

4308/2

FACULTIES OF ARTS/SOCIAL SCIENCES

B.A./B.A.(L) (V Semester) Examination

TELANGANA HERITAGE AND CULTURE

(Skill Enhancement Course – 3)

Time : 2 Hours]

[Max. Marks : 40

Answer all questions in serial order.

Section A – (Marks : $4 \times 4 = 16$)

(Short Answer Questions)

1. Answer any four of the following:

- (a) Warangal Fort
- (b) Ramappa Temple
- (c) Kotilingala
- (d) Phanigiri
- (e) Kolanupaka
- (f) Vemulawada.

Section B – (Marks : $2 \times 12 = 24$)

(Essay Type Questions)

Answer all questions.

2. (a) Write a note on Buddhist sites in Telangana State.

Or

(b) Write an essay on Shaiva Temples in Telangana.

3. (a) Write an essay on important Festivals in Telangana.

Or

(b) Write a note on Sammakka Jatara.

[P.T.O.]

4310/2

FACULTY OF COMMERCE & BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

SKILL ENHANCEMENT COURSE – III

(Consumerism)

Time : 2 Hours]

[Max. Marks : 40

Answer **all** questions in serial order.

Section A – (Marks: $4 \times 4 = 16$)

(Short Answer Questions)

1. Answer any **four** of the following:

- (a) Consumerism
- (b) What are professional services?
- (c) Rights of consumers
- (d) Consumer dispute
- (e) Green consumerism
- (f) What are consumer welfare services?

Section B – (Marks: $2 \times 12 = 24$)

(Essay Type Questions)

Answer **all** questions.

2. (a) Discuss the origin, need and scope of consumerism.

Or

(b) What are fair trade practices? Discuss the role of consumer voluntary organisations in curbing unfair trade practices.

3. (a) What are the UN guidelines for consumer protection? Discuss.

Or

(b) Discuss in brief emergence of new consumer movements in India.

[P.T.O.]

10/2

4311/2

FACULTY OF SOCIAL SCIENCES
B.A./B.A. (L) (V Semester) Examination
WATER RESOURCE MANAGEMENT
(Generic Elective-I)

Time : 2 Hours]

[Max. Marks : 40

Answer all questions in serial order.

Section A – (Marks : $4 \times 4 = 16$)

(Short Answer Questions)

1. Answer any four of the following:

- (a) Check dam
- (b) Mini-percolation tank
- (c) Natural resources
- (d) Dugout pond
- (e) Water grid
- (f) Kuls.

Section B – (Marks : $2 \times 12 = 24$)

(Essay Type Questions)

Answer all questions.

2. (a) Write an essay on watershed programme.

Or

(b) What is rain water harvesting? Explain rain water harvesting methods.

3. (a) Explain the problems of overusage of groundwater in Telangana and suggest measures to control it.

Or

(b) Explain the aims and objectives of Mission Kakatiya.

[P.T.O.]

4312/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
PUBLIC HEALTH AND HYGIENE
(Generic Elective-I)

Time : 2 Hours]

[Max. Marks : 40

Answer all questions in serial order.

Section A – (Marks : $4 \times 4 = 16$)

(Short Answer Questions)

1. Answer any **four** of the following:

- (a) Balanced Diet
- (b) Marasmus
- (c) Agricultural labourers
- (d) Rabies disease
- (e) Heart stroke
- (f) ESI Act.

Anemia

Section B – (Marks : $2 \times 12 = 24$)

(Essay Type Questions)

Answer all questions.

2. (a) What is balanced diet? Explain about different types of balanced diet substances.
Or
(b) Give an account on water-soluble vitamins.
3. (a) Explain about the polio disease.
Or
(b) Explain about the Maternity Benefit Act and Biomedical Waste Act.

[P.T.O.]

4313/2

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

ORGANISATIONAL BEHAVIOUR

(General Elective-I)

Time : 2 Hours]

[Max. Marks : 40

Answer all questions in serial order.

Section A – (Marks: $4 \times 4 = 16$)

(Short Answer Questions)

1. Answer any **four** of the following :
 - (a) Define organisational behaviour.
 - (b) What skills make a manager successful?
 - (c) Organisational behaviour Vs. Social Psychology.
 - (d) State the characteristics of formal group.
 - (e) What is trait theory of personality?
 - (f) Define small group.

Section B – (Marks: $2 \times 12 = 24$)

(Essay Type Questions)

2. (a) Discuss in brief the various disciplines contributing organisational behaviour.
Or
(b) Explain the scope and significance of organisational behaviour.
3. (a) What are the types of group? What purposes do group serve? Explain.
Or
(b) Why the study of group behaviour is important in successful functioning of organisation?

[P.T.O.]

313/2

4314/2

FACULTY OF SOCIAL SCIENCES

B.A. (V Semester) Examination

POLITICAL SCIENCE

Paper V

(Ancient & Medieval Political Thought)

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks : $5 \times 4 = 20$)

(Short Answer Questions)

1. Answer any **five** of the following questions:

- (a) Nature of Political Thought
- (b) Aristotle's views on slavery
- (c) Kautilya's Mandala Theory
- (d) Thomas Aquinas Theory of Eternal Law
- (e) Machiavelli's views on Human Nature
- (f) Absolute Sovereignty of Thomas Hobbes.
- (g) State of Nature
- (h) Utilitarianism.

Section B – (Marks : $5 \times 12 = 60$)

(Essay Type Questions)

Answer **all** questions.

2. (a) Explain the methods and significance of political thought.

Or

(b) Analytically describe the comparison of Western Political Thought with Indian Political Thought.

3. (a) Critically explain Plato's theory of ideal state.

Or

(b) Explain Manu's views on 'Dharma' and 'Varna'.

4. (a) Describe the relationship between church and state during the medieval period.

Or

(b) Critically analyse Nicolo Machiavelli's views on 'State Craft'.

5. (a) Explain the Social Contract Theory of John Locke.

Or

(b) Analytically describe Rousseau's views on 'General Will' and 'Popular sovereignty'.

6. (a) Explain the political philosophy of Jeremy Bentham.

Or

(b) Explain J.S. Mill's views on Liberty.

[P.T.O.]

4358/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
BOTANY
Paper V
(Cell Biology and Genetics)

Time : 3 Hours]

[Max. Marks : 80

Answer all questions.

Section A – (Marks : $8 \times 4 = 32$)

(Short Answer Questions)

1. Answer any **eight** questions:

- (a) Plasma membrane
- (b) M.RNA
- (c) Polytene chromosome
- (d) Plasmid
- (e) Significance of Mitosis
- (f) Aneuploidy
- (g) Epistasis
- (h) Linkage
- (i) Gene structure
- (j) Wobble hypothesis
- (k) Transcription
- (l) Promoter.

Section B – (Marks : $4 \times 12 = 48$)

Answer all questions.

(Essay Type Questions)

2. (a) Write the structure of cell wall and its functions.

Or

(b) Describe the structure and functions of chromosome.

[P.T.O.]

3. (a) Write an essay on mitochondrial genome.

Or

(b) Define Meiosis. Write a note on different stages of Meiosis-I and their significance.

4. (a) Discuss Mendel's law of inheritance.

Or

(b) Explain the mechanism of crossing over.

5. (a) What is a gene? Explain the gene organization in eukaryotes.

Or

(b) Describe the process of translation in prokaryotes.

TELUGU VERSION

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

విభాగము A - (మార్కులు : $8 \times 4 = 32$)

(అఘ సమాధానము ప్రశ్నలు)

1. ఏవేని ఎనిమిది ప్రశ్నలకు సమాధానములు వ్రాయుము:

- (a) ప్లాస్మా త్వచం
- (b) M.RNA
- (c) పాలీటెని క్రోమోజోమ్
- (d) ప్లాస్మిడ్
- (e) సమవిభజన ప్రాముఖ్యత
- (f) అన్యప్లాయిడి
- (g) ఎపిస్టాసిస్
- (h) సహలగ్నత
- (i) జన్యు నిర్మాణం
- (j) ఉబల్ ప్రతిపాదన
- (k) అనులేఖనం
- (l) ప్రమోటర్.

4315/2

FACULTY OF SOCIAL SCIENCES

B.A (V Semester) Examination

POLITICAL SCIENCE

Paper VI (a)

(International Relations)

(International Relations in 19th and 20th Centuries - I)

636181005
Time: 3 Hours]

[Max. Marks: 80

Answer all questions.

Section A – (Marks: 5 × 4 = 20)

(Short Answer Questions)

1. Answer any five questions:

- (a) Scope of International Relations.
- (b) Versailles Treaty
- (c) Wilson's 14 Points
- (d) End of Cold War
- (e) Security Council
- (f) Bi-Polar World
- (g) European Union
- (h) Appeasement Policy.

Section B – (Marks: 5 × 12 = 60)

(Essay Type Questions)

Answer all questions.

2. (a) Write an essay on evolution and importance of International Relations.
Or

(b) Examine the salient features of the Sovereign State.

