TECHNICAL ENGLISH I

ASSIGNEMENT QUESTIONS

COMPOUND WORD

1st Grade Compound Words: bedtime, bluebird, cowboy, cupcake, notepad, pigpen, popcorn, rainbow, starfish, sunset

2nd Grade Compound Words: barnyard, butterfly, daylight, drumstick, flagpole, jellyfish, mailbox, notebook, raincoat, suntan, bathroom, catfish, doghouse, eyeglasses, footprint, lipstick, outside, pineapple, rowboat, seashell, birthday, classmate, doorway, fireplace, homework, lovebird, peanut, ponytail, sailboat, snowfall

3rd Grade Compound Words: backyard, downtown, overcoat, railroad, sidewalk, stepladder, teaspoon, waterfall, workbench, baseball, earring, necktie, playpen, seafood, skyscraper, sunrise, thumbtack, windmill, yearbook, daydream, handshake, nightgown, racetrack, shoelace, spaceship, teardrop, textbook, toothbrush, windshield

4th Grade Compound Words: afternoon, dishwasher, fingerprint, grandmother, motorcycle, playground, suitcase, teammate, watermelon, yardstick, aircraft, downstairs, fisherman, horseback, necklace, saltwater, sunlight, thunderstorm, weekend, chalkboard, dragonfly, flashlight, keyboard, password, sandpaper, surfboard, toothpaste, worldwide

5th Grade Compound Words: boxcar, earthquake, firecracker, handwriting, homesick, lifeguard, newsletter, rattlesnake, skyline, swordfish, breakfast, endless, gingerbread, headphones, layout, newcomer, overdue, shipwreck, stepmother, tombstone

6th Grade Compound Words: broadcast, deadline, headache, mankind, meanwhile, overseas, sightseeing, straightforward, timetable, viewpoint, courthouse, guideline, landmark, marketplace, playwright, silverware, thoroughfare, trustworthy, undergraduate, weatherproof

7th Grade Compound Words: billboard, clockwise, greenhouse, greyhound, headquarters, heartbreak, jawbone, kingfisher, masterpiece, whirlpool

8th Grade Compound Words: citizenship, copywriter, counterclockwise, drawstring, darkroom, folklore, forearm, freshman, heirloom, roundabout

9th Grade Compound Words: knothole, offspring, outlying, rawhide, sharecropper, steeplechase, stouthearted, timberline, underestimate, underscore
10th Grade Compound Words: counterpart, driftwood, foreshadow, grindstone, henceforth, icebreaker, leeward, levelheaded, overwrought, threadbare
11th Grade Compound Words: buckskin, crackdown, fellowship, halfhearted, herewith, hindquarter, lackluster, layman, lovelorn, roughhew
12th Grade Compound Words: counterbalance, countersign, crestfallen, foreordain, fortnight, hairbreadth, hindsight, leeway, pigeonhole, roughshod

ENGINEERING MECHANISM

ASSIGNMENT QUESTIONS

1. What are the everyday life applications of Kinematics?

2. Explain about the three laws of mechanics with practical applications.

3. Explain about the types of supports and their reactions.

4. Show that the product of inertia of a symmetrical section about its centroidal axes is zero.

5. What is statically determinate beam? Give examples.

6. Explain in detail about the different types of loads.

7. List out the steps to be followed to draw the free body diagram of a rigid body.

8. Write short notes on equilibrium of particle in 3D.

9. How will you determine the mass moment of inertia of composite solid body?

10. Derive the equation for distance travelled by a particle in n^{th} second.

11. How will you analyse the motion of a particle thrown horizontally from a certain height?

12. Explain in detail about the D'Alembert's principle.

13. State the law of conservation of energy with examples.

14. Differentiate between direct impact and oblique impact.

15. Derive the equations of motion of rigid body, rotating with uniform angular

ENVIRONMENTAL SCIENECE AND ENGINEERING

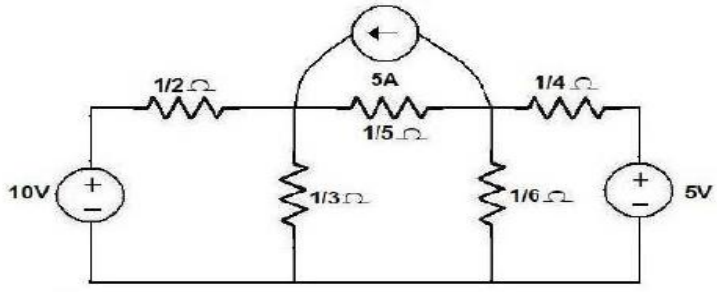
ASSIGNMENT QUESTIONS

1. What is an ecosystem? Describe the structure and function of various components of an ecosystem.
2. Discuss the threats faced by Indian biodiversity and write a note on conservation of biodiversity.
3. Elaborately discuss the steps involved in solid waste management.
   "India is a mega diversity nation"-Discuss.
   Indicate the causes and effects of water pollution.
4. Discuss the source, effects and control measures of thermal pollution.
5. Explain in detail about the problems of fertilizers and pesticides on modern agriculture.
6. Discuss the production of biogas. Mention its uses.
7. Write short notes on following act
   (i) Water prevention and conservation act, 1974
   (ii) Forest conservation act, 1980.
8. Write short notes on Air act, 1981.
9. What are the modes of transmission of HIV? And how can it be prevented.
10. List the causes, effects and control measures of population growth.
11. Briefly describe the various schemes launched for women and child welfare in India.
12. Explain the role of IT in environmental and human health.
13. What is value education and write the methods and strategies of imparting value education.

