Reg. No. : ....

Name : ....

First Semester B.Sc. Degree Examination, June 2022

First Degree Programme Under CBCSS

Physics

Complementary Course for Statistics

PY 1131.3 — MECHANICS AND PROPERTIES OF MATTER

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in **one** or **two** sentences. **Each** question carries **1** mark.

1. Define rigidity modulus.

2. State the theorem of parallel axes.

3. What is meant by force of cohesion?

4. What is the moment of inertia of a circular disc about an axis through its center and perpendicular to its plane?

5. Define simple harmonic motion.

6. What is viscous force?

7. What are the two forces that govern the shape of a liquid drop?

8. Define the intensity of a wave.

9. What is a beam?

10. Give the general equation for wave motion.

(10 × 1 = 10 Marks)

SECTION – B

Answer any **eight** questions, not exceeding a paragraph. **Each** question carries **2** marks.

11. Derive the expression for excess pressure inside a spherical drop.

12. What are I shaped girders used in the construction of bridges and railway tracks?

13. If the frequency of a simple harmonic oscillator is doubled, what will be the change in its total energy?

14. Explain why small liquid drops are spherical in shape.

15. Differentiate between angle of twist and angle of shear.

16. The small space between two parallel plates is filled with water. Why is it easier to separate the plates by sliding one over the other than by a direct pull?

17. Explain the variation of viscosity with temperature.

18. Show that potential energy per unit volume of stretched wire is $U = 1/2(\text{stress}) \times (\text{strain})$.

19. What is the relationship between the kinetic energy of a rotating body and its angular velocity?

20. Why is a cantilever of uniform cross section more likely to break near its fixed end?

21. Write down the theory behind Ostwald's viscometer.

22. State two differences between translatory motion and rotatory motion.

23. What is elastic after effect?

24. What is radius of gyration?

25. Define : (i) neutral axis (ii) bending moment of a beam.

26. Explain the physical significance of moment of inertia.

SECTION – C

Answer any **six** questions. **Each** question carries **4** marks.

27. A circular disc of radius 0.1 m and mass 1 kg is rotating at a the rate of 10 revolutions per second about an axis at right angles to its plane and passing through its centre. Calculate the moment of inertia of the disc.

28. Two plane pieces of glass have water between them which is circular and of diameter 12cm. If the glass plates 0.6mm apart, what force perpendicular to the plates will be needed to separate them? (surface tension of water = 0.072 N/m)

29. Calculate the volume of water flowing in 10 minutes through a tube of 0.1 cm diameter, 40 cm long, if there is a constant pressure of $1.96 \times 10^3 N/m^2$. (Coefficient of viscosity of water = $0.89 \times 10^{-3} Nsm^{-2}$)

30. Plane harmonic waves of frequency 500 Hz are produced in air with displacement amplitude of 10^{-5} m. Find the energy density and energy flux in the wave. (Density =1.29 kg/m^3 ,velocity = 340 m/s)

31. A bar of length 60 cm, breadth 3cm and thickness 4 mm is used as a cantilever. When a load of 0.25 kg is attached to the free end the depression at the free is 1 cm .Calculate the Young's Modulus of the material.

32. A wire 2 m long and 10^{-3} m diameter is fixed at one end. Find the couple required to twist the other end through 90°. (Rigidity modulus = 2.8×10^{10} N/m^2)

33. What is the radius of one large spherical drop formed when 1000 droplets of water each 10^{-6} cm in diameter coalesce?

34. The equation of a simple harmonic oscillator is given by $d^2x/dt^2 + 144x = 0$ Find the time period and frequency of oscillation.

35. What is the excess pressure of air in a spherical soap bubble of diameter 0.1 metre? (Surface Tension = 0.04 N/m)

36. What is the percentage increase in the time period of a simple pendulum, if its length is increased by 44%?

37. Consider a disc of mass 0.1 kg and radius 5 cm. Calculate the radius of gyration of this disc about an axis passing through its centre of gravity and perpendicular to its plane.

38. What is the wavelength of longitudinal waves of frequency 400 Hz in an alloy whose density is 5500 kg/m^3 and Young's Modulus 8.8 × 10^{10} N/m^2?

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

39. Write down the expression for a plane-progressive wave explaining its symbols. Derive the expression for the velocity of transverse waves in a stretched string.

40. What is a rigid body? Derive the expression for the moment of inertia of a solid sphere.

41. Derive an expression for the depression produced at the free end of cantilever loaded at its free end.

42. What is a flywheel? Explain in detail the theory and experiment for the determination of moment of inertia of flywheel.

43. What is coefficient of viscosity? Derive Poiseulle's formula for the rate of flow of a liquid through a capillary tube.

44. Define surface tension and angle of contact. Explain how the surface tension of a liquid determined by measuring excess pressure?

(2 × 15 = 30 Marks)

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Reg. No. : ....

Name : ....

