

10. Describe about the nature of sociology.
11. Write short notes on any two of the following:
 - a. Acculturation
 - b. Social system
 - c. Nature-nurture debate

12. Journalism (311) (Introduction to Journalism & Mass Communication)

Exam 2066

Time: 3 hrs

Full Marks: 100

Attempt any TWO questions from Group 'A' and SIX from Group 'B'.

Group 'A'

2×17=34

1. How does communication bring about social change?
2. Identify and discuss a prominent mass communication model of your choice.
3. Discuss news agency journalism.

Group 'B'

6×6=36

4. How did the 'inverted pyramid' style of news structure development?
5. What are the basic characteristics of news headlines?
6. What is the significance of Op-Ed Page?
7. "A reporter is as good as his news sources". Do you agree?
8. Mention the chief qualities of news.
9. What is depth reporting?
10. Write short notes on any TWO.
 - a) Yellow journalism
 - b) Left flush headline
 - c) Byline

Exam 2067

Time: 3 hrs

Full Marks: 100

Attempt any TWO questions from Group 'A' and SIX from Group 'B'.

Group 'A'

2×17=34

1. Discuss the channel noise and feedback process.
2. What are the key functions of journalism?
3. What are the various types of news?

Group 'B'

6×6=36

4. Portray the state of specialized reporting in Nepal.
5. What are the qualities of news reporter?
6. Draw and discuss the organizational chart of an editorial room.
7. To what do you attribute the growth of FM radio broadcasting in Nepal?
8. How do you promote communication between various social units?
9. Why is sub-editor called the unsung hero of a news organization?
10. Write short notes on any TWO.
 - a) First Nepali daily newspaper
 - b) News beat
 - c) Follow-up news

Exam 2068

Time: 3 hrs

Full Marks: 100

Attempt any TWO questions from Group 'A' and SIX from Group 'B'.

Group 'A'

2×17=34

1. Why is journalism described as literature in a hurry? Give examples.
2. What is the role of feedback in a mass communication model?
3. Compare and contrast print journalism with broadcast journalism.

Group 'B'

6×6=36

4. Discuss some of the major types of news lead.
5. Mention primary sources of news information.
6. Make a plan for a three-editorial page of a daily newspaper.
7. Why are direct quotes importance in a new story?
8. Discuss the social responsibility of news media.
9. Explain the use of photo in news magazines.
10. Write short notes on any TWO.
 - a) Tabloid journalism
 - b) Pressures of deadline
 - c) Message decoding

Exam 2069

Time: 3 hrs

Full Marks: 100

Attempt any THREE questions from Group 'A' and FIVE from Group 'B'.

Group 'A'

3×15=45

1. What are the differences between Mass Communication and Journalism? Describe the role and functions of Journalism in society.
2. Define any one model of communication that disseminate proper information in developing countries like Nepal.
3. Compare and contrast the principles of print and electronic news reporting. Analyse and give examples.
4. What are the key characteristics of newspaper make-up? Explain with text photographs and graphic illustration.

Group 'B'

5×25

5. What are the functions of mass communication in society? Explain.
6. Describe professionalism in communication.
7. What are the differences between development communication and development journalism?
8. Explain 'Medium is the message'.
9. Describe the functions and operation of mass media and their role in national development.
10. What are the similarities in writing for newspaper and television?

Journalism (311.301)

Exam 2070

Time: 3 hrs.

Eng. 311 Full Marks: 70

Attempt any three questions from Group A and five from Group B.

Group 'A'

[3×15=45]

1. Define communication and mass communication. What are the functions of mass communication in society? Explain.
2. Analyze the status of select models of mass communication of your choice? Why are communication models important to interpret society? Explain.
3. Discuss the roles of specialist reporters and general reporters. Give examples.
4. Describe the role of news agencies to promote media professionalism in society.

Group 'B'

[5×5=25]

5. Describe the principles of print and electronic journalism.
6. What are the foundations of a good newspaper make-up?
7. What is the place of investigative reporting in journalism?
8. What is feature writing? Explain the major types of feature writing.
9. What are the differences between radio news writing and TV news writing?
10. Define the status of development communication and development journalism in Nepal.

Attempt any two questions from Group A and six from Group B.

Group 'A'

[2×19=38]

1. What are the features of non-linear model of communication?
2. What are the issues of development reporting in Nepal?
3. Discuss the role of a chief editor of a newspaper.

Group 'B'

[6×7=42]

4. What are the principles of journalism?
5. How is a radio newsroom managed in Nepal?
6. What is the role of media in shaping the political agenda of the country?
7. Describe the authoritarian theory of the press.
8. What are the major types of mass communication? Explain.
9. What is the importance given to follow up in the Nepali news media?
10. 'News editing is a more serious job than collecting a news story.' Give your argument.

