officer, National Service Scheme, requesting him to arrange a ten-day eye care camp in your village.
58	Write an e-mail to the manager of a software company seeking permission to visit the company.

59	Write an e-mail to the manager, Government Transport Corporation pointing out that there are insufficient buses on your route in the morning.
60	Assume yourself as student representative of III year B.Tech. (EEE). Write an email to the chairman of your college requesting him to grant merit scholarship to the students of EEE.

**Engineering Mathematics-I:**

Sl.No	Assignment Questions
1.	Sketch the graph and find the domain and range of the function $f(x) = 2x - 1$ .
2.	A function $f$ is defined by $f(x) = \begin{cases} 1-x & \text{if } x \leq -1 \\ x^2 & \text{if } x > -1 \end{cases}$ Evaluate $f(-2), f(-1)$ and $f(0)$ and sketch the graph.
3.	Find $\lim_{t \rightarrow 0} \left( \frac{1}{t\sqrt{1+t}} - \frac{1}{t} \right)$ .
4.	The sign function, denoted by $\text{sgn}$ , is defined by $\text{sgn } x = \begin{cases} -1 & \text{if } x < 0 \\ 0 & \text{if } x = 0 \\ 1 & \text{if } x > 0 \end{cases}$ (a) Sketch the graph of this function (b) Find the each of the following limits or explain why it does not exist (i) $\lim_{x \rightarrow 0^+} \text{sgn } x$ (ii) $\lim_{x \rightarrow 0^-} \text{sgn } x$ (iii) $\lim_{x \rightarrow 0} \text{sgn } x$ (iv) $\lim_{x \rightarrow 0}  \text{sgn } x $ .
5.	If $\lim_{x \rightarrow 0} \frac{f(x)}{x^2} = 5$ , find the following limits (a) $\lim_{x \rightarrow 0} f(x)$ (b) $\lim_{x \rightarrow 0} \frac{f(x)}{x}$
6.	Show by means of an example that $\lim_{x \rightarrow a} [f(x) + g(x)]$ may exist even though neither $\lim_{x \rightarrow a} f(x)$ nor $\lim_{x \rightarrow a} g(x)$ exists.
7.	Show by means of an example that $\lim_{x \rightarrow a} [f(x)g(x)]$ may exist even though neither $\lim_{x \rightarrow a} f(x)$ nor $\lim_{x \rightarrow a} g(x)$ exists.
8.	Is there a number $a$ such that $\lim_{x \rightarrow -2} \frac{3x^2 + ax + a + 3}{x^2 + x - 2}$ exists? If so, find the value of $a$ and the value of the limit.
9.	Use the squeeze theorem, find the value of $\lim_{x \rightarrow 0} \sqrt{x^3 + x^2} \sin\left(\frac{\pi}{x}\right)$ .
10.	Find the numbers that at which $f$ is discontinuous, At which of these numbers if $f$ continuous from the right from the left or neither? When $f(x) = \begin{cases} x + 2, & x < 0 \\ e^x, & 0 \leq x \leq 1 \\ 2 - x, & x > 1 \end{cases}$

