**Exam. Code : 105701**

**Subject Code : 1535**

### B.Sc. IT I<sup>st</sup> Semester

## FUNDAMENTALS OF COMPUTERS

### Paper–I

Time Allowed—3 Hours]                [Maximum Marks—75

**Note :–** Attempt any **five** questions. All questions carry equal marks.

1. Discuss in detail the evolution of computer system.  15

2. Discuss in detail the organization of secondary storage media.
                                                                          15

3. What is the role of an operating system ? Briefly discuss the features of different types of operating systems.  15

4. Discuss in detail the features of Windows operating system.
                                                                          15

5. Write the procedure of the following :

   (a)  Importing files in word documents

   (b)  Inserting section breaks

   (c)  Applying text styles

   (d)  Inserting book marks

   (e)  Applying heading styles.                     5×3=15

6. How macros are created and used in MS Word ? Explain.
15

7. Write the different methods of inserting headers and footers in a word document. How different headers are set for different sections ? Explain.
15

8. Write short notes on the following :

    (a) Printing slides

    (b) Slide sorter view

    (c) Notes view

    (d) Outline view

    (e) Header and footer in presentation.     5×3=15

Exam. Code : 105701

Subject Code : 1536

## B.Sc. (IT) 1st Semester

## INTRODUCTION TO PROGRAMMING C

### Paper—II

Time Allowed—Three Hours]     [Maximum Marks—75

**Note :—** Attempt any **FIVE** questions.

1.  What are the data types available in the C language ?
    Explain each data type with the help of examples.

    15

2.  Discuss the input-output statement available in C to
    create interactive programs.          15

3.  What is the difference between break and continue
    statements ? Explain with the help of a program which
    check a list of numbers to find an element. If number
    is found, it is printed and the program stops otherwise
    it continues.          15

4.  What is a storage class ? Discuss different options
    available in C for storage classes.          15

5.  What is recursion ? What are the advantages and
    disadvantages of using recursive code ? Write a sample
    code which implements a recursive function.     15

502(2117)/BSS-30124          1          (Contd.)

6. How is a string declared and initialized in C ? Write any four string handing functions. 15

7. How is a structure different from an array ? Create a structure and pass it to a function which prints the structure. 15

8. What is a pointer variable ? How is it declared and used ? Use a pointer variable to process a list of numbers. 15

7. (a) If $A = \begin{bmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{bmatrix}$, then show that

$$A^3 - 6A^2 + 7A + 2I = 0$$

(b) Given that $A = \begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$.

Find AB. Use this to solve the following system of linear equations :

$x - y + z = 4$, $x - 2y - 2z = 9$, $2x + y + 3z = 1$

7.5+7.5=15

8. (a) Solve the following system of linear equations by matrix method :

$x + y + z = 6$, $x + 2z = 7$, $3x + y + z = 12$

(b) Find the rank of the matrix $\begin{bmatrix} 1 & -1 & 3 & 6 \\ 1 & 3 & -3 & -4 \\ 5 & 3 & 3 & 11 \end{bmatrix}$

7.5+7.5=15

---

Exam. Code : 105701

Subject Code : 1537

### B.Sc. IT 1st Semester

### APPLIED AND DISCRETE MATHEMATICS

### Paper–III

Time Allowed—3 Hours]    [Maximum Marks—75

Note:– **Eight** questions are given. Candidates are required to attempt any **five** questions.

1. (a) If $A = \{1, 2, 3\}$, $B = \{4, 5, 6\}$, $C = \{7, 8, 9\}$, then verify that :

$$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$$

(b) In a school there are 20 teachers who teach mathematics or physics of these 12 teach mathematics and 4 teach physics and mathematics. How many teach physics ?

(c) Let $U = \{1, 2, 3, 4, 5, 6\}$, $A = \{2, 3\}$ and $B = \{3, 4, 5\}$. Find $A^C$, $B^C$, $A^C \cap B^C$, $A \cup B$ and hence show that $(A \cup B)^C = A^C \cap B^C$.

(d) If $A = \{1, 3, 5, 7, 9\}$, $B = \{2, 4, 6, 8, 10\}$, $C = \{1, 2, 3, 4\}$, then find :

(i) $A - C$

(ii) $A \cap (B - C)$

(iii) $A - (B \cup C)$    3+4+3+5=15

(a) Find A ∆ B, if A = {2, 3, 5, 7}, B = {3, 4, 6, 8, 10}

(b) Let A = $\left\{\frac{1}{2}, 2\right\}$, B = {2, 3, 5}, C = {−1, −2},

then verify that A × (B − C) = (A × B) − (A × C).

