



SRI BHAGAWAN MAHAVEER JAIN EVENING COLLEGE

Affiliated to Bengaluru Central University,
V V Puram, Bangalore – 560 004

III SEM B.COM
MOCK QUESTION PAPER - 2019

SECTION -A**I. Answer any Five sub questions, Each question carries two Marks****5X2=10**

- What is meant by positive correlation?
- State the uses of interpolation
- State the components of time series
- If $b_{xy}=0.8$ $b_{yx}=1$ obtain r
- What is sampling?
- State the addition rule of probability
- Distinguish between parameter and statistics

SECTION -B**II. Answer any three questions, Each question carries six Marks****3X6=18**

- It is known that the population S.D in waiting time for new gas connection in a particular town is 36 days. How large a sample should be chosen with an allowable error of 6 days if the true average waiting time, at 95% confidence level?(Z value at 99% confidence level is 2.58)
- Two card is chosen at random from a deck of 52 playing card. What is the probability of choosing
 - Queen or a spade?
 - A king or queen?
- Find the index number for 2014 from the following table of index number by binomial expansion method

Year	2010	2011	2012	2013
Index number	107	100	212	157

- The following table shows the mean and SD of prices if two shares in a stock exchange.

Shares	Mean (₹)	S.D (₹)
A Ltd	40	11
B Ltd	48	16

If the correlation coefficient between the prices of two shares is 0.42. Find the most likely price of share A Ltd, corresponding to price of ₹ 65 of share B Ltd

- From the following table find correlation co-efficient between age and percentage of player of students

Age (Yrs)	20	21	22	23	24
% of Players	70	50	40	30	10

SECTION -C**III. Answer any three questions, Each question carries fourteen Marks****14X3=42**

- From the following table find the number of students who have obtained less than 55 marks using Newton's method

Year	20-30	30-40	40-50	50-60	60-70
Exports(lakhs ₹)	31	42	51	35	31

- The number of units of a product exported during 2005-2012 are given below. Compute the trend values by the method of least squares and predict the export for the year 2015

Year	2005	2006	2007	2008	2009	2010	2011	2012
Exports ₹ in Lakhs	24	26	26	32	38	45	42	46

- Following are the results of B.Com examination of a college. Calculate the Karl Pearson's co-efficient of correlation between age and success of candidates

Age (Yrs)	15	16	17	18	19	20	21
No of candidates appeared	300	100	50	150	400	250	150
No of candidates passed	180	65	34	90	25	145	81

- Obtain two regression equation from the following data and estimate value of x when $y=50$ and value of y when $x=60$

X	40	45	50	55	60	65	70
Y	38	60	55	70	60	48	30

- State the different type of sampling?

SECTION – A (Course Book)**I. Answer the following in a couple of sentences each:****5x2=10**

- 1.What food does the Bishop offer to the convict in the play Bishop’s Candlesticks?
- 2.What was the usual menu of the mid-day meals in the school started by Dr. R. Balasubramanian?
- 3.Name the workers who are ‘urgently needed’ as listed in the essay Professional Guides to Cultivating Humanity.
- 4.What kind of ‘Gardener’ does the world need according to the author Hema Raghavan?
5. Why did the man walk all night? (in Devara Dasimaiah’s Vachana)

II. Answer the following in a paragraph each:**2x5=10**

1. Explain the two incidents which changed the convict’s life in the play Bishop’s Candlesticks.
2. Narrate the incident that demonstrates the tribal value system that is natural to Manju in the essay Learning from the First Generation School-goers.

III. Answer the following in a page and half:**1x5=10**

1. ‘Modern society is disintegrated due to increased usage of technology’. Discuss w.r.t. the essay Professional Guides to Cultivating Humanity.

SECTION – B (Grammar Component)

IV. Myristica Ventures Pvt.Ltd has advertised for the post of PR (Public Relations) Manager. Reply to the advertisement with a Cover Letter enclosing your Curriculum Vitae.

