Code No. 325

FACULTY OF ENGINEERING

B.E. 4/4 (Civil) II – Semester (New) (Main) Examination, May / June 2018

Subject: Groundwater Hydrology

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part – A & any five questions from Part – B.

PART – A (25 Marks)

1 The specific yield and specific retention of a soil are 15% and 8% respectively. Find porosity of soil. 2

2 With help of a neat sketch explain what is a leaky aquifer? 3

3 Explain law of times with respect to unsteady flow into well. 2

4 Expand well function W(u) if $u = r^2S/(4Tt)$, with usual notations. 3

5 Explain role of RS in groundwater exploration. 2

6 What is gamma ray logging of bore well? 3

7 What is meant by induced recharge? 2

8 Explain briefly membrane analogy model. 3

9 Explain briefly water analog sand model. 2

10 What is finite difference equation? Explain with help of Steady 1D flow. 3

PART – B (50 Marks)

11 a) Explain determination of permeability of soil sample by constant head method. 5

b) The transmissibility of confined aquifer is 2500 m^2/day. The pimping rate is 2000 m^3/day. What is the draw down at 75 m from pumping well, assuming radius of influence as 400 m. 5

12 a) Explain in detail determination of S and T for confined aquifer using Cooper – Jacob method. 5

b) A well pumping at a uniform rate of 2500 m^3/day was shut down after 240 min. The measurements of residual drawdown 's' and time 't' tabulated below, find transmissivity. 5

t' (minutes) Time	3	5	7	10	20	30	40	60	80	100	140	180
S'(m) Residual Drawdown	0.76	0.68	0.64	0.56	0.55	0.38	0.34	0.28	0.24	0.21	0.17	0.14

13 a) Explain in detail electrical resistivity method in groundwater exploration. 5

b) Explain any two methods of bore hole logging. 5

…2

14 a) Explain the process of sea water intrusion into coastal aquifers. 5
b) What are the various methods used for artificial recharge, explain any two in detail. 5

15 a) What is sand box model? Explain how to model an aquifer. 5
b) Explain the use of hydrologic balance equation in estimating groundwater recharge. 5

16 a) A pumping well which fully penetrates a confined aquifer. The pumping well is 80 m from a river. Find drawdown at a radial distance of 60 m from pumping well, on a line drawn passing through pumping well and parallel to river.
Pumping rate = 4000 m^3/day Transmissivity = 500 m^2/day 5
b) Explain how presence of a dyke can be detected using pumping test. 5

17 Answer any two from the following: 10
a) Derive Dupuit's steady radial flow equation in unconfined aquifer
b) Geologic bore well log
c) Well completion and development.

****

Code No: 326/O

FACULTY OF ENGINEERING

B.E. IV/IV (Civil) II – Semester (Old) Examination, May/June 2018

Subject: Finite Element Methods (Elective – III)

Time: 3 Hours **Max. Marks: 75**

Note: Answer all questions from Part A & any FIVE questions from Part – B.

PART – A (2.5x10=25)

1) Distinguish between the Rayleigh Ritz method and Galerkin method. 2

2) Derive the constitutive matrix D for a plane strain problem. 3

3) Write the transformation matrix L for a p[lane truss member inclined at 60^o with horizontal axis. 2

4) Derive the element stiffness matrix k for a 1-D 2-node bar element. 3

5) Why a 2-D 3-node triangle element is called a CST element? 2

6) For 1-D bar shown in fig.1. Evaluate ¶, N_1 N_2 at point P. If q_1= 0.01 mm and q_2 = -0.02 mm, find the displacement q at point P. 3

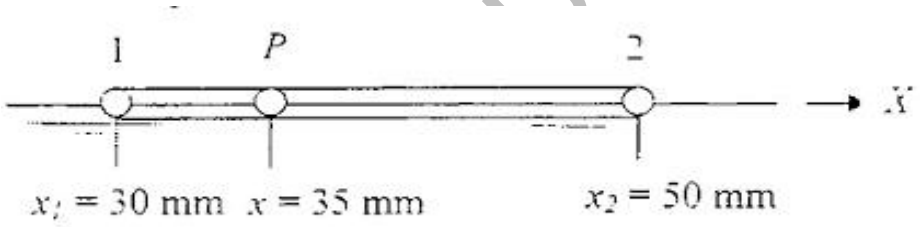


Fig. 1

7) Write the properties of global stiffness matrix K. 2

8) Explain the significance of Jacobian matrix J in finite element analysis 3

9) Briefly explain about volume coordinates. 2

10) Write the convergence criteria for selection a displacement model. 3

PART – B

11 From stress-strain relations, derive the constitutive matrix for a 3-D continuum. 10

12. Determine the nodal displacements, element stresses and support reactions for a 1-D bar shown in fig.2, using penality approach, Take E= 20 GPa. 10

