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E – 4482

Reg. No. : .....

Name : .....

**Second Semester B.A./B.Sc. Degree Examination, August 2018**  
**(Career Related First Degree Programme Under CBCSS)**  
**Group 2(a)**  
**Language Course : Additional Language – Hindi**  
**HN 1211.3 : NOVEL AND SHORT STORY**  
**(2017 Admission)**

Time : 3 Hours

Max. Marks : 80

I. निर्देश - एक या दो वाक्यों में उत्तर लिखिये ।

(10×1=10 Marks)

- 1) हीरा और मोती किस जाति की गायें थीं ?
- 2) अज्ञेय ने किन चार पत्रिकाओं का संपादन किया ?
- 3) चूड़ामणि ममता के लिये क्या उपहार लाए ?
- 4) धक्कू ने मेले से क्या-क्या चीजें खरीदीं ?
- 5) 'आप बस नटशेल में बताइये' विस्मय क्या बताने को कह रहा है ?
- 6) प्रेमचंद के उपन्यासों के नाम बताइए ।
- 7) सर्वेश की पहली पत्नी कहाँ और क्या काम करती है ?
- 8) सर्वेश ने टी. वी. के कार्यक्रम में कौन-कौन से व्यंजन बनाये ?
- 9) डाली किस कहानी की पात्र है ?
- 10) यशपाल का पहला कहानी संकलन कौन-सा है ?

II. निर्देश - किन्हीं आठ प्रश्नों के उत्तर लगभग 50 शब्दों में दीजिए ।

(8×2=16 Marks)

- 11) गया के घर में हीरा-मोती किस प्रकार अपमानित हुए ?
- 12) कांसे की थाली खरीदने पर धक्कू पर क्या अत्याचार हुए ?
- 13) चूड़ामणि ममता के लिये उपहार क्यों लाए थे ?

P.T.O.



- 14) धक्कू और लेखक का परस्पर संबंध कैसा था ?
- 15) दलितों की समस्या का यशपाल ने क्या समाधान बतलाया है ?
- 16) अष्टकोण मंदिर के शिलालेख पर क्या लिखा था ?
- 17) 'कोई किसी का पहचान-पत्र नहीं बन सकता।' रुचि ऐसा क्यों कहती है ?
- 18) अंश नशे की चपेट में कैसे आ गया ?
- 19) सहजीवन के बारे में रुचि की राय क्या थी ?
- 20) 'औरत की गुलामी की नींव रसोई में पड़ती है' - ऐसा क्यों कहा गया है ?
- 21) पारिवारिक विघटन का क्या प्रभाव बच्चों पर पड़ता है ?
- 22) रुचि के कार्यक्रम की प्रसिद्धि का कारण क्या था ?

III. निर्देश - किन्हीं छह प्रश्नों के उत्तर लगभग 120 शब्दों में दीजिए। (6×4=24 Marks)

- 23) हीरा और मोती की दांस्ती मनुष्यों के लिये मिसाल है। सप्रमाण सिद्ध कीजिए।
- 24) ममता चूड़ामणि के उपहार को क्यों अस्वीकार करती है ?
- 25) बेटे के किन व्यवहारों से नरोत्तम को दुख पहुँचा ?
- 26) शरीर के अवयवों के बारे में खितीन बाबू की अद्भुत थ्योरी क्या थी ?
- 27) 'तुम मेरी छब्बीस जनवरी, मैं तुम्हारा पंद्रह अगस्त हूँ।' सप्रसंग व्याख्या कीजिए।
- 28) रुचि का चरित्र-चित्रण कीजिए।
- 29) पारिवारिक विघटन की समस्या को उपन्यास में किस प्रकार अभिव्यक्त किया गया है ?
- 30) खोजी पत्रकारिता के महत्व को उपन्यास के आधार पर रेखांकित कीजिए।
- 31) सर्वेश का चरित्र-चित्रण कीजिए।

IV. निर्देश - किन्हीं दो प्रश्नों के उत्तर लगभग 250 शब्दों में दीजिए। (2×15=30 Marks)

- 32) जयशंकर प्रसाद की ऐतिहासिक सांस्कृतिक चेतना को ममता कहानी के आधार पर स्पष्ट कीजिये।
- 33) खितीन बाबू कहानी की समीक्षा कीजिये।
- 34) 'सपनों की होम डेलीवरी' उपन्यास में अभिव्यक्त समस्याओं को स्पष्ट कीजिए।
- 35) 'सपनों की होम डेलीवरी' उपन्यास की शिल्पगत विशेषताओं का विश्लेषण कीजिए।



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Reg. No. : .....

