Exam. Code : 103205
Subject Code : 1203

B.A./B.Sc. 5th Semester
MATHEMATICS
Paper—I (Dynamics)

Time Allowed—3 Hours] [Maximum Marks—50

Note :— Attempt ***five*** questions in all selecting at least ***two*** from each section.

SECTION—A

1. (a) A point moving with uniform acceleration in a straight line describes equal distances in time t_1, t_2, t_3; show that $\frac{1}{t_1}-\frac{1}{t_2}+\frac{1}{t_3}=\frac{3}{t_1+t_2+t_3}$.

   (b) A, B, C are three points vertically below the point O such that OA = AB = BC. If the particle falls from rest at O, prove that the times of describing OA, AB and BC are as $1 : \left(\sqrt{2}-1\right):\left(\sqrt{3}-\sqrt{2}\right)$. 5,5

2. Masses P and Q in a Atwood's machine are allowed to move from rest any distance x. If P is greater than Q, show that the mass which must suddenly be removed from P at the end of distance x, so that the motion in the same sense may continue a further distance nx, is $\frac{(n+1)(P^2-Q^2)}{(n+1)P+(n-1)Q}$. 10

3. (a) Two masses m_1, m_2 are connected by an inelastic string; m_2 is placed on a smooth horizontal table and the string passes over a light smooth pulley at the edge of the table and m_1 is hanging freely. Determine the motion and the tension in the string. Find also the pressure on the pulley.

(b) A body sliding down a smooth inclined plane is observed to cover equal distances, each equal to l, in consecutive intervals of time t_1 and t_2. Show that inclination of the plane is

$$\sin^{-1}\left[\frac{2\ell(t_1-t_2)}{gt_1t_2(t_1+t_2)}\right].$$ 5,5

4. (a) A particle starts from rest and moves along a straight line with an acceleration f varying as t^n. If v be the velocity at a distance s from the starting point, show that $(n + 1)v^2 = (n + 2)fs$.

(b) A particle free to move along the x-axis is subjected to a force $mF_0\cos pt$ acting along x-axis. At $t = 0$, $x = 0$ and $v = 0$. Show that at any time

t, $x = \frac{F_0}{p^2}(1-\cos pt)$. Here m is the mass of the particle. F_0 and p are constants. 5,5

5. A particle is performing simple harmonic motion of period T about a centre O and it passes through the position P (OP = b) with velocity v in the direction OP. Prove that the time which elapses before it comes to P is $\frac{T}{\pi}\tan^{-1}\frac{vT}{2\pi b}$. 10

SECTION—B

6. (a) A particle is projected with velocity u so that its range on a horizontal plane is twice the greatest height attained. Show that range is $\frac{4u^2}{5g}$.

(b) The maximum height of a projectile is h and angle of projection is α. Find out the difference of time when it is at height of h $\sin^2\alpha$. 5,5

7. A particle is projected from O at an elevation α and after time t, the particle is at P. Prove that $\tan\beta = \frac{1}{2}(\tan\alpha + \tan\theta)$ where β and θ are respectively the inclinations to the horizontal of OP and of the direction of motion of the particle when at P. 10

8. (a) A train of mass M kg is ascending a smooth incline of 1 in n and when the velocity of the train is vm/sec, its acceleration is f m/sec^2. Prove that the effective power of the engine is $\frac{Mv(nf+g)}{n}$ watts.

(b) Prove that the kinetic energy of a particle of mass m moving with a magnitude of velocity v is $\frac{1}{2}mv^2$. 5,5

9. A particle of mass m is tied to the middle point of an elastic string of natural length $2l$ and modulus λ. The ends of the string are tied to two points on a smooth horizontal table distant 2L ($L > l$). Find the period of small oscillation (i) along the string (ii) perpendicular to the string. 10

10. A pendulum of length l hangs against a wall inclined at an angle α to the horizontal. Show that the time of complete oscillation is $2\pi \sqrt{\frac{\ell}{g \sin \alpha}}$. 10

Exam. Code : 103205
Subject Code : 1204

B.A./B.Sc. 5th Semester

MATHEMATICS (Number Theory)

Paper—II

Time Allowed—Three Hours] [Maximum Marks—50

Note :—Attempt **FIVE** questions in all selecting at least **TWO** questions from each section.