First Semester B.Sc. Degree Examination, June 2022

First Degree Programme Under CBCSS

Statistics

Core Course I

ST 1141 : STATISTICAL METHODS – I

(2020 Admission Onwards)

Time : 3 Hours　　　　　　　　　　　　.　　　　　　　Max. Marks : 80

SECTION – A

Answer **all** questions. Each question carries **1** mark.

1. What is the meaning of Statistics?

2. What are the limitations of Statistics?

3. Define a schedule.

4. What are cartograms?

5. What is tabulation?

6. What percentage of observations is between first and sixth decile?

7. Give the relation between range and S.D.

8. Name a positional average.

9. Define raw moments of a distribution.

10. Kurtosis is adjudged around which measure of central tendency?

SECTION – B

Answer any **eight** questions. Each question carries **2** marks.

11. What are the misuses of Statistics?

12. Define primary data and secondary data.

13. What is a cumulative frequency table?

14. Draw a frequency polygon for the following data and hence find the mode :

Marks obtained :	<10	<20	<30	<40	<50
No. of students :	2	4	9	7	3

15. Distinguish between quantitative data and qualitative data.

16. Find the weighted A.M. of 2, 5, 9 and 11 with weights 8, 7, 3 and 2.

17. Calculate the G.M of 3, 6, 24 and 48.

18. If the variance of n consecutive natural numbers is 14, what is the value of n?

19. What is the relation between mean, median and mode for a moderately skewed distribution?

20. What are the demerits of mode?

21. Give the formula for the ith percentile.

22. Give the relationships between Q.D, M.D and S.D.

23. For a symmetric distribution, how can one determine the upper and lower quartile with the help of Q.D and the median?

24. What is coefficient of variation? What is the implication of a large value of it?

25. What is the purpose of measuring averages, measures of dispersion, skewness and Kurtosis?

26. What do you mean by skewness?

<div align="right">(8 × 2 = 16 Marks)</div>

SECTION – C

Answer any **six** questions. Each question carries **4** marks.

27. What are the important methods of collecting a primary data?

28. What are the precautions to be taken in using a secondary data?

29. Define classification of data. What are the different types of classification?

30. What are the advantages and limitations of an average?

31. Find the H.M. of $1, \frac{1}{2}, \frac{1}{3}$ and $\frac{1}{4}$. What are its uses?

32. If G_1 is the G.M of n_1 observations and G_2 is the G.M of n_2 observations then find the G.M of the pooled set of $(n_1 + n_2)$ observations.

33. What are the requisites of a good measure of dispersion?

34. Differentiate between absolute and relative measures of dispersion.

35. Establish the relation between raw moments and central moments.

36. If the mean of a distribution, is 15 and variance is 25, with the coefficient of skewness $\beta_1 = 1$, find the third raw moment.

37. Why Sheppard's correction is needed for the moments of grouped data. Give the Sheppard's correction for the first 4 central moments.

38. Discuss positive skewness of a distribution based on its characteristics.

<div align="right">(6 × 4 = 24 Marks)</div>

SECTION – D

Answer any **two** questions. Each question carries **15** marks.

39. (a) Discuss the important graphical representations of a data?

(b) The following data gives the age of a group of people. Draw the Histogram and hence find the median of the distribution.

Class interval :	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
Frequency :	8	20	36	24	12

40. (a) Find the missing values from the following information :

	Group I	Group II	Group III	Combined
Number	50	?	90	200
S.D.	6	7	?	7.746
Mean	113	?	115	116

(b) Show that sum of deviations of observations from the mean is zero.

41. Find the mean and S.D from the following frequency distribution :

Heights in inches :	59 – 61	61 – 63	63 – 65	65 – 67	67 – 69
No. of students :	4	30	45	15	6

42. (a) Show that M.D is minimum when taken from the median.

(b) Calculate the mean deviation from the median of the following data.

X	10	11	12	13	14	Total
Frequency	3	12	18	12	3	48

43. (a) What are the important relative measures of dispersion?

(b) Find the Quartile deviation and the coefficient of Q.D from the data.

Wages :	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35
No. of workers :	6	12	18	10	4

44. Compute the first four moments about mean (central moments) for the following data and compute the coefficients of skewness and kurtosis :

Classes :	10 – 12	12 – 14	14 – 16	16 – 18	18 – 20	20 – 22	22 – 24
Frequency :	1	3	7	20	12	4	3

(2 × 15 = 30 Marks)

4

Reg. No. : ....

Name : ....