Name : .....

**Second Semester B.Sc. Degree Examination, August 2018**  
**Career Related FDP Under CBCSS**  
**Group 2(a) Physics and Computer Applications**  
**Foundation Course : PC 1221 : INTRODUCTION TO PROGRAMMING**  
**(2014 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A (Very Short Answer Type)**

**One** word to maximum of **one** sentence. Answer **all** questions. **(10×1=10 Marks)**

1. What do you mean by Programming ?
2. Explain the term 'algorithm'.
3. Write a note on union.
4. What is the need of flow chart ?
5. Write a note on break statement.
6. Write the name of two keywords in C.
7. What do you mean by Editor ?
8. Write a note on *goto* statement.
9. What do you understand by the term one dimensional array ?
10. What do you mean by conditional operator ?

P.T.O.

**SECTION – B (Short Answer)**

**Not to exceed one paragraph. Answer any eight questions. Each question carries 2 marks. (8×2=16 Marks)**

11. Write the algorithm to compute  $v = u + at$ .
12. What do you mean by top down approach ?
13. Explain the term 'function' with an example.
14. Explain the symbols used to draw flow chart.
15. Explain different output statements in C.
16. Write a C program to demonstrate switch statement.
17. Write an algorithm to check the given number is even.
18. Write a program to compute the length of a string.
19. Write a short note on basic types of C constants.
20. What do you mean by recursion ?
21. Write a note on Macro substitution.
22. What do you mean by Procedure Oriented Programming ?

**SECTION – C (Short Essay)**

**Not to exceed 120 words. Answer any six questions. Each question carries 4 marks. (6×4=24 Marks)**

23. Write a program to compute the sum of all odd numbers lies between 99 and 332.
24. Write a program to demonstrate structure.
25. Write a program to find transpose of a matrix.
26. Explain various string handling functions with examples.
27. Write a C program to find the smallest number among N numbers.



28. Explain the concept of pointer in C with an example.
29. Explain the concept of File in C.
30. Explain the terms (a) *Call by Value* (b) *Call by reference*.
31. Write a short note on basic control structures.

**SECTION - D (Long Essay)**

Answer **any two** questions. **Each** question carries **15** marks. **(2×15=30 Marks)**

32. What is an operator ? Explain different operator in C ? Explain each.
  33. Write a C program to find the sum of series :  $M = 1! + 2! + 3! + \dots + n!$ . Where  $n! = 1*2* \dots *n$ .
  34. What are the different storage classes in C ? Explain in detail.
  35. Write a C program to demonstrate matrix addition.
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Reg. No. : .....

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**Second Semester B.A./B.Sc./B.Com. Degree Examination, August 2018**  
**First Degree Programme under CBCSS**  
**Language Course IV (English II)**  
**Common for B.A./B.Sc. (EN 1212.1), B.Com. (EN 1211.2) &**  
**Career Related 2(a) (EN 1211.3)**  
**MODERN ENGLISH GRAMMAR AND USAGE**  
**(2013 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

I. Answer **all** questions, **each** in a word or a sentence, following the directions given in brackets.

- 1) The principal promised him a prize. (Identify the predicate)
- 2) He does not come here every day. (Change in to affirmative)
- 3) He came early. (Add question tag)
- 4) There is nothing \_\_\_\_\_ to be said. (further/farther)
- 5) The picture was hanged on the wall. (Correct the mistake)
- 6) The train left before I reached the station. (Rewrite correctly)
- 7) Reading novels is a pleasure. (Begin the sentence with 'it')
- 8) He agreed to give me help. (Rewrite using 'help' as verb)
- 9) I met him on last Friday. (Rewrite correctly)
- 10) A pair of shoes are expensive now a days. (Use the correct form of the verb)

(10×1=10 Marks)

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

- 11) Rewrite as directed.
  - a) She is very tired.  
She cannot walk. (Change into simple sentence)
  - b) He is poor.  
But he is honest. (Change into complex sentence)
- 12) Rewrite as directed.
  - a) Finish your work, I shall wait. (Change into complex sentence)
  - b) He was lazy. He failed. (Change into compound the sentence)
- 13) Give the basic pattern of the following sentence.
  - a) She comes late.
  - b) Mangoes are sweet.