SECTION—A

1. (a) Prove that 4 does not divide $(m^2 + 2)$ for any integer m.

   (b) Prove that the square of an integer is of the form 3q or 3q + 1 but not of the form 3q + 2, $q \in z$. 5,5

2. (a) If m is an odd integer, show that $8 \mid (m^2 - 1)$.

   (b) If gcd(a, 4) = 2 and gcd(b, 4) = 2, prove that gcd(a + b, 4) = 4. 5,5

3. (a) Use the Euclidean Algorithm to find integers x and y such that gcd(1769, 2378) = 1769x + 2378y.

   (b) Find the general solution (in integers) of the equation 91x + 221y = 1053. 5,5

4. (a) Prove that for each prime $p \geq 5$, $p^2 + 2$ is a composite number.

   (b) If $a \equiv b \pmod{m}$, prove that $a^p \equiv b^p \pmod{m}$ for any positive integer p. 5,5

5. (a) Solve $2x + 7y \equiv 5 \pmod{12}$.

(b) If $x \equiv a \pmod{m}$, prove that either $x \equiv a \pmod{2m}$ or $x \equiv a + m \pmod{2m}$. 5,5

SECTION—B

6. (a) Solve $x \equiv 5 \pmod{11}$, $x \equiv 14 \pmod{29}$ and $x \equiv 15 \pmod{31}$ by Chinese Remainder Theorem.

(b) If $\gcd(a, 42) = 1$, show that $a^6 \equiv 1 \pmod{168}$. 5,5

7. (a) Prove that an integer $p > 1$ is a prime number iff $\lfloor p-2 \equiv 1 \pmod{p}$.

(b) Prove that $a^5 \equiv a \pmod{30}$ for all integer a. 5,5

8. (a) Show that $\lfloor 18 = -1 \pmod{437}$, using Wilson's theorem.

(b) Find remainder when $2 \lfloor 26$ is divided by 29. 5,5

9. (a) If $n = 2(2p - 1)$ where p, $2p - 1$ both are prime > 2 then show that $\phi(n + 2) = \phi(n)$, $\phi(n)$ is Euler's phi-function.

(b) Find all positive integers a, b such that :

$$\phi(a, b) = \phi(a) + \phi(b).$$ 5,5

10. (a) Using Euler's theorem, find the last two digits in ordinary decimal representation of 3^{400}.

(b) If x and y are positive real numbers, prove that $[x]\,[y] \leq [xy]$; [x], [y] and [xy] are greatest integer functions. 5,5

Exam. Code : 103205
Subject Code : 1178

B.A./B.Sc. 5th Semester

COMPUTER SCIENCE

(Database Management System and Oracle)

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt any **FIVE** questions. All questions carry equal marks.

1. (a) Discuss the three level architecture of database management systems. Explain the various types of data independence and need of mapping. 9

   (b) Differentiate between DDL, DML and DCL. 6

2. (a) Explain different data models. Compare hierarchical data model with network data model. 6

   (b) Explain the following terms with suitable example :

   (i) Primary key

   (ii) Join

   (iii) Data dictionary. 9

3. (a) Illustrate the fact that BCNF is strictly stronger than 3NF with the help of an example. 6

   (b) Define normalisation. Why is it needed ? Explain successive normalisations in designing a relational database by taking a suitable example. 9

4. (a) What is meant by concurrent execution of database transactions in multi user system ? Discuss why concurrency control is needed and give informal examples. 9

