J.S UNIVERSITY

Assignment For B.Tech in Civil Engineering 3rdSem.

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

All questions are compulsory.

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

> Nov

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 examsas well as in clearing the important concepts of the subject.

List of Practical and suggested practical's

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 thelist 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

1

paper has beenDivided 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	B.Tech Engineering
STREAM	Civil
SEM	3 rd
SUBJECT CODE	
SUBJECT NAME	

SUBJECT NAME

- 1. Engg Mathematics-III
- 2. Fluid Mechanics
- 3. Mechanics of Solids
- 4. Building Materials & Construction
- 5. Surveying I
- 6. Industrial Psychology
- 7. Human Value & Professional Ethics

BTAS – 31 ENGG. MATHEMATICS – III PART – A

- **1.** What is the analytic function and properties of analytic function ?
- **2.** Differentiation $\log(\sin\sqrt{x^3})$.
- **3.** Solve $\int tanx \, dx$.

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- **4.** Solve $\int e^x \sin x \, dx$.
- **5.** Solve $\int \sin 2x \sin 3x \sin 4x \, dx$.

PART – B

1. Consider the time series data given below.

X	8	3	2	10	11	3	6	5	6	8
ΪY	4	12	1	12	9	4	9	6	1	14

Use the least square method to determine the line of best fit for the data then plat the line .

2.What do you mean by finite difference and what is the backward difference ?

BTCE-31 FLUID MECHANICS

Part A

- 1. What is fluid mechanics?
- 2. Define the density, weight density of fluid?
- 3. Define the real and ideal fluid?
- 4. A litre of crude oil weight 9.6 n calculate, specific weight and density?
- 5. Comparison between hydrostatics and hydrokinmatics?

Part B

1.Drived the pascal,s law?

2.What is specific weight?

3.A simple u tube manometer containing mercury is conneted to a

pipe in which a fluid of specific gravity 0.9 and having vaccum

pressure is following find the vaccum pressure

4.Define newtonion and nonnewtonion fluid?

5.Explain the newton ,s law?

BTME-31

MECHANICS OF SOLIDS

Part A

- 1. What is shear force and Bending moment?
- 2. How many types of Beams and Load?
- 3. How many types of Stresses ?
- 4. Do you Know about Hookes law?
- 5. Sign Convention for shear force and Bending moment?

Part B

6.Define the tension and compression stress also draw figure.

7. Find the moment of Inertia a T-section with flange as 150 mm*50mm and web as 150*50mm about and Y-Y axis through the center of gravity of the section.

8.A steel wire of 5mm diameter is bent into a circular shape of 5m radius. Determine the maximum stress induced in the wire.E=200 GPa

9. Assumption in the Theory of simple bending.

10. Draw the cantilever beam on loaded U.D.L full spam.

BTCE-32 BUILDING MATERIALS & CONSTRUCTION

Part A

1.what is the ingredients of good brick.

2.explain different types of bricks.

3. what is plywood and manufacturing process of plywood.

4. what is mortar and describe the various ingredients of mortar.

5. What is Concept of foundation and its purpose.

Part B

- 1. what is Brick Masonry: Definition of terms likeheader, stretcher, queen closer, king closer.
- 2. What is the Meaning and use of arches and lintels.
- 3. Doors, Windows and Ventilators.
- 4. Types of floor finishes cast-in-situ, concrete flooring (monolithic, bonded) Terrazzo tile flooring,stone (marble and kota) flooring.
- 5. Define Staircase, winders, landing, stringer, newel, baluster, riser, tread, width of staircase, hand-rail, nosing.

BTCE-33

SURVEYING – I

Part A

1.Explain Surveying And Its Types.

2.What Is Geodetic Surveying And Principle Of Surveying?3.Explain

Compass Surveying And Types Of Compass.

4. Explain Process Of Setting Out Theodolite.

5. A 30m chain used for a survey was found to be 20.10 m at the beginning and 20.50 m at the end of the work. The area of the plan drawn to a scale of 1cm= 6m was measured with the help of a plan meter and was found tobe 32.56 sq.cm find the true area of the field.

Part B

- 1. What is chain surveying and write the procedure toperform chain surveying.
- 2. A 20m chain was found to be 10cm too long after chaining a distance of 1500m. It was found to be 18cm too long at the end of the day's work after chaining a total distance of 2900m. Find the true distance if the chain was corrected before the commencement of the work.
- **3.** Explain the difference between RB and WCB.
- 4. Explain process of dumpy level and procedure to setout the instrument.
- 5. What is auto level and draw figure.

BTIP-31 INDUSTRIAL PSYCHOLOGY

PART A

- 1) Write the definition and scope of industrial psychology.
- 2) Explain the stress management.
- 3) Write the brief information of leadership.
- 4) What is job analysis?
- 5) Explain the performance and management training.

PART B

- 1) What is reliability and validity recruitment test
- 2) What is scientific of human relation
- 3) What is work environment & engineering psychology-fatigue
- 4) What is boredom, accidents and safety.
- 5) What is performance management : training & development.

BTAC-31 HUMEN VALUE AND PROFESSIONAL ETHICS

PART A

- 1.Explain guideline content for process value education.
- 2.What is the self exploration.
- 3.Explain method of fulfilled the human aspiration.
- 4.What is the harmony of human being.
- 5.What is the need of self.

PART B

- 1. What is the natural acceptance of human value ?
- 2. Case study of typical holistic technologies .
- 3. What is understanding harmony as a co existence of the the material body.
- 4. What is natural acceptance of human values.
- 5. What is definitiveness of ethical human conduct.