(c) Let A = {1, 2, 3, 4, 5} and B = {2, 4, 6, 8, 10}.
Let R = {(a, b) : a ∈ A, b ∈ B, a divides b} be
a relation from A into B. Find R. Show that domain
of R is A and range of R is B.     5+5+5=15

(a) Determine whether the relation represented by zero-

one matrix $\begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \end{bmatrix}$ is an equivalence relation.

(b) Let x = {1, 2, 3, 4}, R = {< x, y > | x > y}. Draw
the graph of R and also give its matrix.

(c) Prove that (p ∧ q) → (p ∧ q) is a tautology but
(p ∨ q) → (p ∧ q) is not.

(d) Prove the validity of following arguments :

If man is a bachelor, he is unhappy

If a man is unhappy, he dies young

Therefore, bachelors die young     3+4+3+5=15

कन्या महा विद्यालय पुस्तकालय
जालन्धर शहर

4. (a) Define two different types of quantifier with example.

(b) Define :

(i) Conjunction

(ii) Disjunction

(iii) Negation

all with truth table.

(c) Write the truth table of following statement :

[p → (q ∨ r)]' ∨ [p ↔ ~ r]     5+5+5=15

5. (a) Prove that {[(p → q) ∨ p] ∧ q} → q is a tautology.

(b) Let R be a relation on a set A = {1, 2, 3} defined
by :

R = {(1, 1), (1, 2), (2, 3)}. Find the reflexive closure
of R and symmetric closure of R.

(c) Define different type of closure with example.
5+5+5=15

6. (a) Show that $(A + B)(\overline{A} + C) = AC + \overline{A}B$

(b) Minimize the function :

f(A, B, C) = Σm(0, 3, 5, 6, 7) + d(2, 4)

(c) Prove De-morgan law with the help of truth table.
5+5+5=15

कन्या महा विद्यालय पुस्तकालय

जालन्धर राह **Exam. Code** : **105701**

**Subject Code** : **1538**

**B.Sc. IT I$^{st}$ Semester**

## COMMUNICATION SKILLS IN ENGLISH—I

### Paper—IV

Time Allowed—3 Hours]     [Maximum Marks—50

**Note :— All** questions are compulsory.

I.   Read the passage below and answer the questions that follow :

Punctuality is a necessary habit in all public affairs of a civilized society. Without it nothing could ever be brought to a conclusion, everything would be in a state of chaos. Only in a sparsely populated rural community is it possible to disregard it. In ordinary living there can be some tolerance of unpunctuality. The intellectual, who is working on some abstruse problem, has everything coordinated and organized for the matter in hand. He is therefore forgiven, if late for the dinner party. But people are often reproached for unpunctuality when their only fault is cutting things fine. It is hard for energetic, quick-minded people to waste time, so they are often tempted to finish a job before setting out to keep an appointment. If no accidents occur on the way, like punctured tyres, diversion of traffic,

sudden descent of fog, they will be on time. They are often more industrious, useful citizens than those who are never late. The over-punctual can as much be a trial to others as the unpunctual. The guest who arrives half an hour too soon is the greatest nuisance. Some friends of my family had this irritating habit. The only thing to do was to ask them to come half an hour later than the other guests. Then they arrived just when we wanted them.

**Questions :**

(1) What is a necessary habit in the public affairs of a civilized society ?

    (a) A good banking system

    (b) Obedience to prescribed rules

    (c) Casting one's vote regularly

    (d) Punctuality

(2) Punctuality can be disregarded only

    (a) if one leads an uncivilized life in a jungle

    (b) in a sparsely populated rural community

    (c) if one does not have to do a job

    (d) in some government offices where no one is interested in his or her duty.

(3) Who can be forgiven if he is late for a dinner party ?

    (a) The shopkeeper who is busy making money

    (b) A school child

    (c) A government employee who has a family to look after

    (d) The intellectual, who is working on some abstruse problem.

(4) Who are often tempted to finish a job before setting out to keep an appointment ?

    (a) A doctor who is performing a surgical operation

    (b) A school child who has to finish homework

    (c) Energetic quick-minded people who do not want to waste time

    (d) None of these.

(5) Which guest is the greatest nuisance ?