11.	Where the function $f(x) = \frac{\log x + \tan^{-1} x}{x^2 - 1}$ continuous?
12.	The gravitational force exerted by the planet. Earth on a unit mass at a distance $r$ from the center of the planet is $F(r) = \begin{cases} \frac{GMr}{R^3} & \text{if } r < R, \text{ i.e., } R > r \\ \frac{Gm}{r^2} & \text{if } r \geq R, \text{ i.e., } R \leq r \end{cases}$
13.	Prove that $f$ is continuous at $a$ if and only if $\lim_{h \rightarrow 0} f(a+h) = f(a)$ .
14.	Prove that cosine is a continuous function.
15.	Explain the function is continuous at every number in its domain. State the domain $M(x) = \sqrt{1 + \frac{1}{x}}$
16.	Suppose that a ball is dropped from the upper observation deck of the CN tower, 450 m above the ground. (a) What is the velocity of the ball after 5 seconds? (b) How fast is the ball travelling when it hits the ground.
17.	If a rock is thrown upward on the planet Mars with a velocity of 10m/s, its height after $t$ seconds is given by $H = 10t - 1.86t^2$ (a) Find the velocity of the rock after one second. (b) Find the velocity of the rock after when $t = a$ . (c) When will the rock hit the surface? (d) With what velocity will the rock hit the surface?
18.	The displacement of a particle moving in a straight line is given by the equation of motion $s = \frac{1}{t^2}$ , where $t$ is measured in seconds. Find the velocity of the particle at times $t = a, t = 1, t = 2$ and $t = 3$ .
19.	A particle moves along a straight line with equation of motion $s = f(t)$ , where $s$ is measured in meters and $t$ in seconds. Find the velocity and the speed when $t = 5$ .
20.	The displacement of a particle moving in a straight line is given by $s = t^2 - 8t + 18$ , Where $t$ is measured in seconds. (a) Find the average velocity over each time interval. (b) Find the instantaneous velocity when $t = 4$
21.	Let $f(x) = \begin{cases} x^2 & \text{if } x \leq 2 \\ mx + b & \text{if } x > 2 \end{cases}$ Find the values of $m$ and $b$ that make $f$ differentiable everywhere.
22.	Find an equation of the tangent line and normal line to the given curve at the specified point $f(x) = 2xe^x, (0,0)$
23.	Find the derivative $y = \cos\left(\frac{1-e^{2x}}{1+e^{2x}}\right)$ .
24.	Find all points on the graph of the function $f(x) = 2\sin x + \sin^2 x$ at which the tangent line is horizontal.
25.	Find the 1000 <sup>th</sup> derivative of $f(x) = xe^{-x}$ .
26.	If $e^{\frac{x}{y}} = x - y$ , the find $\frac{dy}{dx}$ .

27.	If $x^3 + y^3 = 16$ find the value of $\frac{d^2y}{dx^2}$ at (2,2)
28.	If $y = (\cot x)^{\sin x} + (\tan x)^{\cos x}$ , then find $\frac{dy}{dx}$ .
29.	Find a cubic function $f(x) = ax^3 + bx^2 + cx + d$ that has a local maximum value of 3 at $x = -2$ and a local minimum value of 0 at $x = 1$ .
30.	Where the function $f(x) = \frac{\log x + \tan^{-1} x}{x^2 - 1}$ continuous?
31.	The gravitational force exerted by the planet. Earth on a unit mass at a distance $r$ from the center of the planet is $F(r) = \begin{cases} \frac{GMr}{R^3} & \text{if } r < R, \text{ i.e., } R > r \\ \frac{Gm}{r^2} & \text{if } r \geq R, \text{ i.e., } R \leq r \end{cases}$
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37.	The displacement of a particle moving in a straight line is given by the equation of motion $s = \frac{1}{t^2}$ , where $t$ is measured in seconds. Find the velocity of the particle at times $t = a, t = 1, t = 2$ and $t = 3$ .
38.	A particle moves along a straight line with equation of motion $s = f(t)$ , where $s$ is measured in meters and $t$ in seconds. Find the velocity and the speed when $t = 5$ .
39.	The displacement of a particle moving in a straight line is given by $s = t^2 - 8t + 18$ , Where $t$ is measured in seconds. (a) Find the average velocity over each time interval. (b) Find the instantaneous velocity when $t = 4$
40.	Let $f(x) = \begin{cases} x^2 & \text{if } x \leq 2 \\ mx + b & \text{if } x > 2 \end{cases}$ Find the values of $m$ and $b$ that make $f$ differentiable everywhere.
41.	Find an equation of the tangent line and normal line to the given curve at the specified point $f(x) = 2xe^x, (0,0)$
42.	Find the derivative $y = \cos\left(\frac{1-e^{2x}}{1+e^{2x}}\right)$ .