10 Marks

V. M/s Chabbria and Sons complains to Morass Garage that the internet facility provided by the latter in their new SUV Hector does not function effectively and is vulnerable to virus. They could not complete their Business meeting while travelling in the SUV due to this. Draft a letter of Complaint.

10 Marks

.....

SECTION - A

(Answer any FIVE Questions Sub question. Each Sub-question carries 2 marks)(02x05=10 Marks)

1.	What is Business finance?	(02 Marks)
2.	What is meant by doubling period?	(02 Marks)
3.	What are the methods of issues of shares?	(02 Marks)
4.	What do you mean by capital rationing?	(02 Marks)
5.	What do you mean by "Free Reserve"?	(02 Marks)
6.	Expand ABC Analysis and EOQ	(02 Marks)
7.	Calculate the present value of a sum of ₹ 25,000 received after two years if the discount rate is 8% p.a.	(02 Marks)

SECTION - B

(Answer any three Questions Sub question. Each Sub-question carries 6 marks) (03x6=18 Marks)

8.	State the merits and demerits of stock dividend.	(6 Marks)																		
9.	Explain the steps in Financial Planning.	(6 Marks)																		
10.	The following data are available for XYZ Ltd. Selling price per unit ₹ 60 Variable cost per unit ₹ 40 Total Fixed Cost ₹ 3,00,000 The interest burden ₹ 1,00,000 Tax rate 50% Preference dividend ₹ 50,000. Calculate the three types of leverages if the number of units sold is ₹ 10,000	(6 Marks)																		
11.	A Company is expected to pay a dividend of ₹ 6.00 per share after a year. Its dividends are expected to grow at 14 % for next five years and then at the rate of 9 % for ever. find out the present value of its share, if the capitalization rate 13%	(6 Marks)																		
12.	Harsh and Co. is considering the purchase of a machine. Two machines X and Y each costing ₹ 50,000 are available. Cash inflows are expected to be as under. Advise the management by using PBP <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Year</th> <th>Machine X ₹</th> <th>Machine Y ₹</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>15,000</td> <td>5,000</td> </tr> <tr> <td>2</td> <td>20,000</td> <td>15,000</td> </tr> <tr> <td>3</td> <td>25,000</td> <td>20,000</td> </tr> <tr> <td>4</td> <td>15,000</td> <td>30,000</td> </tr> <tr> <td>5</td> <td>10,000</td> <td>20,000</td> </tr> </tbody> </table>	Year	Machine X ₹	Machine Y ₹	1	15,000	5,000	2	20,000	15,000	3	25,000	20,000	4	15,000	30,000	5	10,000	20,000	(6 Marks)
Year	Machine X ₹	Machine Y ₹																		
1	15,000	5,000																		
2	20,000	15,000																		
3	25,000	20,000																		
4	15,000	30,000																		
5	10,000	20,000																		

SECTION - C

Answer any three Questions. Each question carries 14 marks

03x14=42Marks

11.	Explain the functions of Financial Management.	(14 Marks)
12.	What is working capital? Describe the need and determinants of working capital.	(14 Marks)
13.	Tarun Co. Ltd., company has equity share capital 8,00,000 divided into shares of ₹ 100 each. It wishes to raise further 5,00,000 for modernization plans. The company plans the following financing schemes: a) All Equity shares b) ₹ 3,00,000 in equity shares and 2,00,000 in debt @ 10%	(14 Marks)

