AR13

CODE: 13CE3019 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
III B.Tech II Semester Supplementary Examinations, July-2016

WATER RESOURCES ENGINEERING

(Civil Engineering)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10 = 10 M]**

1 a) Define the term Rain guage.
b) Define Infiltration indices.
c) What is meant by effective rainfall?
d) Define the term Design Discharge.
e) What is meant by Transmissivity?
f) Define porosity.
g) Define Irrigation.
h) Define Well loss.
i) What is meant by Perched water table?
j) Define the term Specific retension.

PART-B

Answer one question from each unit **[5x12=60M]**

UNIT-I

2. (a) Explain Hydrologic Cycle with a neat sketch. 6M
(b) What are the types of Rain guages? 6M

(OR)

3. (a) What is meant by average rainfall over a basin and how do you compute the same? 6M
(b) What are the various components of Runoff? 6M

UNIT-II

4. (a) What is a Unit Hydrograph? List out the assumptions involved in Unit Hydrograph theory. 6M
(b) Explain briefly about Infiltration indices. 6M

(OR)

5. (a) Discuss the flood frequency analysis by Gumbel's method? 6M
(b) Explain the basic concepts of Flood routing? 6M

UNIT-III

6. (a) What are the advantages and disadvantages of Irrigation? 6M
(b) How do you maintain the fertility of the soil? 6M

(OR)

7. (a) What are the different methods of Irrigation? 6M
(b) Discuss about the terms Transmissivity and Storage coefficient. 6M

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UNIT-IV

8.	Discuss about the Soil moisture Constants and Soil moisture tension.	12M
	(OR)	
9.	Define the terms Duty and Delta. What are the different factors affecting Duty?	12M

UNIT-V

10.	Discuss briefly about design of Canals by Kennedy's theory.	12M
	(OR)	
11.	Explain about the Classification of Canals and also the balance depth of Cutting	12M

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SUB CODE: 13HS3005 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

III B.Tech II Semester Supplementary Examinations, July-2016

MANAGERIAL ECONOMICS AND MANAGEMENT SCIENCE

(Common to EEE and ECE)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10 = 10 M]**

1. a) Scope of Managerial Economics.
   b) What is forecasting?
   c) What is Economies of scale?
   d) Implicit cost.
   e) Perfect competetion.
   f) Unity of direction.
   g) What is Marketing?
   h) Define Human Resource Management.
   i) Define the word Recruitment.
   j) What is Induction?

PART-B

Answer one question from each unit **[5 x 12=60M]**

UNIT-I

2. (a) What is Managerial Economics? Explain its Nature and Functions.
   (b) Define Price Elacity of Demand. What are the factors that determine?

(OR)

3. (a) What is Test Marketing? What are the advantages and disadvantages of Test Mrketing?
   (b) Define the word Demand Forecasting. Explain the various measures used in Demand forecasting.

UNIT-II

4. (a) What is Production function? Distiguish between Fixed inputs and Variable inputs.
   (b) Waht is meant by Marginal Rate of Technical Substitution (MRTS) between factors?

(OR)

5. (a) Distiguish between Economic Costs and Accounting costs. Which should be taken into account for calculating the Economic profits of the firm?
   (b) Define Break Even Chart. How is it constructed? Explain the assumptions underline the Break Even analysis.

UNIT-III

6. (a) When does a firm working under perfect competetion decide to (i) shutdown in the short run, (ii) leave the industry in the long run?
   (b) How the price and output are determine under Monopoly? Show that under Monopoly price is higher and output smaller than under perfect competetion.

(OR)

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7. (a) What is penetration price? When should we use penetration price as a pricing strategy?
(b) Explain the conditions under which Monopolistic price dscrimination is both possible and profitable?

UNIT-IV

8. (a) What is Scientific Management? Discuss the contribution made by F W Taylor.
(b) Comment on different levels of managers. Explain their functions.

(OR)

9. (a) Explain the importance of Maslow's need heirarchy motivational theory in an organisation.
(b) What is leadership? Discuss the various leadership styles.

UNIT-V

10. (a) What is Distribution channel? What are the key elements of a Distribution channel strategy?
(b) What is Product Life Cycle? Explain the various stages in Product Life Cycle.

(OR)

11. (a) Define Human Resource planning. Discribe its charecteristics and objectives.
(b) What are the three methods of appraisal? Which methos would you prefer as an employee?

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AR 13

CODE:13ME3025 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

III B.Tech II Semester Supplementary Examinations, July-2016

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10=10M]**

1. a) Write types of lubrication systems in automobiles.
   b) Write any four main components in I.C engine.
   c) Write the principle of fuel pump.
   d) Write the principle of fuel injection system.
   e) Write any two advantages of water cooling system over the air cooling system.
   f) Write the function of batteries.
   g) Write main components of a generator.
   h) Write the principle of clutch.
   i) Write types of steering mechanism.
   j) What type of breaks are used in modern machines.

PART-B

Answer one question from each unit **[5 x 12=60M]**

UNIT-I

2. a) Write any six basic engine terminology.
   b) What are the factors efficiency the wheel alignment in front axle.

(OR)

3. a) Explain the necessity of emission controlling diesel engine especially during the acceleration.
   b) Describe the principal of working of aneroid valve.

UNIT-II

4. With help of neat sketches, explain the construction and working of electrical fuel pump.

(OR)

5. Draw diagram showing the layout of various types of fuel supply systems for diesel engine.

UNIT-III

6. With help of neat sketch show the construction of radiator. Discuss different types of radiators cores used in modern car engines.