First Semester B.A./B.Sc. Degree Examination, June 2022

First Degree Programme Under CBCSS

English Language and Literature/English and Communicative English

Foundation Course – I

EN 1121/CG 1121.3 — WRITINGS ON CONTEMPORARY ISSUES

(2020 Admission Onwards)

Time : 3 Hours   Max. Marks : 80

I.   Answer **all** questions, each in a word or a sentence.

1.   Who opined "Our planet is not balanced.... Too much turmoil.... Too much suffering"?

2.   Mention the countries where a distinct bias of 'boy preference' can be found.

3.   What was the only human rights intervention made by the League of Nations?

4.   Define Dopamine.

5.   What was the key concept that led to the development of the modern computer?

6.   Who is the author of *Ancient Indian Social History: Some Interpretations?*

7.   What great clairvoyance did American Dialect Society show in 2010?

8.   Why is it difficult for the policy makers to frame a pan India geriatric care?

9.   What will be the future of new fascism?

10.   Why do we say that human dignity and human rights are inalienable?

(10 × 1 = 10 Marks)

II. Answer any **eight** questions, each in a short paragraph not exceeding **50** words.

11. What is corporate globalism?

12. Mention the scheme implemented by the Haryana Government to curb drug abuse.

13. What led to the need for having international instruments to protect human rights?

14. How does changing family structure jeopardize social and economic security of elderly people?

15. What helps to resolve New Year resolutions, according to Khyrunnisa?

16. How did Thapar prove 'the observance of law is strengthened when people understand its purpose'?

17. Why are elderly women in rural areas more vulnerable?

18. What is the pertinent question the Turing test has raised?

19. What caused steep fall in the fertility rate in Bangladesh?

20. Mention the initial attempts made at writing down the human rights in the form of a document.

21. Why did plague frighten the beautiful people?

22. A computer junkie, what are the physical ailments the author suffered?

23. What was the meaning of the term secular when it was first introduced?

24. How is a UTM different from a specific Turing machine?

25. How does dopamine in drugs affect brains?

26. What is natality discrimination?

(8 × 2 = 16 Marks)

III   Answer any **six**, each in a paragraph not exceeding **100** words.

27.   Privatization dominates our times. Comment.

28.   What are the rights mentioned in the Universal Declaration of Human Rights?

29.   How has women's literacy accounted for the sharp reduction of child bearing?

30.   What are the do's and don'ts suggested to the author to avoid computer related health problems?

31.   The ageing population is both a medical and sociological problem. How?

32.   Mention the international treaties that tried to uphold human rights.

33.   How is education important in developing independent thinking?

34.   Narrate the smart phone experiences of Khyrunnisa's husband.

35.   What data does the 2011 census provide on gender inequality?

36.   Describe Searle's objection to Strong AI.

37.   Comment on the relationship between religion and state.

38.   What are the necessary actions to be adopted to address gender inequality?

(6 × 4 = 24 Marks)

IV.   Answer any **two**, each in about **two** to **three** pages.

39.   How far does "India's Women: The Mixed Truth" discuss the varied facts of gender inequality?

40.   Sainath in "The Globalisation of Inequality" writes about the rising inequality across the globe. Elaborate.

41.   Give an account on the fatal effects of drug abuse and the initiatives adopted to prevent it based on the essay you have studied.

42. "Living in the Planet of the Apps" examines how human beings have become addicted to computers and smartphones. Justify.

43. Explain Leah Levin's views on human rights and the formulation of a written body of human rights.

44. Write an essay on Thapar's views on the task of secularization in Indian society.

(2 × 15 = 30 Marks)

Reg. No. : ....

Name : ....

First Semester B.Sc. Degree Examination, June 2022

First Degree Programme under CBCSS

Mathematics

Complementary Course I for Statistics

MM 1131.4 : MATHEMATICS I – DIFFERENTIAL CALCULUS

(2021 Admission)

Time : 3 Hours   Max. Marks : 80

SECTION – I

Answer **all** the questions.

1. Find $\lim\limits_{x \to 0} \dfrac{|x|}{x}$.

2. Suppose that f and g are continuous functions such that $f(1) = 1$ and $\lim\limits_{x \to 1}[f(x) + 3g(x)] = 10$, then find $g(1)$.

3. Find the derivative of $y = \sqrt{x^2 + 2}$.

4. Find the intervals on which $f(x) = x^3 - 4x + 3$ is decreasing.

5. Find the stationary points of the function $f(x) = x^3 - 3x + 2$.

6. Find $\lim\limits_{x \to \frac{\pi}{2}} \dfrac{\cos x}{x - \dfrac{\pi}{2}}$.

7. Define Relative Minimum of a function.

8. Find the domain of the function $f(x, y) = \dfrac{xy}{x - 2}$.

9. Find $\dfrac{\partial f}{\partial y}$ if $f(x, y) = \sin(xy)$.

10. Write the local linear approximation of a two variable function $f(x, y)$ at (x_0, y_0).

(10 × 1 = 10 Marks)

SECTION – II

Answer any **eight** questions.

11. Find $\lim\limits_{x \to 4} \dfrac{x - 2}{(4 - x)(x + 2)}$.

12. Find $\lim\limits_{x \to \infty} \dfrac{2(3x - 4)}{3x + 5}$.

13. Show that $|x - 1|$ is continuous everywhere.

14. Find $\dfrac{dy}{dx}$ if $x^3 + 3xy = 15 + 2x^2 - y^3$.

15. Evaluate $I = \displaystyle\int \dfrac{e^x}{\sqrt{1 - e^{2x}}} dx$.

16. Explain the first derivative test for checking extremum values of a function.

17. Evaluate $\lim\limits_{x \to \frac{\pi}{4}} \dfrac{(1 - \tan x)}{\cos 2x}$.

18. Define the concavity of a function.

19. Find $\dfrac{d^2 y}{dx^2}$ if $x^3 - y^3 = 6$.

20. Show that the function $f(x) = \begin{cases} \dfrac{xe^{\frac{1}{x}}}{1+e^{\frac{1}{x}}}, & x \neq 0 \\ 0, & x = 0 \end{cases}$ is not differentiable at $x = 0$.

