Code. No. 2558/CBCS/BL

FACULTY OF ENGINEERING

BE (Civil) (CBCS) IV-Semester (Backlog) Examination, November 2020

Subject : Fluid Mechanics-II

Time: 2 Hours **Max. Marks:70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1. Show that F=64/Re where f is friction
2. What is Critical time period of pipe line.
3. Define momentum thickness
4. What do you understand by most efficient channel section
5. What is draw down curve.
6. What do you understand by pipes in series
7. Define laminar boundary layer
8. Mention the types of boosting arrangements
9. Define momention Correction factor
10. Define gradually varied flow.

PART- B (4x15 = 60 Marks)

11. a) Show that max velocity is twice the mean velocity in laminar flow.
    b) A Pipe having 400 mm diameter carrier an oil of 450 lt/sec if the length of pipe is 100m. Calculate the head lost due to friction. Take kinematic viscosity as 0.45 strokes.

12. a) Write a note on types of boosting arrangements
    b) The water is flowing with a velocing of 2m/s in a pipe of length 2500m and a diamers 40cm. At the end of pipe a value is provided. Calculate the rise in pressure if the valve is closed in 20 sec. Take C=1400m/s

13. a) Derive expression for momentum thickness
    b) A man weighing 981 N descends to the ground from an aeroplane with the help of parachute against the resistance of air. The shape of parachute is hemispherical of 2m diameter. Calculate velocing of parachute with which it comes down. Assume Co as 0.5; E for air as 1.25 kg / m3 and v 0.015 stokes.

14. a) Explain the features of specific energy with a sketch.
    b) Am trapezoidal channel has side slopes 1 H : 2V and slope of bed is 1 in 2000. Determine the optimum dimension of the channel, if it is to carry 0.5 m3/s discharge. Take Chezy's constant as 80

15. a) Explain mild sloped water surface profiles.
    b) A sluice gate discharges water in to a horizontal rectangular channel with a velocity of 10m/s and depth of flow of 1m. Determine the depth after the jump and loss in total head.

16. a) Explain the Reynolds experiment with a neat sketch.
    b) Classify the types of surges in open channel.

17. Write short notes on two of the following
    a) Moody's diagram
    b) Drag on an aerofoil
    c) Hydraulic gradient line

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Code No: 2565/CBCS/BL

FACULTY OF ENGINEERING

B.E. IV Semester (CBCS) (EEE/Inst.) (Backlog) Examination, November 2020

Subject: Linear Integrated Circuits

Time: 2 Hours **Max .Marks:70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1. Name the different methods used in fabrication of integrated circuits?
2. Draw an adder circuit using an op-amp to get an output expression as $V_0 = - (0.1V_1+V_2+10V_3)$ where V_1, V_2 and V_3 are inputs?
3. How the precision rectifier is different from the conventional rectifier?
4. What is meant by oscillator?
5. What is the meaning of voltage limiting? Show how it is obtained?
6. List the different types of comparators.
7. Discuss the limitations of linear voltage regulators?
8. What is the function of series pass transistor?
9. Why we do use higher order filter?
10. What are the important parameters of a band pass filter?

PART – B (4x15=60 Marks)

11. List the non ideal dc characteristics of op-amp and explain briefly.

12. (a) Draw and explain the circuit of a full wave rectifier and explain how it gives the average value?
(b) Explain the difference between integrator and differentiator and give its applications?

13. (a) Design a square wave oscillator for F = 1 kHz the op-amp is a 741with supply voltages +15V and -15V.
(b) Find out the fain of inverting amplifier using phase shift oscillator?

14. Design a voltage regulator to get an output of 3V and design the current limit to limit the current to 60 mA?

15. Find out the output responses of low pass filter, high pass filter and band pass filter using state variable filter?

16. What are the limitations of ordinary op-amp differentiator? Draw and explain the circuits of a practical differentiator?

17. a) Find the maximum frequency for a sine wave output voltage of 10V peak with an op-amp whose rate is 1V/μs?
b) Draw and explain the operation of a current to voltage converter?

