

**J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

UGC AUTONOMOUS

B.Tech. I Year II Semester Regular/ Supplementary Examinations, September 2020

PROGRAMMING FOR PROBLEM SOLVING

[Branch Name]

Time: 3 Hours

Max. Marks:70

<i>Answer any five Questions</i>			
1.	a.	What are the different types of control statements available in C. Explain them with an example? (Unit - I)	7 M
	b.	Write a C program to find factorial of given number (Unit - I)	7 M
2.	a.	With examples explain operators in C. (Unit - I)	7 M
	b.	write a c program to display grade of a student using switch statement (Unit - I)	7 M
3.	a.	Differentiate between structure and union with examples. (Unit - II)	7 M
	b.	Write a c program for addition of matrices (Unit - II)	7 M
4.		With suitable examples explain pre-processor commands used in C (Unit-II)	14 M
5.	a.	Explain enumeration data type with an example. (Unit - III)	7 M
	b.	Discuss self-referential structures in C (Unit - III)	7 M
6.	a.	Explain basic file operations in C with examples. (Unit - III)	7 M
	b.	Discuss random file operations fseek(), ftell() and rewind().(Unit - III)	7 M
7.		What is call by value and call by reference in C? Give examples (Unit - IV)	14 M
8.		What is binary search? Write a C program for binary search (Unit - V)	14 M

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**Guidelines to the Students:**

1. In compliance with the circular from Director Evaluation, JNTUH dated 16-05- 2020, the end examination question paper format is been modified as given in the model paper.
2. The Question paper is for 70 marks.
3. There will be eight questions covering all the five units of syllabus, from which student can answer any five questions.
4. All question carry equal marks. Each question is for 14 marks.
5. Each question may have sub questions.
6. The duration of the Examination is for 2 hours.
7. Question papers are moderated to ensure that student can answer selected five questions in the stipulated time of 2 hours.
8. Students should manage their time properly and ensure that they are answering 5 questions in 120 minutes of time.
9. The eight questions chosen are 2 questions each from Units I,II, III, and 1 question each from Unit-IV and V.

Code:

R18

**J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

UGC AUTONOMOUS

B.Tech. I Year –I Semester Supplementary Examinations **Model paper**, October- 2020.

**Engineering Drawing & Computer Graphics  
(BRANCHES)**

Time: 2 Hours

**Max. Marks: 72**

Answer <b>any three</b> of the following Questions.			Bloom's Level	Marks
1.	a.	Draw an ellipse when the distance of its focus from the directrix is 50 mm and eccentricity is 1/3. Draw tangent and normal to the curve at a point 40 mm from focus.	L3	24M
2.	a.	Explain about modifying commands used in AutoCAD.	L2	24M
3.	a.	Draw the projections of a pentagonal pyramid axis 60 mm long, base 30 mm side having base on the ground and one of edges of base inclined at 45° to V.P.	L2	24M
4.	a.	Draw the projections of the cylinder of the base 40 mm diameter and axis 60 mm long when it is lying on H.P with its axis inclined at 45° to H.P and parallel to V.P.	L3	24M
5.	a.	Explain the various commands used to draw a line and curve using AutoCAD commands.	L2	24M

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1. In compliance with the circular from Director Evaluation, JNTUH dated 16-05- 2020, the end examination question paper format is been modified as given in the model paper.
2. The Question paper is for 72 marks (Scaled down to 70 marks for computing actual marks).
3. There will be five questions covering all the five units of syllabus, from which student can answer any three questions.
4. All question carry equal marks. Each question is for 24 marks.
5. Each question may have sub questions.
6. The duration of the Examination is for 2 hours.
7. Question papers are moderated to ensure that student can answer selected three questions in the stipulated time of 2 hours.
8. Students should manage their time properly and ensure that they are answering **3** questions in 120 minutes of time.
9. The eight questions chosen are 1 question each from Units I,II, III,IV and V.

**J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

UGC AUTONOMOUS

B.Tech. II Year I &amp; II Semester Regular/Supplementary Examinations, October- 2020.

**ELECTRONIC DEVICES AND CIRCUITS**

[Common to EEE, ECE &amp;ECM]

Time: 2 Hours

Max. Marks:70

Answer <b>any Five</b> of the following Questions.		Bloom's Level	Marks
1.	a. Explain V-I Characteristics of the PN junction diode.	L2	14 M
2.	a. The current flowing in a germanium PN junction diode at room temperature is $3 \times 10^{-6} \text{A}$ when the large reverse voltage is applied. Calculate the current flowing when (i) 0.15V forward bias is applied (ii) 0.05V reverse bias is applied.	L3	14 M
3.	a. Explain input and output characteristics of common emitter configuration.	L2	14 M
4.	a. A certain transistor has a current gain of 0.89 in CE configuration. Calculate its current gain in the CB configuration another transistor has $\beta=70$ , determine its $\alpha$ .	L4	14 M
5.	a. Explain the construction and working of enhancement MOSFET?	L2	14 M
6.	a. Differentiate between BJT and FET with V,I and h-parameters characteristics	L2	14 M
7.	a. Calculate the quiescent current and voltage of base to emitter bias arrangement using the following data: $V_{cc}=10 \text{ V}$ , $R_b=120 \text{ K}$ , $R_c=2 \text{ K}$ , $\beta=70$ and also specify a value of $R_b$ , so that $V_{ce}=5 \text{ V}$ .	L5	14 M
8.	a. Explain in detail about the basic monolithic integrated circuits.	L2	14 M