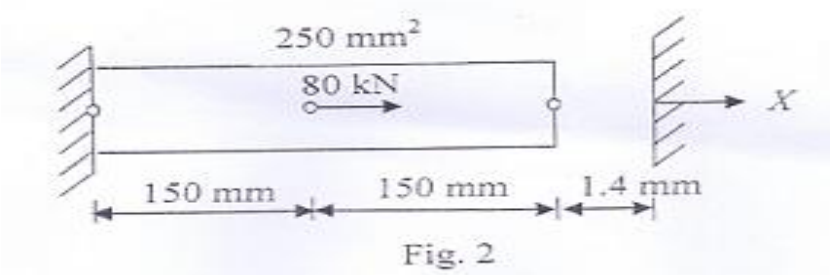


Fig. 2

Contd…2..

13 For the two-bars truss shown in fig.3, determine the displacement of node1 and the stress in element 1-3. Take E= 70 GPa and A= mm^2 for both members. 10

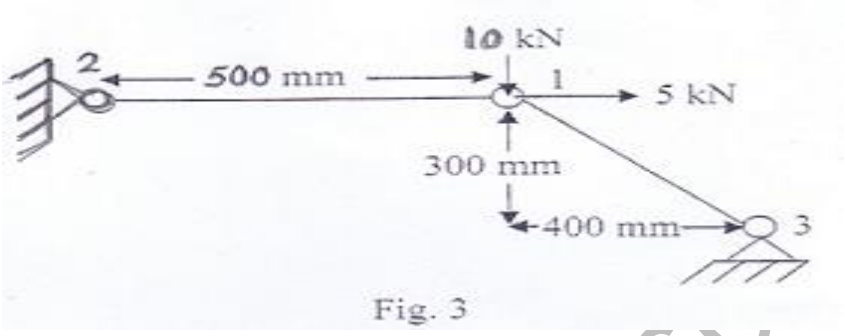


Fig. 3

14 Derive the Jacobian matrix for a 2-D 4-node quadrilateral element in terms of natural coordinates. 10

15 a)Derive the shape functions N for a 2-D higher order 8-node element. 5

b) Evaluate $I = \int_{....-1}^{1} \left[3x^2 + 2e^x - \frac{1}{x+4} \right] dx$ using two-point Gauss quadrature and compare it with exact solution. 5

16 a) An axi-symmetric body with a linearly distributed load is shown in fig. 4. Determine the equivalent point loads at nodes 1 and 2. 10

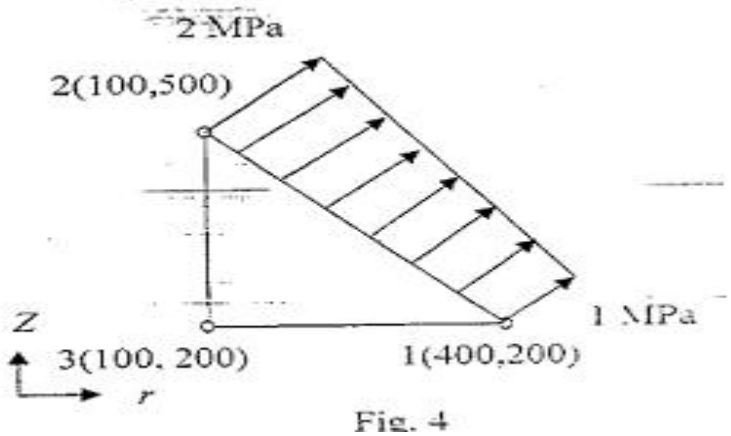


Fig. 4

17 Write notes on any three of the following:

a) Rayleigh Ritz method.

b) Plane stress and plane strain problems.

c) Gauss quadrature in I-D analysis using I-point and 2-point formula.

d) Derive Jacobiab matrix J for 3-D 4-node tetrahedral element.