- 14) Correct the following sentences.
- You ever saw a live panther ?
  - We just finished our home work
- 15) Change the voice.
- Did the noise frighten you ?
  - My boss turned my suggestion down.
- 16) Rewrite using the proper verb from the brackets.
- Fifty kilograms \_\_\_\_\_ not a small weight. (is/are)
  - One of my friends \_\_\_\_\_ a motor cycle. (has/have)
- 17) Frame a question so as to get the underlined word as answer.
- The train is two hours late.
  - The jar is made of clay.
- 18) Change into the comparative.
- Nothing else travels as fast as light.
  - Jim is not so generous as John.
- 19) Add suitable question tag.
- You know Mary, \_\_\_\_\_ ?
  - Every one was present, \_\_\_\_\_ ?
- 20) Rearrange the jumbled words in to a meaningful sentence.
- sights/not/such/very/are/common
  - efforts/crowned/his/were/with/success
- 21) Insert the given words in the proper places.
- I reach office early. (usually)
  - The house is big for all of us. (enough)
- 22) Rewrite the following sentences replacing the underlined words with an adverb.
- He hasn't arrived so far
  - She spoke in an arrogant manner

**(8×2=16 Marks)**

III. Answer **any six** of the following as directed.

- 23) Complete the following sentences using the correct form of the verbs.
- When I (finish) my lunch I asked the waiter,  
"Do you know the girl who (sit) over there ?"  
"No sir, I do not know her to speak of. I notice she has lunch here on Saturdays"  
"(Do) she come any other day ?"  
"I never (see) her on other days"



24) Use the correct tenses of the verbs given in brackets.

What (go) on in your house when I (call) on you last night ? I (ring) the bell three times but you (not answer) the door.

25) Rewrite the following sentences inserting appropriate prepositions.

- 1) They will be busy \_\_\_\_\_ the next three days.
- 2) Your membership will expire \_\_\_\_\_ 30 April.
- 3) Your application should reach the Secretary \_\_\_\_\_ 30 June.
- 4) My mother works \_\_\_\_\_ the Health Department.
- 5) She left \_\_\_\_\_ Mumbai yesterday.
- 6) We don't go to school \_\_\_\_\_ Sundays.
- 7) The house was reduced \_\_\_\_\_ ashes.
- 8) She is \_\_\_\_\_ the Committee for Women's Welfare.

26) Rewrite the following in indirect speech.

A : May I come in, sir ?

B : Come in please. How can I Help you ?

A : My son has passed the SSLC exam. I would like to know when the certificates are issued

B : On Monday. The student himself should come and collect the certificate.

27) Correct the following sentences.

- 1) She tried hardly for a first class.
- 2) I am having an uncle in Madras.
- 3) I dislike to eat meat.
- 4) Mary only eats fish on Fridays.

28) Complete the following sentences using suitable modal.

- 1) "\_\_\_\_\_ you come at once, please ?" requested the nurse.
- 2) "It \_\_\_\_\_ rain to night; look at the dark clouds." said Sreelakshmi.
- 3) You \_\_\_\_\_ not advice me what to do.
- 4) They \_\_\_\_\_ pay penalty for late payment.

29) Rewrite as directed.

- 1) They started before sunrise (Change into complex sentence)
- 2) On seeing the dog, the children began to cry (Change into complex sentence)
- 3) In spite of illness, he look cheerful (Change into compound sentence)
- 4) He is a businessman who is reliable (Change into simple sentence)

30) Fill up using articles.

There was \_\_\_\_\_ ugly scar on \_\_\_\_\_ face of \_\_\_\_\_ man who slept on \_\_\_\_\_ floor.





31) Rewrite the following passage providing correct punctuation.

ashoka the greatest king of india in ancient times converted to buddhism after the kalinga war.

**(4×6=24 Marks)**

IV. Answer **any two** of the following.

32) "Self-help is the best help".

33) Write a short essay "Kerala – The God's Own Country".

34) Write a précis of the following passage.

There are hundreds of superstitions which survive in various parts of the country, and the study of them is rather amusing. We are told for example that it is unlucky to point to the new moon or to look at it through glass but if we bow nine times to it, we shall have a lucky month. Nearly all superstitions are concerned with "luck". Good luck is associated with black cats, horse shoes, the finding of a pin etc. Ill luck is associated with the howling of dogs, spilling of salt, crossing of knives, walking under a ladder and scores of other things.