21. Find the level curves of a function $f(x,y) = x^2 + 4y^2$.

22. Find $\dfrac{\partial f}{\partial y}$ at $(1,1)$, if $f(x,y) = xe^{xy^2-1}$.

23. Find $\dfrac{\partial^2 f}{\partial x^2}$ at $(1, \pi)$, if $f(x,y) = x\cos(xy)$.

24. Let $f(x,y) = y^2 x + 5x^3$, then find the slope of the surface $z = f(x,y)$ at the point $(-1,1)$ in the y–direction.

25. Let $f(x,y) = x^2 e^y + x$, find f_{yxx} at $(1, 0)$.

26. If $r(x,y,z) = \sqrt{x^2 + y^2 + z^2}$ then find $\dfrac{\partial r}{\partial z}$.

(8 × 2 = 16 Marks)

SECTION – III

Answer any **six** questions.

27. Evaluate :

   (a) $\displaystyle\lim_{x \to \infty} \dfrac{\sqrt{5 + 4x^2}}{5 + 6x}$

   (b) $\displaystyle\lim_{x \to \infty} \sqrt{x^4 + 9} - x^2$.

28. Let $f(x) = \begin{cases} \dfrac{1}{x+2}; & x < -2 \\ x^2 - 5; & -2 < x \le 3 \\ \sqrt{x+13}; & x > 3 \end{cases}$. Find the following limits

(a) $\lim\limits_{x \to -2} f(x)$

(b) $\lim\limits_{x \to 0} f(x)$

(c) $\lim\limits_{x \to 3} f(x)$.

29. Find the positions and natures of the stationary points of the function $f(x) = 2x^3 - 3x^2 - 36x + 2$.

30. Show that the function $f(x) = \dfrac{1}{4}x^3 + 1$ satisfy the hypothesis of the mean value theorem over the interval $[0, 2]$, and find all values of c in the interval $(0, 2)$ at which the tangent line to the graph of f is parallel to the secant line joining the points $(0, f(0))$ and $(2, f(2))$.

31. Evaluate $\lim\limits_{x \to 0} (1 - \sin^2 x)^{\frac{1}{2x^2}}$.

32. Find $\dfrac{dy}{dx}$ if $y = \dfrac{(x-5)^2}{(x^2+1)}$.

33. Find the greatest and least values of $f(x) = 3x^4 - 2x^3 - 6x^3 + 6x + 1$ in $[0, 2]$.

34. Identify the location of intercepts, relative extrema of the function $y = x^3 - 3x + 2$.

35. If $f(x,y) = \begin{cases} -\dfrac{xy}{x^2 + y^2} & (x,y) \ne (0,0) \\ 0 & (x,y) = (0,0) \end{cases}$ then show that $f_x(x,y)$ and $f_y(x,y)$ exist at all points.

36. (a) Define local linear approximation $L(x,y)$ of $f(x,y)$ at (x_0, y_0).

(b) Find $L(x,y)$ at $(3, 4)$ of $f(x,y) = \sqrt{x^2 + y^2}$.

37. Suppose that $w = \sqrt{x^2 + y^2 + z^2}$, $x = \cos\theta, y = \sin\theta, z = \tan\theta$. Use chain rule to find $\dfrac{dw}{d\theta}$ at $\theta = \dfrac{\pi}{4}$.

38. Explain Second derivative test. Find the local extreme value of the function $f(x,y) = xy - x^2 - y^2 - 2x - 2y + 4$.

(6 × 4 = 24 Marks)

SECTION – IV

Answer any **two** questions.

39. (a) Use implicit differentiation to find $\dfrac{dy}{dx}$ for the Folium of Descartes
$$x^3 + y^3 = 3xy$$

(b) Find an equation for the tangent line to the Folium of Descartes at $\left(\dfrac{3}{2}, \dfrac{3}{2}\right)$.

(c) At what points in the first quadrant is the tangent line to the Folium of Descartes horizontal.

40. (a) Find x such that

(i) $\log_{10} x = \sqrt{2}$

(ii) $5^x = 7$

(iii) $\ln(x + 1) = 5$.

(b) A space shuttle taking off generates a sound level of 150 dB near the launch-pad. A person exposed to this level of sound would experience severe physical injury. By comparison, a car horn at one meter has a sound level of 110 dB, near the threshold of pain for many people. What is the ratio of sound intensity of a space shuttle take off to that of a car horn?

(c) Prove that $\dfrac{d}{dx} \ln(x) = \dfrac{1}{x}$.

41. (a) State mean value theorem Determine all the numbers c which satisfy the conclusion of mean value theorem for the function $f(x) = x^3 + 2x^2 - x$ on $[-1, 2]$.