****

Code No. 329

FACULTY OF ENGINEERING

B.E. 4/4 II-Semester (Main & Backlog) Examination, May / June 2018

Subject : Intellectual Property Rights (Elective – II & III)

(Except AE/IT)

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

I Multiple choice : 3 x 1 = 3

1 Intellectual Property Rights protect the use of information and ideas that are of
   a) Ethical value b) Moral value
   c) Social value d) Commercial value

2 Design does not include
   a) Features of shape b) Composition of lines
   c) Mode or principle of construction d) None of the above

3 Which of the following is not a type of Copyright work
   a) Literary works b) Furniture
   c) Sculpture d) Musical works

II Fill in the blanks : 3 x 1 = 3

1 Exclusive Marketing Rights are granted for 5 years from the _____.
2 World Book and Copyright day is celebrated by UNESCO on _____.
3 The right to prevent other from using their inventions, designs or other creations is called _____ .

III True or False : 3 x 1 = 3

1 It is possible to obtain a World patent. T/F
2 Unpublished book can be registered under copyright act in India. T/F
3 A trade name and trademark are the same thing. T/F

IV Match the following : 3 x 1 = 3

1	Industrial Design	a) Open for public inspection
2	Indian Trademarks Act 1999	b) Composition of lines
3	Copyright	c) Initial registration for 10 years
		d) 1856

..2

V Problem based questions : 3 x 1 = 3

1 A discoverer of a new scientific idea makes an application for patent. Is it patentable?
2 A trader applied for registration of a chemical element as a trade mark. Can he succeed?
3 Can copyright be registered in respect of a Telephone Directory?

VI Short notes 5 x 2 = 10

1 Intangible Property
2 WIPO
3 Lay-out Designs
4 Assignment of Copyright
5 Public performance license

PART – B (50 Marks)

11 Discuss the impact of TRIP's agreement on the Indian regime of IPRs.

12 Discuss the contents of complete specification of an invention, sought to be patented.

13 Copy rights protect expressions and not ideas – Elaborate.

14 Distinguish the following from each other –
i) Trade mark and Service mark
ii) Collective Marks and Associated Marks

15 What are the different forms of transfer of a patent?

16 Define 'Industrial Design' and explain the essential conditions for registration there of.

17 Examine the element of legal rights.

******

Code No. 327 / N

FACULTY OF ENGINEERING

B.E. 4/4 (Civil) II – Semester (New) (Main) Examination, May / June 2018

Subject: Infrastructure Engineering (Elective – III)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part – A & any five questions from Part – B.

PART – A (25 Marks)

1	State the significance of infrastructure.	3
2	Write some problems of infrastructure privatization.	3
3	Mention some of the contractual issues in infrastructure.	3
4	What are the different types of foundations for tall buildings?	3
5	What are the legal issues in infrastructure planning?	3
6	Explain the “concept of life cycle”	2
7	Write some of the challenges in privatization of water supply	2
8	What are the political risks in infrastructure?	2
9	Write classification of infrastructure projects based on urban transportation system?	2
10	Write the government role in infrastructure implantation.	2

PART – B (50 Marks)

11	a)	Mention the roles of organizations and players in the field of infrastructure.	5
	b)	Present an overview of infrastructure projects in water supply.	5
12	a)	Write a brief historical overview of infrastructure privatization	5
	b)	Mention the benefits of infrastructure privatization.	5
13	a)	State the legal issues in infrastructural projects.	5
	b)	What are the challenges in construction and maintenance of infrastructure	5
14	a)	What are the different types of winds considered in the design of tall building?	5
	b)	What are the characteristics of wind? Write in brief about any one of the characteristics.	5
15	a)	Describe the strategies for shaping the planning phase of infrastructure projects	5
	b)	Write about the Government’s role in infrastructure implementation.	5
16	a)	What are the special economic zones?	5
	b)	Write about mapping and facing the landscape of risks in infrastructure projects.	5
17	Write a short note on any TWO of the following topics:		10
	a)	Socio-Environmental Risks	
	b)	Bundled tube structures	
	c)	Infrastructure Management Systems	

****

Code No. 333

FACULTY OF ENGINEERING

B.E. 4/4 (EEE) II - Semester (Main & Backlog) Examination, May / June 2018

Subject : Electrical Power Distribution Engineering
(Elective – II)

Time : 3 Hours **Max. Marks: 75**

Note: Answer all questions from Part-A & any five questions from Part-B.