    (a) One comes five minutes late

    (b) One who sends a message that he cannot come

    (c) One who comes half an hour earlier

    (d) One who does not turn up at all and does not bother to inform the host.    $5 \times 2 = 10$

II. Read the comprehension and answer the questions that follow :

Here then is a first answer to the question, what is the aim of education ? Its aim is to know the first-rate in any subject that we study, with a view to achieving it as nearly as our powers allow. If we could fix this firmly in our minds, we should not stumble through a variety of lessons, lectures, and books like a drunk man, only partially aware where we are or what we are doing. We should cease to think that we go to school or college to pass examinations or to secure degrees or diplomas or to satisfy our teachers, though these may be and are incidental and limited objectives. We should have brought order into our education by realizing its true aim and we should have deepened in our minds through practice the sense that a worthy purpose in life is the desire for excellence, the pursuit of the first-rate.

So far, so good. But a very important question remains unanswered. We should desire excellence, pursue the first-rate. But in what fields ? The difficulty with education, as with life, is that it has so many fields. One would like to know the first-rate in all of them, but that is impossible for the limited mind and energy of man. Which, then, are the most important fields – or, narrowing the problem

further, which are those in which every human being ought to know the first rate ? These should enter into the education of all.

The most obvious field is our job in life, our vocation in the usual sense of the world. Clearly, whatever it is, we ought to know the first-rate, the best methods to employ. In this field of vocational education, the modern world does well : we have a conscience about it or, at any rate, a sense of its importance; our provision of vocational education is good, and in engineering or medicine, commerce or technology, nursing or hotel-keeping, or any other of those activities which make up material civilization, we believe in quality, in the first-rate; we have a clear idea of what it means and we have vocational studies. It is perhaps the only branch of education in which we are entirely successful, and there is no risk of its being ignored.

An educated man should know what is first-rate in those activities which spring from the creative and intellectual faculties of human nature, such as literature, art, architecture, and music. I should like to add science and philosophy, but in these two subjects it is difficult for any but the expert to estimate quality, and many educated people have not the close knowledge necessary to judge work in them. On the other hand, everyone has close

and daily contact with the other four. Architecture surrounds him in every city, literature meets him on every bookstall, music assails his ears on his radio set and from every juke-box; and art in its protean aspects of form and colour is a part of daily life. The architecture may often be bad, the literature and music often puerile, the art often undeserving of the name; but that is all the more reason why we should be able, in all of them, to distinguish good from bad.

To judge by the literature offered us in hotel bookstands, and by most of the music played on the radio and by juke-boxes, we might be more discriminating in these fields than we are. If it be said that music and art and literature are not essentials of life but its frills, I would reply that, if so, it is curious that they are among the few immortal things in the world, and that, should a man wish to be remembered two thousand years hence, the only certain way is to write a great poem or book, compose a great symphony, paint a great picture, carve a great sculpture, or build a great building. If you have any doubts about this, consider why long-dead people like Plato and Shakespeare, Michelangelo and Raphael, Ictinus and Bramante, are remembered today.

I have argued that no one has the right to feel himself educated if he does not know what is first-rate in his daily occupation and (so far as this is possible) in those fields where the creative and intellectual powers of man are revealed. But there is another job much more difficult than teaching or nursing or business or medicine, in which we're all concerned – the job of living; and there surely, as much as in any other pursuit, we need to know what is first-rate. Is not our education very incomplete if we do not know what is excellent in human nature and in life; if in that field we are taken in by second-rate, shoddy stuff. Here our age is far less successful than in medicine, or engineering, or the sciences.

Read the above passage carefully and answer the following questions :

(1)  Why is it important to be first-rate in any subject ?

(2)  What are the difficulties faced in acquiring education ?

(3)  Do you agree that music and art are only frills of life ? If not why ?

(4)  Is education complete without knowledge of human nature ?

(5)  Why is it tough to face the modern civilization ?

$5 \times 2 = 10$

Write a letter to your friend describing a tree plantation drive that you participated in.                    10

7. Make point wise notes of the given passage :

So often these days we hear and speak of the "conquest of nature", "the taming of a river", the "war against insects", and so on. Often these phrases are used without consciously attaching any values to them, but they have underlying in them an attitude of hostility towards Nature and Nature's creatures, a viewpoint which seems to assume Nature as an enemy that needs to be vanquished. Alternatively, Nature is seen merely as a "resource" to be "exploited" – take the maximum out of it, regardless of what this does to natural processes and to other creatures which depend on these processes. It is this attitude which sees fellow humans too as a resource to be exploited, or other human communities as enemies to be conquered.