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Code No: 2574/CBCS/BL

FACULTY OF ENGINEERING

BE IV - Semester (CBCS) (ECE) (Backlog) Examination, November 2020

Subject: Pulse, Digital & Integrated Circuits

Time: 2 Hours **Max. Marks: 70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1. Explain hoe a low pass RC circuit works as an integrator.
2. Derive the expression for the RL high pass circuit to which step input is applied.
3. For the circuit shown in fig.(1), sketch the input and output waveforms if R = 100KΩ, V_R = 10V, V_{IN} = 20Sinωt, R_f = 100Ω, R_r = ∞, Vγ = 0.

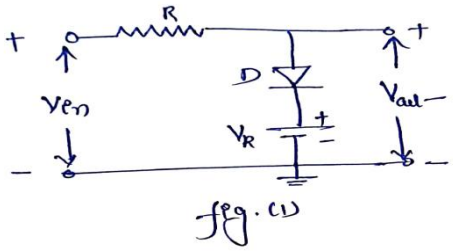

fig. (1)

4. State and prove the clamping theorem.
5. Explain how transistor acts as a switch?
6. Write the relationship between e_s, e_t & e_d.
7. Define positive and negative logic systems.
8. With reference to logic families define: (i) Fan-in & (ii) Fan-out.
9. Draw and explain the circuit diagram of a diode OR gate for positive logic.
10. Draw the circuit diagram of CMOS Inverter and explain.

PART – B (4x15=60 Marks)

11. (a) Sketch the response of low pass RC circuit for step input and derive the expression for Rise time (t_r).
    (b) Draw the circuit diagram of compensated attenuator? Derive the necessary conditions for perfect attenuation of the compensated attenuator?

12. (a) Explain the operation of two level clipper circuit with equations and also draw the Transfer characteristics.
    (b) Draw the basic circuit diagram of positive peak clamper circuit and explain its operaitonwith suitable waveforms.

13. Design a collector coupled monostable for the following specifications: I_{CBO} and voltage drop across saturated transistors are negligible. For the transistors, $h_{fe\ (min)}$ = 20, and the base-emitter cut-off voltage for the normally OFF transistor is -1V. Collector supply voltage is 6V, and collector current is 2mA.The delay time is 3000μS. Choose R_1 =R_2

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14. (a) Derive the expression for the Sweep time of sweep circuit using UJT.
    (b) The specifications of UJT are given as $\eta = 0.6$, $V_V = 2$ V, $R_{BB} = 5$K, $I_V = 1.5$ mA, $I_P = 8\mu$A and $V_{BB} = 18$V. Calculate the component values of the UJT sweep circuit to Generate an output sweep frequency of 10 KHz with sweep amplitude of 12V.

15. (a) Draw the circuit diagram of a 2- input TTL NAND gate and explain its operation.
    (b)Explain the operation of a two input ECL-OR/NOR gate with the help of truth table.

16. (a) Explain the operation of a two –input PMOS-NOR gate.
    (b) Draw the circuit diagram of a 2-input CMOS NAND gate and explain its operation.

17. Write the short notes on:
(a) Voltage comparator
(b) Commutating capacitors in bistable multivibrator.
(c) Interfacing CMOS and TTL.

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Code No. 2578 / CBCS/BL

FACULTY OF ENGINEERING

B.E. (M/P) IV – Semester (CBCS) (Backlog) Examination, November 2020

Subject: Basic Electronics

Time: 2Hours **Max.Marks: 70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1 What are the differences between avalanche and zener breakdown?

2 What is diffusion current?

3 Justify the name transistor with respect to BJT.

4 What is amplification factor of JFET?

5 What are advantages of Positive feedback?

6 What is the range of frequency for Hartley and Colpitt Oscillator?

7 Draw the circuit for OP-AMP as Integrator. Write the final equation of its output

8 Draw Half Subtractor and write its truth table.

9 What is the difference between photo diode and LED?

10 What is the working principle of CRO?

PART – B (4x15=60 Marks)

11 a) Explain the formation of PN junction diode and its V-I characteristics using diode current equation.

b) Mention the applications of diode.