(b) Explain the mechanism for maintaining database security. 6

5. (a) What is a procedure ? What is function ? Bring out the differences. Explain with examples. 9

(b) Write a program in PL/SQL to create a trigger to restrict the deletion of record from the table 'Employee' when the day of week is 'Monday'. 6

6. (a) Explain the basic operations performed in relational algebra with the example of each. 9

(b) What is the role of DBA in database ? 6

7. (a) The given database schema is :

Employee (FName, Initial, Lname, ENO, DoB, Address, Sex, Salary, Supereno, Dno)

Department (Dname, Dnumber, mgreno, mgrstartdate)

Dept_locations (Dnumber, Dlocation)

Project (Pname, Pnumber, plocation, dnum)

Works_on (EENo, PNo, hours)

Dependent (EENo, Dependent_Name, Sex, BDate, Relationship)

Write the queries in SQL with the above schema :

(i) Retrieve the name and address of all employees who work for the 'Research department'.

(ii) Retrieve the average salary of all female employees. 9

(b) Explain the following :

(i) Integrity constraints

(ii) Logical and physical view of DBMS. 6

8. (a) What is E-R diagram ? Explain various symbols used in E-R diagram. Discuss the relevance of E-R diagrams in database design and illustrate the same with suitable examples. 9

(b) What are object-oriented DBMS ? How can these be compared with RDBMS ? Discuss their advantages and disadvantages. 6

Exam. Code : 103205
Subject Code : 1212

B.A./B.Sc. 5th Semester
QUANTITATIVE TECHNIQUES
(Quantitative Techniques—V)

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt ***five*** questions in all. **First** question is compulsory. Attempt any ***one*** question from each of the ***four*** units. All questions carry equal marks.

1. Give short answers to the following :
   (a) One Tailed Test
   (b) Normality Assumption
   (c) Randomized Block Design
   (d) Continuous Variable
   (e) Statistic vs. Parameter
   (f) Acceptance Region
   (g) Confidence Interval
   (h) Type II Error
   (i) Degree of Freedom
   (j) Alternate Hypothesis.

UNIT—I

2. What are the characteristic features of a good estimator ? Explain in detail.
3. Find the probability of four heads in six flips of an unbiased coin by using binomial distribution.

UNIT—II

4. Derive the basic properties of t-distribution.
5. Highlight the characteristic features of Chi-square distribution.

UNIT—III

6. An I.Q. test was administrated to five persons before and after they were trained. The results are given below :

   Test whether there is any change in I.Q. after training programme.

Candidates	I	II	III	IV	V
I.Q. before training	110	120	123	132	125
I.Q. after training	120	118	125	136	121

7. "The Chi square test is a non-parametric test", comment on the correctness of the statement. Explain the mechanics of this test.

UNIT—IV

8. Perform a Two-way ANOVA on the data given below and interpret your results :

Plots of land	Treatments			
	A	B	C	D
I	38	40	41	39
II	45	42	49	36
III	40	38	42	42

9. What is the purpose of carrying out the Analysis of Variance (ANOVA) ? Enlist the assumptions of ANOVA technique.

Exam. Code : 103205
Subject Code : 1172

B.A./B.Sc. 5th Semester

PUNJABI (Compulsory)

Time Allowed—3 Hours] [Maximum Marks—50

ਨੋਟ : ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹਨ।

1. ਹੇਠ ਲਿਖੀਆਂ ਕਹਾਣੀਆਂ ਵਿੱਚੋਂ ਕਿਸੇ **ਇੱਕ** ਦਾ ਸਾਰ ਲਿਖੋ :

   (ੳ) ਏਕਲਵਯ

   (ਅ) ਖੂਹ ਖਾਤੇ। 10

2. ਦਲੀਪ ਕੌਰ ਟਿਵਾਣਾ ਦੁਆਰਾ ਲਿਖੇ ਗਏ ਨਾਵਲ ਏਹੁ ਹਮਾਰਾ ਜੀਵਣਾ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ।