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**Guidelines to the Students:**

- In compliance with the circular from Director Evaluation, JNTUH dated 16-05- 2020, the end examination question paper format is been modified as given in the model paper.
- The Question paper is for 75 marks.
- There will be eight questions covering all the five units of syllabus, from which student can answer any five questions.
- All question carry equal marks. Each question is for 14 marks.
- Each question may have sub questions.
- The duration of the Examination is for 2 hours.
- Question papers are moderated to ensure that student can answer selected five questions in the stipulated time of 2 hours.
- Students should manage their time properly and ensure that they are answering 5 questions in 120 minutes of time.
- The eight questions chosen are 2 questions each from Units I,II, III, and 1 question each from Unit-IV and V.

**J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

UGC AUTONOMOUS

B.Tech. III Year I and II Regular/ Semester Supplementary Examinations, October - 2020

**Subject Name**

[Branch]

Time: 2 Hours

**Max. Marks:75**

Answer <i>any five</i> of the following questions		Bloom's Level	
1.	Explain clearly about landscape approach and perception approach of disaster management. (Unit-I)	L2	15 M
2.	What are the hazardous effects of volcanic eruptions? Explain. (Unit-I)	L2	15 M
3.	a) What do you understand by disaster mitigation? Discuss the mitigation strategy for drought. (Unit-II)	L3	8 M
	b) Describe the meaning and concept of planning in the context of disaster preparedness. (Unit-II)	L3	7 M
4.	a) State the role of the central government and the state government in the management of disaster (Unit-II)	L2	8 M
	b) List the points which are to be observed for earthquake resistant design of the building. (Unit-II)	L2	7 M
5.	Explain about various work place fire hazards. (Unit-III)	L2	15 M
6.	Explain the types of media and write briefly about role of media in Disaster Management. (Unit-III)	L2	15 M
7.	Describe salient features of Disaster Management Act-2005 (Unit-IV)	L2	15 M
8.	What are the steps for formulating a disaster risk reduction plan. (Unit-V)	L1	15 M

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2. The Question paper is for 75 marks.
3. There will be eight questions covering all the five units of syllabus, from which student can answer any five questions.
4. All question carry equal marks. Each question is for 15 marks.
5. Each question may have sub questions.
6. The duration of the Examination is for 2 hours.
7. Question papers are moderated to ensure that student can answer selected five questions in the stipulated time of 2 hours.
8. Students should manage their time properly and ensure that they are answering 5 questions in 120 minutes of time.
9. The eight questions chosen are 2 questions each from Units I,II, III, and 1 question each from Unit-IV and V.

**J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

UGC AUTONOMOUS

B.Tech. IV Year I and II Semester Regular /Supplementary Examinations, October - 2020

**Subject Name**

[Branch]

Time: 2 Hours

Max. Marks:75

Answer <i>any five</i> of the following questions		Bloom's Level	
1.	Show that TEM Wave does not propagate in waveguides (Unit-I)	L2	15 M
2.	Explain the cavity resonator and find the resonating frequency for it. (Unit-I)	L2	15 M
3.	a) Explain the Following : i) MagicTee ii) Directional coupler. (Unit-II)	L3	8 M
	b) List and explain the characteristics of Ferrites and With the help of diagram ,explain principles and operation of a 2-port isolator. (Unit-II)	L4	7 M
4.	Explain in detail bunching process and obtain expression for bunching parameter in a two cavity klystron. (Unit-II)	L3	15 M
5.	a)Explain how velocity modulation is converted into current modulation with Applegate diagram and also derive the equation for output power efficiency (Unit-III)	L2	8 M
	b)Explain the frequency pulling and frequency pushing with reference to magnetron. (Unit-III)	L3	7 M
6.	Explain the Hartree anode Voltage equation for linear magnetron (Unit-III)	L4	15 M
7.	Explain how Gunn diode is used in waveguide oscillator (Unit-IV)	L2	15 M
8.	Describe the blocks of microwave bench and explain their features with Precautions. (Unit-V)	L4	15 M

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2. The Question paper is for 75 marks.
3. There will be eight questions covering all the five units of syllabus, from which student can answer any five questions.
4. All question carry equal marks. Each question is for 15 marks.
5. Each question may have sub questions.
6. The duration of the Examination is for 2 hours.
7. Question papers are moderated to ensure that student can answer selected five questions in the stipulated time of 2 hours.
8. Students should manage their time properly and ensure that they are answering 5 questions in 120 minutes of time.
9. The eight questions chosen are 2 questions each from Units I,II, III, and 1 question each from Unit-IV and V.