3. (a) What is colonialism? Explain how did colonialism influence the growth of International Relations.
Or

(b) Elucidate the reasons and results of the Second World War.

4. (a) Explain the emergence of Third World. What are the problems faced by the Third World Countries?
Or

(b) What is Cold War? Discuss different stages of it.

5. (a) Define Power. Explain the elements of Power.
Or

(b) Define the concept of Super Power and explain about multi-polar world.

6. (a) Elucidate the success and failures of the UNO.
Or

(b) Write an essay on SAARC.

[P.T.O.]

4437/2

636-18-2022

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

BUSINESS LAWS

Paper II

(Common to all)

Time: 3 Hours]

[Max. Marks: 80

Section A – (Marks: 5 × 4 = 20)

1. Attempt any five questions:
 - (a) Write the differences between Agreement and Contract.
 - (b) Mention the special rules regarding Minor's agreements.
 - (c) What do you mean by breach of contract?
 - (d) Mention the differences between Sale and Agreement to Sell.
 - (e) Write a short note on Consumer Dispute.
 - (f) Define Trademark.
 - (g) Write the rights of Copyright owner.
 - (h) Specify the powers of Central Government with relation to Environmental Protection Act, 1986.

Section B – (Marks: 5 × 12 = 60)

Answer all questions.

2. (a) What is Contract? Write the essentials of a Valid Contract.
Or
(b) State the essentials of a Valid Offer and Acceptance.
3. (a) Define undue influence and explain the effect of undue influence on the contract.
Or
(b) Write about the modes of discharge of a Contract.
4. (a) Discuss the rights of unpaid seller.
Or
(b) Explain the objectives, scope and features of Consumer Protection Act, 1986.
5. (a) What is Intellectual Property? Discuss in detail.
Or
(b) Explain the procedure for Registration of Copyrights.
6. (a) Write the aims and objectives of Information Technology Act, 2000.
Or
(b) What is Environmental Protection Act, 1986? Discuss its scope and objectives.

[P.T.O.]

4359/2

Shashi

636183021

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
BOTANY
Paper VI(a)
(Ecology and Biodiversity)

Time: 3 Hours]

[Max. Marks: 80

Answer all questions.

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

1. Answer any **eight** questions:

- (a) Carbon cycle
- (b) Troposphere.
- (c) Symbiosis
- (d) Soil erosion
- (e) Age Pyramids
- (f) Biological spectrum
- (g) Polyclimax theory
- (h) P/R Ratio
- (i) Earth Summit
- (j) Levels of Biodiversity
- (k) IUCN
- (l) WWF.

Section B – (Marks: $4 \times 12 = 48$)

(Essay Type Questions)

Answer all questions.

2. (a) What is an ecosystem? Give an account of different components of an ecosystem.
Or
(b) What is Ecological Pyramid? Describe about Ecological Pyramid.
3. (a) Explain about soil profile.
Or
(b) Explain about population growth and growth curves.
4. (a) What is Plant Succession? Describe Hydrosere.
Or
(b) Define Productivity. Discuss the kinds of productivity.
5. (a) What is Biodiversity Hotspot? Write in detail about Hotspots of India.
Or
(b) Write in detail about the threats and value of biodiversity.

[P.T.O.]

4359/2

4357/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
MATHEMATICS
Paper VI (b)
(Integral Calculus)

Time : 3 Hours]

[Max. Marks : 80

Answer all questions.

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

1. Answer any eight questions :

(a) Evaluate $\iint_D e^{x^2} dA$, where D is the triangular region with vertices $(0, 0)$, $(1, 0)$ and $(1, 1)$.

(b) Evaluate $\int_0^1 \int_{-\sqrt{1-x^2}}^{\sqrt{1-x^2}} 3 dy dx$.

(c) Use double integral to find the area of the region bounded by $y = x^2$ and $y = x^3$.

(d) Evaluate $\iiint_{[1, e] \times [1, e] \times [1, e]} \left(\frac{1}{xyz} \right) dv$

(e) Change the order of integration and then evaluate the integral $\int_0^2 \int_0^{4-y^2} x dx dy$.

(f) Sketch the region of integration $\int_0^2 \int_{-\sqrt{4-y^2}}^{\sqrt{4-y^2}} (y) dx dy$.

(g) Evaluate $\int_0^1 \int_{1+y}^{2y} \int_z^{y+z} z dx dz dy$.

(h) Integrate the function $f(x, y, z) = 4x + y$, 'W' is the region bounded by $x = y^2$, $y = z$, $x = y$ and $z = 0$.

(i) Integrate the function $(x, y, z) = y$, 'W' is the region bounded by the plane $x + y + z = 2$, the cylinder $x^2 + z^2 = 1$ and $y = 0$.

(j) Let $T(u, v) = (3u, -v)$. Write $T(u, v)$ as $A = \begin{bmatrix} u \\ v \end{bmatrix}$ for a suitable matrix A .

[P.T.O.]

(k) Let $T: \mathbb{R}^3 \rightarrow \mathbb{R}^3$ be the transformation given by

$$T: (\rho, \varphi, \theta) = (\rho \sin \varphi \cos \theta, \rho \sin \varphi \sin \theta, \rho \cos \varphi). \text{ Determine } D = T(D^*), \text{ where } D^* = [0, 1] \times [0, \frac{\pi}{2}] \times [0, \frac{\pi}{2}].$$

(l) Transform the given integral $\int_0^2 \int_0^{\sqrt{4-x^2}} dy dx$ in Cartesian coordinates to in polar coordinates.

Section B – (Marks: $4 \times 12 = 48$)

(Essay Type Questions)

2. (a) Find the volume of the region under the graph of $f(x, y) = 2 - |x| - |y|$ and above the xy -plane.

Or

(b) Let $f(x, y) = \begin{cases} 1; & \text{if } x \text{ is rational} \\ 0; & \text{if } x \text{ is irrational and } y \leq 1 \\ 2; & \text{if } x \text{ is irrational and } y > 1 \end{cases}$

Show that $\int_0^1 \int_0^2 f(x, y) dy dx$ exists and find its value.

3. (a) Change the order integration and then evaluate $\int_{-2}^1 \int_{x^2-2}^{-x} (x-y) dy dx$.

Or

(b) Evaluate $\iiint_B (x^3 e^y + xyz) dv$. Where $B = [-2, 3] \times [0, 1] \times [0, 5]$.

4. (a) Find the volume inside the capsule bounded by the Paraboloids $Z = 9 - x^2 - y^2$ and $Z = 3x^2 + 3y^2 - 16$.

Or

(b) Find the volume of the solid bounded by the paraboloid $Z = 4x^2 + y^2$ and the cylinder $y^2 + z^2 = 2$.

5. (a) Evaluate $\int_{-1}^1 \int_{-\sqrt{1-y^2}}^{\sqrt{1-y^2}} \int_0^{4-x^2-y^2} (e^{x^2} + y^2 + z) dz dx dy$ by using cylindrical coordinates.

Or

(b) Determine $\iiint_W (x^2 + y^2 + 2z^2) dv$. Where 'W' is the solid cylinder defined by the inequalities $x^2 + y^2 \leq 4$, $-1 \leq z \leq 2$.

636-18-1027

4317/2

FACULTY OF SOCIAL SCIENCES

B.A. (V Semester) Examination

ECONOMICS

Paper V

(Indian Economy)

Time: 3 Hours]

[Max. Marks: 80

Answer all questions.

Section A – (Marks: $5 \times 4 = 20$)

(Short Answer Questions)

1. Answer any five questions:

- (a) Human Development Index (HDI)
- (b) NITI Aayog
- (c) Poverty line
- (d) Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)
- (e) Public Distribution System (PDS)
- (f) Crop Insurance
- (g) Classification of Industries
- (h) Information Technology (IT).

Section B – (Marks: $5 \times 12 = 60$)

Answer all questions.

(Essay Type Questions)

2. (a) Explain the difference between Economic Growth and Economic Development.
Or
(b) Explain the various causes for population explosion in India.
3. (a) What are the types of poverty? Explain the causes for poverty in India.
Or
(b) Explain the various Employment generation programmes implemented in India.
4. (a) What are the causes for low productivity in Indian Agriculture? Give suggestions to improve productivity.
Or
(b) What are the causes for Rural Indebtedness in India? Assess its effect on Rural Economy.
5. (a) Critically analyse the 1991 New Industrial Policy.
Or
(b) What is the importance of small-scale industries in India? Mention the problems faced by small-scale industries.
6. (a) Explain the importance of service sector in India.
Or
(b) Write a detailed note on Foreign Direct Investments (FDIs) in Indian context.

[P.T.O.]

4317/2

636-18-2015

4438/2

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

BANKING THEORY AND PRACTICE

(Common to all)

Time: 3 Hours]

[Max. Marks: 80

Section A – (Marks: 5 × 4 = 20)

1. Answer any five questions in not exceeding 1 page each:

- (a) Credit creation
- ~~(b) E-Banking~~
- (c) Bank Rate
- (d) Statutory Liquidity Ratio (SLR)
- ~~(e) NABARD~~
- ~~(f) Cheque~~
- ~~(g) Married Women~~
- ~~(h) Garnishee Order.~~

Section B – (Marks: 5 × 12 = 60)

Answer all essay type questions.