	<p>c) All Debt at @ 10%</p> <p>d) ₹ 3,00,000 in equity shares and ₹ 2,00,000 in preference share capital with rate of dividend at 8 %.</p> <p>The company has estimated EBIT at ₹ 2,50,000. The corporate rate tax is 50%.</p> <p>Calculate EPS in each case.</p> <p>Give a comment as to which capital structure is suitable?</p>																																																																		
14.	<p>A company is considering to purchase a machine. Two machines are available A and B costing 50,000. Earning after taxation are expected to be follows:</p> <p>Estimated cash flows</p> <table border="1" data-bbox="272 454 948 723"> <thead> <tr> <th>Year</th> <th>Machine X ₹</th> <th>Machine Y ₹</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>15,000</td> <td>5,000</td> </tr> <tr> <td>2</td> <td>20,000</td> <td>15,000</td> </tr> <tr> <td>3</td> <td>25,000</td> <td>20,000</td> </tr> <tr> <td>4</td> <td>15,000</td> <td>30,000</td> </tr> <tr> <td>5</td> <td>10,000</td> <td>20,000</td> </tr> </tbody> </table> <p>Evaluate the two alternative according to:</p> <p>a) Return on investment</p> <p>b) Net present value (cost of capital 10 percent)</p> <p>Assume straight line method of depreciation. The discount factor is as under:</p> <table border="1" data-bbox="161 947 1042 1025"> <thead> <tr> <th>Year</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>Discount factor</td> <td>0.909</td> <td>0.826</td> <td>0.751</td> <td>0.683</td> <td>0.621</td> </tr> </tbody> </table>	Year	Machine X ₹	Machine Y ₹	1	15,000	5,000	2	20,000	15,000	3	25,000	20,000	4	15,000	30,000	5	10,000	20,000	Year	1	2	3	4	5	Discount factor	0.909	0.826	0.751	0.683	0.621	(14 Marks)																																			
Year	Machine X ₹	Machine Y ₹																																																																	
1	15,000	5,000																																																																	
2	20,000	15,000																																																																	
3	25,000	20,000																																																																	
4	15,000	30,000																																																																	
5	10,000	20,000																																																																	
Year	1	2	3	4	5																																																														
Discount factor	0.909	0.826	0.751	0.683	0.621																																																														
15.	<p>A firm whose cost of capital is 10% is considering two projects X and Y, the details of which are :</p> <table border="1" data-bbox="161 1104 1190 1413"> <thead> <tr> <th></th> <th>Project X in ₹</th> <th>Project Y in ₹</th> </tr> </thead> <tbody> <tr> <td>Investment</td> <td>1,00,000</td> <td>1,00,000</td> </tr> <tr> <td>Cash inflow: 1st year</td> <td>20,000</td> <td>45,000</td> </tr> <tr> <td>2nd year</td> <td>30,000</td> <td>40,000</td> </tr> <tr> <td>3rd year</td> <td>40,000</td> <td>30,000</td> </tr> <tr> <td>4th year</td> <td>50,000</td> <td>10,000</td> </tr> <tr> <td>5th year</td> <td>60,000</td> <td>8,000</td> </tr> <tr> <td>Total =</td> <td>2,00,000</td> <td>1,33,000</td> </tr> </tbody> </table> <p>Compute the Net present Value at 10%, Profitability index and Internal rate of return for the two projects separately, project X by 20 and 29% and project y by 9 and 15%. Use the following discount factor calculating IRR.</p> <table border="1" data-bbox="161 1525 1190 1798"> <thead> <tr> <th rowspan="2">Year</th> <th colspan="2">Project X</th> <th colspan="3">Project Y</th> </tr> <tr> <th>20%</th> <th>29%</th> <th>10%</th> <th>9%</th> <th>15%</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.833</td> <td>0.775</td> <td>0.909</td> <td>0.917</td> <td>0.870</td> </tr> <tr> <td>2</td> <td>0.694</td> <td>0.601</td> <td>0.826</td> <td>0.842</td> <td>0.750</td> </tr> <tr> <td>3</td> <td>0.579</td> <td>0.466</td> <td>0.751</td> <td>0.772</td> <td>0.658</td> </tr> <tr> <td>4</td> <td>0.483</td> <td>0.361</td> <td>0.683</td> <td>0.708</td> <td>0.572</td> </tr> <tr> <td>5</td> <td>0.402</td> <td>0.280</td> <td>0.621</td> <td>0.650</td> <td>0.497</td> </tr> </tbody> </table>		Project X in ₹	Project Y in ₹	Investment	1,00,000	1,00,000	Cash inflow: 1 st year	20,000	45,000	2 nd year	30,000	40,000	3 rd year	40,000	30,000	4 th year	50,000	10,000	5 th year	60,000	8,000	Total =	2,00,000	1,33,000	Year	Project X		Project Y			20%	29%	10%	9%	15%	1	0.833	0.775	0.909	0.917	0.870	2	0.694	0.601	0.826	0.842	0.750	3	0.579	0.466	0.751	0.772	0.658	4	0.483	0.361	0.683	0.708	0.572	5	0.402	0.280	0.621	0.650	0.497	(14 Marks)
	Project X in ₹	Project Y in ₹																																																																	
Investment	1,00,000	1,00,000																																																																	
Cash inflow: 1 st year	20,000	45,000																																																																	
2 nd year	30,000	40,000																																																																	
3 rd year	40,000	30,000																																																																	
4 th year	50,000	10,000																																																																	
5 th year	60,000	8,000																																																																	
Total =	2,00,000	1,33,000																																																																	
Year	Project X		Project Y																																																																
	20%	29%	10%	9%	15%																																																														
1	0.833	0.775	0.909	0.917	0.870																																																														
2	0.694	0.601	0.826	0.842	0.750																																																														
3	0.579	0.466	0.751	0.772	0.658																																																														
4	0.483	0.361	0.683	0.708	0.572																																																														
5	0.402	0.280	0.621	0.650	0.497																																																														

