



DAV PUBLIC SCHOOL

Khetan Lane Dhangawan, Jehanabad
CLASS XII (COMMERCE)



DEEPAWALI & CHHATH PUJA ASSIGNMENT

SUB _ MATHEMATICS

(PREVIOUS YEAR QUESTIONS ON THE TOPIC DIFFERENTIAL EQUATION) 2023

1. Find the general solution of the differential equation:

$$\frac{dy}{dx} = \frac{x+y}{x}$$

2. Solve the differential equation:

$$(1+x^2)\frac{dy}{dx} + 2xy = \frac{1}{1+x^2}$$

3. Find the particular solution of the differential equation:

$$\frac{dy}{dx} = \frac{x(2\log x + 1)}{\sin y + y \cot y}, \text{ given that } y = \frac{\pi}{2} \text{ when } x = 1$$

(5 Marks)

4. Solve the differential equation:

$$\frac{dy}{dx} + y \cot x = 2x + x^2 \cot x, \text{ given that } y(0) = 0$$

5. Find the general solution of the differential equation:

$$e^x \tan y dx + (1 - e^x) \sec^2 y dy = 0$$

6. Solve the differential equation:

$$\frac{dy}{dx} + y = \cos x - \sin x$$

7. Find the particular solution of the differential equation:

$$(x-y)\frac{dy}{dx} = x + 2y, \text{ given that } y = 0 \text{ when } x = 1$$

8. Solve the differential equation:

$$\frac{dy}{dx} + 2y \tan x = \sin x, \text{ given that } y = 0 \text{ when } x = \frac{\pi}{3}$$

9. Find the general solution of the differential equation:

$$\frac{dy}{dx} = \frac{1+y^2}{1+x^2}$$

10. Solve the differential equation:

$$x \frac{dy}{dx} + y = x \cos x + \sin x, \text{ given that } y$$

$$= 1 \text{ when } x = \frac{\pi}{2}$$

11. Find the particular solution of the differential equation:

$$\frac{dy}{dx} = 1 + x + y + xy, \text{ given that } y = 0 \text{ when } x = 1$$

12. Solve the differential equation:

$$(1 + x^2) \frac{dy}{dx} + y = e^{\tan^{-1} x}$$

LONG ANSWER TYPE QUESTIONS (6 Marks Each)

13. Solve the differential equation:

$$x \frac{dy}{dx} + y - x + x y \cot x = 0, \text{ given that}$$

$$y = 0 \text{ when } x = \frac{\pi}{2}$$

14. Find the particular solution of the differential equation:

$$\frac{dy}{dx} = \frac{x(2 \log x + 1)}{\sin y + y \cot y}, \text{ given that } y = \frac{\pi}{2} \text{ when } x = 1$$

15. Solve the differential equation:

$$(x^2 + 1) \frac{dy}{dx} + 2xy = \sqrt{x^2 + 4}, \text{ given that } y = 0 \text{ when } x = 1$$

APPLICATION BASED QUESTIONS

16. The slope of the tangent to a curve at any point (x, y) is $\frac{2y}{x}$. If the curve passes through the point $(1, 1)$, find its equation.

17. The population of a city grows at a rate proportional to the number of inhabitants present at any time. If the population doubles in 10 years, in how many years will it triple?

Subject – English Core
Section – A (Reading Comprehension)

Q.1. Read the following extract on Mental Health and answer the five MCQs that follow:

Extract 1 – Mental Health Awareness

In today's fast-paced world, mental health has become as important as physical well-being. Stress, anxiety, and depression are common among students who face academic pressure and uncertainty about their future. Developing a healthy routine, sharing feelings with trusted people, and engaging in creative activities can help maintain mental balance. Schools must also promote awareness programs to help students overcome emotional challenges and build resilience.

1. What does the passage mainly focus on?
(a) Academic excellence (b) Mental well-being (c) Sports activities (d) Physical strength
2. According to the passage, which of the following is not a way to maintain mental balance?
(a) Sharing feelings (b) Following a routine (c) Ignoring emotions (d) Doing creative work
3. What should schools promote to support students' emotional health?
(a) Extra classes (b) Awareness programs (c) Sports events (d) Study tours
4. The word resilience in the passage means —
(a) Confidence (b) Flexibility (c) Ability to recover quickly (d) Calmness
5. What type of world does the passage describe?
(a) Traditional (b) Slow-paced (c) Fast-paced (d) Peaceful

Q.2. Read the following extract on Entrepreneurship and answer the five MCQs that follow:

Extract 2 – The Spirit of Entrepreneurship

Entrepreneurship is the backbone of economic growth. It encourages innovation and creates new job opportunities. Successful entrepreneurs are those who combine creativity with determination and take calculated risks to turn ideas into reality. In today's world, even young students are exploring start-up ideas, proving that entrepreneurship is not limited by age but driven by passion and vision.