12 a) Explain the formation of N-channel and P-channel JFET and their working.

b) What are different regions in which a BJT operates according to its biasing? What are the applications of these different modes?

13 Draw a neat circuit diagram of the Colpitts oscillator and derive the frequency of oscillations and condition for Oscillations.

14 a) Draw the Full Adder using basic logic gates and write the truth table

b) Draw the Half Adder using basic logic gates and write the truth table.

15 a) Draw a neat circuit diagram and explain the formation of UJT.

b) Explain the V-I Characteristics of UJT.

16 Explain the construction working and V-I characteristics of SCR.

17 Write short notes on:
a) Zener diode
b) Differential amplifier
c) CRO

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Code No. 2584/CBCS/BL

FACULTY OF ENGINEERING

B.E. IV Sem. (CBCS) (A.E.) (Backlog) Examination, November 2020

Subject: Automotive Chassis Components

Time: 2 hours **Max. Marks: 70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1. List out the advantages of unit construction chassis frame construction.
2. Sketch a conventional type chassis frame and state the functions of each member.
3. Distinguish between dead axle and live axle.
4. Define scrub radius.
5. Discuss why universal joints are preferred for power transmission through propeller shaft.
6. State the need of final drive.
7. Differentiate coil spring and leaf spring with respect to suspension system.
8. List out the different types of suspension springs used for automobiles.
9. Differentiate leading and trailing shoe in brake system?
10. List out the advantages of hydraulic braking system?

PART – B (4x15=60 Marks)

11. a) Classify chassis according to engine location and drive system with neat sketch.
    b) Explain different types of loads acting on chassis frame.

12. a) Explain toe in, toe out and king-pin inclination with neat sketch.
    b) Explain Ackerman's steering geometry with suitable diagram.

13. a) Explain about the construction and working of semi-floating rear axle.
    b) Discuss the non-slip differential.

14. a) Explain two types of independent suspension systems in rear axle.
    b) Explain the construction of rubber suspension system.

15. a) With neat sketch explain the construction detail of disc and drum brakes.
    b) Explain the mechanical braking system with its limitations.

16. a) Explain wheel balancing.
    b) Sketch any two steering gear box and mention the parts.

17. a) Sketch anti-roll bar and state two advantages.
    b) Discuss the procedure for brake bleeding with neat sketch.

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Code No . 2588/CBCS/BL

FACULTY OF ENGINEERING

B.E (CSE) IV-Semester (CBCS) (Backlog) Examination, November 2020

Subject: COMPUTER ORGANIZATION

Time: 2 Hours **Max Marks:70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1. What are the phases in instruction cycle?
2. What is meant by parity bit in Error Detection?
3. Write symbolic notation for Register transfer?
4. Draw graphic symbol for 3-stage buffer?
5. Define Stack Pointer?
6. How effective address calculated in index address mode?
7. What is asynchronous data transfer?
8. List the advantages of virtual memory?
9. Write the purpose of input-output interface?
10. Draw RAM and ROM chips?

PART –B (4x15=60 Marks)

11 a) Explain Floating Point Representation? Give example.
b) Explain Interconnection Structures? Give example.

12 a) Explain 4-bit Arithmetic circuit with truth table? Design 4-bit adder.
b) Explain Shift Micro-operations with circuit diagram?

13 a) Explain Microprogram sequencer for a control memory with diagram?
b) Explain Zero-Address instructions and RISC instructions with example.

14 a) Explain Magnetic disks and tapes in auxiliary memory?
b) Explain Memory Hierarchy? Write the direct mapping method in cache memory.

15 a) Explain Block diagram of DMA controller?
b) Explain four segment CPU pipeline with diagram?

16 . Design the Hardware Implementation and explain algorithm of addition/subtraction for signed integers?