- 2. (a) Define Bank. What are the functions of Commercial Banks?
Or
~~(b) Briefly explain about different types of Banks.~~
- 3. ~~(a) Discuss the various functions of RBI.~~
Or
(b) Explain the credit control measures of RBI.
- 4. (a) Analyse the role of SEBI in regulating the functions of Capital Market in India.
Or
~~(b) Explain the importance and weakness of Co-operative Banks in India.~~
- 5. (a) Define the Banker and Customer. Explain their functions.
Or
~~(b) Explain about different types of customers.~~
- 6. ~~(a) What is Cheque? Explain its features and discuss the liabilities of paying banker.~~
Or
(b) Explain the banker's obligation to honour the cheque and consequences of wrongful dishonour.

[P.T.O.]

Shashi 636183021

4351/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
ZOOLOGY
Paper V
(Physiology and Biochemistry)

Time: 3 Hours]

[Max. Marks : 80

Section A – (Marks: $8 \times 4 = 32$)
(Short Answer Questions)

1. Answer any **eight** questions:
- Write a note on Gastrointestinal Hormones.
 - ~~Compare Myogenic and Neurogenic Hearts.~~
 - ~~Explain carbondioxide transportation.~~
 - Classify the animals based on their Excretory Products.
 - ~~Explain direct synaptic transmission in brief.~~
 - ~~Write a note on Mechanism of Muscle Contraction.~~
 - Explain the mechanism of Enzyme activity.
 - Write a brief note on different phases of Menstrual cycle.
 - Write about Hormonal function of Pancreas.
 - Write a note on functions of Carbohydrates.
 - A short note on Urea Cycle.
 - Write about Synthesis of Fatty Acids.

Section B – (Marks: $4 \times 12 = 48$)

Answer **all** questions.
(Essay Type Questions)

2. (a) Describe the Digestion of Carbohydrates in Human being.
Or
(b) Discuss the structure of Human Heart along with its functions.
3. (a) Describe the structure and functions of Nephron.
Or
(b) Describe the Ultra structure of Skeletal muscle fibre with a neat diagram.
4. (a) Write an essay on the structure of thyroid gland and its Hormonal function.
Or
(b) Discuss on Homeostasis with two examples.
5. (a) Describe the classification of Lipids.
Or
(b) Describe Carbohydrate metabolism.

[P.T.O.]

4364/2

FACULTY OF SCIENCE

B.Sc. (V Semester) Examination

PHYSICS

Paper V

(Electro Magnetism)

Time: 3 Hours]

[Max. Marks : 80

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

I. Answer any **eight** questions. All questions carry equal marks.

1. Derive an expression for potential (V) as a function of electric field (E).
2. Explain about irrotational nature of electric field.
3. Calculate the electric potential on the surface of nucleus having radius of 3.14×10^{-14} meter. The atomic number of silver is 47 and $e = 1.6 \times 10^{-19}$ coulomb.
4. Derive an expression for the force acting between two parallel current carrying conductors.
5. Derive the expression for curl and divergence of magnetic field B.
6. A long straight wire carries a current of 10 ampere. Find the magnetic field at a distance of 10cm from the wire.
7. What is electromagnetic induction? State Faraday's law of electromagnetic induction.
8. State and explain Lenz's law. How it supports law of conservation of energy?
9. In a car spark coil, e.m.f. of 20,000 volt is induced in the secondary when the primary current changes from 4 amp to 0 amp in $20 \mu\text{s}$. Find the mutual inductance between the primary and secondary windings of this spark coil.
10. Write derivative form of Maxwell's equation in free space.
11. Derive Maxwell modified amperes law.
12. Show that $\frac{1}{\sqrt{\mu\epsilon}}$ has same dimensions as velocity. Where μ is permeability and ϵ is permittivity of medium.

[P.T.O.]

Section B – (Marks: $4 \times 12 = 48$)
(Essay Type Questions)

II. Answer any four questions. All questions carry equal marks.

13. (a) Define electric flux and Gauss's law and derive expression for electric field strength at a point near the infinite plane sheet of charge.

Or

(b) Define potential. Calculate the electric potential from electric field for a spherical charge distribution.

14. (a) Find the magnetic field intensity at a point on the axis of a circular coil carrying current. Show by a graph the field varies along the axis.

Or

(b) Explain the torque acting on a current loop. Give the theory of ballistic galvanometer.

15. (a) State and explain Faraday's and Lenz's law in electromagnetic induction. Derive an expression for the self inductance of a long solenoid.

Or

(b) Write Maxwell's equations in differential and integral forms.

16. (a) Starting from Maxwell's equation, derive the wave equation for \vec{E} and \vec{B} in dielectric medium.

Or

(b) Define reflection coefficient and transmission coefficient. Derive their value of E vector in case of reflection from perfect dielectric.

TELUGU VERSION

భాగము - ఎ (మార్కులు : $8 \times 4 = 32$)

(స్వల్ప సమాధానములు ప్రశ్నలు)

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

1. విద్యుత్ క్షేత్ర తీవ్రత E పై ప్రమేయంగా విద్యుత్ పొటన్షియల్ V కి సమీకరణము రాబట్టుము.

2. విద్యుత్ క్షేత్ర తీవ్రత భ్రమణ రహితాత్మకతను వివరించుము.

$$\left(\frac{\mu_0 \mu_r \epsilon_0}{\epsilon_0}\right)^{1/2} = \left(\frac{\mu_r}{\epsilon_0}\right)^{1/2} \Rightarrow \frac{1}{\epsilon_0} = \frac{1}{\epsilon_0} \Rightarrow \epsilon_0 = \frac{1}{\epsilon_0} \Rightarrow \epsilon_0 = \frac{1}{\epsilon_0}$$

4318/2

FACULTY OF SOCIAL SCIENCES

B.A. (V Semester) Examination

ECONOMICS

Paper VI (a)

(Economics of Development and Infrastructure)

Time: 3 Hours]

[Max. Marks : 80

Answer all questions.

Section A – (Marks: $5 \times 4 = 20$)

(Short Answer Questions)

1. Answer any five questions.
 - (a) Physical Quality of Life Index (PQLI).
 - (b) Economic Development.
 - (c) Choice of techniques.
 - (d) Health protective programmes.
 - (e) Energy resources.
 - (f) Social Overhead Costs (SOC).
 - (g) 1976 Population Policy.
 - (h) Types of Insurance.

Section B – (Marks: $5 \times 12 = 60$)

Answer all questions.

(Essay Type Questions)

2. (a) Explain the factors influencing the economic development.
Or
(b) Define Human Development Index. How do you measure it?
3. (a) Write the characteristics of Developing Nations.
Or
(b) Explain the reasons for population explosion.
4. (a) Explain the differences between balanced and unbalanced growth theories.
Or
(b) Explain the unlimited supply of labour theory.
5. (a) Write the significance of Infrastructure Development.
Or
(b) Explain the role of Education in Economic Development.
6. (a) Explain the importance of Transportations in Economic Development.
Or
(b) Explain the structure of Banking Sector in India.

[P.T.O.]

636-18-2015

4439/2

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

COMPUTERISED ACCOUNTING

Paper IV

(Common to all)

Time: 3 Hours]

[Max. Marks: 80

Section A – (Marks: $5 \times 4 = 20$)

1. Answer any **five** of the following. Each question carries **4** marks.

- (a) How to check day book in Tally ERP9?
- (b) Explain about Godown.
- (c) Explain calculation of interest using Tally.
- (d) What is the stock group?
- (e) Enabling of stock categories in Tally.
- (f) What is zero rating under VAT?
- (g) Composition scheme in VAT.
- (h) Accounting Cycle.

Section B – (Marks: $5 \times 12 = 60$)

Answer the following questions. Each question carries **twelve** marks.

2. (a) What is computerized accounting and its importance?

Or

(b) Differentiate between manual accounting and computerized accounting.

3. (a) Show the creation of purchase order and sales order in Tally.

Or

(b) Enumerate Manufacturing Journal with hypothetical data in Tally.

4. (a) Explain the procedure of maintaining accounts of service organizations in Tally.

Or

(b) Discuss the procedure of maintaining accounts of corporate companies in Tally.

5. (a) Explain about various stock valuation methods.

Or

(b) What is Cash Flow Statement? Explain viewing Cash Flow projection in Tally.

6. (a) What are the methods of computation of VAT?

Or

(b) Explain the procedure of enabling VAT in Tally.

[P.T.O.]