There is a growing lack of sensitivity and respect for our fellow creatures. This attitude is being drilled into a child by social forces, which can only be countered by environmental education. Yet, sadly, in most cases this is not done. What is done is talk about the feed web and the energy cycles and ecological balance and how removal of any element disrupts the whole system, and how this can affect human beings too. What this approach lacks is the essential interaction with Nature and with other humans. Indeed in many environmental activities the opposite takes place. A classic example of this is making a herbarium, or even worse, an insect collection, as common in both formal and non-formal education in India. A child is often encouraged to pluck leaves and flowers and run after butterflies with a net, and is part of a large group of children marauding a patch of Nature, or for the individual "specimens" pressed in the plant file or trapped in a jar. It is even worse when the activity is also competitive, i.e. who collects the maximum ? A lot of knowledge may be gained but it is gained in a value system which emphasizes exploitation and conquest, not sensitivity and respect. Learning under a tree (Santivna) rather than in a classroom, as indeed the Indian tradition, is far more effective and long lasting.

The alternative is to take up activities where eco-balances, ecological diversity, animal behaviour, human plurality and other such concepts and systems are introduced with the stress on their intrinsic worth. Materials, processes, living beings to do not exist only for human use but, more importantly, they are worthwhile in themselves.

A frog is as much in love with its life as the human child is with its; the feeling of the frog must be respected. The final thrust of environmental education seems to be embodied in the vital question, "Am I doing something which disrespects or violates some other creature's right to live and live freely". If I am, what can I do to minimize the damage I am causing ? Once again the Indian tradition of Ahimsa comes out as infinitely more relevant than much of what we learn in modern education. 10

V. Do as directed :

(a) How is butter made ? (Change the voice)

(b) They are building a new airport at the moment.

(Change the voice)

(c) He said to me, "You did the right thing".

(Change the narration)

(d) She says, "I like going to the seaside".

(Change the narration)

(e) We _____ (enjoy) our holiday last year.

(Put the verb in correct form)

(f) I _____ (go) now.

(Put the verb in correct form)

(g) There was no money. The scheme fell through.

(Combine the sentences)

(h) He is honest. He will not accept the bribe.

(Combine the sentences)

(i) The Police (keep) a watch on her movements since July. (Supply present perfect continuous)

(j) It seemed as if he _____ (not eat) for days.

(Supply past perfect)

10

Exam. Code : 105701
Subject Code : 1539

## B.Sc. IT 1st Semester

## PUNJABI COMPULSORY

### Paper—V(i)

Time Allowed—Three Hours]     [Maximum Marks—50

ਨੋਟ :— ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹਨ।

1. "ਭਰੂਣ ਹੱਤਿਆ ਦੇ ਦੇਸ਼ ਵਿੱਚ" ਨਿਬੰਧ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ।

ਜਾਂ

"ਨਾਰੀ ਸ਼ਕਤੀ" ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਸਪੱਸ਼ਟ ਕਰੋ।     10

2. "ਹੁਣ ਘਰਾਂ ਨੂੰ ਪਰਤਣਾ" ਕਾਵਿ ਰਚਨਾ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਸਪੱਸ਼ਟ ਕਰੋ।

ਜਾਂ

"ਅੰਨਦਾਤਾ" ਕਾਵਿ ਰਚਨਾ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਸਪੱਸ਼ਟ ਕਰੋ।

10

3. ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ ਉੱਤੇ ਭਾਵ-ਪੂਰਤ ਪੈਰ੍ਹਾ ਰਚਨਾ ਕਰੋ :

(ੳ) ਸਾਡੀ ਪ੍ਰੀਖਿਆ ਪ੍ਰਣਾਲੀ

(ਅ) ਅਜੋਕੇ ਸੰਚਾਰ-ਸਾਧਨ

(ੲ) ਵਿਦਿਆਰਥੀ ਜੀਵਨ।     5

4. ਹੇਠ ਲਿਖਿਆ ਪੈਰਾ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ :

ਪੰਜਾਬ ਦੀ ਮਿੱਟੀ ਵਿੱਚ ਧਰਮ ਦਾ ਖਮੀਰ, ਮੁੱਢ ਕਦੀਮ ਤੋਂ ਹੀ ਚੋਖੀ ਮਾਤਰਾ ਵਿੱਚ ਰਚਿਆ ਹੋਇਆ ਹੈ। ਸੰਸਾਰ ਵਿੱਚ ਸਭ ਤੋਂ ਪ੍ਰਾਚੀਨ ਧਰਮ ਗ੍ਰੰਥ ਰਿਗ ਵੇਦ ਇਸੇ ਪਵਿੱਤਰ ਭੋਇੰ ਉੱਤੇ ਰਚਿਆ ਗਿਆ। ਇਥੋਂ ਦੀਆਂ ਹਵਾਵਾਂ ਵਿੱਚ ਕਦੇ ਵੇਦ-ਬਾਣੀ ਤੇ ਕਦੇ ਗੁਰੂ ਬਾਣੀ ਦੀ ਧੁਨੀ ਗੂੰਜਦੀ ਰਹੀ। ਸੋ, ਪੰਜਾਬੀਆਂ ਵਿੱਚ ਧਰਮ ਦੀ

ਭਾਵਨਾ ਦਾ ਪ੍ਰਬਲ ਹੋਣਾ ਸਹਿਜ ਹੈ। ਪਰ ਪੰਜਾਬੀ ਖੁੱਲ੍ਹੇ-ਡੁੱਲ੍ਹੇ ਸੁਭਾਅ ਦੇ ਹੋਣ ਕਰਕੇ ਧਰਮ ਦੇ ਕਰੜੇ ਬੰਧਨ ਵਿੱਚ ਜਕੜੇ ਰਹਿਣਾ ਪਸੰਦ ਨਹੀਂ ਕਰਦੇ। ਧਰਮ ਦੇ ਉਹ ਮੋਢੇ ਰਜ਼ੂਦੇ ਹਨ, ਧਰਮ ਆਪਣੇ ਮੋਢਿਆਂ ਉੱਤੇ ਨਹੀਂ ਚੁੱਕੀ ਫਿਰਦੇ। ਉਹਨਾਂ ਲਈ ਧਰਮ ਸ਼ਕਤੀ ਹੈ, ਬੋਝ ਨਹੀਂ। ਧਰਮ ਨੂੰ ਉਹ ਸਦਾ ਮੇਲਾ ਸਮਝਦੇ ਆਏ ਹਨ। ਇਸੇ ਲਈ ਸ਼ਾਇਦ ਪੰਜਾਬ ਵਿੱਚ ਧਾਰਮਿਕ ਮੇਲੇ ਬਹੁਤ ਜੁੜਦੇ ਹਨ। ਅਜਿਹੇ ਮੇਲੇ ਮੁੱਢ ਵਜੋਂ ਭਾਵੇਂ ਧਾਰਮਿਕ ਹਨ, ਪਰ ਸੁਭਾਅ ਵਿੱਚ ਲੌਕਿਕ ਹੀ ਰਹੇ ਹਨ।

(i) ਪੰਜਾਬ ਦੀ ਮਿੱਟੀ ਦਾ ਧਰਮ ਨਾਲ ਕੀ ਸੰਬੰਧ ਰਿਹਾ ਹੈ ?

(ii) ਇਸ ਧਰਤੀ ਉੱਤੇ ਕਿਹੜੇ ਗ੍ਰੰਥ ਦੀ ਰਚਨਾ ਹੋਈ ਹੈ ?

(iii) ਇਥੋਂ ਦੀਆਂ ਹਵਾਵਾਂ ਵਿੱਚ ਕਿਹੜੀ ਧੁਨੀ ਗੂੰਜਦੀ ਹੈ ?

(iv) ਪੰਜਾਬ ਦੇ ਲੋਕਾਂ ਦਾ ਧਰਮ ਨਾਲ ਕੀ ਸੰਬੰਧ ਹੈ ?

(v) ਪੈਰ੍ਹੇ ਦਾ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਦੱਸੋ।                     5

5. ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਦਾ ਅੰਤਰ ਸਪੱਸ਼ਟ ਕਰੋ।

ਜਾਂ

ਪੰਜਾਬੀ ਦੀਆਂ ਵਿਅੰਜਨ ਧੁਨੀਆਂ ਦਾ ਵੇਰਵਾ ਦਿਓ।      10

6. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਦੋ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ :

(i) ਮਾਤ ਭਾਸ਼ਾ ਦਾ ਪਹਿਲੀ ਭਾਸ਼ਾ ਦੇ ਰੂਪ ਵਿੱਚ ਅਧਿਆਪਨ ਕੀ ਮਹੱਤਵ ਰੱਖਦਾ ਹੈ ?