17 Write short note on
a) Cache Memory with associative mapping
b) RISC Pipeline

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Code No.2594/CBCS/BL

FACULTY OF ENGINEERING

B. E. (IT) (CBCS) IV – Semester (Backlog) Examination, November 2020

Subject: Scripting Languages

Time: 2 hours **Max. Marks: 70**

Note: Answer any five questions from Part-A and any four questions from Part-B

PART – A (5x2 = 10 Marks)

1. What are the uses for scripting languages?
2. Mention the types of scripting today
3. Define Python Version 3.X.
4. List out the features of Python.
5. How to use, use of range () function in Python.
6. List the standard output device.
7. Explain function calling.
8. Describe string operations.
9. Discuss file read positions in Python.
10. Brief about with statement.

PART –B (4x15=60 Marks)

11. (a) What are the characteristics of Scripting languages.
    (b) How Scripting languages differ from non-scripting languages.
12. (a) Write a program for implementation of stack using Python.
    (b) What is comments indentation? How run a Python Script? Explain.
13. (a) Explain formatting string with % in detail.
    (b) Write a program using if statement and for statement using Python.
14. (a) Define lists? Write a program on lists using Python.
    (b) Define Dictionaries. Write a program on function calling using Python.
15. (a) Discuss the remove() method with an example.
    (b) What are file handling modes explain each with an example.
16. (a) What are the operations in Python? Explain each with an example.
    (b) Explain installation of the Python in detail.
17. List and explain mathematical functions in python with the help of examples.

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Code No.2046/BL

FACULTY OF ENGINEERING

B.E.2/4 (Civil) II – semester (Backlog) Examination, November 2020

Subject: Surveying-II

Time: 2 Hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

PART – A (7x3=21 Marks)

1 Name the fundamental lines of a transit.

2 What are the temporary adjustments of a theodolite?

3 Explain briefly about trigonometrical leveling.

4 How do you adjust the traverse by transit rule?

5 Define the degree of a curve by chord definition.

6 Explain the terms compound curve and reverse curve with salient features.

7 On what basis length of a travesition curve is decided?

8 What are the different types of vertical curves? Explain with sketches.

9 Write the different parts of total station?

10 When do you prefer tachometer? Explain briefly.

PART – B (3x18=54 Marks)

11 a) Draw a sketch showing theodolite with its all component parts?
b) What are the uses of a Theodolite?

12 The following readings were obtained in running a theodolite traverse EFGH.

Line	Length(m)	Bearing
EF	48.5	341^0 48’
FG	172.5	16^0 24’
GH	105.0	142^0 06’

Calculate the length and bearing of EH.

13 Two straights BA and BC are intersected by a line EF. The angles BEF are 140^0 and 145^0 , respectively. The radius of the first arc is 600 m and that of the second is 400 m. Find the chainages of the tangent points, and the point of compound curvature, given that the chainage of point A is 3415 m.

14 A downgrade of 1.2% is followed by an upgrade of 2.4%. The RL of the intersection is 60.000 m and its chainage is 360 m. A vertical parabolic curve 120 m long is to be introduce to connect the two grades. The peg interval is 15 m. calculate the elevations of the curve by tangent corrections.

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15 Points P, Q and R all lie in one vertical plane. A tacheometer having 100 as its multiplying constant is set up at R, which lies between P and Q. The observations taken on a vertically held staff at P and Q from R are as follows. If the RL of P is 250.75, determine the length of PQ and the RL of Q.

Inst. at	Staff point	Bearing	Vertical angle	Staff readings		
				Bottom	Centre	Top
R	P	40^0 24’	-4^0 24’	0.876	1.962	3.048
R	Q	$220^0$35’	-5^0 12’	0.873	1.866	2.859

16 a) A theodolite was set up at 100 m from an electric pole. The angle of depression and elevation to the base and top of the pole respectively are $2^0$30’ and 7^0 50’ respectively. Given that the height of the instrument is 1.450 m and that the RL of the ground level is 120.500 m, determine the height of the electric pole.

b) How do you set a simple curve by offsets from long chord method?

17 a) Why transition curve is provided ? Explain in detail?

b) Write short notes on GIS?