1. What is the backbone of economic growth according to the passage?
(a) Government (b) Technology (c) Entrepreneurship (d) Agriculture
2. Which quality is essential for a successful entrepreneur?
(a) Laziness (b) Determination (c) Dependence (d) Hesitation
3. Entrepreneurship mainly leads to —
(a) Decrease in jobs (b) New job opportunities (c) Loss in economy (d) Unemployment
4. What motivates young students to become entrepreneurs?
(a) Age (b) Wealth (c) Passion and vision (d) Parental pressure
5. The word innovation means —
(a) Discovery (b) Imitation (c) Creativity (d) Modification

Section – B (Literature: On The Face of It)

Answer the following questions in about 40–50 words each:

- Q.3. How does Derry's meeting with Mr. Lamb change his perception of life?
- Q.4. What message does the play On the Face of It convey about acceptance and self-confidence?

- Q.5. Describe the character of Mr. Lamb. How is he different from other people Derry meets?
Q.6. Why does Derry initially avoid people? How does this reflect the theme of isolation in the play?

Section – C (Writing Skills)

Q.7. Write an article in about 150–200 words on the topic:
"Role of Literature in Building Career"

Subject – Hindi

- 1- बिहार से प्रकाशित होने वाले किसी समाचारपत्र या अखबार के सम्पादक को पत्र लिखिए और किसी भी स्तर जातिगत मतभेद को मिटाने के लिए जातिके उत्थान के नाम पर होनेवाली सभा अथवा रैली के विरुद्ध जनजागरण अभियान चलाने का निवेदन कीजिए।
- 2- अपने छोटे भाई या बहन को पत्र लिखिए और दीपावली का महत्व बताइए।
- 3- किसी कवि अथवा लेखक की जीवनी लिखिए और उसकी चर्चित पुस्तकों का उल्लेख कीजिए।
- 4- किसी कविता अथवा कहानी का भावसार अथवा सारांश लिखिए।
- 5- उषाकविता का भावार्थ लिखिए और उसका काव्यसौन्दर्य समझाइए।
- 6- नमकपाठ के माध्यम से लेखक क्या कहना चाहता है ? स्पष्ट कीजिए।
- 7- हाल ही पढ़ी गई किसी पुस्तक अथवा कथा, कहानी या कविता की विशेषताएं लिखिए।
- 8- सोशल मीडिया का महत्व अथवा सोशल मीडिया से लाभ-हानि विषय पर निबंध लिखिए।
- 9- मेरा जीवन कालक्षय अथवा मेरा सपना विषय पर अपने विचार व्यक्त कीजिए।
- 10- काश, मैं शिक्षा मंत्री होता या होती - विषय पर अपना दृष्टिकोण स्पष्ट कीजिए।

Sub: -ACCOUNTANCY

1. Explain the meaning of following terms
 - a. Private Placement of Shares
 - b. Public Issue of Shares for Cash
 - c. Issue of Shares for Consideration other than cash
2. Madhur Ltd. took over the assets of 390000 and liabilities of 40000 of Rasova Ltd. for a consideration of 400000. 20% was paid by a cheque and the balance by issue of fully paid equity shares of 100₹ each at a premium of 60% . Show necessary journal entries for these transaction
3. Sandesh Ltd. took over the assets of ₹700000 and liabilities of ₹200000 from Sanchae Ltd. for a purchase consideration of ₹459500. ₹8500 we're paid by accepting a draft in favour of Sanchar Ltd., payable after three months and the balance was paid by issue of equity shares of 10₹ each at a premium of 10% in favour of Sanchar Ltd. Pass necessary Journal Entries for the above transaction