(b) Verify Roll's theorem for the function $f(x) = x^2 + 2x - 8$ in $[-4, 2]$.

42. (a) Evaluate $\lim_{x \to 0} (\cot x)^{1/\log x}$

(b) Calculate $\lim_{x \to 0^+} \left[\frac{1}{x} - \frac{1}{\sin x} \right]$.

(c) Find $\lim_{x \to 0} [1 + \sin x]^{\frac{1}{x}}$.

43. (a) (i) If $f(x, y) = xy + x^2 - 4$ find

(ii) $f(x + y, x - y)$ and

(iii) $f(xy, 3x^2 y^3)$.

(b) If $f(x, y) = xy^2 + \cos(xy)$ then find all second order partial derivatives of $f(x, y)$

(c) $f(x, y, z) = 2x^2 + 3y^2 + 3z^2$ then find $f_{xx}(x, y) + f_{yy}(x, y) + f_{zz}(x, y)$ at $(1, 1, 1)$.

44. (a) Find the point $p(x, y, z)$ closest to origin on the plane $2x + y - z = 0$.

(b) Find the greatest and smallest values of the function $f(x, y) = xy$ takes on ellipse $\frac{x^2}{8} + \frac{y^2}{2} = 1$.

(2 × 15 = 30 Marks)

Reg. No. : ....

Name : ....

First Semester B.A./B.Sc. Degree Examination, June 2022

First Degree Programme Under CBCSS

Language Course – Additional Language – Hindi

HN 1111.1 — HINDI KATHA SAHITYA

(2020 Admission Onwards)

Time : 3 Hours   Max. Marks : 80

I.   एक शब्द या वाक्य में उत्तर लिखिए।

1.   'मां रसोई में रहती है' कहानी के लेखक कौन हैं?

2.   दुखी चमार पंडितजी के घर क्यों आया?

3.   ऐलिस और विल्फ्रेड किसके पास शरण मांगकर आये?

4.   डोमिन काकी कहानी के रचयिता कौन हैं?

5.   ओमप्रकाश वाल्मीकी की आत्मकथा का नाम क्या है?

6.   'कबाडखाना' किसकी कृति है?

7.   कमल किसकी शादी में भाग लेने आया था?

8.   मधुलिका की सहेली का नाम क्या है?

9.   मधुलिका के बोस का नाम क्या है?

10.   आदित्य कौन हैं?

(10 × 1 = 10 Marks)

P.T.O.

II. किन्हीं आठ प्रश्नों के उत्तर करीब 50 शब्दों में लिखिए।

11. दुखी चमार की मृत्यु किन हालातों में हुई?

12. सुन्दरपुर के लोग ज़मींदार के पास क्यों आये?

13. किशोर सिंह के चरित्र पर प्रकाश डालिए।

14. बिट्टो की दादी की चरित्र पर प्रकाश डालिए।

15. बिट्टो को दादी से थप्पड़ क्यों मिली?

16. मां ने अमरुद के पेड़ में पहले उग आये फलों को क्यों फेंक दिया?

17. अमरुद के पेड़ को क्यों काट डाला?

18. कमल की मां हरीश को घर लाने पर नाराज़ क्यों हुई?

19. हरीश सलाम के लिए क्यों नहीं जाना चाहता?

20. क्षमा शर्मा ने किन-किन साहित्यिक विधाओं पर अपनी प्रतिभा दिखायी?

21. मोबाइल उपन्यास में विनय की भूमिका क्या है?

22. नवीन खन्ना का चरित्र कैसा है?

23. मोबाइल उपन्यास में फरहत की भूमिका क्या है?

24. मधुलिका को पदोन्नति मिलने पर आदित्य और विनय की क्या प्रतिक्रिया हुई?

25. फरहत शादी क्यों नहीं करना चाहती थी?

26. आभा आंटी कौन है?

(8 × 2 = 16 Marks)

III. किन्हीं छः प्रश्नों के उत्तर करीब 120 शब्दों में लिखिए।

27. नवीन के प्रति मधुलिका का प्रतिशोध कैसा था?

28. विनय की चरित्रगत विशेषताएं लिखिए।

29. फरहत और मां के रिश्ते पर टिप्पणी लिखिए।

30. अमरुद का पेड़ लेखक के जीवन का अभिन्न अंग कैसे बन गया?

31. दुखी चमार के अंतिम क्षणों का वर्णन कीजिये।

32. 'मां रसोई में रहती है' कहानी में मां का वर्णन कीजिये।

33. डोमिन काकी कहानी का भाव लिखिए।

34. कमल और हरीश की दोस्ती पर टिप्पणी लिखिए।

35. रामपाल की किन बातों पर कमल नाराज़ हुआ?

36. सद्गति कहानी में अभिव्यक्त निम्न वर्गीय शोषण पर टिप्पणी लिखिए।

37. जयशंकर प्रसाद का साहित्यिक परिचय दीजिये।

38. हरीश का ससुर जुम्मन परेशान क्यों था?