43.	Find all points on the graph of the function $f(x) = 2\sin x + \sin^2 x$ at which the tangent line is horizontal.
44.	Find the 1000 <sup>th</sup> derivative of $f(x) = xe^{-x}$ .
45.	Show that $\frac{\partial^2 g}{\partial x^2} + \frac{\partial^2 g}{\partial y^2} = 4(x^2 + y^2) \left[ \frac{\partial^2 \varphi}{\partial u^2} + \frac{\partial^2 \varphi}{\partial v^2} \right]$ if $g(x, y) = \varphi(u, v)$ where $u = x^2 - y^2$ and $v = 2xy$ .
46.	If $u = \log \frac{x^4 + y^4}{x + y}$ , then show that $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = 3$
47.	Verify Euler's theorem for $u = e^y \sin \frac{x}{y} + e^x \cos \frac{y}{x}$
48.	Examine the Jacobian $\frac{\partial(x, y, z)}{\partial(r, \theta, \varphi)}$ of the transformation $x = r \sin \theta \cos \varphi, y = r \sin \theta \sin \varphi, z = r \cos \theta$ .
49.	Given the transformation $u = e^x \cos y$ and $v = e^x \sin y$ and that $\varphi$ is a function of $u$ and $v$ and also of $x$ and $y$ , prove that $\frac{\partial^2 \varphi}{\partial x^2} + \frac{\partial^2 \varphi}{\partial y^2} = (u^2 + v^2) \left( \frac{\partial^2 \varphi}{\partial u^2} + \frac{\partial^2 \varphi}{\partial v^2} \right)$
50.	If $u = f(x, y)$ where $x = e^r \cos \theta, y = e^r \sin \theta$ , show that $x \frac{\partial u}{\partial \theta} + y \frac{\partial u}{\partial r} = e^{2r} \frac{\partial u}{\partial y}$ .
51.	Discuss the maxima and minima of the function $f(x, y) = x^3 + y^3 - 3axy$

### Engineering Physics:

Sl. No.	Assignment Questions
1	Give some Elasticity based materials
2	Explain in detail the tensile test of materials
3	Torsion pendulum in real life applications
4	Give uses of cantilever in industry
5	Live examples of I shaped girders.
6	Give applications of ferrous alloy
7	Applications of simple harmonic motion.
8	Classify oscillatory motions
9	Applications of Plane progressive waves

10	Give applications of semiconductors in industries
11	Explain the construction and working of Ruby laser
12	Explain the construction and working of Ruby laser
13	Explain the construction and working of He - Ne laser
14	Explain the construction and working of Co <sub>2</sub> laser
15	Give practical applications of total internal reflection.
16	Summarize the applications of laser in medical and military
17	Describe diamond structure.
18	What are the applications of homojunction and heterojunction in real life
19	Discuss in detail the types of Hologram
20	Give the types of water heater.
21	Bimetallic strips applications engineering industry.
22	Describe the Silver and Carbon Structures? What type of bond is present in carbon?
23	Discuss different types of Allotropy of carbons.
24	Discuss black body radiation
25	Give relevant examples of black body radiation.
26	Discuss phosphorescence materials in optics
27	What are the applications of Multi meter
28	Density of states in metals – give its importance.
29	What are the factors affecting acoustical auditorium.?
30	What is meant by crystallography?
31	Give slow evaporation method in crystals
32	Summarize any two crystal growth techniques.
33	Give applications of Schrödinger wave equation.



34	Distiguish particle in one dimensional box from three dimensional box.
35	New Engineering materials
36	Discuss metallic glasses.
37	What is meant by ceramic materials ,give examples.
38	Discuss screw and edge dislocation.
39	Carbon nano tubes – give short notes.
40	What is meant by graphite sheets.
41	Discuss electron microscope.
42	Classify the endoscopes in medical field.
43	Distinguish plastic materials.and elastic materials
44	Describe GMR and it uses
45	Explain the constuction , working, applications, advantages and disadvantages of Scanning electron microscope
46	Explain the constuction , working, applications, advantages and disadvantages of Transmission electron microscope
47	Expression for Partical in a 3 diamentional Box
48	Moving Coil Galvanometer - Explain its constuction and working
49	What are the Uses of laser technology
50	Describe the properties of laser beam
51	Expression for Carrier concentrations of Intrinsic semiconductor
52	Expression for Carrier concentrations of n type semiconductor
53	Properties of matter and its classifications
54	Fundamentals of crystals
55	Give different types of crystal growth techniques
56	Give types of ceramic materials