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Code No: 2052/BL

FACULTY OF ENGINEERING

BE 2/4 (EEE/ Inst) II – Semester (Backlog) Examination, November 2020

Subject : Solid Mechanics

Time : 2 Hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

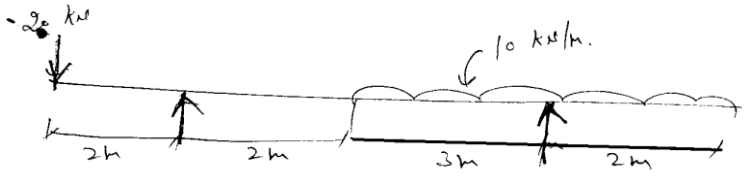
PART – A (7x3=21 Marks)

1 Define Hooke's Law.
2 Plot the stress strain diagram for Mild steel. Explain its salient features.
3 Rate of change of shear force is equal to_____
Rate of change of Bending Moment is equal to_____
4 Define young's modulus and rigidity modulus
5 What do you mean by flexural stresses?
6 Draw the shear stress distribution for the circular section.
7 What is the maximum deflection for a cantilever beam of span L carrying a point load W at free end.
8 Differentiate resilience and proof resilience.
9 Define Torsional rigidity.
10 What is the difference between open and closed coiled helical spring.

PART - B (3x18=54 Marks)

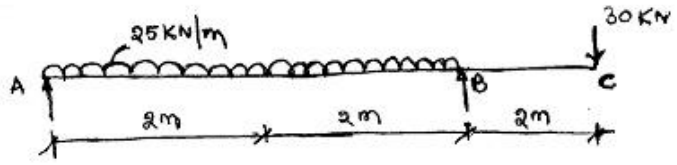
11 (a) Deduce an expression among three elastic constants of a materials.
(b) A steel bar of 10mm diameter is subjected to an axial load of 15 KN. If the change is diameter is found to be 0.0022 m. Determine the Poisson's ratio, modulus of elasticity and the bulk modulus. Take G=78 GPa.

12 Draw the SFD and BMD for the beam having UDL of 10kN/m as shown



13 What are the assumptions made in the theory of simple bending and obtain the equation for the same.

14 Find the maximum deflection and the maximum slope for the beam shown.
Take EI = 12 x 10^9 kN-mm^2



15 A simply supported beam of 'T' section having width of flange 100 mm, thickness of flange 10 mm each and overall depth is 100 mm is 3m long and carries a concentrated load of 3kN at 1m from left support. Calculate max. shear stress just above neutral axis and draw shear stress diagram.

16 A solid circular shaft is used to transmit a power of 500HP at 300 rpm. The maximum shear stress should not exceed 80 Mpa and angle of twist for 2m length of the shaft should not exceed 4^0. Determine its diameter.

17 Write a short note on:
(a) Strain energy in springs.

(b) Strain energy developed due to various types of loads.

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Code No: 2060/BL

FACULTY OF ENGINEERING

BE 2/4 (ECE) II-Semester (Backlog) Examination, November 2020

Subject: Analog Electronic Circuits

Time: 2 Hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

PART – A (7x3=21 Marks)

1. What are the advantages and disadvantages of transformer coupled amplifier?
2. Give brief classification of Amplifiers.
3. What are the advantages of negative feedback in amplifiers?
4. What is the effect of voltage shunt negative feedback on Ri and Ro of amplifier
5. What is the condition of oscillations? Explain.
6. What is the need for regulation in power supplies?
7. What is cross-over distortion in power amplifiers-explain?
8. What are the advantages of transformer coupled push-pull power amplifiers?
9. Compare single tuned and double tuned RF amplifier-explain?
10. Sketch the frequency response of a stagger tuned amplifier. State its advantages.

PART - B (3x18=54 Marks)

11. For a single stage RC coupled BJT amplifier derive expressions for midband gain, lower cut off frequency and upper cutoff frequency

12. a) Compare local and global feedback.
    b) Obtain expressions for R_{if} and R_{of} of current shunt negative feedback amplifier.

13. Obtain expressions for condition of oscillations and frequency of oscillations of a Colpitt oscillator. Explain its working with a circuit.

14. Explain working principle of class-B power transformer coupled push-pull power amplifier. Find its efficiency.

15. For a single tuned RF voltage amplifier obtain expressions for gain at resonance and bandwidth.

16. a) Draw Hybrid-π equivalent circuit of a transistor at high frequency and derive its conductances.
    b) Prove that negative feedback reduces distortion and improves sensitivity.