(ii) ਦੂਜੀ ਭਾਸ਼ਾ ਦੇ ਰੂਪ ਵਿੱਚ ਮਾਤ ਭਾਸ਼ਾ ਦੇ ਅਧਿਆਪਨ ਦੀਆਂ ਸਮੱਸਿਆਵਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਕਰਾਓ।

(iii) ਮਾਤ ਭਾਸ਼ਾ ਤੋਂ ਕੀ ਭਾਵ ਹੈ ? ਇਸਦੇ ਅਧਿਆਪਨ ਲਈ ਕਿਹੜੀ ਵਿਧੀ ਉਚਿਤ ਹੋ ਸਕਦੀ ਹੈ ?

(iv) ਮਾਤ ਭਾਸ਼ਾ ਨੂੰ ਦੂਜੀ ਭਾਸ਼ਾ ਦੇ ਰੂਪ ਵਿੱਚ ਅਧਿਆਪਨ ਕਾਰਜ ਦਾ ਉਦੇਸ਼ ਕੀ ਹੋ ਸਕਦਾ ਹੈ ?          $5 \times 2 = 10$

**Exam. Code : 105701**

**Subject Code : 1540**

### B.Sc. IT 1st Semester

### MUDHLI PUNJABI

### Paper–V(ii)

Time Allowed—3 Hours]                [Maximum Marks—50

ਨੋਟ : ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਕਿਸੇ **ਇੱਕ** ਪ੍ਰਸ਼ਨ ਦਾ ਉੱਤਰ ਦਿਉ। ਹਰ
ਇੱਕ ਪ੍ਰਸ਼ਨ 10 ਅੰਕਾਂ ਦਾ ਹੈ।

### ਭਾਗ–ਪਹਿਲਾ

1. ਗੁਰਮੁਖੀ ਲਿੱਪੀ-ਚਿੰਨ੍ਹਾਂ ਦੀ ਤਰਤੀਬ ਪੇਸ਼ ਕਰੋ।

**ਜਾਂ**

2. ਗੁਰਮੁਖੀ ਵਰਨਮਾਲਾ ਨੂੰ ਕਿੰਨੇ ਵਰਗਾਂ ਵਿੱਚ ਵੰਡਿਆ ਜਾਂਦਾ ਹੈ ?
   ਚਰਚਾ ਕਰੋ।                                                  10

### ਭਾਗ–ਦੂਜਾ

3. ਪੈਰ ਵਿੱਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਣ ਕਿਹੜੇ ਹਨ ? ਉਦਾਹਰਣਾਂ ਸਹਿਤ
   ਚਰਚਾ ਕਰੋ।

**ਜਾਂ**

4. ਲਗਾਂ ਮਾਤਰਾ ਦੀ ਪਰਿਭਾਸ਼ਾ ਕਰੋ। ਗੁਰਮੁਖੀ ਲਿੱਪੀ ਦੀਆਂ ਲਗਾਂ
   ਮਾਤਰਵਾਂ ਬਾਰੇ ਉਦਾਹਰਨਾਂ ਸਹਿਤ ਚਰਚਾ ਕਰੋ।                        10

### ਭਾਗ–ਤੀਜਾ

5. ਲਗਾਖਰ ਤੋਂ ਕੀ ਭਾਵ ਹੈ ? ਗੁਰਮੁਖੀ ਲਿੱਪੀ ਵਿੱਚ ਵਰਤੇ ਜਾਂਦੇ
   ਲਗਾਖਰਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਉ।

**ਜਾਂ**

6. ਹੇਠਾਂ ਦਿੱਤੇ ਸ਼ਬਦਾਂ ਤੇ ਬਿੰਦੀ, ਟਿੱਪੀ ਅਤੇ ਅੱਧਕ ਦੀ ਵਰਤੋਂ ਕਰੋ :

   ਆਡੇ, ਪਸਦ, ਮਸਮੀ, ਸਤਰੇ, ਅਗੂਰ, ਪੁਸਤਕਾ, ਬਚਾ, ਵਡਾ, ਛਤਰੀਆ, ਖਭਾਂ

   10

## ਭਾਗ-ਚੌਥਾ

7. ਵਿਸ਼ਰਾਮ ਚਿੰਨੂ ਕਿਸ ਨੂੰ ਆਖਦੇ ਹਨ ? ਪੰਜਾਬੀ ਵਿੱਚ ਵਿਸ਼ਰਾਮ ਚਿੰਨੂ ਕਿੰਨੇ ਹਨ ? ਉਦਾਹਰਨਾਂ ਸਹਿਤ ਚਰਚਾ ਕਰੋ।