(6 × 4 = 24 Marks)

IV. किन्हीं दो प्रश्नों के उत्तर करीब 250 शब्दों में लिखिए।

39. 'मोबाइल' उपन्यास की कथावस्तु लिखिए।

40. 'शरणागत' कहानी का सारांश लिखिए।

41. मोबाइल उपन्यास में आदित्य और विनय की भूमिका पर प्रकाश डालिए।

42. 'सलाम' कहानी में अभिव्यक्त दलित चेतना पर प्रकाश डालिए।

43. सद्गति कहानी में चित्रित समस्याओं पर प्रकाश डालिए।

44. मोबाइल उपन्यास में कामकाजी महिलाओं की समस्याओं का चित्रण कैसे किया गया है?

(2 × 15 = 30 Marks)

Reg. No. : ....

Name : ....

First Semester B.A./B.Sc./B.Com. Degree Examination, June 2022

First Degree Programme under CBCSS

Language Course – I – English

EN 1111.1/EN 1111.2/EN 1111.3 : LANGUAGE SKILLS

(Common for B.A./B.Sc. (EN 1111.1), B.Com. (EN 1111.2) & Career Related Group 2(a) (EN 1111.3))

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

I. Answer **all** questions, each in a word or a sentence.

1. What is entropy?

2. Name two non-verbal cues.

3. Which is the standard form of English used in BBC?

4. What are Consonants?

5. Identify the sounds underlined in the following words :

    (a) ki<u>ng</u>   (b) <u>Th</u>ink

6. Mark stress in the following Words :

    (a) kindness   (b) pity

7. What is CV?

8. What is a blog?

9. What do you mean by gestures?

10. What is netiquette?

(10 × 1 = 10 Marks)

II. Answer any **eight**, each in a short paragraph not exceeding 50 words.

11. Distinguish between verbal and non-verbal communication.

12. Explain entropy, redundancy and noise.

13. Why is listening considered to be a conscious activity?

14. What is intonation? Explain different intonation patterns with examples.

15. What are the four main types of writing?

16. How is a formal letter different from an informal letter?

17. What are the different segments you should bear in mind while writing reports?

18. Differentiate between intensive and extensive reading.

19. Mention some barriers to effective reading.

20. Give a brief description of the format of writing minutes.

21. How can you successfully introduce yourself at a job interview?

22. What is the role of eye contact in communication?

23. Explain strong form and weak form of words with examples.

24. Differentiate between pitch and intonation.

25. Write a paragraph on different forms of editing.

26. Mention some means to improve effectiveness in academic writing.

<div align="right">

(8 x 2 = 16 Marks)
</div>

III. Answer any **six**, each in a paragraph not exceeding **100** words.

27. Complete the conversation given below :

Raju : Excuse me sir, when is the next train to New Delhi today?

Station Master : ————————

Raju : ————————

Station Master : Yes, there is a train at five o'clock in the morning tomorrow.

Raju : That's great, ————————

Station Master : Yes, you can do the booking right away.

Raju : ————————

Station Master : Of course, we offer accommodation.

Raju : ————————

Station Master : The rent varies according to the facilities offered. What kind of room do you need?

Raju : —————————— How can I go to the dormitory?

Station Master : ——————————

Raju : ——————————

28. You are asked to anchor the Merit Day celebrations of your college. Prepare a script for the same.

29. Prepare a speech on Post-covid situation in the field of education.

30. You are the fine-arts secretary of your college. You would like to bring a celebrity artist for the Arts Festival as chief guest and you are talking to him/her over telephone. Prepare at least ten exchanges between you and the artist.

31. Write a blog on the traffic problems in your district.

32. You are interested to begin a startup company. Write an email to Kerala Startup Mission enquiring about the financial assistance you could avail for this business enterprise.

33. Write a script for a podcast on the analysis of a movie you have watched recently.

34. Edit the passage given below :

In developing countries, child marriage still exist and is responsibility for ruining many lives. Similarly, dowry is a very serious and common social issue that almost all classes of people partake in. Another prominent social issues is gender inequality which take away many opportunity from deserving people. Domestic violence especially against women are a serious social issue we must all fight against.

35. Prepare minutes of a meeting conducted by the Nature Club of your college in relation to the World Environmental Day. Imagine you are the coordinator of this Club.

36. Write a report on a proposal for organizing a theatre workshop.

37. Write a letter to your uncle giving him a description of your class project.

38. Prepare notes for the following passage :

Body speaks more eloquently than words. People comprehend through observing the speaker rather than merely listening to the words spoken loudly. Soft skills are about working on your personality, your behaviour patterns, your communication skills and inter-personal skills. You may not be getting grades for

your soft skills as against your hard skills which involve direct evaluation methods. Soft skills become more crucial because it involve your emotional and social intelligence as well.

Soft skills are developed over a period of time, through life situations and social interactions. Nature and nurture play equally important roles in this context. As an adult, one can improve one's life skills by becoming aware of one's self and working towards correcting them. Soft skills can be developed through constant practice and repeated patterns of behavior will get ingrained into a person's character.