17. Write short notes on two of the following:
    a) Transistorized shunt regulator.
    b) Class - C power amplifier.
    c) Double tuned RF voltage amplifiers.

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Code No: 2066/BL

FACULTY OF ENGINEERING

BE 2/4 (M/P) II-Semester (Backlog) Examination, November 2020

Subject: Fluid Dynamics

Time: 2 Hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

PART – A (7x3=21 Marks)

1 Define mass density, specific weight, specific volume
2 Define viscosity.
3 What are the basic principles of fluid flow?
4 What is Mach number and it's significance?
5 State the advantages of mechanical pressure gauges over the manometer's.
6 Classify compressible flow in the aspects of thermodynamics.
7 Define stream lines and stream tubes.
8 Define Darcy's equation.
9 Write about Bourdon pressure gauge with neat sketch.
10 What is Euler's equation?

PART – B (3x18=54 Marks)

11 (a) Derive the Bernoullis equation.
(b) A conical tube is fixed vertically with its smaller and upwards. The velocity of flow down the tube is 4.5 m/s at the upper end 1.5 m/s at the lower end. The tube is 1.5 m long and the pressure head at the upper end is 3.1 m of the liquid. The loss in the tube expressed as a head is $\frac{0.3(V_1-V_2)^2}{2g}$ where V_1 and V_2 are the velocities at the upper and lower ends respectively. What is the pressure head at the lower end.

12 (a) Derive continuity equation.
(b) Derive the impulse momentum equation and write its applications.

13 (a) What is the principle of measurement of discharge.
(b) With neat sketch explain the working principle of discharge measuring devices.

14 (a) Explain the characteristics of laminar and turbulent boundary layer over a flat plate.
(b) Explain the concept of boundary layer theory across a flat plate with the help of neat figures.

15 (a) Explain about mach cone with neat sketch.
(b) Explain briefly about the velocity of sound in compressible and incompressible fluids.

16 (a) Explain the importance of Darcy Weiback equation and Hagen-poiseulle equation in flow through pipes.
(b) Explain the steady laminar flow in circular pipes by Hagen-poiseulle law.

17 Explain
(a) Lift and drag forces
(b) Pitot tube
(c) Hot wire anemometer

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Code No: 2070/BL

FACULTY OF ENGINEERING

BE 2/4 (AE) II-Semester (Backlog) Examination, November 2020

Subject: Fluid Mechanics and Machinery

Time: 2 Hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

PART – A (7x3=21 Marks)

1 Distinguish between absolute and gauge pressures.
2 A fluid of dynamic viscosity 0.073 poise and specific gravity 0.87. Determine kinematic viscosity of the liquid in stokes.
3 Find the velocity of flow of an oil through a pipe, when the difference of mercury level in a differential U-tube manometer connected to the two tappings of the pitot –tube is 100mm take C_v= 0.98 and sp.gr. of oil =0.8.
4 Define and distingush between : (i) steady flow and un-steady flow, (ii) laminar and turbulant flow.
5 State and write the Bernoulli's theorem for steady flow of an incompressible fluid.
6 Classify the hydraulic turbines.
7 Distinguish between impulse and reaction turbines
8 What is the necessity of priming in centrifugal pump?
9 Define cavitation.
10 What is the necessity of air vessel in reciprocating pumps?

PART – B (3x18=54 Marks)

11 A 40 cm diameter shaft is rotating at 200 rpm in a bearing of length 120 mm. If the thickness of oil film is 1.5 mm and the dynamic viscosity of the oil is 0.7 Ns/m^2 determine:
(i) Torque required overcoming friction in bearing
(ii) Power utilization in overcoming viscous resistance.

12 A venture meter with 12 cm diameter at inlet and 8 cm at throat is laid with its axis horizontal and is used for measuring the flow of oil of specific gravity 0.9. The oil mercury differential manometer shows a gauge difference of 180 mm. calculate discharge. Assume the coefficient of discharge for the venture meter as 0.9.