PART – A (25 Marks)

1 Define Demand factor and coincident demand. (2)
2 List out the applications of distribution transformers. (3)
3 Explain what are the rules to be followed for optimum location of substation. (3)
4 What are types of distribution systems? (2)
5 What is percent voltage drop? Comment on the same. (3)
6 What is an express feeder? (2)
7 What are the factors of primary feeder loading? (3)
8 What are consumer information services in distribution automation? (3)
9 Explain briefly about AMR. (2)
10 List out merits and demerits of series capacitors. (2)

PART – B (50 Marks)

11 (a) Discuss the various types of loads and their characteristics. (5)
(b) Explain in detail the concept of customer billing. (5)

12 (a) A distribution substation of a company supplying power to a small city experiences an annual peak load of 3500 kw. The total annual energy supplied to the primary feeder circuit is 10,000,000 kw.
Find :
(i) The annual average power demand
(ii) Annual load factor (5)
(b) How do you analyse a substation service area with "n" primary feeders? (5)

13 (a) Explain any three substation bus schemes in detail with neat sketches. (5)
(b) Explain briefly about various types of radial type primary feeders. (5)

14 Assume that a 2.4 kv 1- ϕ circuits feeds a load of 360 kw at a lagging load factor and the load current is 200A. If it is desired to improve the power factor, determine the following: (10)
(a) The uncorrected p.f. and reactive load.
(b) The new corrected p.f. after installing a shunt capacitor unit with a rating of 300 kvar.

15 Explain in detail design consideration of secondary systems. (10)

16 Derive the equation for voltage drop and power loss for single phase two wire lateral with (i) ungrounded taterals. (ii) uni-ground laterals. (10)

17 Write short notes on the following:
(a) SCADA
(b) Functions of distribution automation

*****

Code No. 344

FACULTY OF ENGINEERING

B.E. 4/4 (Inst.) II-Semester (Main & Backlog) Examination, May / June 2018

Subject : Advanced PLC Programming (Elective – II)

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1	List a few advantages of using a PLC.	2
2	Write some electrical devices connected to PLC input and output modules.	2
3	Why normally open contact instruction is also called as examine on?	3
4	Write a PLC program to perform wood sawing operation for 4.6 second after an input coming out of source IN002.	3
5	Convert the word description : "For output 7 to be ON, input 6 must be OFF and either input 8 or input 9 must be ON. In addition one of the inputs 1, 2 or 3 must be ON", into equivalent Gate symbols.	3
6	What is the difference between PLC timer and counter function?	3
7	Write the syntax of Master Control Relay function in a PLC programming.	3
8	What is PLC Repetitive clock?	2
9	Write the use of PLC sequencer function.	2
10	Why binary to BCD conversion is necessary while interfacing a display to PLC?	2

PART – B (50 Marks)

11 What are the programming ladder arrangement rules for one of the models chosen for analysis? What format arrangements will not be accepted by the CPU? 10

12 Write the classifications of Ladder diagram. Explain the steps used in planning a Ladder program for a large process diagram. 10

13 a) List and define the various arithmetic functions used in PLC programming. 5
b) Explain how PLC handles overflow and negative numbers for the ADD and SUBSTRACT functions. 5

14 Describe a process requiring nesting of two subroutines. 10

15 Construct PLC ladder diagram for the problem : A temperature control system consists of four thermostats. The system operates three heating units. Thermostats are set at 55, 60, 65 and 70^0C. Below 55^0C, three heaters are to be on. A temperature between 55 and 60^0C causes two heaters to be on. For 60 to 65^0C, one heater is to be on. A master switch the system turn ON and OFF. 10

16 Using a suitable block diagram and necessary calculation show how analog input signal is processed in input as well as in output side of PLC system. 10

17 Write short notes on :
a) Networking of PLCs
b) PLC jump functions 5+5

******

CODE No. 357

FACULTY OF ENGINEERING

BE 4/4 (ECE) II-Semester (Main & Backlog) EXAMINATION, May / June 2018

Subject: Global Positioning System (Elective-III)

Time : 3 Hours **Max. Marks: 75**

Note: Answer All Questions from Part-A& any Five Questions from Part-B

PART-A (25 Marks)