SECTION - A**Answer any FIVE Questions Sub question. Each Sub-question carries 2 marks.****02x05=10 Marks**

1.	Define Emotional Intelligence.	02 Marks
2.	What is stress management?	02 Marks
3.	Define Career Planning.	02 Marks
4.	What is Formal communication?	02 Marks
5.	State the meaning of Brainstorming.	02 Marks
6.	What is meant by Creativity.	02 Marks
7.	What is Exit Interviews.	02 Marks

SECTION - B**Answer any THREE Questions Sub question. Each Sub-question carries 6 marks****06x03=18 Marks**

8.	Explain the factors affecting Interpersonal Relationship.	5 Marks
9.	What is Negative Attitude? Briefly explain the measures to overcome negative attitudes.	5 Marks
10.	What are the characteristics of Good Speech?	5 Marks
11.	Write a note on sources of information for different careers.	5 Marks
12.	Explain the Brainstorming Sequences.	5 Marks

SECTION - C**Answer any TWO Questions Sub question. Each Sub-question carries 14 marks 14x03=42 Marks**

11.	Explain the skills necessary for effective Time Management.	15 Marks
12.	What do you mean by Presentation Aids? Explain the different techniques of presentation aids.	15 Marks
13.	What is meant by Career Planning? Explain the process and advantages of Career Planning.	15 Marks
14.	Define Communication. Explain the importance of Communication.	15 Marks
15.	Explain the sources of Employers and Potential Employment.	15 Marks