   ਜਾਂ

   ਭਾਨੋ ਅਤੇ ਸਰਵਣ ਪਾਤਰਾਂ ਨਾਲ ਜਾਣ-ਪਛਾਣ ਕਰਵਾਉ। 10

3. ਕਿਸੇ **ਇੱਕ** ਵਿਸ਼ੇ ਉਪਰ ਪੈਰ੍ਹਾ ਰਚਨਾ ਕਰੋ :

   (ੳ) ਰੁੱਖ, ਮਨੁੱਖ ਅਤੇ ਵਾਤਾਵਰਣ

   (ਅ) ਸਿਆਸਤ ਦਾ ਡਿੱਗਦਾ ਮਿਆਰ

   (ਏ) ਸੋਸ਼ਲ ਮੀਡੀਆ। 5

4. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਦਾ ਪੰਜਾਬੀ ਅਨੁਵਾਦ ਕਰੋ :

In the seminar scholars from Punjab University, Chandigarh, University of Delhi, Punjabi University, Patiala and Guru Nanak Dev University, Amritsar presented their papers. The deliberations of the seminar were conducted in four sessions. The themes of the papers, concentrated on issues associated with the interpretation of the 'Bani' of Guru Nanak. Sources on the life of Guru, his philosophy, study of Guru Nanak in context with Indian religious traditions and the relevance of the teaching in the present context. Sixteen papers were presented in the seminar. 5

5. ਪੰਜਾਬੀ ਸੁਰ ਧੁਨੀਆਂ ਦਾ ਵਰਗੀਕਰਨ ਕਰੋ।

ਜਾਂ

ਉਚਾਰਨ ਅੰਗਾਂ 'ਤੇ ਨੋਟ ਲਿਖੋ। 10

6. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖੇਪ ਨੋਟ ਲਿਖੋ :

(i) ਅਰਜਨ ਛੇੜ ਗਡੀਰਨਾ ਕਹਾਣੀ ਦੇ ਲੇਖਕ ਦਾ ਨਾਮ ਦੱਸੋ।

(ii) ਅਜੀਤ ਕੌਰ ਦੁਆਰਾ ਲਿਖੀ ਕਹਾਣੀ ਮੌਤ ਅਲੀ ਬਾਬੇ ਦੀ ਦਾ ਵਿਸ਼ਾ ਕੀ ਹੈ ?

(iii) ਰਾਹੂ ਕੇਤੂ ਕਹਾਣੀ ਦੇ ਪਾਤਰਾਂ ਨਾਲ ਸੰਖੇਪ ਜਾਣ-ਪਛਾਣ ਕਰਾਉ।

(iv) ਦਲੀਪ ਕੌਰ ਟਿਵਾਣਾ ਨੂੰ ਕਿਸ ਰਚਨਾ ਉਪਰ ਸਾਹਿਤ ਅਕਾਦਮੀ ਦਾ ਸਨਮਾਨ ਮਿਲਿਆ ?

(v) ਨਰਾਇਣ ਦੇ ਪਾਤਰ ਨਾਲ ਜਾਣ-ਪਛਾਣ ਕਰਾਉ।

5×2=10

Exam. Code : 103205
Subject Code : 1171

B.A./B.Sc. 5th Semester

ENGLISH (Compulsory)

Time Allowed—3 Hours] [Maximum Marks—50

SECTION—A

1. Write very short answers. Attempt any **FIVE**, each carries **2** marks.

   (i) Why does Mother Kate want Frank to make up Larry's horoscope in Act I ?

   (ii) What does Joe Keller mean when he says "a father is a father" ?

   (iii) What was Chris ashamed of ?

   (iv) Theme of the poem "In Memorium".

   (v) Central Idea of the poem "False Religion".

   (vi) Theme of the poem "Meeting at Night". 5×2=10

SECTION—B

2. Attempt any **TWO** questions :

   (i) Why were Joe and Steve put in jail ?