Shashikale

4352/2

FACULTY OF SCIENCE

B.Sc. (V Semester) Examination

ZOOLOGY

Paper VI (a)

(Applied Zoology)

Time: 3 Hours]

[Max. Marks : 80

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

1. Answer any **eight** questions:

- (a) Write a brief note on Transportation of Fish seed.
- (b) Explain different types of Fisheries.
- (c) What are the byproducts of Fishes? Explain.
- (d) Write a brief note on prospects of Sericulture in India.
- (e) Describe the structure and function of silk gland.
- (f) Write a brief note on Uzi pest and Protozoan disease of silkworm.
- (g) Describe the economic importance of honey and bee wax.
- (h) Write a note on essential parameters for Vermiculture and its management.
- (i) Explain any two honey bee species used in Apiculture.
- (j) Write a note on White Revolution.
- (k) Describe the viral diseases of Poultry.
- (l) Write briefly about Layers and Broilers.

Section B – (Marks: $4 \times 12 = 48$)

Answer **all** questions.

(Essay Type Questions)

2. (a) Write an essay on Hatchery design and its management in fisheries.

Or

(b) Define induced breeding. Discuss on induced breeding of fishes.

3. (a) Write a detailed account on harvesting and storage of silkworm cocoons.

Or

(b) Describe the life history of Bombyx mori.

[P.T.O.]

4. (a) Describe different beekeeping equipment used in rearing of honey bees in apiculture.

Or

- (b) Write an essay on Vermicomposting.

5. (a) Describe the different methods involved in incubation of eggs and its management.

Or

- (b) Describe preservation of semen and artificial insemination of cattle.

TELUGU VERSION

విభాగము - ఎ (మార్కులు : $8 \times 4 = 32$)

(స్వల్ప సమాధాన ప్రశ్నలు)

1. ఈ క్రిందివానిలో ఏవైనా ఎనిమిది ప్రశ్నలకు సమాధానములను వ్రాయుము.
 - (a) చేపల విత్తన రవాణాపై క్లుప్తంగా వ్యాఖ్యానించండి.
 - (b) చేపల పరిశ్రమలోని రకాలను వివరించండి.
 - (c) చేపల మాధ్యమిక ఉప-ఉత్పత్తులు ఏవి? వాటిని వివరించండి.
 - (d) భారతదేశంలోని పట్టుపరిశ్రమ యొక్క అవకాశాలు గూర్చి వ్యాఖ్యానించండి.
 - (e) పట్టుగ్రంథి నిర్మాణము, దాని విధులను వర్ణించండి.
 - (f) ఊజి చీడకీటకము, ప్రోటోజోవన్ల ద్వారా పట్టుపురుగులకు వచ్చే వ్యాధులపై లఘుటీక వ్రాయుము.
 - (g) తేనె, తేనెటీగల మైనముల ఆర్థిక ప్రాముఖ్యతను వివరించండి.
 - (h) వర్మీకల్చర్ మరియు దాని యాజమాన్యానికి అవసరమయ్యే ప్రమాణాలను వ్యాఖ్యానించండి.
 - (i) తేనెటీగల పరిశ్రమలో ఉపయోగించే రెండు తేనెటీగ జాతులను వివరించండి.
 - (j) శ్వేత విప్లవముపై వ్యాఖ్యానించండి.
 - (k) కోళ్ళపరిశ్రమలో వచ్చే వైరల్ వ్యాధులను వివరించండి.
 - (l) లేయర్స్, బ్రాయిలర్స్ గురించి క్లుప్తంగా వివరించండి.

4365/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
PHYSICS
Paper VI (A)
(Solid State Physics)

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

Answer any **eight** questions.

All questions carry equal marks.

1. Write a short note on reciprocal lattice.
2. What are Miller indices? How they are determined?
3. Calculate the separation between lattice planes in a Face Centered Cubic (FCC) structure.
4. State Curie law. What is Curie temperature?
5. Derive the relation \vec{D} , \vec{E} and \vec{P} in Dielectrics.
6. A Bar magnet of length 10 cm has pole strength of 10 NT^{-1} . Calculate its magnetic dipole moment.
7. Distinguish between metals, insulators and semiconductors.
8. Define effective mass. Deduce the relation for effective mass of an electron.
9. Calculate the concentration of electrons and holes in N-type semiconductor, if the donor density is $10^{22} \text{ atoms/m}^3$ and the intrinsic carrier concentration is $1.5 \times 10^{20} \text{ per m}^3$ at room temperature.
10. Explain the following terms:
 - (a) Spontaneous emission
 - (b) Stimulated emission
 - (c) Population inversion.
 - (d) Metastable State
11. What is meissner effect? Explain.
12. Calculate the energy gap for tin (S_n), whose critical temperature is 3.72 K.

Section B – (Marks: $4 \times 12 = 48$)

(Essay Type Questions)

Answer all questions.

Each question carries equal marks.

13. (a) Name the different experimental methods of x-ray diffraction by crystals. Discuss Powder method in detail. Give the advantages of Powder method.

Or

- (b) Explain in detail the high and low temperature limits and define Debye- T^3 law.

[P.T.O.]

14. (a) Give Weiss theory of Ferromagnetism.

Or

(b) Define polar and non-polar molecules. Deduce Clausius-Mossotti relation for non-polar dielectrics.

15. (a) Explain one dimensional periodic potential by Kronig-Penny model.

Or

(b) What is Hall effect? Derive the equation of Hall effect. Discuss four probe method and uses of Hall effect.

16. (a) Explain working principle and construction of Ruby laser.

Or

(b) Derive London's equations.

TELUGU VERSION

విభాగము ఎ - (మార్కులు: $8 \times 4 = 32$)

(సంక్లిష్ట సమాధాన ప్రశ్నలు)

ఏవైనా ఎనిమిది ప్రశ్నలకు సమాధానములు వ్రాయుము.

అన్ని ప్రశ్నలకు సమాన మార్కులు.

1. రెసిప్రోకల్ లాటిస్ పై లఘుటీకా వ్రాయుము.
2. మిల్లర్ సూచికలు అనగానేమి? వాటిని ఎలా నిర్ణయిస్తారు?
3. ముఖ కేంద్రీకృత నిర్మాణంలో జాలక తలాల మధ్య విభజనను లెక్కించుము.
4. క్యూరి నియమము తెల్పుము. క్యూరి ఉష్ణోగ్రత అనగానేమి?
5. విద్యుత్ నిరోధకాలలో \vec{D} , \vec{E} and \vec{P} ల మధ్య సంబంధం రాబట్టుండి.
6. 10 సెం. మీ. పొడవు గల ఒక బార్ మాగ్నెట్ ధృవసత్వం 10 NT^{-1} అయితే అయస్కాంత ద్విధృవ భ్రామకం లెక్కించండి.
7. వాహకాలు, అర్ధవాహకాలు మరియు బంధకాల మధ్య తేడాలను తెలుపండి.
8. ప్రభావవంతమైన ద్రవ్యరాశిని నిర్వచించుము. ఎలక్ట్రాన్ ప్రభావ ద్రవ్యరాశికి సమీకరణ ఉత్పాదించుము.
9. N-రకం అర్ధవాహకంలో దాత సాంద్రత $10^{22} \text{ atoms/m}^3$ మరియు గది ఉష్ణోగ్రత వద్ద స్వభావ జననవాహక గాఢత $1.5 \times 10^{20} \text{ per m}^3$ అయితే ఎలక్ట్రానులు మరియు రంధ్రాల గాఢతను ఈ N-రకం అర్ధవాహకంలో లెక్కించండి.
10. ఈ క్రింది పదాలను నిర్వచించండి:

(a) యాదృచ్ఛిక ఉద్గారము	(b) ఉత్తేజిత ఉద్గారము
(c) జనాభా విలోమము	(d) మెటాస్టేబుల్ స్టేట్

4321/2

FACULTY OF SOCIAL SCIENCES

B.A. (V Semester) Examination

HISTORY

Paper V

(World History - 1453 to 1815 CE)

[Max. Marks : 80]

Time : 3 Hours]

Answer all questions.

Section A – (Marks: $5 \times 4 = 20$)

(Short Answer Questions)

1. Answer any **five** questions:

- (a) Fall of Constantinople (1453)
- (b) Leonardo da Vinci
- (c) Columbus
- (d) Martin Luther King
- (e) Louis XIV
- (f) Glorious Revolution (1688)
- (g) Textile Industry
- (h) Rousseau.

Section B – (Marks: $5 \times 12 = 60$)

Answer all questions.

(Essay Type Questions)

- 2. (a) Examine the geographical discoveries and their impact on the world.
Or
- (b) Discuss the causes and results of Renaissance in Europe.
- 3. (a) Examine the causes for Reformation Movement in Europe and its results.
Or
- (b) Write a note on Counter Reformation Movement.
- 4. (a) Give an account of the rise of Nation States in Europe.
Or
- (b) Examine the achievements of Frederic the Great.
- 5. (a) Examine the impact of Industrial Revolution on the World Economy and Society.
Or
- (b) Trace the rise of Working Class Movement in Europe.
- 6. (a) Examine the causes and results of American War of Independence.
Or
- (b) Examine the nature of French Revolution and its importance in the World history.