4. Haryali Ltd. Issued 20000 shares of ₹10 each at a premium of ₹1 , payable as ₹3 on application, ₹4 on allotment and balance on first and final call. One shareholder holding 600 shares paid the amount due on first and final call along with the allotment money. Pass entry....
5. Saturn Ltd. Issued 10000 shares of ₹10 each, payable as ₹6 on application, ₹1 on allotment and ₹3 on first and final call. Application for 16000 shares were received. Shares were allotted on prorata basis and surplus of application money is to be adjusted towards allotment and call money. Pass the necessary journal entries
6. What is meant by Oversubscription of shares
7. What's is meant by Pro- rata allotment of shares.
8. Ratnakar Ltd issue 5000, 13% debentures of ₹100 each at a premium of 20% payable as ₹30 on application and ₹70 on allotment and balance on First and Final call. Record necessary journal entry in the books.
9. What is meant by issue of debentures at Discount
10. State the meaning of Non- Convertible Debentures.

SUB – ECONOMICS

1. The government budget is a statement of:
 - a) Actual receipts and expenditure of the government
 - b) Estimated receipts and expenditure of the government
 - c) Receipts only
 - d) Expenditure only receipts and expenditure of the government
2. The budget is presented in the Parliament by:
 - a) President
 - b) Prime Minister
 - c) Finance Minister
 - d) Comptroller and Auditor General
3. Revenue receipts include:
 - a) Borrowings
 - b) Recovery of loans
 - c) Tax receipts
 - d) Disinvestment
4. Which of the following is a capital expenditure?
 - a) Payment of salaries
 - b) Construction of roads
 - c) Subsidies
 - d) Interest payments
5. Fiscal deficit equals:
 - a) Total expenditure – Total receipts
 - b) Revenue expenditure – Revenue receipts
 - c) Total expenditure – (Revenue receipts + Non-debt capital receipts)
 - d) Revenue receipts – Capital receipts
6. Primary deficit is:
 - a) Fiscal deficit – Interest payments
 - b) Revenue deficit – Fiscal deficit

- c) Capital deficit – Interest payments
d) Total deficit – Fiscal deficit
7. Which of the following is a revenue deficit implication?
a) Borrowing for asset creation c) Borrowing for consumption
b) Fiscal surplus d) Capital surplus
 8. If the government reduces subsidies, its effect on budget deficit will be:
a) Increase b) Decrease c) No change d) Depends on revenue
 9. Assertion (A): Fiscal deficit shows the total borrowing requirements of the government.
Reason (R): Fiscal deficit includes borrowings and other liabilities.
a) Both A and R are true, and R is the correct explanation of A.
b) Both A and R are true, but R is not the correct explanation of A.
c) A is true, R is false.
d) A is false, R is true.
 10. Assertion (A): Capital receipts lead to reduction in assets or increase in liabilities.
Reason (R): Recovery of loans is a capital receipt because it reduces assets.
a) Both A and R are true, and R is the correct explanation of A.
b) Both A and R are true, but R is not the correct explanation of A.
c) A is true, R is false.
d) Both A and R are false.
 11. Explain the components of a government budget and discuss how fiscal deficit and revenue deficit affect the overall economy. Illustrate your answer with suitable examples.
 12. Read the following passage carefully and answer the questions that follow:
The Government of India presented its annual budget for the financial year 2024–25. The budget emphasized increased spending on infrastructure, education, and health. The total expenditure was estimated at ₹45 lakh crore, while total receipts (excluding borrowings) were ₹35 lakh crore. The government also projected a revenue receipt of ₹25 lakh crore and a revenue expenditure of ₹30 lakh crore.
 13. To meet the gap between expenditure and receipts, the government planned to borrow funds from both domestic and foreign sources. The Finance Minister highlighted that such borrowings would help finance capital projects that generate employment and promote long-term growth. However, economists expressed concern about rising fiscal deficits and the burden of public debt.
 14. Define a government budget.
A). Calculate the fiscal deficit and the revenue deficit from the data given above.
B) Differentiate between revenue expenditure and capital expenditure with examples from the case.
C) State one positive and one negative effect of fiscal deficit on the economy.
D). Suggest two measures the government can adopt to reduce its fiscal deficit in future.

SUB – B.ST

1. Do any one project from the approved CBSE project topics.
2. Student must prepare a handwritten project file (25–30 pages) following the CBSE format

Sub- I.P

1. Do Complete Practical work

Sub- Phy.Education

1. What do you mean by oxygen intake and oxygen uptake?
2. Explain any three physiological factors determining strength
3. Elaborate any three physiological factors determining endurance
4. Discuss any three effects of aging process
5. Classify the different types of sports injuries