(6 × 4 = 24 Marks)

IV. Answer any **two** each in about three hundred words :

39. Write a paragraph on any two of the following :

    (a) College life

    (b) India as a nation

    (c) Online education

40. Employability Centre in your district is making a massive appointment drive. You make an enquiry with the employment officer about the kind of vacancies available according to your qualification and experience. Write the conversation.

41. Write a speech on the topic "Eco-tourism."

42. You would like to apply for the post of marketing executive in a top rated company. Prepare a cover letter and CV to apply for the same.

43. You are interviewing a famous sports person for the weekend edition of a news paper. Write the possible conversation.

44. You have been asked to write a report of the cultural fest held in your hometown recently for a leading daily. Write out the report, along with a suitable title.

(2 × 15 = 30 Marks)

Reg. No. : ....

Name : ....

First Semester B.A./B.Sc. Degree Examination, June 2022

First Degree Programme under CBCSS

Language Course II – Additional Language I – Malayalam

ML 1111.1 : മലയാളകവിത

(2021 Admission)

Time : 3 Hours

Max. Marks : 80

I. ഒരു വാക്കിലോ വാക്യത്തിലോ ഉത്തരമെഴുതുക.

1. കോമ എന്ന കഥാകാവ്യം രചിച്ചതാര്?

2. വീണപൂവ് ആദ്യം പ്രസിദ്ധീകൃതമായതെവിടെയാണ്?

3. സന്താനഗോപാലം എന്ന കാവ്യം ആരുടേതാണ്?

4. പെരുന്തച്ചൻ എന്ന കവിതയിലേക്ക് ജി. കൊണ്ടുവരുന്ന കല്പിതകഥാപാത്രം ആര്?

5. നരകം ഒരു പ്രേമകവിതയെഴുതുന്നു എന്ന കവിത എഴുതിയതാരാണ്?

6. നൈഷധം ചമ്പുവിന്റെ കർത്താവ് ?

7. മലയാളത്തിൽ ആധുനികതക്കു തുടക്കം കുറിച്ച കവിതയേത് ?

8. കൃഷ്ണഗാഥയിലെ വൃത്തം ഏത് ?

9. 'വാരിധി തന്നിൽ തിരമാലകളെന്നപോലെ
ഭാരതീ പദാവലി തോന്നേണം കാലേ കാലേ'
    - ആരുടെ വരികൾ ?

10. വഞ്ചിപ്പാട്ടുവൃത്തത്തിൽ കുമാരനാശാൻ എഴുതിയ കൃതിയേത് ?

(10 × 1 = 10 Marks)

II. **50** വാക്കിൽ കവിയാതെ എട്ടു ചോദ്യത്തിന് ഉത്തരമെഴുതുക.

11. ആ മഹാസത്വൻ നോഹ
        തന്റെ ഗോത്രത്തിൽപ്പെട്ടോ-
    രാണെന്നോ, പരിഭ്രമി
        ച്ചോടുമീയല്ല പ്രാണൻ
    - സന്ദർഭവും സ്വാരസ്യവും വിശദമാക്കുക.

12. 'കരിയും ചാമ്പലും പോലെ കറുത്തൊരപ്പക്ഷികൾ
    തൻ ചരിഞ്ഞ നോട്ടങ്ങൾക്കേകകശരവ്യമായി'
    കാണുന്നതെന്താണ്? വിശദീകരിക്കുക.

13. എന്താണ് കൃഷിപ്പാട്ടുകൾ?

14. 'എണ്ണിയെണ്ണിക്കുറയുന്നിതായുസ്സും
    മണ്ടിമണ്ടിക്കരേറുന്നു മോഹവും'
    - വിശദീകരിക്കുക.

15. 'കനംകൂടി തലയിലെ ഞരമ്പുകൾ പിടച്ചപ്പോൾ
    എവിടെയാണത്താണിയെന്ന് തിരഞ്ഞുമില്ല'
    - കവി എന്താണ് ഉദ്ദേശിക്കുന്നത്?

16. വിലാപകാവ്യങ്ങളെപ്പറ്റി ഒരു കുറിപ്പെഴുതുക.

17. ഉണ്ണിയാർച്ചയുടെ ഒരുക്കം വർണ്ണിക്കുക.

18. ഭക്തിപ്രസ്ഥാനത്തെപ്പറ്റി ഒരു കുറിപ്പെഴുതുക.

2   N – 3762

19. മാറ്റുക മാറ്റുക ചട്ടങ്ങളെയവ
    മാറ്റും നിങ്ങളെയല്ലെങ്കിൽ
    - സന്ദർഭമെന്ത്?

20. 'ആയിരം മണിയുടെ നാക്കടക്കീടാ,മൊറ്റ-
    വായിലെ നാവാർക്കാനും കെട്ടുവാൻ കഴിയുമോ'
    - എന്തുകൊണ്ടാണ് കവി ഇങ്ങനെ ചിന്തിക്കുന്നത്?

21. നാടൻപാട്ടുകളുടെ സവിശേഷതകളെന്തെല്ലാമാണ്?