I. Answer the following**40x1=40**

1. In 1543____proposed to switch the places of the Earth and the Sun.
a. Nicolas Copernicus b. Galileo c. Oldham d. Einstein
2. The European renaissance began in Northern Italy in
a. 1st century b. 12th century c. 13th century d.14th century
3. Property right as central to conception of right is called
a. Politics & the state b. Ideology c. Agricultural development d. Infrastructure
4. Quantum theory was proposed by____
a. Planck b. Landsteiner c. Oldham d.Einstein
5. Discovery of the neutron by
a. Wiemen b. Chadwick c. McCarty d. Borlaug
6. Evidence in bacteria that DNA is the genetic material
a. MacLeod b. McCarty c. Borlaug d.Kapitza
7. Invention of the transistor by
a. Shockley b. McCarty c. Borlaug d. Kapitza
8. First extra solar planet identified by
a. Mayor b.Bednorz c.Tatum d.Meitner
9. The history of the arts and humanities is termed as---
a. Natural sciences b. Social sciences
c. History of scholarships d. None of these
10. The first basic step in metallurgy is
a. Identifying and discovering its usefulness b. Locating metals in quantity
c. Mining the ores d. Melting the metal
11. The phenomenon of light to change its wavelength when it transverses a transparent material is called
a. Photoelectric effect b. Raman effect c. Dispersion d. Theory of relativity
12. Cosmology is a study of
a. Religion b. Universe c.Skin d. None of the above
13. The clay which showed the properties of nitoglycerine is called.....
a. Safety powder or dynamite b. Dynamo
c. Gun powder d. Hydrogen
14. _____ is the founder president of the West Bengal Academy of Sceince & Technology
a. N R Dhar b. Ghosh c. Mukharjee d. Sushil kumar mukharjee
15. Origin of species is a work by
a. Mathew Arnold b. Charles Darwin
c. Albert Einstein d. Sigmund Freud
16. Darwinism is a theory of
a. Biological Evolution b. Physical Evolution
c. Geometric Evolution d. None of these
17. The first domesticated animal by primitive man was
a. Cat b. Cow c. Dog d. Horse
18. The concept that species have changed over long periods of time is known as
a. Ecology b. Embryology
c. Spontaneous generation d. Organic evolution
19. Which concept was not included in Charles Darwin's theory of natural selection?
a. Survival of the fittest b. Struggle for existence
c. Overproduction of offspring d. Punctuated equilibrium

20. Which was the first disease to be treated with a specific chemical?
 a. Tuberculosis b. Syphilis c. Bacterial meningitis d. Whooping cough
21. The green revolution in India was the outcome of the efforts of who amongst the following?
 a. M S Swaminathan b. Rangarajan c. K V Kamath d. Rakesh Mohan
22. Who is known as Father of White Revolution in India?
 a. M S Swaminathan b. V Kurein c. K N Bahal d. B P Pal
23. Internet works on
 a. Packet Switching b. Circuit Switching c. Both d. None
24. OSI stands for
 a. Open system interface b. Out Sytem Interface
 c. Open System Interconnection d. Out System Interconnection
25. Which power plant is free from environmental pollution problems?
 a. Thermal power plant b. Nuclear power plant
 c. Hydro-power plant d. Geothermal energy power plant
26. The study of nature of knowledge is called
 a. Epistemology b. Epiphenomenalism
 c. Empiricism d. Euphemistic labeling
27. Which of the following year Household appliances appear- the vaccum cleaner, electric shaver, spin dryer, electric refrigerator, frozen food, speaker radio
 a. 1920's b. 1930's c. 1940's d. 1950's
28. Who discovered the first new galaxy besides our own in 1924?
 a. Frederick b. Logie c. Bohr d. Edwin hubble
29. Which of the following diseases should not be treated with antibiotics?
 a. Respiratory Illness in Children b. Ear infections and Eczema
 c. Sinusitis d. All the above
30. Which of the following chemical is used in fertilizers?
 a. Ammonia and Ammonium Salts b. Calcium
 c. Calcium Carbonate d. None
31. Who created the first aircraft to carry a human?
 a. Soviet Union b. England c. Japan d. None
32. Who developed Astrology?
 a. Babylonians b. Chaldeans c. Babylonians and Chaldeans d. Greeks
33. Father of Indian Nuclear Programme is
 a. J C Bose b. Homi J Bhabha c. Vikram sarabhai d. C V Raman
34. The first ever artificial satellite to orbit around the earth was
 a. Sputnik b. Explorer c. Vostok d. Aryabhata
35. The branch of science which deals with the study of eyes and its nerves is called
 a. Oncology b. Neurology c. Ophthalmology d. None
36. Third generation biofuels are made from
 a. Animal fats b. Agricultural waste c. Algae d. Engineered plants
37. Name the Indian American origin astronaut who took over as the commander of International space station as a flight engineer in 2012.
 a. Rakesh Sharma b. Kalpana chawla c. Sunita Williams d. Tessy Thomas
38. The moons of Jupiter are called
 a. Satellites b. Sumpleton c. Galilean d. None of the above
39. Which of the following is a weather sensing satellite?
 a. Astrosat b. Radasat c. Meteosat d. INSAT 3DR
40. Genetic improvements in which two crops form the basis of the Green Revolution
 a. Corn & rice b. Wheat & corn c. Wheat & rice d. Wheat & sorghum