Now suppose you tell a scientist that you believe in a certain superstition \_\_\_\_ Let us say, howling of a dog is a sign of death. The scientist will immediately require evidence before he can accept your belief. He will want figures to prove it. It will be useless quote two or three cases; he will want hundreds. He will want to know (i) if it ever happens that the howling of a dog is not followed by death; (ii) if ever a person's death is predicted by the howling of dogs. The answer to the former question is in the affirmative and the latter in the negative. Your superstition will not bear investigation. It may impress an ignorant person; but it cannot face the light of facts. Your case could not carry conviction in a court of law. Apart from this process of testing by results, any intelligent man will want to know "the reason why". Is there a cause-effect relation between the howling of a dog and a person's death ?

35) Arrange the given sentences in the proper order.

(Hint: Sentence 1 and sentence 10 are in the correct order. The rest of the sentences have to be rearranged as so as to give logical sense to the whole passage.)

Once upon a time it was difficult to decide whether the royal swan or peacock was the king of the universe. Nor are there any royal swans that swim in the shimmering waters of Mansarovar. And the princesses used to scatter pearls across palace courtyards to tempt their swan lovers. Now, no one knows where Mansarovar is. In those days royal swans used to swim in the lakes that were translucent as white pearls. In our time there are no swan lovers who can be seduced by pearls. They exist only in the world of fables and myths. The lakes are dry, the rivers polluted and the air thick with the dust and smoke of bombs. The royal swans have flown away in search of clear air and pure water. Only the poor ducks and geese have been left behind to bear the burden of our times.

**(2×15 = 30 Marks)**

Reg. No. : .....

Name : .....

**Second Semester B.Sc. Degree Examination, August 2018**  
**Career Related First Degree Programme under CBCSS**  
**Group 2(a) : Complementary Course II for Physics and Computer Applications**  
**MM 1231.6 : ANALYTIC GEOMETRY, INTEGRATION, DIFFERENTIAL**  
**EQUATIONS AND MATRICES**  
**(2013 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

## SECTION – I

All the first 10 questions are **compulsory**. They carry 1 mark each.

1. What is the equation of the parabola with focus  $(p, 0)$  and directrix  $x = -p$  ?
2. What is the geometric definition of an ellipse ?
3. Express the integral  $\int_1^3 (2x - 1)^3 dx$  in terms of the variable  $u = 2x - 1$ , but do not evaluate it.
4. If a particle moves along an  $s$  - axis so that its velocity at time  $t$  is  $v(t) = 3t^2 - 2t$ , find the position function  $s(t)$  of the particle when  $s(0) = 1$ .
5. If  $v(t)$  denote the velocity function of a particle that is moving along an  $s$ -axis with a constant acceleration  $a = -2$ , find  $v(t)$  when  $v(1) = 4$ .
6. Solve  $\frac{dy}{dx} = \frac{y}{x}$ .
7. Solve  $4y'' + 4y' - 3y = 0$ .
8. Verify that  $y = e^{-3x} - 3e^x$  is a solution of the differential equation  $y'' - y = 8e^{-3x}$ .
9. Find the rank of the matrix  $\begin{bmatrix} 5 & 3 & 0 \\ 0 & 0 & 5 \end{bmatrix}$ .
10. Find the inverse of the matrix  $\begin{bmatrix} 1 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 4 \end{bmatrix}$ .



## SECTION – II

Answer **any 8** questions from among the questions **11 to 22**. These questions carry **2 marks each**.