### ਜਾਂ

8. ਹੇਠਾਂ ਦਿੱਤੇ ਪੈਰ੍ਹੇ ਤੇ ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹਾਂ ਦੀ ਵਰਤੋਂ ਕਰੋ :

   ਇੱਕ ਵਾਰ ਇੱਕ ਅੜੀ ਖੋੜਾ ਜੱਟ ਵੀ ਆਪਣੀ ਘੋੜੀ ਭਜਾਣ ਲਈ ਓਥੇ ਲੈ ਆਇਆ ਆਖੇ ਜਾਂ ਘੋੜੀ ਦੇ ਦੇਹੀ ਜਾਂ ਘੋੜਾ ਲੈ ਲੈਣਾ ਦੌੜ ਹੋਈ ਘੋੜੀ ਹਾਰ ਗਈ ਘੋੜੀ ਵਾਲੇ ਜੱਟ ਨੇ ਘੋੜੀ ਆਲਾ ਸਿੰਘ ਦੀ ਖੁਰਲੀ ਤੇ ਬੰਨੂ ਦਿੱਤੀ ਸਾਰੀ ਭੀੜ ਦੇ ਸਾਹਮਣੇ ਆਲਾ ਸਿੰਘ ਨੇ ਉਸ ਦੇ ਮੋਢੇ ਤੇ ਹਥ ਧਰ ਕੇ ਆਖਿਆ ਗੱਲ ਸੁਣ ਭਰਾਵਾ ਇਹ ਖੁਰਲੀ ਵੀ ਤੇਰੀ ਤੇ ਕਿੱਲੇ ਵੀ ਤੇਰੇ ਜੇ ਤਾਂ ਘੋੜੀ ਬੱਧੀ ਆ ਆਪਣੀ ਕਰ ਕੇ ਤਾਂ ਜਮ ਜਮ, ਪਰ ਜੇ ਮੇਰੀ ਕਰ ਕੇ ਬੱਧੀ ਆ ਤੇ ਹੁਣੇ ਖੋਲੂ ਲੈ ਮੈਂ ਕੋਈ ਤੇਰੀ ਘੋੜੀ ਦਾ ਬਪਾਰ ਤੇ ਨਹੀਂ ਕਰਨਾ ਪਈ ਕੋਈ ਬਪਾਰੀ ਆਂ ਮੈਂ

   10

## ਭਾਗ-ਪੰਜਵਾਂ

9. ਕਿਰਿਆ ਦੀ ਪਰਿਭਾਸ਼ਾ ਕਰਦੇ ਹੋਏ ਇਸ ਦੀਆਂ ਕਿਸਮਾਂ ਦੱਸੋ।

### ਜਾਂ

10. ਹੇਠਾਂ ਦਿੱਤੇ ਸ਼ਬਦਾਂ ਦੇ ਲਿੰਗ ਬਦਲੋ :

    ਮਿੱਤਰ, ਭੂਆ, ਮਾਮਾ, ਨਾਇਕ, ਪੰਜਾਬੀ, ਖਿਡਾਰੀ, ਬੱਚਾ, ਮਾਸੀ, ਚੂਹਾ, ਠੇਕੇਦਾਰ

    10

506(2117)/BSS-22792

700

कन्या महा विद्यालय पुस्तकालय
जालन्धर शहर

**Exam. Code : 105701**

**Subject Code : 1541**

### B.Sc. IT 1ˢᵗ Semester

## DRUG ABUSE : PROBLEM, MANAGEMENT AND PREVENTION

### Paper–VII

Time Allowed—3 Hours]　　　　[Maximum Marks—50

### SECTION–A

**Note :** It will consist of **five** short answer type questions. Candidates will be required to attempt **three** questions, each question carrying **5** marks. Answer to any of the questions should not exceed **two** pages.

1.　What do you mean by a Drug ?

2.　What are drugs according to Drugs and Cosmetics Act of India ?

3.　Write the types of Drugs on the basis of Use.

4.　Write about Beginning of Drug.

5.　Explain reasons behind Drug Addiction.　　$3 \times 5 = 15$

## SECTION–B

**Note :** It will consist of **four** essay type questions. Candidates will be required to attempt **two** questions, each question carrying **10** marks. Answer to any of the questions should not exceed **four** pages.

1. Write a note on reasons behind the problem of Drug Addiction in Punjab.

2. Write symptoms and signs of Cannabis.

3. Discuss short and long term effects of Cocaine.

4. Write about short and long term effects of use of Alcohol.

$2 \times 10 = 20$

## SECTION–C

**Note :** It will consist of **two** questions. Candidates will be required to attempt **one** question only. Answer to the question should not exceed **five** pages.