1.	Explain the GPS principal of operation	2
2.	What is DOP?	3
3.	Differentiate regional and universal datums	2
4.	Write the effects of clock errors on the GPS signals	3
5.	What are the properties of Gold codes?	2
6.	Write the criteria for selecting L-Band for GPS	3
7.	What are the drawbacks of DGPS?	2
8.	Differentiate LADGPS and WADGPS?	3
9.	Write the benefits of integrating GIS with GPS	2
10.	Write three space applications of GPS	3

PART-B (50 Marks)

11	a)	Draw and explain GPS constellation and orbits	5
	a)	Explain mathematical steps to compute GPS satellite position	5
12	a)	Write the conversion method for ECEF to Geodetic coordinates	5
	b)	Write the effects of clock and ephemeris errors on GPS signals	5
13	a)	Explain the structure of GPS signals	5
	b)	Explain GPS C/A code and phase measurements	5
14	a)	Draw and explain the architecture of LAAS	5
	b)	Draw and explain the architecture of WAAS	5
15	a)	Draw and explain the architecture of Galileo system	5
	b)	Draw and explain the block diagram of GPS integration with Cellular. What are the merits and demerits	5
16	a)	Write important features of RINEX observation data format	5
	b)	Write short notes on multipath effects	5
17	Write any 2 (TWO) of the follow		
	A)	Draw and explain the architecture of GLONASS	5+5
	b)	Explain differencing techniques	
	c)	Write important features of RINEX navigation data format	

****

CODE NO: 365

FACULTY OF ENGINEERING

B.E. 4/4 (M/D) II-Semester (Main& Backlog) Examination, May / June 2018

Subject: Machine Tool Design (Elective – II)

Time: 3 Hours **Max. Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART-A (25 Marks)

1 Give the classification of Machine Tools and state the objectives of machine tool.

2 Draw the schematic diagram of NC system.

3 What are drives of machine tools?

4 What is ray diagram and speed spectrum diagram?

5 What are the different types of guide ways?

6 What are the materials used for machine tool structures

7 How the rigidity of columns be improved?

8 How the clearances affect the overall performance of spindle?

9 Sketch the working mechanism of reciprocating pump

10 What are the various hydraulic controls used in machine tools.

PART-B (5x10 = 50 Marks)

11 a) Explain in detail about automatic screw cutting machines.
b) What are Numerical Control Machines state the advantages and limitations.

12. (a) What is Range Ratio derive an expression of Range Ratio
b) What are the rules for the layout of gear boxes having sliding clusters?

13 a) With neat diagrams explain about Norton and meander type of gear boxes.
c) Explain in detail about design of Columns

14 a) What is the effect of bearing clearance on the over all rigidity of machine tool spindle.
b) Explain about Hydro Dynamic Action of bearings.

15 a) What are the factors to be considered in selection of bearings.
b) Explain about Spindle Design in detail.

16 a) What are the various hydraulic controls used in machine tools
b) Differentiate between hydraulic and pneumatic system.

17 Write short notes on the following:
a) Accumulators
b) Hydraulic Pumps
c) Hydro Copying System

****

CODE NO: 370

FACULTY OF ENGINEERING

BE 4/4 (M/P) II-Semester (Main & Backlog) Examination, May / June 2018

Subject: Power Plant Engineering (Elective – II)

TIME: 3HOURS **MAX. MARKS: 75**

Note: Answer All Questions from Part-A, & Any Five Questions from Part-B.

Part – A

1. What are the major sources of power generation in India? (2.5M)
2. Explain why coal storage is given importance? (2.5M)
3. What is the difference between stoker and pulverizer? (2.5M)
4. Classify Cooling Towers used in power plants. (2.5M)
5. Differentiate the open and closed cycle of Gas turbine. (2.5M)
6. What is Hydrograph? What are the factors effecting run-off? (2.5M)
7. Why is shielding necessary in nuclear power plants? (2.5M)
8. What is meant by fertile materials in nuclear fuels? (2.5M)
9. What are the fixed costs and variable costs of a power station? (2.5M)
10. Explain the effects of effluents on the environment and human health. (2.5M)

Part-B (5x10 = 50M)

11. Explain in detail the layout of steam power plant with a neat sketch? (10M)

12. (a) What is meant by overfeed & underfeed fuel beds? (5M)
    (b) Explain about pulverized fuel burning system and what are its components? (5M)