[P.T.O.]

4447/2

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

COMPUTERS

Paper V

(E-Commerce)

Time: 3 Hours]

[Max. Marks: 60

Answer all questions in serial order.

Section A – (Marks: $5 \times 3 = 15$)

1. Answer any five questions:

- (a) Define E-Business.
- (b) What is e-learning?
- (c) What do you understand by Middleware Services?
- (d) What is digital signature?
- (e) What do you mean by smart cards?
- (f) What is Crypto currency?
- (g) EDI via VAN
- (h) What is a Search Engine?

Section B – (Marks: $5 \times 9 = 45$)

Answer all questions.

- 2. (a) Describe the advantages and limitations of e-commerce.
Or
(b) Discuss the classification of e-commerce.
- 3. (a) Why security for e-commerce website is needed? Explain.
Or
(b) What is symmetric encryption? Explain its various examples for it.
- 4. (a) Explain the Mercantile process model from consumer's perspective.
Or
(b) What is EFT? Explain electronic banking and financial payments.
- 5. (a) What is EDI? Explain various types of EDI standards.
Or
(b) Explain EDI applications in business.
- 6. (a) Explain benefits and limitations of e-marketing.
Or
(b) Describe the 5Ps of E-Commerce.

4369/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
CHEMISTRY
Paper V

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks : $8 \times 4 = 32$)

(Short Answer Questions)

Answer any **eight** questions.

All questions carry equal marks.

1. Write the important postulates of crystal field theory.
2. Explain high spin and low spin complexes with examples.
3. Write the applications of complexes.
4. Explain the basicity order of methyl amine, dimethyl amine and trimethyl amine.
5. Write any two preparation methods of alkyl cyanides.
6. Explain Paul-Knorr synthesis with example.
7. Distinguish between order and Molecularity of a reaction.
8. How to determine the activation energy from Arrhenius equation?
9. A first order reaction is found to have a rate constant K of $7.39 \times 10^{-5} \text{ Sec}^{-1}$. Calculate the half life of the reaction.
10. What is fluorescence and phosphorescence and mention important difference between them.
11. Write different types of electronic transitions in molecules with examples.
12. Explain the Jablonski diagram.

[P.T.O.]

Section B – (Marks : $4 \times 12 = 48$)*(Essay Type Questions)**Answer all questions.**Each question carries 12 marks.*

13. (a) (i) Explain the crystal field splitting of 'd' orbitals in Octahedral and Tetrahedral complexes.

(ii) Explain the classification and structure of Boranes.

Or

(b) (i) Explain the factors affecting the stability of complexes.

(ii) How to determine the composition of complex by Job's method?

14. (a) (i) Explain the Hinsberg's separation of 1° , 2° and 3° amines from the mixture.

(ii) Write a short note on Carbylamine reaction and Diazotisation reaction.

Or

(b) (i) Explain the structure and aromaticity of pyridine.

(ii) Explain the nucleophilic substitution in pyridine with example.

15. (a) (i) Derive the rate equation for first order reaction.

(ii) Explain the collision theory of reaction rates.

Or

(b) (i) Derive the rate constant equation for second order reaction.

(ii) Explain the factors which affect the rate of the reaction.

16. (a) (i) Define and explain Einstein's law of photochemical equivalence.

(ii) Define the chromophore, auxochrome and batho-chromic shift.

Or

(b) (i) What is quantum yield? Explain the reason for high quantum yield of photochemical reaction between H_2 and Cl_2 reaction.

(ii) Write a note on Finger print region in IR Spectroscopy.

4322/2

FACULTY OF SOCIAL SCIENCES

B.A. (V Semester) Examination

HISTORY

Paper VI (a)

(History of Telangana – From earliest times to 1724)

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks: 5 × 4 = 20)

(Short Answer Questions)

1. Answer any five questions:

- (a) Gouthami Balasri
- (b) Sri Veera Purusha Dutha
- (c) Indra Bhattaraka
- (d) Arikesari-III
- (e) Rudra Deva (Prathapa Rudra-I)
- (f) Sammakka-Sarakka
- (g) Ibrahim Quli Qutub Shah
- (h) Kancherla Gopanna (Ramadasu).

Section B – (Marks: 5 × 12 = 60)

(Essay Type Questions)

Answer all questions.

2. (a) Explain about the stage of Ancient Telangana history.

Or

(b) Give an account of Art and Architecture of Satavahanas.

3. (a) Write about the contribution of Ikshvakas for Buddhism in Telangana.

Or

(b) Describe the socio-economic conditions of Vishnu Kundins.

4. (a) Write an essay on political history of Mudigonda Chalukyas.

Or

(b) Explain the contribution of Chalukyas for language and literature.

5. (a) Analyse the administration of Kakatiyas.

Or

(b) Explain the contribution of Kakatiyas for the development of Art and Architecture.

6. (a) Write about the main feature of administration system of Qutb Shahis.

Or

(b) Write an essay on Art and Architecture of Qutb Shahis.

[P.T.O.]

636-18-2015

4448/2

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (V Semester) Examination

COMPUTERS

Paper VI

(Object Oriented Programming with C++)

Time : 3 Hours]

Answer all questions in serial order.

[Max. Marks : 60

Section A – (Marks: $5 \times 3 = 15$)

1. Answer any five questions:

- (a) What are data type modifiers in C++?
- (b) What are the jump statements?
- (c) Define Classes.
- (d) What is List ADT?
- (e) Define Inheritance.
- (f) What is setw() Manipulator?
- (g) What are the file pointer handling functions?
- (h) What do you mean by 'try' and 'catch' expressions?

Section B – (Marks: $5 \times 9 = 45$)

Answer all questions.

2. (a) Explain various tokens of C++.

Or

(b) Explain various iteration structures.

3. (a) What is a Constructor? Explain three types of constructors with examples.

Or

(b) What is Dynamic Memory Allocation? How memory is allocated and deallocated in C++?

4. (a) Explain overloading unary and binary operators in C++.

Or

(b) What are the date and time conversion functions used in C++? Explain them.

5. (a) Define Polymorphism and explain its types with examples.

Or

(b) Explain various types of I/O streams.

6. (a) Explain about the exceptions with arguments.

Or

(b) What is Linked List? Explain its types and basic operations.

4370/2

FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
CHEMISTRY
Paper VI (a)

(Instrumental Methods of Analysis)

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks : $8 \times 4 = 32$)

Answer any **eight** questions.
All questions carry equal marks.

1. Describe the principle and applications of thin layer chromatography.
2. What are the factors that affect the retardation factor (R_f) value.
3. Explain the two-dimensional paper chromatography.
4. Describe the experimental procedure for column chromatography.
5. Write the applications of gas chromatography.
6. Discuss about the stationary phase and mobile phase of high performance liquid chromatography.
7. Write the differences between colorimetry and spectrophotometry.
8. Explain about the estimation of Manganese in steel by using colorimetry.
9. Define the following terms:
(a) Transmittance (b) Absorbance
10. Explain the work of Normal Hydrogen Electrode (NHE).
11. Write short notes on overpotential and polarization.
12. Cell constant of a conductivity cell is 0.89 cm. The resistance of 0.01 N solution of an electrolyte is 212 ohms at 25°C. What is the equivalent conductivity of the solution?

Section B – (Marks : $4 \times 12 = 48$)

Answer **all** questions.
All questions carry equal marks.

13. (a) (i) Describe the principle of differential migration.
(ii) Explain in detail about Craig's counter current extraction method.
Or
(b) What is chromatography? Write about ascending and descending chromatography techniques.
14. (a) (i) Explain the principles of ion exchange chromatography.
(ii) Write the applications of column chromatography.

Or

[P.T.O.]

- (b) (i) Explain the principles of gas chromatography.
(ii) Describe the analysis of paracetamol.
15. (a) (i) Derive the Beer Lambert's law and its limitations.
(ii) Explain the instrument of double-beam UV-visible spectrophotometer.
Or
(b) Describe the block diagram of FT-IR Spectrophotometer.
16. (a) (i) Explain the principle involved in potentiometry.
(ii) Explain the construction and working of calomel electrode.
Or
(b) (i) Define specific conductance and equivalent conductance.
(ii) Explain the determination of Aspirin using Potassium Hydroxide (KOH).

TELUGU VERSION

విభాగము A - (మార్కులు : 8 × 4 = 32)

ఏవేని ఎనిమిది ప్రశ్నలకు సమాధానములిమ్ము.

అన్ని ప్రశ్నలకు మార్కులు సమానము.