11. Sketch the graph of the parabola  $x^2 = 12y$  and show the focus and directrix.
12. Find an equation for the ellipse having the major axis ending at  $(\pm 5, 0)$  and the minor axis ending at  $(0, \pm 2)$ .
13. Find the condition for the line  $y = mx + c$  to be a tangent to the parabola  $y^2 = 4ax$ .
14. A particle moves with a velocity  $v(t) = \sin t$  meters/second along an s-axis. Find the displacement and the distance travelled by the particle during the time interval  $0 \leq t \leq \frac{\pi}{2}$ .
15. Find the volume of the solid generated by revolving the curve  $y^2 = x^3 + 5x$  between the ordinates  $x = 2$  and  $x = 4$  about the x-axis.
16. Define the average value of a continuous function  $f$  on  $[a, b]$  and find the average value of  $f(x) = 3x^2$  on  $[0, 2]$ .
17. Solve  $3e^x \tan y \, dx + (1 - e^x)\sec^2 y \, dy = 0$ .
18. Solve  $(1+x) \frac{dy}{dx} - xy = 1-x$ .
19. Solve  $(D^2 - 3D + 2)y = e^{5x}$ .
20. What are the three basic elementary row operations ?
21. Determine if the following system is consistent. If consistent solve it.  
$$x_1 + 5x_2 = 7$$
$$x_1 - 2x_2 = -2.$$
22. Find the eigen values of the matrix  $A = \begin{bmatrix} 0 & 0 & 0 \\ 0 & 2 & 5 \\ 0 & 0 & -1 \end{bmatrix}$ .



## SECTION - III

Answer **any 6** questions from among the questions **23** to **31**. These questions carry **4 marks each**.

23. If an  $x'y'$  -coordinate system is obtained by rotating an  $xy$ -coordinate system through an angle  $30^\circ$ , using rotation equations, find an equation in  $x'y'$ -coordinates of the curve  $y = x^2$ .
24. Identify and sketch the curve  $9x^2 - 24xy + 16y^2 - 80x - 60y + 100 = 0$ .
25. Find the exact arc length of the curve  $y = 3x^{\frac{3}{2}} - 1$  from  $x = 0$  to  $x = 1$ .
26. Assume that a free fall model applies. A projectile is launched vertically upward from ground level with an initial velocity of 112 ft/s. Find the velocity at  $t = 3$  seconds and  $t = 5$  seconds. Also find how high will the projectile rise.
27. Show that the system of confocal parabolas  $y^2 = 4a(x + a)$  is self orthogonal.
28. Show that  $(x^3 + 3xy^2)dx + (3x^2y + y^3)dy = 0$  is exact and the solve it.
29. Solve  $(D^2 + 3D + 2)y = 2e^{-x} + \sin 2x$ .
30. Solve the system of equations
- $$\begin{aligned}x_1 + 2x_2 - 3x_3 - 4x_4 &= 6 \\x_1 + 3x_2 + x_3 - 2x_4 &= 4 \\2x_1 + 5x_2 - 2x_3 - 5x_4 &= 10\end{aligned}$$

31. Find the row reduced echelon form of the matrix  $\begin{bmatrix} 1 & 2 & -1 & 4 \\ 2 & 4 & 3 & 5 \\ -1 & -2 & 6 & -7 \end{bmatrix}$  and determine its rank.

## SECTION - IV

Answer **any 2** questions from among the questions **32** to **35**. These questions carry **15 marks each**.

32. a) Show by completing the squares that the equation  $x^2 - 5y^2 - 4x - 10y - 9 = 0$  represents a hyperbola and find its asymptotes.
- b) Rotate the coordinate axes to remove the  $xy$ -term and then identify the type of conic  $xy = 1$  and sketch its graph.



33. a) Find the area of the region bounded above by  $y = x + 6$ , bounded below by  $y = x^2$  and bounded on the sides by the lines  $x = 0$  and  $x = 2$ .

b) Find the surface area of a sphere of radius  $a$ .

34. a) Evaluate  $\int_0^a \int_0^{2\sqrt{ax}} x^2 dx dy$  by changing the order of the integration.

b) Solve  $x^2 \frac{d^2y}{dx^2} + x \frac{dy}{dx} + y = \log x$ .

35. Diagonalize the matrix  $A = \begin{bmatrix} -9 & 4 & 4 \\ -8 & 3 & 4 \\ -16 & 8 & 7 \end{bmatrix}$ .

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Reg. No. : .....