13. (a) With a simple sketch, explain the hydrological cycle. (5M)
    (b) Explain in detail the site selection criterion of hydro electric power plant? (5M)

14. (a) Explain the working principle of fast breeder reactor with a neat sketch. (5M)
    (b) How is radioactive waste disposed? (5M)

15. (a)What is the difference between dam and spillway and how do you classify spillways? (5M)
    (b) Describe CANDU reactor with a neat sketch? (5M)

16. (a) Explain the working details of gas turbine power plant indicating all auxiliaries. (5M)
    (b) Describe the effluents from steam, hydro and nuclear power plants and their characteristics. (5M)

17. (a) Explain the pollution of air and water caused by thermal power plants? (5M)
    (b) The maximum (peak) load on a thermal power plant of 60 MW capacity is 50 MW at an annual load factor of 50%. The loads having maximum demands of 25 MW, 20 MW, 8 MW and, 5 MW are connected to the power station. Determine: (a) Average load on power station (b) Energy generated per year (c) Demand factor (d) Diversity factor. (5M)

****

Code No. 372

FACULTY OF ENGINEERING

B.E. 4/4 (AE) II – Semester (Main & Backlog) Examination, May / June 2018

Subject : Vehicle Body Engineering
(Elective – II)

Time : 3 Hours **Max. Marks: 75**

Note: Answer all questions from Part-A & any five questions from Part-B.

PART – A (25 Marks)

1 Draw the layout of four door saloon.
2 Sate the difference between Racing car and sports car.
3 What are the effects of wind thrust?
4 List the methods of Load distribution on vehicle body.
5 Explain static loading case.
6 What is drag? List out various forms of drag.
7 What are the advantages and disadvantages of air bag?
8 State the salient design features for drivers safely.
9 List out the ferrous and non ferrous materials used in vehicle body construction.
10 State the features of corrosion prevention method of painting.

PART – B (50 Marks)

11 Explain the bus body layout with neat sketch.

12 With neat sketch. Explain construction and working of low speed wind tunnel.

13 Explain briefly calculation of loading cases in vehicle body design.

14 (a) List out the requirements for vehicle body design.
(b) Write a note on air bag.

15 Describe the painting process to be carried out in vehicle body construction.

16 Explain with neat sketch car body space nomenclature.

17 (a) Explain active safety and passive safety as applied to vehicle.
(b) What are the visibility regulations?

*****

CODE NO : 404

FACULTY OF ENGINEERING

BE 4/4 (CSE) II-Semester (Main & Backlog) Examination, May / June 2018

Subject : Information Retrieval systems (Elective-III)

Time : 3 Hours **Max. Marks : 75**

Note: Answer all questions from Part-A & Any Five questions from Part-B.

PART-A (25 Marks)

1.	Differentiate Browsing and Searching	2
2.	Define Boolean model and bring out of advantages of Boolean model	3
3.	Define IR model	2
4.	Define proximal nodes	2
5.	What are the types of browsing	2
6.	Define stop words and key words	3
7.	Define various query protocols	3
8.	Define pattern matching.	2
9.	Define Distributed IR	3
10.	Define Phrases and Proximity.	3

PART-B (5x10 = 50 Marks)

11.	Describe about belief network model and vector space model	10
12.	What is Keyword-based querying? Explain in detail about single word queries and context queries?	10
13.	Explain precision vs recall with examples.	10
14.	a) What is pseudo relevance feedback?	5
	b) What is Roccio algorithm for relevance feedback?	5
15.	Explain about probability ranking principle	10
16.	a) Compare text compression techniques.	5
	b) Explain the Indexing of Text Searching.	5
17.	Explain the MIMD architecture of parallel IR.	10

****

Code No. 405

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) II – Semester (Main & Backlog) Examination, May / June 2018

Subject: Advanced Databases (Elective – III)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A and any five questions from Part B.