### Engineering Chemistry:

S.No	Assignment Questions
1	Water chlorination process.
2	Ozonation process for water purification method.
3	UV Sterilization for water purification.
4	Solar disinfection method.
5	Double distillation process.
6	Electro flocculation process.
7	Waste water treatment methods.
8	Applications of Water source in industries.
9	Carbon filtration method
10	Oxidizing filtration method
11	Neutralizing filtration
12	Sand and sediment filtration methods
13	Paints, constituents and functions
14	Electro deposition of gold
15	Electro deposition of silver
16	Electro deposition of Nickel
17	Adsorption chromatography
18	Applications of adsorption in medicine
19	Applications of adsorption in industries
20	Air pollution control by adsorption
21	Application of adsorption in pharmaceutical industry
22	Emulsification
23	Adsorption in sugar industries
24	Cast iron and application
25	Kovar and its applications
26	High carbon steel and its applications
27	Birmabright alloy and its applications
28	Lockalloy and its applications
29	Stellite and its applications
30	Billon and its applications
31	Bell metal and its applications
32	Bronze and its applications
33	Crown gold and its applications
34	Brass and its applications
35	White gold and its applications

36	P-series fuels
37	Hydrogen as future fuel
38	Synfuel pros and cons
39	Coal mining
40	Atmospheric distillation process
41	Working method of petrol engine
42	Working method of diesel engine
43	BTEX as anti knocking agent
44	Ferrocene as anti knocking agent
45	MMT as anti knocking agent
46	Syngas
47	Green diesel
48	Lithium polymer battery
49	NICAD battery
50	Nano wire battery
51	Wind energy conversion in India
52	Boiling water reactor
53	Pressurized water reactor
54	Nuclear accidents
55	Nuclear holocaust
56	Atom bomb working method
57	Hydrogen bomb working method
58	Solar energy harnessing in world wide
59	Lithium ion battery
60	Recent development in solar cells

### Problem solving and python Programming

S.NO	Assignment Questions
1	Write a Python program to print the calendar of a given month and year. <i>Note</i> : Use 'calendar' module.
2	Write a Python program to calculate number of days between two dates. <i>Sample dates</i> : (2014, 7, 2), (2014, 7, 11) <i>Expected output</i> : 9 days

3	Write a Python program to get the volume of a sphere with radius 6.
4	Write a Python program to get the difference between a given number and 17, if the number is greater than 17 return double the absolute difference
5	Write a Python program to test whether a number is within 100 of 1000 or 2000.
6	Write a Python program to calculate the sum of three given numbers, if the values are equal then return thrice of their sum.
7	Write a Python program to get a new string from a given string where "Is" has been added to the front. If the given string already begins with "Is" then return the string unchanged.
8	Write a Python program to get a string which is n (non-negative integer) copies of a given string
9	Write a Python program to find whether a given number (accept from the user) is even or odd, print out an appropriate message to the user.
10	Write a Python program to count the number 4 in a given list.
11	Write a Python program to get the n (non-negative integer) copies of the first 2 characters of a given string. Return the n copies of the whole string if the length is less than 2.
12	Write a Python program to test whether a passed letter is a vowel or not.
13	Write a Python program to check whether a specified value is contained in a group of values. <i>Test Data :</i> 3 -> [1, 5, 8, 3] : True -1 -> [1, 5, 8, 3] : False
14	Write a Python program to create a histogram from a given list of integers.
15	Write a Python program to concatenate all elements in a list into a string and return it.
16	Write a Python program to convert the distance (in feet) to inches, yards, and miles.
17	Write a Python program to convert all units of time into seconds.
18	Write a Python program that will accept the base and height of a triangle and compute the area.
19	Write a Python program to compute the greatest common divisor (GCD) of two positive integers.
20	Write a Python program to get the least common multiple (LCM) of two positive integers.
21	Write a Python program to sum of three given integers. However, if two values are equal sum will be zero
22	Write a Python program to sum of two given integers. However, if the sum is between 15 to 20 it will return 20.