22. മഴമംഗലത്തിന്റെ 'വനത്തിലെ രാത്രി' വർണ്ണിക്കുക.

23. ആധുനികകവിതയുടെ സവിശേഷതകൾ വിവരിക്കുക.

24. 'രണ്ടു വറ്റിന്നായി ദുർലഭമാം കലാ-
    സ്വർണനിക്ഷേപങ്ങൾ തൂക്കി വിറ്റു'
    - സന്ദർഭമെന്ത്?

25. വർഷകാലത്തിന്റെ പ്രത്യേകതകൾ എന്തെല്ലാം?

26. രാമപുരത്ത് വാര്യർക്ക് മലയാള സാഹിത്യത്തിലുള്ള സ്ഥാനമെന്ത്?

(8 × 2 = 16 Marks)

III. **100** വാക്കിൽ കവിയാതെ **ആറു** ചോദ്യത്തിന് ഉത്തരമെഴുതുക.

27. അനിതാതമ്പിയുടെ കവിതയുടെ പ്രത്യേകതകൾ വിശദമാക്കുക.

28. കുളക്കടവിൽ വെച്ച് അരനൂറ്റാണ്ടിനുശേഷം കവയിത്രി പഴയ കാര്യം ഓർക്കുന്ന സാഹചര്യം വിശദീകരിക്കുക.

29. പാട്ട്, മണിപ്രവാളം എന്നിവയെ സാമാന്യമായി പരിചയപ്പെടുത്തുക.

30. കീഴാളരാഷ്ട്രീയം മലയാളകവിതയിൽ ആവിഷ്ക്കരിക്കപ്പെടുന്നതെങ്ങനെയെന്ന് കണ്ടെത്തുക.

31. കുഞ്ചൻ നമ്പ്യാരും അദ്ദേഹത്തിന്റെ തുള്ളലും ജനകീയമായി നിലനിൽക്കുന്നതിനുള്ള കാരണങ്ങൾ എന്തെല്ലാമാണ്?

32. തന്റെ മകൾക്ക് സംഭവിക്കാൻ സാധ്യതയുള്ള കാര്യങ്ങളെപ്പറ്റി അമ്മയുടെ ഉത്കണ്ഠകളും സ്വപ്നങ്ങളും എന്തെല്ലാമാണ്?

33. ചങ്ങമ്പുഴ സൗന്ദര്യത്തെ വർണ്ണിച്ചിരിക്കുന്നതെങ്ങനെയാണ്?

34. വിനോദഗാനങ്ങളുടെ പ്രത്യേകതകൾ 'ഒരു സ്വപ്നം' എന്ന പാട്ടിനെ അടിസ്ഥാനമാക്കി വിവരിക്കുക.

35. മഹാകാവ്യങ്ങൾ പുതിയ കാലഘട്ടത്തിനു ചേർന്ന കാവ്യരൂപമല്ലെന്നു പറയുന്ന തെന്തുകൊണ്ടാണ്?

36. 'നിന്നെയുപേക്ഷിച്ചു പോകുന്നതെങ്ങനെ' എന്ന് കവിക്ക് തോന്നാനുള്ള കാരണങ്ങളെ ന്തെല്ലാമാണ്?

37. എഴുത്തച്ഛൻ കലികാലത്തെ വർണ്ണിച്ചിരിക്കുന്നതെങ്ങനെയാണ്?

38. വിഷുക്കണിയെക്കുറിച്ചുള്ള വൈലോപ്പിള്ളിയുടെ ഓർമ്മകൾ എന്തെല്ലാമാണ്?

(6 × 4 = 24 Marks)

IV. 300 വാക്കിൽ കവിയാതെ ഉത്തരമെഴുതുക. (രണ്ടെണ്ണം)

39. വടക്കൻപാട്ടുകളുടെ ഭാഷാപരവും പ്രമേയപരവുമായ സവിശേഷതകൾ വിശദമായി പ്രതിപാദിക്കുക.

40. കാല്പനികകവിതയുടെ സ്വഭാവസവിശേഷതകൾ പരിശോധിക്കുക.

41. നാടൻപാട്ടുകൾ, അവയുടെ വർഗ്ഗീകരണം, സവിശേഷതകൾ തുടങ്ങിയവയെപ്പറ്റി ഉപന്യസിക്കുക.

42. കിളിപ്പാട്ട് പ്രസ്ഥാനത്തിന്റെ പ്രത്യേകതകൾ വിശദീകരിക്കുക.

43. ഉത്തരാധുനിക കവിതകൾ മുന്നോട്ടുവെക്കുന്ന സൂക്ഷ്മരാഷ്ട്രീയം എങ്ങനെയുള്ളതാണെന്ന് വ്യക്തമാക്കുക.

44. ഭക്തിപ്രസ്ഥാനത്തെ ശക്തിപ്പെടുത്തുന്നതിൽ പൂന്താനം വഹിച്ച പങ്ക് നിസ്തുലമാണ്. സ്വമതം സ്ഥാപിക്കുക.

(2 × 15 = 30 Marks)