PART – A (25 Marks)

1 Write a note on Nesting and Unnesting (3)

2 List out the aspects to be addressed when adding persistent support to C++ & other languages. (2)

3 What is Document Type Definition? Give an example. (2)

4 Expand SOAP, WSDL, UDDI. (3)

5 What is query processing? List out the steps involved in it. (3)

6 Define Histogram and give an example. (2)

7 Distinguish between Interquery Parallelism and Intraquery Parallelism. (3)

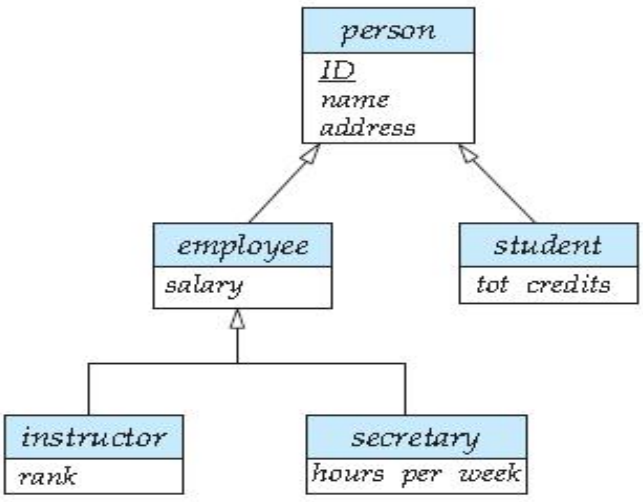
8 List out the various forms of data transparency and explain any one. (3)

9 What is R-Tree? (2)

10 What is Spatial Data? (2)

PART – B (5x10 = 50 Marks)

11 Consider the given E-R diagram, which contains specializations, using subtypes and subtables.



a) Give an SQL schema definition of the E-R diagram. (4)

b) Give an SQL query to find the names of all people who are not secretaries. (3)

c) Give an SQL query to print the names of people who are neither employees nor students. (3)

12 Consider the following recursive DTD:

```
<!DOCTYPE parts [
<!ELEMENT part (name, subpartinfo*)>
<!ELEMENT subpartinfo (part, quantity)>
<!ELEMENT name ( #PCDATA )>
<!ELEMENT quantity ( #PCDATA )>
] >
```

a) Give a small example of data corresponding to this DTD. (3)
b) Show how to map this DTD to a relational schema. You can assume that part names are unique, that is, wherever a part appears, its subpart structure will be the same. (4)
c) Create a schema in XML Schema corresponding to this DTD. (3)

13 Explain external sorting using External Sort-Merge Algorithm. (10)

Initial Relation

g	a	d	c	b	e	r	d	m	p	d	a
24	19	31	33	14	16	16	21	3	2	7	14

14 What are the advantages of Single Lock-Manager & Distributed Lock Manager Approaches? (10)

15 Consider the relations:

employee (*name, address, salary, plant number*)
machine (*machine number, type, plant number*)

Assume that the *employee* relation is fragmented horizontally by *plant_number*, and that each fragment is stored locally at its corresponding plant site. Assume that the *machine* relation is stored in its entirety at the Armonk site.

Describe a good strategy for processing each of the following queries.

a) Find all employees at the plant that contains machine number 1130. (3)
b) Find all employees at plants that contain machines whose type is “milling machine.” (3)
c) Find all machines at the Almadent plant. (4)

16 a) What are the three broad levels at which a database system can be tuned to improve performance? (6)
b) Give two examples of how tuning can be done for each of the levels. (4)

17 Explain how to implement search, insert, and delete operations on an R-tree. (10)

****

Code No. 410

FACULTY OF INFORMATICS

B.E. 4/4 (I.T.) II – Semester (Main & Backlog) Examination, May / June 2018

Subject: Information Retrieval Systems (Elective – IV)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1	What were the reasons for Origination of Information Retrieval Systems?	2
2	Differentiate Browsing Vs. Searching.	2
3	What is TREC?	3
4	Define Entropy.	2
5	Write about Document Processing Operations.	3
6	What are hypertext linkages?	3
7	Define inverted file.	2
8	How query is processed in Distributed IR?	2
9	What is the objective of the compression method?	3
10	Write about structural queries.	3

PART – B (5x10 = 50 Marks)

11	Describe in detail about functional overview of an Information Retrieval System.	10
12	a) Explain the Classical IR Models.	5
	b) Explain the pattern matching techniques.	5
13	a) Discuss the evolution of relevance feedback.	6
	b) Write about multi-media file formats.	4
14	Explain the steps of clustering and how the steps are processed in document clustering.	10
15	Explain the inverted file technique in indexing.	10
16	a) Explain about structural queries.	5
	b) What is query syntax tree? Give an example.	5
17	Write short notes on:	
	a) Distributed IR	3
	b) Precision and Recall	4
	c) Sequential Searching.	3

****