II. Answer the following questions

15x2=30

41. The outermost layer of the earth is
a. Magma b. Mantle c. Crust d. Solid iron core
42. Pradhan Mantri Awaas Yojana of Government of India, is meant for
a. Child development b. House for individual
c. Skill development d. None of the above
43. Antimicrobial drugs that are derived from the natural processes of some microorganisms and that can inhibit or destroy other microorganisms are specifically known as
- a. Chemotherapeutic drugs b. Prophylactic drugs
c. Semisynthetic drugs d. Antibiotics
44. The process of softening of hard water by using nanoparticles is known as
a. Nanopurification b. Nanoremediation
c. Nanofiltration d. All of the above
45. Ancient Indian knowledge of theories of human body, symptoms of disease and remedies in ayurveda are made available in which Sanskrit text?
a. Arthashastra b. Charaka Samhita c. Chandasshastra d. Aryabhatiya
46. Which of the following is true for "Sound"?
a. Sound cannot travel through a vacuum
b. Sound cannot travel through gases
c. Sound cannot travel through liquids
d. Sound cannot travel through solids
47. Difference between hybrid and transgenic or GMO plants
a. Hybrids live longer and transgenic live shorter
b. Hybrids arise due to cross pollination, while transgenic are produced by transfer of specific genes from different species.
c. Hybrids are generated from grafting but transgenic result from germination.
d. Genes in hybrids are under breeders control, but in GMO plants they are uncontrolled.
48. Which of these two provide proof of excellence of Indian metallurgy before industrial revolution?
a. Damascus swords of West Asia and iron pillar near the Qutub Minar
b. India gate and gateway of India
c. Tippu sultan's sword and palace
d. None of the above
49. Nuclear fusion releases energy when
a. Uranium splits into two fragments
b. Very light nuclear fuse together
c. Uranium emits a neutron
d. Heavy ions fuse together.
50. GIS stands for
a. Global Information system
b. Geospatial Informative System
c. Geographical Information System
d. Geological Information System
51. Match the items in part A with appropriate alternative in Part B:
- | Part A | Part B |
|---------------------------|-------------------|
| 1. Biotechnology | a. Quantum dots |
| 2. Material science | b. Spintronics |
| 3. Information technology | c. Gene therapy |
| | d. Swarm Robotics |

- a. i-c,ii-d, iii-a
- b. i-c, ii-b, iii-a
- c. i-a, ii-b, iii-d
- d. i-c, ii-a, iii-b

52. Which among the following is not an adverse environmental impact of tidal power generation?

- a. Interference with spawning and migration of fish
- b. Pollution and health hazard in the estuary due to blockage of flow of polluted water into the sea
- c. Navigation hazard
- d. None of the above

53. Which of the following States in India ranks first in the installation of wind power?

- a. Gujarat
- b. Andhra Pradesh
- c. Maharashtra
- d. Tamil Nadu

54. Match the philosopher/Scientist with their contribution:

- | | |
|------------------|--------------------------|
| a. Newton | i. Three laws of motion |
| b. Gregor Mendel | ii. Laws of inheritance |
| c. Galileo | iii. Gravitational force |
| | iv. Scientific methods |

- a. A-i, B-ii, C-iv
- b. A-iii, B-iv, C-i,
- c. A-iv, B-i, c-ii,
- d. A-ii, b-i, C-iv,

55. Match the scientists and their discoveries

- | | |
|-----------------------|--------------------------|
| a. Alfred nobel | i. vaccination |
| b. Edward Jenner | ii. Electric Bulb |
| c. Newton | iii. Gravitational force |
| d. Thomas Alva Edison | iv. Dynamite |

- a. A-iii, b-i, c-iv, d-ii
- b. A-iv, b-i, c-iii, d-ii
- c. A-iii, b-iv, c-i, d-ii
- d. A-ii, b-i, c-iv, d-iii