   (ii) How is the title of Arthur Miller's play, *All My Sons*, justified ?

   (iii) Who is the protagonist in *All My Sons*. 6×2=12

3. Attempt any **TWO** questions :

(i) Central Idea of the poem "She Walks in Beauty".

(ii) Write down the theme of the poem "Dover Beach".

(iii) Tone and style of "Night of the Scorpion".

6×2=12

SECTION—C

4. Explain the following stanza with reference to the context :

I am silver and exact. I have no preconceptions.
Whatever I see I swallow immediately
Just as it is, unmisted by love or dislike.
I am not cruel, only truthful,
The eye of a little god, four-cornered.
Most of the time I meditate on the opposite wall.
It is pink, with speckles. I have looked at it so long
I think it is part of my heart. But it flickers.
Faces and darkness separate us over and over.

OR

Money is a central theme in the play *All My Sons*. Discuss this theme. 8

5. Write an application for the post of a Sports Coach in a University.

OR

Write a report on the Annual Sports Function held in your College. 8

Exam. Code : 103205
Subject Code : 1187

B.A./B.Sc. 5th Semester

ECONOMICS
(ECONOMICS OF DEVELOPMENT)

Time Allowed—3 Hours] [Maximum Marks—100

Note :—First question consisting of **10** short answer questions (carrying **2** marks each) is compulsory. Attempt **one** out of **two** questions from each of the four units (**20** marks each).

1. Attempt **all** parts of this question :

   (a) Explain the meaning of underdevelopment.

   (b) Explain the concept of sustainable development.

   (c) What is disguised unemployment ?

   (d) What do you understand by vicious circle of poverty ?

   (e) Explain Marxian ideas on growth.

   (f) Explain the merits and demerits of import substitution.

   (g) Briefly explain Classical ideas on growth.

(h) Explain the nature and types of unemployment prevalent in developing countries.

(i) What are the advantages of export promotion ?

(j) Explain various types of planning.

UNIT–1

2. Discuss important measures of development. Explain the role of economic and non-economic factors in development.

3. Explain Lewis model of unlimited supply of labour. What are its limitations ?

UNIT–2

4. Explain Schumpeter's growth model. What are its limitations ?

5. Discuss Harrod-Domar growth model. How far this model is applicable to underdeveloped countries ? What are its weaknesses ?

UNIT–3

6. Explain Rostow's stage theory. What are its limitations ?

7. Explain Balanced growth theory. Compare and contrast it with Unbalanced growth theory.

UNIT–4

8. Explain the meaning and sources of capital formation. Discuss internal and external sources of capital formation.

9. What is economic planning ? Highlight the role and need for planning in Underdeveloped countries.

(Punjabi Version)

ਨੋਟ :— ਪਹਿਲਾ ਪ੍ਰਸ਼ਨ ਜਿਸ ਵਿੱਚ **ਦਸ** ਲਘੁ-ਉੱਤਰੀ ਪ੍ਰਸ਼ਨ ਹਨ। (ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ **2** ਅੰਕ ਹਨ) ਲਾਜ਼ਮੀ ਹੈ। ਦਿੱਤੀਆਂ ਗਈਆਂ **ਚਾਰ** ਯੂਨਿਟਾਂ ਵਿੱਚ **ਦੋ-ਦੋ** ਪ੍ਰਸ਼ਨ ਹਨ। ਹਰੇਕ ਯੂਨਿਟ ਵਿੱਚੋਂ **ਇੱਕ-ਇੱਕ** ਪ੍ਰਸ਼ਨ ਕਰੋ। (ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ **20** ਅੰਕ ਹਨ)।

1. ਇਸ ਪ੍ਰਸ਼ਨ ਦੇ ਸਾਰਿਆਂ ਭਾਗਾਂ ਨੂੰ ਕਰੋ :

(ੳ) ਘੱਟ ਵਿਕਾਸ ਦੇ ਅਰਥ ਸਮਝਾਓ।

(ਅ) ਲਗਾਤਾਰ ਵਿਕਾਸ ਦੀ ਅਵਧਾਰਣਾ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

(ੲ) ਭੇਸ ਬੇਰੁਜ਼ਗਾਰੀ ਕੀ ਹੈ ?