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**Second Semester B.A./B.Sc./B.Com. Degree Examination, August 2018  
(Career Related First Degree Programme Under CBCSS)**

**Group 2(a)**

**Language Course – II**

**ML 1211.3 : ദൃശ്യകലാസാഹിത്യം  
(2014 Admn. Onwards)**

Time : 3 Hours

Max. Marks : 80

I. എല്ലാ ചോദ്യത്തിനും രണ്ടു വാക്യത്തിൽ ഉത്തരമെഴുതുക.

- 1) 'ഉയരുന്ന യവനിക' എന്ന നാടക പഠനഗ്രന്ഥം എഴുതിയത് ?
- 2) നിർമ്മാല്യം എന്ന ചലച്ചിത്രത്തിന് ആധാരമായ കഥ.
- 3) നളചരിതത്തിന് എ. ആർ. രാജരാജവർമ്മ എഴുതിയ വ്യാഖ്യാനത്തിന്റെ പേര് എന്ത് ?
- 4) കടവ് എന്ന സിനിമയ്ക്ക് ആധാരമായ 'കടവുതോണി' എന്ന കഥ രചിച്ചത് ?
- 5) നിർമ്മാല്യം എന്ന ചലച്ചിത്രം സംവിധാനം ചെയ്തത് ?
- 6) തുള്ളൽ പ്രസ്ഥാനത്തിന്റെ ഉപജ്ഞാതാവ് ആര് ?
- 7) മലയാളത്തിലെ ആദ്യസോദേശ്യ സാമൂഹിക നാടകം എന്ന് സി. ജെ. വിശേഷിപ്പിക്കുന്നത്.
- 8) യുനസ്കോയുടെ പൈതൃകപ്പട്ടികയിലുൾപ്പെട്ട കേരളത്തിലെ ക്ലാസിക്കൽ കലാരൂപം.
- 9) കഥകളിയുടെ പ്രാചീനരൂപമായ രാമനാട്ടത്തിന്റെ ഉപജ്ഞാതാവ് ?
- 10) നളചരിതത്തിന് ജോസഫ് മുണ്ടശ്ശേരി നൽകുന്ന വിശേഷണം എന്ത്? (10x1=10 മാർക്ക്)









Reg. No. : .....

Name : .....

**Second Semester B.Sc. Degree Examination, August 2018**  
**Career Related First Degree Programme under CBCSS**  
**PHYSICS WITH COMPUTER APPLICATIONS**  
**Core Course**  
**PC 1241 : Environmental Studies**  
**(2015 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

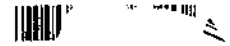
**SECTION – A**  
**(Very Short Answer Type)**

- I. Answer **all** questions (**one** word or **one** sentence). (Mark 1 each)
- 1) Interactions between the abiotic aspects of nature and specific living organisms together form \_\_\_\_\_ of various types.
  - 2) The atmosphere, hydrosphere and lithosphere are all connected through the \_\_\_\_\_ cycle.
  - 3) The \_\_\_\_\_ animals are primary consumers.
  - 4) The food pyramid has a large base of plants called \_\_\_\_\_.
  - 5) The number of species of plants and animals that are present in a region constitutes it's \_\_\_\_\_.
  - 6) Give the expansion of 'CITES'.
  - 7) The \_\_\_\_\_ marks the end of the troposphere and the beginning of the stratosphere.
  - 8) Small pieces of solid materials dispersed into the atmosphere are called \_\_\_\_\_.
  - 9) Development that meets the needs of the present without compromising the ability of future generations to meet their own needs is called \_\_\_\_\_.
  - 10) The management of a single unit of land with its water drainage system is called \_\_\_\_\_.

**SECTION – B**  
**(Short Answer Type)**

- II. Answer **any eight** questions. (Marks 2 each)
- 11) Hydrological cycle.
  - 12) Renewable resources.

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- 13) Biogeographical realms.
- 14) Decomposers.
- 15) Biodiversity.
- 16) Option value.
- 17) Non-persistent pollutants.
- 18) Secondary pollutants.
- 19) Embodied energy.
- 20) Rain water harvesting.
- 21) Ecological footprint.
- 22) Water borne diseases.

**SECTION – C**  
**(Short Essay Type)**

- III. Answer **any six** questions (**not to exceed 120 words**). **(Marks 4 each)**
- 23) Mineral resources.
  - 24) Aquatic ecosystems.
  - 25) Hotspots of biodiversity.
  - 26) Thermal pollution.
  - 27) Solid waste management.
  - 28) Urban problems related to energy.
  - 29) Environment and human health.
  - 30) Conservation of biodiversity.
  - 31) Endangered and endemic species of India.

**SECTION – D**  
**(Long Essay Type)**

- IV. Answer **any two** questions. **(Marks 15 each)**
- 32) Explain the concept of land as a resource. Add a note on land degradation.
  - 33) Give an account of the energy flow in the ecosystem.
  - 34) Describe about the values of biodiversity.
  - 35) Briefly explain disaster management.
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