13 (a) The components of velocity in a two dimensional frictionless incompressible flow are $u = t^2 + 3y$ and $v = 3t + 3x$. What is the approximate resultant total acceleration at the point (3, 2) and t = 2?
(b) Obtain an expression continuity equation for a one dimensional flow.

14 An oil of specific gravity 0.7 is flowing through a pipe of diameter 300 mm at the rate of 500 liters/s. Find the head lost due to friction and power required to maintain the flow for a length of 1000 m. Take υ=0.29 stokes.

..2

15 A pelton wheel has a mean bucket speed of 10 m/s with a jet of water flowing at the rate of 700 lt/s under a head of 30 m. The bucket deflects the jet through an angle of 160^0. Determine: the power and efficiency of the turbine. Assume c_v =0.98

16 The impeller of a centrifugal pump having external and internal diameters are 500 mm and 250 mm respectively, width at outlet 50 mm and running at 1000 R.p.m. works against a head of 40 m. the velocity of flow through the impeller is constant and equal to 2.5 m/s. the vanes are set back at an angle of 40^0 at outlet. Calculate:
(i) Inlet vane angle
(ii) Work done by the impeller on water per second
(iii) Manometric efficiency.

17 Write a short note on:
(a) Single acting reciprocating pump
(b) Vane pump

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Code No. 2073/BL

FACULTY OF ENGINEERING

B.E. 2/4 (CSE) II-Semester (Backlog) Examination, November 2020

Subject : Object Oriented Programming Using Java

Time: 2 Hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

PART – A (7x3=21 Marks)

1. Write about OOPs concepts in JAVA?
2. What is the purpose of **super** keyword?
3. Discuss about Checked and Unchecked Exceptions.
4. Differentiate String and String Buffer and String Builder.
5. Define Collection Framework.
6. What is the use of Bitset?
7. Outline AWT Hierarchy.
8. Compare TextField and TextArea.
9. Define Stream and List down types of Streams.
10. What are the advantages of Serialisation?

PART-B (3x18=54 Marks)

11. (a) Why multiple inheritance is not supported by JAVA? Explain with an example Program.
    (b) What is an interface ? Give example.

12. Explain about keywords used in Exception Handling with examples.

13. Discuss about legacy classes & interfaces and StringTokenzier with example.

14. Write about Choice controls and managing scroll bars with an example programs.

15. (a) Implement a program to read the data from two files and write into another file.
    (b) Implement a program to read the integer value from console and check whether it is a prime or not.

16. Write about
    (a) Reading console input and output
    (b) Comparators

17. Explain about
    (a) Overloading methods and constructors
    (b) Iterators
    (c) Event listener Interface

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Code No. 2078/BL

FACULTY OF ENGINEERING

B. E. 2/4 (IT) II – Semester (Backlog) Examination, November 2020

Subject: OOP Using JAVA

Time: 2 hours **Max. Marks: 75**

Note: Answer any seven questions from Part A & any three questions from Part B.

PART – A (7x3=21 Marks)

1. Write the difference between method overloading and method overriding.
2. Write short notes on packages.
3. Which inheritance is not supported in Java? Why?
4. List uses of super keyword.
5. What is the difference between throw and throws?
6. Explain Life cycle of a thread.
7. What is the difference between Iterator and enumeration?
8. Draw the hierarchy of collection interface.
9. Define awt classes.
10. Explain about applet life cycle.

PART-B (3x18=54 Marks)

11. (a) Explain Interfaces concept. Give examples.
    (b) List operators in java and explain any two operators in java.
12. (a) Differentiate between abstract classes and interfaces with examples.
    (b) Write about Access modifiers in Java.
13. (a) Explain the concept of synchronization with examples.
    (b) Explain user defined exception with example.
14. (a) Write a program for copying the image using files.
    (b) Explain serialization concept with the example.
15. (a) Explain about adapter classes.
    (b) Discuss any five methods in string class with an example.
16. (a) Explain about delegation event model.
    (b) How do you pass parameters to an applet?
17. Write short notes on the following:
    (a) Buffered Reader and Buffered writer.
    (b) Array List and Vector.

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