1. Write about the problem of Drug Addiction in India.

2. Discuss about consequences of Drug Abuse in Punjab.

$1 \times 15 = 15$

Exam. Code : 105701

कन्या महा विद्यालय पुस्तकालय

Subject Code : 9032

ज़ालन्धर शहर

**B.Sc. IT I<sup>st</sup> Semester (Old Sylb.—2016)**

## C-PROGRAMMING PART—I

### Paper—II

Time Allowed—3 Hours] [Maximum Marks—75

**Note :–** Attempt any **five** questions. All questions carry equal marks.

1. Discuss the following logic development tools in detail : Flow chart, algorithm and decision tree. 15

2. (a) Write the general structure of a C program. 5

   (b) Differentiate between variable and constant. List various rules for naming a variable. 5

   (c) What are various data types supported by C language ? Give the memory requirement of each data type. 5

3. What are arithmetic, logical and relational operators available in C ? Explain each type of operator with the help of suitable examples. Also discuss the concept of operator precedence. 15

4. What are various ways to read and write a single character in C ? Discuss in detail giving suitable examples. 15

5. Describe various iterative control structures supported by C language with the help of suitable examples. 15

6. Define functions. What are the advantages of using functions ? What do you mean by function declaration and function definition ? What are the various methods of parameter passing to function ? Explain. 15

7. Write a program to print the sum and average of numbers between any two given numbers, which are divisible by a given number N.  15

8. What do you mean by an array ? How an array is declared and finalized ? Explain with examples. What do you mean by two dimensional arrays ? Also explain initialization and declaration of two dimensional arrays.  15

01-01-18 EVE

**Exam. Code : 105701**

**Subject Code : 9033**

**B.Sc. IT I<sup>st</sup> Semester (Old Sylb.—2016)**

## BASIC MATHEMATICS AND STATISTICS

### Paper—III

Time Allowed—3 Hours]  [Maximum Marks—75

**Note :—** (1) Attempt any **five** questions. All questions carry equal marks.

(2) Only non-programmable and non-storage type calculator is allowed.

1. (a) Define :

    (i) Complement of a set

    (ii) Union of two sets

    (iii) Intersection of two sets with an example.

  (b) If A = [1, 3, 5, 7, 9] B = [2, 4, 6, 8, 10] C = [1, 2, 3, 4] find :

    (i) A-C

    (ii) A∪ (B-C)

    (iii) A-(B U C).

2. (a) In a group of people 50 speak both English and Hindi and 30 people speak English but not Hindi. All the people speak at least one of two languages. How many people speak English ?

(b) Find Domain and range of relation R

(i) R = {(x, y) X∈N, Y∈N and X + Y = 15}

(ii) R = {(X,Y) X∈N  X < 5 Y = 3}

3. (a) Define :

(i) Reflexive relation

(ii) Inverse relation

(iii) Identity relation

(b) $y = [1 - Cos\ x]/Sin x$     Find $dy/dx$

4. (a) $y = (\log x)^{\cos x}$     find $dy/dx$

(b) $y = (x\ Cos\ x)^x$     find $dy/dx$

5. (a) Evaluate $\int x^2 \log x\ dx$

(b) Evaluate $\int \dfrac{3x-1}{(x-1)(x-2)(x-3)} dx$.

6. (a) Solve by Matrix Method :

$X + Y + Z = 6$

$X - Y + Z = 2$

$2X + Y - Z = 1$

(b) Solve $\begin{vmatrix} 1 & x & yz \\ 1 & y & zx \\ 1 & z & xy \end{vmatrix} = (x - y)\ (y - z)\ (z - x).$

7. (a) If $P(A) = 0.38$, $P(A \cup B) = 0.69$. Find $P(B)$ if A and B are independent Events.

(b) There are two bags—bag I and bag II

bag I contains 3 white and 2 red balls

bag II contains 5 white and 4 red balls

One ball is drawn at random from one of the bags and found to be red. Find the probability that it was drawn from bag II.

8. (a) Find eigen Value of matrix

$A = \begin{bmatrix} 1 & 2 & 2 \\ 1 & 2 & -1 \\ -1 & 1 & 4 \end{bmatrix}$

(b) Verify Cayley Hamilton theorem

$A = \begin{bmatrix} 3 & 2 & 4 \\ 4 & 3 & 2 \\ 2 & 4 & 3 \end{bmatrix}.$