J.S.University

Assignment For Diploma Engineering CS 2nd sem.

The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 2 long answer questions of 10 marks each

All questions are compulsory.

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/Examiner. Assignment Submission Dates are:

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List Of Suggested Questions

The list of suggested questions are for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

List of Practicals and suggested practicals

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

Education Delivery Schedule (EDS)

As per University Semester scheme, the minimum contact hours of each paper has been Divided into two hours theory and practical class.
The faculty will maintain this attendance paper wise for his/her batch.

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Cover page of Assignment

ID NUMBER	……
NAME	……
COURSE	DIPLOMA ENGG……
STREAM	CS……
SEMESTER	……
SUBJECT CODE	……
SUBJECT NAME	……

Assignments will be completed by the Student in his/her own handwriting.

Subject Code	Subject Name
DAS-22	Applied Mathematics-II
DAS-23	Applied Physics-II
DEE-22	Electrical Engineering-I
DME-24	Engineering Mechanics &Materials
DCS-21	Operating System
DEC-22	Fundamental of Electronic Devices

DAS-22
APPLIED MATHEMATICS-II
PART-A

Q1.Integrate

$$\int (\frac{1}{log\ x} - \frac{1}{(logx)^2})dx$$

Q2. Find the equation of a circle passing through the points (5,7),(6,6) and (2,-2).Find its centre and radius.

Q3. Find the equation of an ellipse whose eccentricity is 2/3,the latus rectum is 5 and the centre is at origin.

Q4. Find the equation of the parabola with vertex at the origin,the axis along the x-axis and passing through the point P(2,3).

Q5. Find the equation of the plane passing through the line of intersection of the planes 2x+y-z=3,5x-3y+4z+9=0, and parallel to the line $\frac{x-1}{2} = \frac{y-3}{4} = \frac{z-5}{5}$

PART-B

Q1. Use Trapezoidal Rule and Simpson's Rule to evaluate

$$\int_0^1 \cos(x + x^3)dx$$

Q2. Using integration,find the area of the region enclosed between the circles $x^2 + y^2 = 4$ and $(x-2)^2 + y^2 = 4$.

DAS-23
APPLIED PHYSICS-II
Part –A

Q1: Define the"law of reflection " and "Law of refraction".Also state the snell's law.

Q2: What do you mean by constructive and Destructive interference.

Q3:Define Step index fiber and graded index fiber .also define its different modes.

Q4:Differentiate between dia,para,ferro magnetism.

Q5:Draw and explain the magnetic hysteresis curve.Also write down its uses.

Part B

Q1:Draw and explain He-Ne laser and Ruby laser.also give its uses.

Q2:explain the formation of PN junction.

DEE-22
ELECTRICAL ENGG-I
PART-A

1 .Write the difference between conducting , semiconducting and insulating material.
2. what is soft and hard magnetic material.
3. Explain N Type and P type material with example.
4. Derive the maximum power transfer theorem.
5. Explain the series and parallel connection of capacitor

PART B

1. State the faraday s laws of electromagnetic induction.
2 .what is lenz law. Explain the kircoff laws with example.

DME-24
ENGINEERING MECHANICS AND MATERIALS

Part A

Q-1 Differentiate between coplanar and non coplanar forces.
Q2. Define the following terms:
(a) Rigid body.
(b) Principle of transmissibility.
(c) Triangle law of forces.
(d) Deformable body.
Q3 State and prove parallel axis theorem.
Q4 Define parallel axis and perpendicular axis theorm.
Q5 Draw the Stress – Strain diagram for ductile material mild steel under tension and discuss all the salien points.

PART-B

Q1 Define the term microstructure.
Q2 Explain the method of measuring grain size as recommeneded by ASTM.

DCS-21
OPERATING SYSTEM
PART-A

Q1.) Discuss the role of operating system
Q2.) Explain various directory structure used in operating systemfor storing files give its merits and demerits?
Q:3) How Files System are organized with UNIX ? Explain with an example .
Q 4) what is a Deadlock? How it is detected? What are the necessary conditions for a deadlock to occur?
Q 5). A variable portion memory system has at some point in time the following box sizes in the order 20k,15k,40k,60k,10k,25k, a new process is to be loaded which block will be filled using best fit, first fit, worst fit respectively.

PART -B

Q1). What are the mechanisms to evaluate an algorithm related to CPU scheduling? Discuss any one of them. Discuss the structure of directory and its implementation in detail.
Q2). What are the various functions of KERNEL of UNIX? What is the critical section problem? What are its various solutions?

DEC-22
Fundamental of Electronic Devices
PART-A

Q 1 Explain the short information of Power supply and micro processor in computer system ?
Q 2 Explain the short information of intrinsic Semiconductor and extrinsic semi conductor ?
Q 3 What is Doping in semi conductor ?
Q 4 What do you understand by a minority career in PN diode ?
Q 5 Explain the characteristics of a PN diode in forward biasing ?

PART-B

Q 1 Explain the working of Half wave rectifier ?
Q 2 Explain the working of full wave rectifier using center tape transformer ?