23	Write a Python program that will return true if the two given integer values are equal or their sum or difference is 5.
24	Write a Python program to add two objects if both objects are an integer type.
25	Write a Python program to display your details like name, age, address in three different lines.
26	Write a Python program to solve $(x + y) * (x + y)$ . <i>Test Data</i> : $x = 4, y = 3$ <i>Expected Output</i> : $(4 + 3) ^ 2 = 49$
27	Write a Python program to compute the future value of a specified principal amount, rate of interest, and a number of years. <i>Test Data</i> : $\text{amt} = 10000, \text{int} = 3.5, \text{years} = 7$ <i>Expected Output</i> : 12722.79
28	Write a Python program to compute the distance between the points $(x1, y1)$ and $(x2, y2)$ .
29	Write a Python program to check whether a file exists.
30	Write a Python program to determine if a Python shell is executing in 32bit or 64bit mode on OS.
31	Write a Python program to get OS name, platform and release information
32	Write a Python program to locate Python site-packages
33	Write a python program to call an external command in Python.
34	Write a python program to get the path and name of the file that is currently executing.
35	Write a Python program to find out the number of CPUs using.
36	Write a Python program to parse a string to Float or Integer
37	Write a Python program to list all files in a directory in Python.
38	Write a Python program to print without newline or space
39	Write a Python program to print to stderr.
40	Write a python program to access environment variables.
41	Write a Python program to get the current username
42	Write a Python to find local IP addresses using Python's stdlib

43	Write a Python program to get height and width of the console window
44	Write a program to get execution time for a Python method.
45	Write a python program to sum of the first n positive integers.
46	Write a Python program to convert height (in feet and inches) to centimeters.
47	Write a Python program to calculate the hypotenuse of a right angled triangle.
48	Write a Python program to get an absolute file path.
49	Write a Python program to get file creation and modification date/times.
50	Write a Python program to convert seconds to day, hour, minutes and seconds.
51	Write a Python program to calculate body mass index.

### Engineering Graphics

Sl. No.	Assignment Topics	
	Prepare chart models for the solids given below:	
1.	Hex-Prism-side 30mm, H-60mm	Square--Prism-side 30mm, H-50mm
2.	Pen--Prism-side 30mm, H-60mm	Triangular--Prism-side 30mm, H-50mm
3.	Square--Prism-side 30mm, H-60mm	Pen-pyramid side 30mm, H-50mm
4.	Triangular--Prism-side 30mm, H-60mm	Hex-pyramid side 30mm, H-50mm
5.	Pen-pyramid side 30mm, H-50mm	Circular cylinder of $\Phi - 30\text{mm}$ , H-50mm
6.	Hex-pyramid side 30mm, H-50mm	Circular cone of $\Phi - 30\text{mm}$ , H- 50mm
7.	Square-pyramid side 30mm, H-50mm	Hex-Prism-side 30mm, H-50mm
8.	Triangular-pyramid side 30mm, H-50mm	Pen--Prism-side 30mm, H-50mm
9.	Circular cylinder of $\Phi - 40\text{mm}$ , H- 50mm	Square-pyramid side 30mm, H-50mm
10.	Circular cone of $\Phi - 40\text{mm}$ , H- 50mm	Triangular-pyramid side 30mm, H-50mm
11.	Hex-Prism-side 20mm, H-60mm	Square--Prism-side 30mm, H-55mm
12.	Pen--Prism-side 20mm, H-60mm	Triangular--Prism-side 30mm, H-55mm
13.	Square--Prism-side 20mm, H-60mm	Pen-pyramid side 30mm, H-55mm
14.	Triangular--Prism-side 20mm, H-60mm	Hex-pyramid side 30mm, H-55mm