(ਸ) ਗਰੀਬੀ ਦੇ ਭਿਆਨਕ ਚੱਕਰ ਤੋਂ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ ?

(ਹ) ਵਿਕਾਸ ਤੇ ਮਾਰਕਸਵਾਦੀ ਵਿਚਾਰਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

(ਕ) ਆਯਾਤ ਬਦਲ ਦੇ ਗੁਣ ਅਤੇ ਔਗੁਣ ਬਾਰੇ ਦੱਸੋ।

(ਖ) ਵਿਕਾਸ ਤੇ ਸ਼ਾਸਤਰੀ ਵਿਚਾਰਾਂ ਬਾਰੇ ਸੰਖੇਪ ਵਿੱਚ ਵਿਆਖਿਆ ਕਰੋ।

(ਗ) ਵਿਕਾਸਸ਼ੀਲ ਦੇਸ਼ਾਂ ਵਿੱਚ ਪ੍ਰਚਲਤ ਬੇਰੁਜ਼ਗਾਰੀ ਦੀਆਂ ਪ੍ਰਕਿਰਤੀ ਅਤੇ ਕਿਸਮਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

(ਘ) ਨਿਰਯਾਤ ਤਰੱਕੀ ਦੇ ਕੀ ਫਾਇਦੇ ਹਨ ?

(ਙ) ਨਿਯੋਜਨ ਦੇ ਵਿਭਿੰਨ ਪ੍ਰਕਾਰਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

ਯੂਨਿਟ—1

2. ਵਿਕਾਸ ਦੇ ਮਹੱਤਵਪੂਰਣ ਉਪਾਵਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ। ਵਿਕਾਸ ਵਿੱਚ ਆਰਥਿਕ ਅਤੇ ਗੈਰ-ਆਰਥਿਕ ਕਾਰਕਾਂ ਦੀ ਭੂਮਿਕਾ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

3. ਕਿਰਤ ਦੀ ਅਸੀਮਤ ਸਪਲਾਈ ਦੇ ਲੇਵਿਸ ਮਾਡਲ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। ਇਸ ਦੀਆਂ ਸੀਮਾਵਾਂ ਕੀ ਹਨ ?

ਯੂਨਿਟ—2

4. ਸ਼ੁਪੀਟਰ ਦੇ ਵਿਕਾਸ ਦੇ ਮਾਡਲ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। ਇਸ ਦੀਆਂ ਸੀਮਾਵਾਂ ਕੀ ਹਨ ?

5. ਹੈਰੋਡ-ਡੋਮਰ ਵਿਕਾਸ ਮਾਡਲ ਦੀ ਚਰਚਾ ਕਰੋ। ਇਹ ਮਾਡਲ ਪਿਛੜੇ ਦੇਸ਼ਾਂ ਲਈ ਕਿੰਨਾਂ ਉਪਯੁਕਤ ਹੈ ? ਇਸ ਦੀਆਂ ਕਮਜ਼ੋਰੀਆਂ ਕੀ ਹਨ ?

ਯੂਨਿਟ—3

6. ਰੋਸਟੋ ਦੇ ਵਿਕਾਸ-ਅੱਵਧੀ ਸਿਧਾਂਤ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। ਇਸ ਦੀਆਂ ਸੀਮਾਵਾਂ ਕੀ ਹਨ ?