1. పలుచని పార క్రోమటోగ్రఫీ (TLC) యొక్క ముఖ్యమైన సూత్రము మరియు అనువర్తనాలను వివరించండి.
2. మందన విలువను (R_f) ప్రభావతము చేయు అంశాలను తెలుపండి.
3. ద్విమితీయ పేపర్ క్రోమటోగ్రఫీ పద్ధతిని వివరించండి.
4. కాలమ్ క్రోమటోగ్రఫీ యొక్క ప్రయోగ విధానాన్ని వివరించండి.
5. వాయు క్రోమటోగ్రఫీ (Gas Chromatography) యొక్క ముఖ్య అనువర్తనాలను వ్రాయండి.
6. HPLC యొక్క స్థిర మరియు చర ప్రావస్థలను వివరించండి.
7. వర్ణమాపకం (colorimetry) మరియు వర్ణ పటమాపకం (Spectrophotometry) మధ్య గల భేదాలను వ్రాయండి.
8. స్టీల్ నందలి మాంగనీస్ (Mn) పరిమాణాన్ని నిర్ణయించుటను వివరించండి.
9. ఈ క్రింది పదాలను నిర్వచింపుము:
(a) ప్రసార్యత (Transmittance) (b) శోషణత (Absorbance)
10. ప్రమాణ హైడ్రోజన్ ఎలక్ట్రోడ్ పనిచేసే విధానాన్ని తెలుపండి.
11. ధృవణత్వం (polarization) మరియు అధిక పాటెన్షియల్ (overpotential) పై లఘు వ్యాఖ్య వ్రాయండి.
12. 25°C వద్ద ఒక విద్యుత్ వాహక ఘటము యొక్క ఘట స్థిరాంకము 0.89 cm, మరియు 0.01 N ద్రావణము నిరోధము 212 ohmలు అయినా దాని తుల్యాంక వాహకత ఎంత?

3609/4

FACULTIES OF ARTS/COMMERCE/SOCIAL SCIENCES
B.A./B.A.(L)/B.Com./B.B.A. (III Semester) Examination
COMMUNICATION SKILLS IN ENGLISH/COMMUNICATION SKILLS

Paper III

(Skill Enhancement Course – I)

Time : 2 Hours]

[Max. Marks : 40

Answer all the questions in serial order.

Section A – (Marks: $4 \times 4 = 16$)

(Short Answer Questions)

1. Answer any **four** of the following:

- (a) Barriers of Listening ✓
- (b) Non-Verbal Communication
- (c) Oral Communication
- (d) Importance of Writing ✓
- (e) Effective Listening ✓
- (f) Extempore.

Section B – (Marks: $2 \times 12 = 24$)

(Essay Type Questions)

2. (a) What are the principles of Letter Writing? Explain them with an example.

Or

(b) Explain about Agenda and prepare an Agenda for a meeting.

3. (a) What are the advantages of an E-mail? Discuss with an example.

Or

(b) Write the essential of a good meeting.

3645/4

FACULTY OF SCIENCE

B.Sc. (III Semester) Examination

COMPUTER BASICS AND AUTOMATION

636194136

Paper III

(SEC - I)

Time : 2 Hours]

[Max. Marks : 40

Section A – (Marks: $4 \times 4 = 16$)

1. Answer any **four** of the following:

- (a) Generation of Computer
- (b) Primary memory Vs Secondary memory
- (c) Magnetic disk
- (d) Recycle Bin
- (e) Web browser
- (f) Automation system.

Section B – (Marks: $2 \times 12 = 24$)

Answer all questions.

2. (a) Draw and explain the basic architecture of a processor.

Or

(b) Explain the advantages and disadvantages of different types of computers.

3. (a) Write steps to create, save, open and close an excel file.

Or

(b) Briefly explain the concept of mail-merge in MS Word.

3617/4

FACULTIES OF ARTS/SCIENCE/COMMERCE/SOCIAL SCIENCES

B.A./B.A.(L)/B.Sc./B.Com./B.B.A. (III Semester) Examination

GENERAL ENGLISH

Paper III

Time : 3 Hours]

[Max. Marks : 80

Answer the following questions in the serial order from 1 to 5.

Section A – (Marks : 4 × 5 = 20)

1. Answer any four of the following questions:

(A) Find out the errors in the parts of the given sentences labelled A/B/C/D:

(5 × 1 = 5)

1. He (A) / went (B) / to the market, (C) / doesn't he? (D)
2. The four (A) / thieves (B) / shared the money (C) / between themselves. (D)
3. The students (A) / go (B) / on a picnic (C) / yesterday. (D)
4. The scissors (A) / is (B) / very sharp (C) / and shiny. (D)
5. My mother (A) / gives (B) / me (C) / many advices. (D)

(B) Rewrite the following sentences by correcting the underlined part: (5 × 1 = 5)

1. The furniture are not suitable to this room.
2. She knows English beside Telugu.
3. My friend is poor in Mathematics.
4. If we will run fast, we will reach the station.
5. She has been working hard since one hour.

(C) Write a Dialogue between the clerk and customer at the post office. (5 × 1 = 5)

(D) Write the prefix or suffix word given in the bracket: (5 × 1 = 5)

1. locate
2. accomplish
3. continue
4. complete
5. happy

(un, in, ment, dis, tion)

(E) Read the following passage and answer the questions that follow: (5 × 1 = 5)

Truthfulness is the master key. Do not lie under any circumstances whatsoever. Keep nothing secret, take your teachers and your elders into your confidence and make a clean breast of everything to them. Bear ill-will to none, do not say an

[P.T.O.]

evil thing of anyone behind his back; above all, 'to thine ownself be true' so that you are false to no one else. Truthful dealing, even in the least little things of life is the only secret of life.

1. What is considered as the master key?
2. What should not we do under any circumstances whatsoever?
3. Whom do we take into our confidence in explaining everything?
4. How can one remain false to no one else?
5. Who is the author of the above passage.

(F) Read the following passage and answer the questions that follow: (5×1= 5)

One of the most significant developments in recent years has been the increased importance of interpersonal skills in almost every type of work setting. For many employers, interpersonal skills represent an important category of transferable skills a worker is expected to bring to the job. Technical ability only is usually not enough to achieve career success. Studies indicate that many people who have difficulty in obtaining or holding a job possess the needed technical competence but lack interpersonal competence.

1. What is the most significant development in recent years?
2. How do interpersonal skills represent for many employers?
3. What is only not enough to achieve career success?
4. What does the study indicate in obtaining or holding a job?
5. Find out the word from the passage, which means 'proficiency or ability'.

Section B – (Marks : 60)

Answer all the questions.

2. Attempt either A or B of the following:

(1 × 10 = 10)

~~A.~~ Write a letter to the District Collector requesting to conduct a job fair at your college.

Or.

~~B.~~ Write a paragraph based on the following hints:

Discipline - law of nature - man's best interest - all walks of life - backbone of character - great achievement - without discipline - life has to suffer - disliked by all - does not get success - does not win - in army - discipline is utmost - compulsory element - student's life.

3. Attempt either A or B of the following:

(1 × 10 = 10)

A. Make notes on the following paragraph:

Educational technology is the use of both physical hardware, software and educational theoretic to facilitate learning and improving performance by creating, using and managing appropriate technological processes and resources. It encompasses several domains including learning theory, computer-based training, online learning and where mobile technologies are used, m-learning. Accordingly, there are several discrete aspects to describing the intellectual and technical development of educational technology. Educational technology as technological tools and media, for instance massive online courses, assist in the communication of knowledge and its development and exchange. This is usually what people are referring to when they use educational technology.

Or

B. Expand the following proverb in about 125 words.
“Time and tide waits for none”.

4. Attempt any two of the following Essay Questions in about 125 words each.

(2 × 10 = 20)

- A. Give an account of helplessness experienced by the old father in the story *The Touch*.
- B. How does the narrator feel about her father's affection in her childhood.
- C. What does Gandhi advocate to students about truthfulness?
- D. What are the defects of rural civilisation, according to Gandhi?

5. Attempt any two of the following annotations in about 125 words each.

(2 × 10 = 20)

- A. “The anti-goddess Poverty
Sucks his blood for pleasure”
 - B. “Could you ask god to show me
What my karma was?”
 - C. “The rules are there but in this controversy, we will end up harming mathematics,
Ramanujan and ourselves.”
 - D. “Very right ... He is another visionary born in India.”
-

3611/4

FACULTIES OF ARTS/SCIENCE/COMMERCE/SOCIAL SCIENCES

B.A./B.A.(L)/B.Sc./B.Com./B.B.A. (III Semester) Examination

TELUGU

Paper III

(Second Language)

Time : 3 Hours]

[Max. Marks : 80

భాగము ఎ-(మార్కులు : 4 × 5 = 20)

1. ఈ క్రింది వానిలో ఏవేని నాలుగు ప్రశ్నలకు సంక్షిప్తంగా సమాధానాలు వ్రాయండి:
- (అ) మా మనము నిశ్చింతంబుగా చేయుమీ
(ఆ) అభయమిప్పింపుడే అవనీశు చేత
(ఇ) గోసబుద్ధారెడ్డి
(ఈ) వానమామలై జగన్నాథాచార్యులు
(ఉ) జానుమద్ది హనుమచ్ఛాస్త్రి
(ఊ) దాశరథి రంగాచార్య.