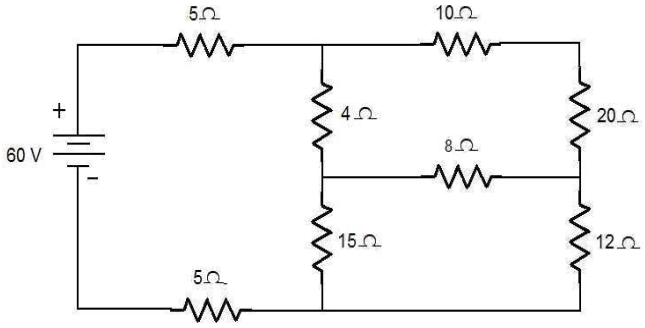
BASIC ELECTRICAL AND ELECTRONICS ENGINEERING

ASSIGNMENT QUESTIONS

1. using the node voltage analysis, find all the node voltages and currents in 1/3 ohm and 1/5 ohm resistances of figure.



2. In the network shown below, find the current delivered by the battery.



3. Enumerate the different types of absolute instruments.

4. Explain the construction and working principle of three phases Induction Motor.

5. Design the adder and subtract or circuits.

6. Deliberate about the semiconductors and its types.

7. Write a detail note on latest technologies in wireless communication.

ENGINEERNG PHYSICS I

ASSIGNMENT QUESTIONS

1. State and explain sabine's formula for reverberation time of a hall. Derive sabine's formula for reverberation time.

2. Derive an expression for the reverberation period of an auditorium and explain how this can be used for determining the absorbing power of surface involved.

3. Define absorption coefficient in sound. Describe a method of measuring the absorption coefficient of a material.

4. Discuss the factors reverberation, resonance, echelon effect and focusing that acoustics in a hall. Give remedies.

5. Write in detail about the factors affecting architectural acoustics and their remedies.

6. Discuss the factors reverberation, resonance, echelon effect, focusing and reflection that acoustics in a hall and the remedies for them.

7. What is reverberation time? Using sabine's formula explain the sound absorption coefficient of a material is determined.

8. Derive an expression for growth and decay of sound energy.

9. Derive an expression for growth and decay of sound energy density inside a hall and hence deduce sabine's formula for the reverberation time of a hall.

MATHEMATICS II
ASSIGNMENT QUESTIONS

1. a .Evaluate $\int_C \frac{z}{(z-1)(z-2)^2}dz$ here C is $|z-2|=\frac{1}{2}$ by using Cauchy's integral formula.

b .Evaluate $\int \frac{7z-1}{z^2-3z-4}dz$ over the curve C:$x^2+4y^2=4$ using Cauchy's integral formula.

2.a. Evaluate $\int_C \frac{z+1}{(z^2+2z+4)^2}dz$ where c is the circle $|z+1+i|=2$ by Cauchy's integral formula.

b. Evaluate $\int_C \frac{z+4}{z^2+2z+5}dz$ where C is the circle |z+1+i|=2 using Cauchy's integral formula.

3.a.Using Cauchy's integral formula ,evaluate $\int_C \frac{e^z}{(z+1)^2(z+2)}dz$ where C is |z|=3

b. If $f(a)=\int_C \frac{13z^2+27z+15}{z-a}dz$ where c is the circle $|z|=2$ then find

$f(3), f'(1-i), f''(1-i)$ *and* $f(1-i)$

4.a. Evaluate $\int_C \frac{z^3}{(2z+i)^3}dz$ where c is the unit circle $|z|=1$

b. Obtain Taylor's series for $f(z)=\frac{2z^3}{z(z+1)^3}$ about z=i

5.a. Evaluate $f(z)=\frac{1}{(z+1)(z+3)}$ in Laurent series valid for the regions |z|>3 and 1<|z|<3

b. Find the Laurent's series expansion of $f(z)=\frac{7z-2}{(z-2)(z+1)}$ valid in the region

$|z+1|<1$ and $|z+1|>3$

6.a. Expand the function $f(z)=\frac{z^2-1}{z^2+5z+6}$ in Laurent's series |z|>3

b. Obtain the Laurent's series expansion of $f(z)=\frac{z^2-1}{(z+2)(z+3)}$ in $2<|z|<3$

7.a.Expand $f(z)=1/z^2-4z+3$ as the Laurent's series expansion of **1<**$|z|<3$

b. Obtain the Laurent's series expansion of $f(z)=1/z-z^2$ in the region 1<|z+1|<2 and|z+1|>2.

8.a. Evaluate $\int_C \frac{\sin \pi z^2+\cos \pi z^2}{(z-1)(z-2)}dz$ where C is |z|=3 Using Cauchy's Residue theorem

b. Using Cauchy's residue theorem evaluate $\int_C \frac{z-1}{(z-1)^2(z-2)}dz$

where C is $|z-i|=2$

9.a. Evaluate $\int_C \frac{z^2}{(z-1)^2(z+2)}dz$ where C is |z|=3