7. ਸੰਤੁਲਿਤ ਵਿਕਾਸ ਸਿਧਾਂਤ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। ਇਸ ਦੀ ਤੁਲਨਾ ਅਤੇ ਵਿਸ਼ਮਤਾ ਅਸੰਤੁਲਿਤ ਵਾਧੇ ਦੇ ਸਿਧਾਂਤ ਨਾਲ ਕਰੋ।

ਯੂਨਿਟ—4

8. ਪੂੰਜੀ ਨਿਰਮਾਣ ਦੇ ਅਰਥ ਅਤੇ ਸਰੋਤਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। ਪੂੰਜੀ ਨਿਰਮਾਣ ਦੇ ਅੰਦਰੂਨੀ ਅਤੇ ਬਾਹਰੀ ਸਰੋਤਾਂ ਦੀ ਚਰਚਾ ਕਰੋ।

9. ਆਰਥਿਕ ਯੋਜਨਾਬੰਦੀ ਕੀ ਹੈ ? ਪਿੱਛੜੇ ਦੇਸ਼ਾਂ ਵਿੱਚ ਯੋਜਨਾ ਲਈ ਇਸਦੀ ਭੂਮਿਕਾ ਅਤੇ ਜ਼ਰੂਰਤ ਨੂੰ ਉਜਾਗਰ ਕਰੋ।

(Hindi Version)

नोट :— पहला प्रश्न जिसमें **दस** लघुउत्तरीय प्रश्न हैं (प्रत्येक प्रश्न के **2** अंक हैं) जो कि अनिवार्य है। दी गई **चार** यूनिटों में **दो-दो** प्रश्न है। प्रत्येक यूनिट में से **एक** प्रश्न करें। (प्रत्येक प्रश्न के **20** अंक है)।

1. इस प्रश्न के सभी भागों को करें :

   (क) अल्पविकास का अर्थ स्पष्ट कीजिए।

   (ख) सतत् विकास की अवधारणा को समझाइए।

   (ग) प्रच्छन्न बेरोजगारी क्या है ?

(घ) गरीबी के दुष्चक्र से आप क्या समझते है ?

(ङ) विकास पर मार्क्सियन के विचारों की व्याख्या कीजिए।

(च) आयात प्रतिस्थापन के गुणों और अवगुणों की व्याख्या कीजिए।

(छ) वृद्धि पर शास्त्रीय विचारों की संक्षिप्त व्याख्या करें।

(ज) विकासशील देशों में प्रचलित बेरोजगारी की प्रकृति और प्रकारों की व्याख्या कीजिए।

(झ) निर्यात प्रोत्साहन के क्या लाभ हैं ?

(ञ) नियोजन के विभिन्न प्रकारों की व्याख्या कीजिए।

यूनिट—1

2. विकास के महत्वपूर्ण उपायों की चर्चा करें। विकास में आर्थिक और गैर-आर्थिक कारकों की भूमिका की व्याख्या करें।

3. श्रम की असीमित आपूर्ति के लुईस मॉडल की व्याख्या करें। इसकी सीमाएं क्या हैं ?

यूनिट—2

4. शुम्पीटर के विकास मॉडल की व्याख्या करें। इसकी सीमाएं क्या हैं ?

5. हेरोड-डोमर विकास मॉडल की चर्चा करें। अविकसित देशों पर यह मॉडल कितना उपयुक्त है ? इसकी कमजोरियां क्या हैं ?

यूनिट—3

6. रोस्टो के विकासाधि सिद्धांत की व्याख्या करें। इसकी सीमाएं क्या है ?

7. संतुलित विकास सिद्धांत की व्याख्या करें। असंतुलित विकास सिद्धांत के साथ इसकी तुलना और विषमता लिखें।

यूनिट—4

8. पूंजी निर्माण का अर्थ और स्त्रोत बताएं। पूंजी निर्माण के आंतरिक और बाहरी स्त्रोतों की चर्चा करें।

9. आर्थिक योजना क्या है ? अविकसित देशों में योजना के लिए इसकी भूमिका और आवश्यकता को उजागर करें।