భాగము బి-(మార్కులు : 4 × 15 = 60)

2. ఈ క్రింది పద్యానికి సమగ్ర వ్యాఖ్యగాని, ప్రశ్నకు సమాధానంగాని వ్రాయండి:
- (అ) అరుణ గభస్తిబింబముద యాద్రి పయింబొడతేర గిన్నెలో
పెరుగును పంటకంబు వడపిందియలుం గుడువంగఁ బెట్టుని
ర్భర కరుణా ధురీణ యగు ప్రాణము ప్రాణము తల్లి యున్నదే?
హరహర! యెవ్వరింక కడుపారసి పెట్టెద రీప్సితాన్నముల్.
- లేదా
- (ఆ) సోమిదమ్మ పుత్రప్రేమను వివరించండి.
3. (అ) సాగరయ్య వృత్తాంతాన్ని వివరించండి.
- లేదా
- (ఆ) తొలక్ 'ఆర్తగీతాన్ని' విశ్లేషించండి.
4. (అ) సి.పి. బ్రౌన్ సాహిత్య సేవను వివరించండి.
- లేదా
- (ఆ) 'కొండమల్లెలు' కథ నామౌచిత్యాన్ని విశ్లేషించండి.

[P.T.O.

5. (అ) ఈ క్రింది వానిలో ఏదైనా ఒక ప్రశ్నకు సమాధానం వ్రాయండి.

(i) 'చలిచీమలు' నాటక ఇతి వృత్తంను చిత్రించండి.

లేదా

(ii) వైకుంఠం పాత్ర చిత్రణను విశ్లేషించండి.

(ఆ) ఈ క్రింది వానిలో ఏవేని రెండింటికి సంక్షిప్త సమాధానాలు వ్రాయండి.

(i) విశాలాక్షి

(ii) రంగడు

(iii) సురేష్

(iv) గోవిందయ్య

3624/4

FACULTY OF SOCIAL SCIENCES

B.A. (III Semester) Examination

POLITICAL SCIENCE

Paper III

(Indian Government and Politics)

(Basics of Indian Constitution and Citizenship)

Time: 3 Hours]

[Max. Marks : 80

Answer all questions.

Section A – (Marks: 5 × 4 = 20)

(Short Answer Questions)

1. Answer any five questions:

- (a) Philosophical foundations of Indian Constitution
- (b) Right to equality
- (c) Election of President
- (d) Lok Sabha
- (e) State Governor
- (f) State Legislature
- (g) Dalit Movements
- (h) Tribal Movements.

Section B – (Marks: 5 × 12 = 60)

Answer all questions.

(Essay Type Questions)

2. (a) Explain briefly different phases of Indian National Movement.

Or

(b) Explain the important Unitary and Federal features of Indian Constitution.

3. (a) Discuss the differences between Fundamental Rights and Directive Principles of State Policy.

Or

(b) Critically analyse the Directive Principles.

4. (a) Discuss the position and importance of the Prime Minister in Indian Political System.

Or

(b) Describe the composition, powers and functions of Supreme Court of India.

5. (a) Critically examine the powers and functions of the Chief Minister of a State.

Or

(b) Explain the powers and functions of a High Court of a State.

6. (a) Critically examine the Environmental Movements in India.

Or

(b) Write an essay on Women's movements.

[P.T.O.]

3596/4

629142010

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT

B.Com. (III Semester) (CBCS) Examination

ADVANCED ACCOUNTING

Paper I

Time: 3 Hours]

[Max. Marks : 80

Answer all questions in serial order.

Section A - (Marks: $5 \times 4 = 20$)

1. Answer any five of the following:

- (a) Write the contents of Partnership Deed.
- (b) A and B share profits in the ratio of 7:3. C was admitted as a partner. A surrendered $\frac{1}{7}$ th of his share and B $\frac{1}{3}$ rd of his share in favour of C. Calculate new profit sharing ratio.
- (c) Mention the reasons for the dissolution of a partnership firm.
- (d) A and B were in partnership and agreed to dissolve. The assets realized Rs.80,000. The liabilities were as follows:
Sundry Creditors Rs. 45,000. Loan from A Rs. 20,000; A's Capital Rs.10,000. B's Capital Rs. 15,000. They shared profit and losses in proportions A $\frac{3}{5}$ th and B $\frac{2}{5}$ th.

Show by means of ledger accounts how the cash realized should be distributed.

- (e) Explain 'Underwriting'.
- (f) The Balance Sheet of Z Company Ltd. is as follows:

Liabilities	Rs.	Assets	Rs.
40,000 equity shares of Rs. 10 each fully paid	4,00,000	Sundry Assets	10,00,000
Reserves	6,00,000		
Total	10,00,000		10,00,000

It is decided to issue one fully paid up bonus share for every share held. Pass the journal entries.

[P.T.O.]

- (g) What do you mean by Profits prior to Incorporation?
- (h) X Ltd. agrees to purchase the business carried by Y Ltd. Goodwill for this purpose is agreed to be valued at three years purchase of the weighted average profits of the previous five years, the weights to be used are: 1st year-1, 2nd year-2, 3rd year-3, 4th year-4, 5th year-5.

Profits for the five years are:

First year Rs. 30,000; Second year Rs. 36,000; Third year Rs. 45,000; Fourth year-Rs. 49,000 and Fifth year Rs. 52,000.

Section B – (Marks: 5 × 12 = 60)

(Essay Type Questions)

Answer all questions.

2. (a) Explain the adjustment of Capitals when a new partner is admitted into partnership business.

Or,

- (b) The following is the Balance Sheet of A and B who share profits in the ratio of 3:2 as on 1st January 2018:

Liabilities	Rs.	Assets	Rs.
S. Creditors	40,000	Buildings	36,000
A's Capital	40,000	Plant & Machinery	30,000
B's Capital	50,000	Stock	24,000
		Debtors	20,000
		Bank	20,000
	1,30,000		1,30,000

On this date, C was admitted on the following terms:

- (i) He has to pay Rs. 50,000 as his Capital and Rs. 20,000 as his share of goodwill for one-fifth share in profits.
- (ii) The new Profit sharing ratio will be 5:3:2.

(iii) The assets are to be revalued as under:

Buildings	Rs. 50,000
Plant and Machinery	Rs. 24,000
Debtors (because of doubtful debts)	Rs. 19,000

(iv) It was found that there was a liability for goods received but not recorded in books Rs. 3,000.

Give Journal entries to record the above. Also give the Balance Sheet after C's admission.

3. (a) Write a detailed explanation on Garner Vs. Murray case.

Or

(b) A, B and C were in partnership sharing profits and losses equally. Since C had become bankrupt, they decided to dissolve the partnership in which date their Balance Sheet was as follows:

Liabilities	Rs.	Assets	Rs.
Sundry Creditors	25,000	Cash	5,000
A's Loan	10,000	Debtors	30,000
Capitals:		Stock	40,000
A - 30,000		Furniture	5,000
B - <u>20,000</u>	50,000	C's Capital	5,000
	85,000		85,000

All the assets were realized (except cash) for Rs. 65,000. The expenses of realization amounted to Rs. 2,000. C's private estate is not sufficient even to pay his private debts.

From the above, prepare Realization Account, Capital Accounts and Bank Account to close the books of the firm.

4. (a) Define Bonus Share. When are they issued? Explain the sources from which they are issued.

Or

- (b) Surya Company Ltd, was registered with a capital of Rs. 20,00,000 divided into 80,000 shares of Rs. 25 each. The Company offered to public subscription 50,000 shares payable at Rs. 5 per share on Application, Rs. 10 on Allotment and the balance in two Calls i.e. Rs. 5 each. The company received applications for 40,000 shares. All the money was duly received. Make Journal entries to record the issue of shares and show how share capital will appear in the Balance Sheet.
5. (a) From the following particulars furnished by X Co. Ltd., prepare Profit and Loss Statement for the year ended 31st March, 2018:

	Rs.
Sale of Products	10,80,000
Stock on 1-4-2017:	
Work-in-progress	36,000
Finished Goods	97,000
Raw Materials	1,35,000
Purchase of Raw Materials	4,80,000
Salaries and Wages	1,40,000
Power and Electricity Expenses	15,000
Depreciation	40,000
Interest on Debentures	18,000
Interest received	7,800
Interest paid on other borrowings	8,500
Dividends received	9,400
Commission on sales	9,000

	Rs.
Audit fees and expenses	10,000
Profit on sale of investments	5,000
Provision for Doubtful Debts (to be provided)	5,300
Managing Director's Remuneration	26,000
Profit on sale of fixed assets	16,000
Income Tax (current)	75,000
Deferred tax	12,000
Stock on 31-3-2018:	
Raw Materials	60,000
Work-in-progress	40,000
Finished goods	50,000

Or

- (b) The Promoters of proposed New Star Ltd. purchase a running business on 1st January 2018 from New Moon Ltd., and the company was incorporated on 1st May 2018. The combined Profit and Loss Accounts of the Company prior to and after the date of incorporation is as under:

Profit and Loss Account for the ended 31st December, 2018:

Dr		Cr	
Particulars	Rs.	Particulars	Rs.
To Rent, Insurance and salaries	16,900	By Gross Profit	1,50,000
To Director's sitting fees	3,600	By Discount received	6,000
To Carriage outwards and selling expenses	5,500		
To interest paid to Vendors	10,000		
To Profit	1,20,000		
Total.	1,56,000	Total	1,56,000

[P.T.O.]