(OR)

7. a) Describe different methods of battery ratings.
   b) Describe in details the methods of battery charging.

UNIT-IV

8. Discuss the construction and working of a combined vibrating voltage and current regulator. How is the temperature compensation achieved in such a regulator.

(OR)

9. What is an over drive? Explain its construction and discuss its working, explain also the method of control.

UNIT-V

10. a) Discuss in details the Ackermann steering mechanism.
    b) The front axle of a car has pivot length 1.1m, the length of each steering arm is 150mm, while the track rod is of 1m length , calculate the wheel base for perfect rolling of the car wheels when the inner wheel stub axle is at 55^0 to the rear center line.

(OR)

11. a) Discuss various factors influencing braking effect.
    b) Write a short note on leaf springs.

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CODE: 13CS3016 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
III B.Tech II Semester Supplementary Examinations, July-2016

WEB TECHNOLOGIES

(Computer Science Engineering)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10 = 10 M]**

1. a) What is a Hypertext link?
   b) How do we add JavaScript onto a web page?
   c) Describe the role that XSL can play when dynamically generating HTML pages from a relational database.
   d) When constructing an XML DTD, how do you create an external entity reference in an attribute value?
   e) What do you understand by JSP Actions?
   f) When to use do Get() and when do Post()?
   g) Is JSP technology extensible?
   h) How can we handle the exceptions in JSP?
   i) What are the components of JDBC?
   j) What are the steps involved in establishing a JDBC connection?

PART-B

Answer one question from each unit **[5 x 12=60M]**

UNIT-I

2. a) How do you make an image clickable in HTML? Give an example. 6M
   b) When web pages containing emails are sent out they are prefixed by MIME Header. Why? 6M

(OR)

3. a) What is the usage of Cascading style sheets (CSS). Explain different types of CSS. 6M
   b) Explain On click and On load event handling in using JavaScript. 6M

UNIT-II

4. a) What is XML? Explain the different XML technologies. 8M
   b) What is an attribute in XML? What is the difference between storing data in child elements and in attributes? 4M

(OR)

5. a) What is a XML Schema? Explain with an example 6M
   b) What is SAX? Explain with code, how to parse an XML file using SAX parser. 6M

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CODE: 13CS3016 SET-1

UNIT-III

6.	a)	What is servlet? Explain lifecycle of a Servlet.	8M
	b)	What is the benefit of using JavaBeans to separate business logic from presentation markup within the JSP environment?	4M
		(OR)	
7.	a)	Explain the anatomy of JSP page.	6M
	b)	What is cookie? Write a program to store user credentials for one week.	6M

UNIT-IV

8.	a)	What do you mean by dynamic content? How will you generate dynamic content?	6M
	b)	How errors are handled and debugged during sharing of data between two JSP pages?	6M
		(OR)	
9.	a)	What is JSP objects? Write down the implicit JSP Objects.	6M
	b)	What are the three basic types of web documents? Also explain the advantages and disadvantages of each type.	6M

UNIT-V

10.	a)	Write a short note on i) Java. Sql package ii) Javax. Sql package	8M
	b)	How can you move the cursor in scrollable result sets?	4M
		(OR)	
11.	a)	What are different types of statements in JDBC? How do you create JDBC statements?	6M
	b)	What do you mean by batch updates? Why do we need batch updates? Explain how to get the result set of Stored procedure.	6M

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CODE: 13CE3013 **SET -1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
III B.Tech II Semester Supplementary Examinations, July-2016
GEOTECHNICAL ENGINEERING-I
(CIVIL ENGINEERING)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10 = 10 M]**

1. a) Degree of Saturation
   b) Compressibility
   c) Specific Gravity of Solids
   d) Relative Density
   e) Formula for Constant Head Permeability Test
   f) Flow Lines
   g) Consolidation
   h) New mark's Influence Chart
   i) Seepage
   j) Coulomb's Law

PART- B

Answer one question from each unit **[5 x 12 = 60 M]**

UNIT-1

2. a) A soil Specimen has a water content of 10 % and a wet unit weight of 20 KN/m^3. If the specific gravity of solids is 2.70, determine the dry unit weight, void ratio, and the degree of saturation. Take γw = 10 KN/m^3.
   b) What are different types of soil structures which can occur in nature? Explain any two.

(OR)

3. Describe in details the Indian Soil Classification System?

UNIT-II

4. Explain different methods for determination of Coefficient of Permeability in a laboratory?

(OR)

5. a) What is flow net? Describe its properties and applications? Explain the graphical method to construct the flow net?
   b) What is the critical hydraulic gradient of a sand deposit of Specific gravity 2.65 & void ratio 0.5.

UNIT-III

6. a) Derive an expression for vertical stress at a point due to a point load using Boussinesq Theory?
   b) What is Newmark's influence chart? Explain its uses.

(OR)

7. a) Determine the vertical stress at a point P which is 3 m below and at a radial distance of 3 m from the vertical load of 100 KN. Use Westergaard's Solution. Take v = 0.3
   b) Short note on i. Isobar Diagram ii. Contact Pressure Distribution.

UNIT-IV

8. What is a compaction curve? What are the factors that affect compaction? What is a Zero air void line?

(OR)

9. a) Discuss the limitations of Terzaghi's Theory of Consolidation
   b) Define (i). Coefficient of Compressibility (ii). Coefficient of Volume compressibility (iii). Compression Index.

UNIT-V

10. What is unconfined compression test? Sketch the apparatus used. What are its merits and demerits?

(OR)

11. Discuss the shear characteristics of cohesion less soils and cohesive soils?

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