13. Mathematics I Paper (Math.311) Calculus

Exam 2066

Time: 3 hrs

Full Marks: 100

Attempt ALL the questions.

Group 'A'

5×7=35

1. Define and deduce the expressions for the polar subtangent and polar subnormal at any point $P(r, \theta)$ of a curve $r = f(\theta)$. Find the angle between the curves $r^2 = a^2 \cos 2\theta$ and $r^2 = b^2 \sin 2\theta$. [1+2+4]
2. State Taylor's series extended to infinity. Let R_n denote the remainder after n terms of the series. Prove that $\lim_{n \rightarrow \infty} R_n = 0$ is both necessary and sufficient condition that the function $f(x+h)$, $|h| < \delta$ can be expanded in an infinite series. Hence show that $\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \dots$ to ∞ for all x . [1+3+3]

OR

State Leibnitz theorem.

If $y = \tan^{-1} x$, prove $(1+x^2)y_1 = 1$ hence show that $(1+x^2)y_{n+1} + 2xy_n + n(n-1)y_{n-1} = 0$

3. Define Beta and Gamma functions.

Prove that: $\int_0^{\frac{\pi}{2}} \sin^m x \cos^n x dx = \frac{\Gamma(\frac{m+1}{2}) \Gamma(\frac{n+1}{2})}{2 \Gamma(\frac{m+n+2}{2})}$ and hence show that $\int_0^{\infty} e^{-x^2} dx = \frac{1}{2} \sqrt{\pi}$

4. How do you define the maximum and minimum values of a function of two variables? Find the minimum values of $x^2 + y^2 + z^2$ when $x + y + z = 3a^2$. [1+2+5]

OR

State and establish Euler's theorem for a homogeneous function of degree n . Use this theorem to show that $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = \tan u$ if $u = \sin^{-1} \left(\frac{x^2 + y^2}{x+y} \right)$. [1+2+4]

5. State the condition of exactness of a first order differential equation. Verify that the equation $(2xy + y^2)dx + (x^2 + 2xy - y)dy = 0$ is exact and hence find its general solution.

Group 'B'

10×4=40

6. What is the angle between the curve $r = \psi(\theta)$, $r = \phi(\theta)$? Show that the curves $ax^2 + by^2 = 1$ and $a^1x^2 + b^1y^2 = 1$ cut orthogonally if $\frac{1}{a} - \frac{1}{a^1} = \frac{1}{b} - \frac{1}{b^1}$ [1+3]

OR

Show that the tangent drawn at the extremities of any chord of the cardioid $r = (1 + \cos\theta)$ which passes through the pole are perpendicular to each other. [4]

7. What do you mean by indeterminate form? Evaluate $\lim_{x \rightarrow 2} \frac{x}{2(\sin)^{\tan x}}$ [1+3]

8. Evaluate $\int_0^{\frac{\pi}{2}} \int_0^{\frac{\pi}{2}} e^x \cos(y-x) dy dx$ [4]

OR

So that $\int_0^1 dx \int_0^1 \frac{x-y}{(x+y)} dy \neq \int_0^1 dy \int_0^1 \frac{(x-y)}{(x+y)} dx$. [4]

9. Show that $\int_0^{\frac{\pi}{2}} \log \sin x dx = \int_0^{\frac{\pi}{2}} \log \cos x dx = \frac{\pi}{2} \log \left(\frac{1}{2} \right)$ [4]

10. Let the circle $x^2 + y^2 = a^2$ revolves round the x-axis, show that the volume of the whole sphere generated is $\frac{4}{3}\pi a^3$ [4]

11. Obtain the reduction formula for $\int \cos ec^n x dx$ and find $\int \cos ec^5 x dx$. [4]

OR

Find from definition, the value of $\int_a^b e^x dx$. [4]

12. Find the complete solution and the singular solution of the equation $y = px + p - p^2$. [4]
13. Find the complimentary function and particular integral of the differential equation $\frac{d^2y}{dx^2} + a^2y = \sec x$. [1+3]

OR

Solve: $(D^2 + 3X + 2)y = e^{2x}$, given that $y = 0, \frac{dy}{dx} = 0$ where $x = 0$. [4]

14. Solve: $\frac{dy}{dx} + \frac{y}{x} = \frac{y^2}{x^2}$ [4]

15. Define Clairaut equation and solve $y = px + \sqrt{a^2p^2 + b^2}$. [4]

Exam 2067

Time: 3 hrs

Full Marks: 100

Attempt ALL the questions.

Group 'A'

5×7=35

1. Define the length of perpendicular from the pole on the tangent to a curve. Also define pedal equation and obtain its expression for the curve $r^2 = a^2 \cos 2\theta$. [3+1+2]

OR

What is the pedal equation of a curve? Deduce its equation from Cartesian equation. Find the Geometrically the pedal equation of the ellipse with respect to focus. [1+3+3]