Following further information is available:

1. Sales upto 30-4-2018 were Rs. 3,00,000 out of total sales Rs.15,00,000 of the year.
2. Purchases upto 30-4-2018 were Rs. 3,00,000 out of total purchases of Rs. 9,00,000 of the year.
3. Interest paid to Vendors on 1-11-2018 @ 12% p.a. on Rs. 1,00,000 being purchase consideration.

From the above information, prepare Profit and Loss Account for the year ended 31st December 2018 showing the Profit earned prior to and after incorporation and also show the transfer of the same to the appropriate accounts.

6. (a) What is Goodwill? Explain the factors influencing goodwill and write the need for valuing it.

Or

- (b) From the following information, find out the value of each share:

Balance Sheet of X Co. Ltd.

Liabilities	Rs.	Assets	Rs.
Share Capital: 20,000 Equity shares of Rs. 10 each	2,00,000	Fixed Assets:	
Reserves and Surplus:		Goodwill	1,90,000
Reserves	2,50,000	Investments	3,00,000
Profit and Loss A/c	30,000	Current Assets, loans and advances:	
Unsecured Loans	80,000	a) Current assets	50,000
Current Liabilities	20,000	b) Loans & advances	30,000
		c) Misc. expenditure	10,000
	5,80,000		5,80,000

3562/4

FACULTY OF SCIENCE
B.Sc. (III Semester) Examination
BOTANY
Paper III

(Taxonomy of Angiosperms and Medicinal Botany)

Time: 3 Hours]

[Max. Marks : 80

Answer all questions.

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

1. Answer any **eight** questions:

- (a) APG
- (b) Cytotaxonomy
- (c) Artificial classification
- (d) Tendrils in cucurbitaceae
- (e) Spiklet
- (f) Pollination mechanism in Lamiaceae
- (g) Folk Medicine
- (h) Unani system of Medicine
- (i) AYUSH
- (j) Aswagandha
- (k) Nela Usiri
- (l) Brahmi.

636193009

Section B – (Marks: $4 \times 12 = 48$)

Answer all questions.

(Essay Type Questions)

2. (a) Give an account of Engler and Prantl. System of Classification.

Or

(b) Write an essay on herbarium.

3. (a) Describe the floral characters of Orchidaceae.

Or

(b) Mention the floral characters of Asclepiadaceae.

4. (a) Write an essay on basic concepts of Ayurveda.

Or

(b) Write a note on common medicinal plants used in primary healthcare.

5. (a) What is Pharmacognosy? Mention its aspects studied by you.

Or

(b) Write an essay on adulteration of crude drugs and methods of identification.

[P.T.O.]

3560/4

110

FACULTY OF SCIENCE
B.Sc. (III Semester) Examination
MATHEMATICS
Paper III
(Real Analysis)

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks: $8 \times 4 = 32$)

(Short Answer Questions)

Answer any eight questions.

1. (a) Show that the sequence $a_n = (-1)^n$ does not converge. $(a_1, a_2, \dots, a_n) = (-1)^n$
- (b) Prove that every convergent sequence is cauchy sequence. (-2)
is convergent
- (c) What is a bounded sequence? What is a Cauchy sequence? Give an example for each. $(a_1, a_2, a_3) \quad (-1)^1, (-2)^1, (-3)^1$
- (d) Prove that every sequence $\langle s_n \rangle$ has a monotone subsequence. $(-3)^1, 3$
- (e) If $a_n = 3 + 2(-1)^n, \forall n \in \mathbb{N}$ then list the first eight terms of the sequence $\langle a_n \rangle$.
Give a subsequence that is constant.

(f) Verify convergence of the series $\sum \frac{n!}{n^4 + 3}$.

(g) Find the radius of convergence and interval of convergence of $\sum \left(\frac{n^3}{3^n}\right) x^n$.

(h) If $f_n(x) = \frac{n + \cos x}{2n + \sin^2 x}$ for all real numbers x , then show that $\langle f_n \rangle$ converges uniformly on the \mathbb{R} .

(i) Show that $\sum \frac{\cos nx}{n^2}$ converges uniformly on \mathbb{R} to a continuous function.

(j) Find the upper and lower Darboux sums for $f(x) = x^2$ on $[0, b]$.

[P.T.O.]

(k) Show that $\left| \int_{-2\pi}^{2\pi} x^2 \sin^8(e^x) dx \right| \leq \frac{16\pi^3}{3}$.

(l) Calculate $\lim_{x \rightarrow 0} \frac{1}{x} \int_0^x e^{t^2} dt$.

Section B – (Marks: 4 × 12 = 48)

(Essay Type Questions)

Answer all questions.

2. (a) Prove that a sequence is a convergent sequence if and only if it is a Cauchy sequence.

Or

(b) If $S_1 = 1$ and $S_{n+1} = \frac{1}{3}(S_n + 1)$ for $n \geq 1$, then

- (i) Find S_2, S_3 and S_4 .
- (ii) Use induction to show $S_n > 1/2$ for all n .
- (iii) Show $\langle S_n \rangle$ is a decreasing sequence.
- (iv) Show $\lim S_n$ exists and find $\lim S_n$.

3. (a) State and prove Bolzano–Weierstrass theorem.

Or

(b) Show that $\sum_{n=2}^{\infty} \frac{1}{n(\log n)^p}$ converges if and only if $p > 1$.

4. (a) Let $f_n(x) = \frac{nx}{1+n^2x^2}$ and $f(x) = 0$ for $x \in \mathbf{R}$ then

- (i) Show $f_n \rightarrow f$ pointwise on \mathbf{R} .
- (ii) Does $f_n \rightarrow f$ uniformly on $[0, 1]$? Justify.
- (iii) Does $f_n \rightarrow f$ uniformly on $[1, \infty)$? Justify.

Or

(b) (i) Show $\sum \frac{x^n}{1+x^n}$ converges for $x \in [0, 1]$.

(ii) Show that the series converges uniformly on $[0, a]$ for each $a, 0 < a < 1$.

5. (a) State and prove fundamental theorem of calculus-I.

Or

(b) If f is integrable on $[a, b]$, then $|f|$ is integrable on $[a, b]$ and

$$\left| \int_a^b f \right| \leq \int_a^b |f|$$

560/4

3545/4

FACULTY OF SOCIAL SCIENCES

B.A. (III Semester) Examination

ECONOMICS

Paper III

(Macro Economics)

Time: 3 Hours]

[Max. Marks : 80

Answer all questions.

Section A – (Marks: $5 \times 4 = 20$)

1. Answer any **five** questions:

(a) Capital depreciation

~~(b) Full employment~~

~~(c) Effective Demand~~

~~(d) Marginal Efficiency of Capital (MEC)~~

~~(e) Demonstration Effect~~

~~(f) Overdraft~~

~~(g) Reserve Bank of India (RBI).~~

Section B – (Marks: $5 \times 12 = 60$)

Answer all questions.

2. (a) Explain the scope and importance of Macro Economics.

Or

(b) Explain the importance and difficulties in the estimation of National Income.

3. (a) Critically examine the classical theory of employment.

Or

~~(b) What is investment function and describe the determinants of investment?~~

4. (a) What is Cambridge cash balances version of quantity theory of money?

Or

~~(b) Define money and explain the functions of money.~~

[P.T.O.]

5. (a) What are the effects of Inflation and explain the measures to control Inflation?

Or

(b) What is Inflation and explain various types of Inflation?

6. (a) Explain various functions of RBI.

Or

(b) What are the important functions of stock market?

TELUGU VERSION

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

సెక్షన్ A - (మార్కులు : $5 \times 4 = 20$)

1. ఈ క్రింది ప్రశ్నలలో ఏవేని ఐదు ప్రశ్నలకు లఘు సమాధానములు వ్రాయుము:

- మూలధన తరుగుదల
- సంపూర్ణ ఉద్యోగిత
- సార్థక డిమాండ్
- ఉపాంత మూలధన సామర్థ్యం
- ప్రదర్శనా ప్రభావం
- ఓవర్ డ్రాఫ్టు
- భారత రిజర్వు బ్యాంకు (RBI).

సెక్షన్ B - (మార్కులు : $5 \times 12 = 60$)

అన్ని ప్రశ్నలకు సమాధానములు వ్రాయుము.

2. (a) స్థూల అర్థ శాస్త్ర పరిధి మరియు ప్రాముఖ్యతను వివరించండి.

లేదా

(b) జాతీయాదాయ అంచనాల ప్రాధాన్యతను వివరించి, జాతీయాదాయాన్ని లెక్కించడంలో గల సమస్యలను తెలపండి.