15.	Pen-pyramid side 20mm, H-50mm	Circular cylinder of $\Phi - 30\text{mm}$ , H-55mm
16.	Hex-pyramid side 20mm, H-50mm	Circular cone of $\Phi - 30\text{mm}$ , H- 55mm
17.	Square-pyramid side 20mm, H-50mm	Hex-Prism-side 30mm, H-55mm
18.	Triangular-pyramid side 20mm, H-50mm	Pen--Prism-side 30mm, H-55mm
19.	Circular cylinder of $\Phi - 20\text{mm}$ , H- 50mm	Square-pyramid side 30mm, H-55mm
20.	Circular cone of $\Phi - 20\text{mm}$ , H- 50mm	Triangular-pyramid side 30mm, H-55mm
21.	Hex-Prism-side 25mm, H-55mm	Square--Prism-side 30mm, H-60mm
22.	Pen--Prism-side 25mm, H-55mm	Triangular--Prism-side 30mm, H-60mm
23.	Square--Prism-side 25mm, H-55mm	Pen-pyramid side 30mm, H-60mm
24.	Triangular--Prism-side 25mm, H-55mm	Hex-pyramid side 30mm, H-60mm
25.	Pen-pyramid side 25mm, H-55mm	Circular cylinder of $\Phi - 30\text{mm}$ , H-60mm
26.	Hex-pyramid side 25mm, H-55mm	Circular cone of $\Phi - 30\text{mm}$ , H- 60mm
27.	Square-pyramid side 25mm, H-55mm	Hex-Prism-side 30mm, H-60mm
28.	Triangular-pyramid side 25mm, H-55mm	Pen--Prism-side 30mm, H-60mm
29.	Circular cylinder of $\Phi - 25\text{mm}$ , H- 55mm	Square-pyramid side 30mm, H-60mm
30.	Circular cone of $\Phi - 25\text{mm}$ , H- 55mm	Triangular-pyramid side 30mm, H-60mm
31.	Hex-Prism-side 35mm, H-55mm	Square--Prism-side 30mm, H-65mm
32.	Pen--Prism-side 35mm, H-55mm	Triangular--Prism-side 30mm, H-65mm
33.	Square--Prism-side 35mm, H-55mm	Pen-pyramid side 30mm, H-65mm
34.	Triangular--Prism-side 35mm, H-55mm	Hex-pyramid side 30mm, H-65mm
35.	Pen-pyramid side 35mm, H-55mm	Circular cylinder of $\Phi - 30\text{mm}$ , H-65mm
36.	Hex-pyramid side 35mm, H-55mm	Circular cone of $\Phi - 30\text{mm}$ , H- 65mm
37.	Square-pyramid side 35mm, H-55mm	Hex-Prism-side 30mm, H-65mm
38.	Triangular-pyramid side 35mm, H-55mm	Pen--Prism-side 30mm, H-65mm
39.	Circular cylinder of $\Phi - 35\text{mm}$ , H- 55mm	Square-pyramid side 30mm, H-65mm
40.	Circular cone of $\Phi - 35\text{mm}$ , H- 55mm	Triangular-pyramid side 30mm, H-65mm
41.	Hex-Prism-side 35mm, H-65mm	Square--Prism-side 30mm, H-70mm
42.	Pen--Prism-side 35mm, H-65mm	Triangular--Prism-side 30mm, H-70mm
43.	Square--Prism-side 35mm, H-65mm	Pen-pyramid side 30mm, H-70mm
44.	Triangular--Prism-side 35mm, H-65mm	Hex-pyramid side 30mm, H-70mm
45.	Pen-pyramid side 35mm, H-65mm	Circular cylinder of $\Phi - 30\text{mm}$ , H-70mm

46.	Hex-pyramid side 35mm, H-65mm	Circular cone of $\Phi$ – 30mm , H- 70mm
47.	Square-pyramid side 35mm, H-65mm	Hex-Prism-side 30mm, H-70mm
48.	Triangular-pyramid side 35mm, H-65mm	Pen--Prism-side 30mm, H-70mm
49.	Circular cylinder of $\Phi$ – 35mm , H- 65mm	Square-pyramid side 30mm, H-70mm
50.	Circular cone of $\Phi$ – 35mm , H- 65mm	Triangular-pyramid side 30mm, H-70mm
51.	Hex-Prism-side 40mm, H-65mm	Square--Prism-side 35mm, H-70mm
52.	Pen--Prism-side 40mm, H-65mm	Triangular--Prism-side 35mm, H-70mm
53.	Square--Prism-side 40mm, H-65mm	Pen-pyramid side 35mm, H-70mm
54.	Triangular--Prism-side 40mm, H-65mm	Hex-pyramid side 35mm, H-70mm
55.	Pen-pyramid side 40mm, H-65mm	Circular cylinder of $\Phi$ – 35mm , H-70mm
56.	Hex-pyramid side 40mm, H-65mm	Circular cone of $\Phi$ – 35mm , H- 70mm
57.	Square-pyramid side 40mm, H-65mm	Hex-Prism-side 35mm, H-70mm
58.	Triangular-pyramid side 40mm, H-65mm	Pen--Prism-side 35mm, H-70mm
59.	Circular cylinder of $\Phi$ – 40mm , H- 65mm	Square-pyramid side 35mm, H-70mm
60.	Circular cone of $\Phi$ – 40mm , H- 65mm	Triangular-pyramid side 35mm, H-70mm